



FAAC

GATE AUTOMATION





FAAC

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THE BOLOGNA
HEADQUARTERS AND PLANT

Since 1965, year of foundation, the company's headquarters and production plant are in Zola Predosa, in the industrial area of Bologna. Here, the operators for automating accesses are designed, built and tested.

FAAC is organised in keeping with the model of leading modern industrial companies, and its internal architecture too meets space functionality needs. A highly developed IT system manages all important aspects - technical, production, administrative and control - thus increasing overall response capacity and individual efficiency. The plant system, with its modern organisation, provides output



capacity of over six hundred thousand operators per year. FAAC's research in mechanics, hydraulics, and digital electronics enables it to implement on-going technical and technological renewal, assuring its undisputed position at the forefront of its sector.



Plastic model
headquarters expansion



THE FAAC ELECTRONICS LTD PLANT IN DUBLIN

FAAC ELECTRONICS Ltd is based in Dublin, Eire. Here, its modern plant is addressed to research, design and production of electronic equipment on the leading-edge of technology. FAAC ELECTRONICS Ltd became an integral part of the FAAC group at the end of the Eighties, specialising in the production of electronic access control units: microprocessor control equipment, infra-red ray photocells, radio controls and coded opening systems. Close co-operating between the Bologna and Dublin design and

research departments enables FAAC to offer systems with maximum integration of components and products, thus further enhancing overall quality and reliability.

FAAC ALL OVER THE WORLD

More than 600 employees and workers, two production plants, two electronic and one mechanical research departments, nine foreign associated companies, plus sixty-five distributors in as many countries: FAAC is the undisputed leader in automated systems for opening gates and garages, and is a very important company in the European industrial system. 60% of the production is allocated to the foreign markets.





SAFETY

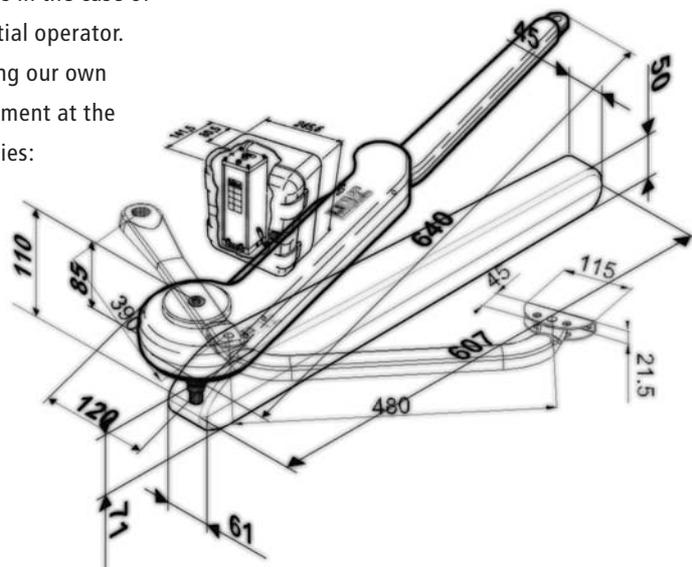
FAAC has always given maximum attention to accident prevention and safety for gate and door automated systems. This awareness is proven by our "historic" choice of hydraulic technology, defined as the safest, and by conformity of our products to very latest European norms and regulations for the CE mark.

Before putting the CE mark on its products, FAAC arranged for an independent laboratory to test them, not just individually, but in all their possible combinations in an installation. This means that, in FAAC's case, observing the European standards is not just paying lip-service through mere self-declaration, but something evaluated by a recognised organisation.

DESIGN AND INNOVATION

In 1965 we introduced hydraulics in the gate opening sector, and, through the years, we have perfected this technology, adapting it to a multiplicity of needs. Today, FAAC automated systems satisfy both intensive use - just think of the millions of manoeuvres per year of motorway barriers - and economic use, as in the case of the 402 residential operator. We began making our own electronic equipment at the end of the Eighties: these include

control equipment, radio controls, as well as safety and signalling systems. FAAC is always a step ahead in electronics too: we were the first to use microprocessors in control units, SMT technology as well as simplified self-learning in radio controls.





THE PRODUCTS

- We have a very wide range of products:
- operators for swing-leaf gates
 - gearmotors for sliding gates
 - operators for up-and-over doors
 - barriers
 - automatic doors
 - parking systems
 - access control systems
 - operators for window shutters
 - concealed traffic bollards
 - alarm systems

ORGANIZATION

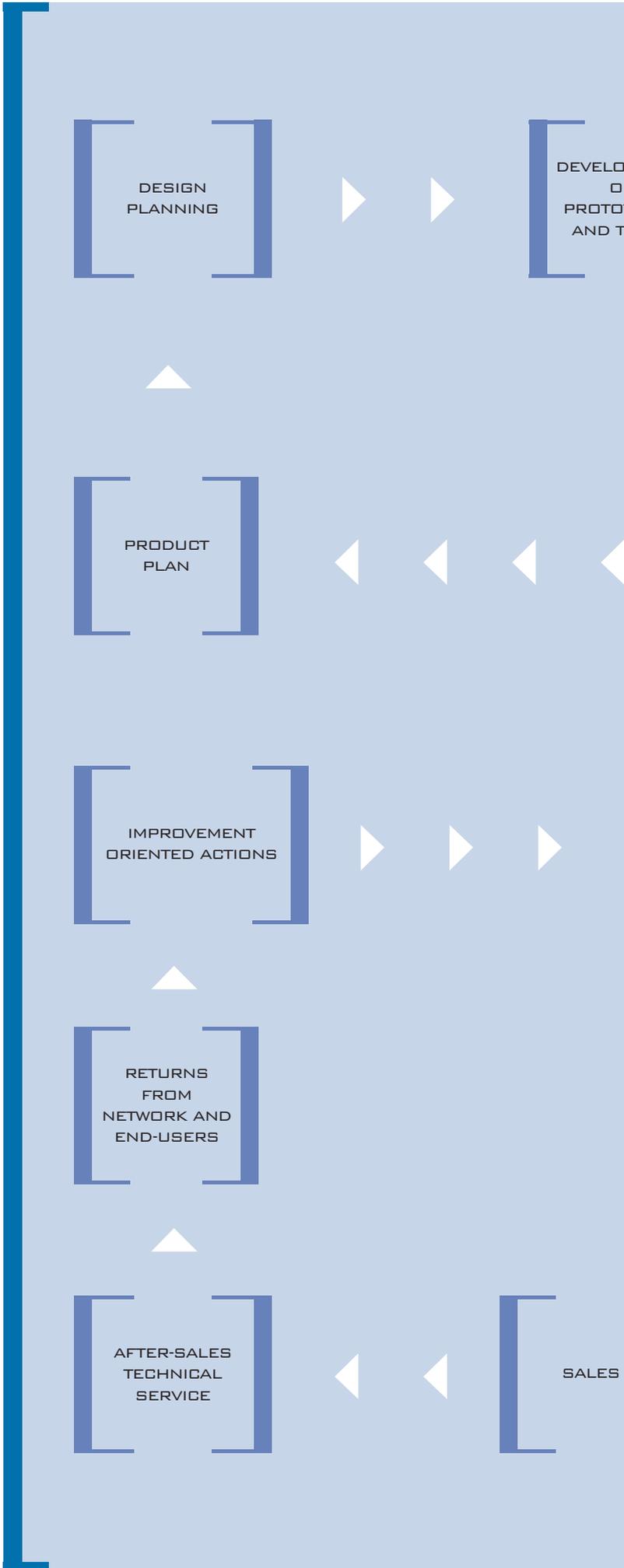
FAAC has strengthened itself through the years also in terms of in-house organisation, with the aim of guiding and anticipating the development of the company, through its evolving organisation structure.

The lay-out of company divisions/posts and the creation of integrated company policies derive from various factors, which include: development of complex sales networks in over

seventy countries, formation and refresher courses covering the complete range of products, applications and standards for installers, commercial investments in communication.

A SEVERE QUALITY SYSTEM

Quality is the bottom-line of FAAC's philosophy. In February 1996, FAAC obtained UNI EN ISO 9001 certification. Having the certificate means we have taken on a continuing commitment to achieve increasingly ambitious client-satisfaction aims, by producing at competitive prices within planned time.



DEVELOPMENT
OF
TYPES
TESTS

QUALIFICATIONS
OF
SUPPLIERS

SUPPLY
OF MATERIALS
AND
ASSEMBLY LINES

MARKET
RESEARCH

DESIGN
VERIFICATIONS

DESIGN
VALIDATION

PRODUCTION
WITH 100%
FINAL-TESTS

SERVICING
FOR SALES
NETWORK

TRAINING
FOR SALES
NETWORK

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The background features a solid orange color with three large, light-orange, trapezoidal shapes that appear to be stylized gate leaves or panels. These shapes are arranged in a row, with the central one being the tallest and the two flanking ones being shorter and slightly angled. A large white bracket is positioned on the left side, framing the text.

**AUTOMATED SYSTEMS
FOR SWING LEAF GATES**



TYPE OF INSTALLATION

	DOMO link B7	DOMO link T	390	390 24 Vdc	DOMO swing B7	DOMO swing T	412	413	413 24 Vdc	415	415 24 Vdc	402	422	422 PED						
external motor																				
RESIDENTIAL																				
CONDOMINIUM (LIGHT COMMERCIAL)								413		415				422	422 PED	400				
INDUSTRIAL																400				
underground motor																				
RESIDENTIAL																		770	750 STD-CP	760
CONDOMINIUM (LIGHT COMMERCIAL)																			750 STD-CP	760
max cycles/hour	15	15	15	continuous duty	15	15	18	30	continuous duty	30	continuous duty	55	55	70	80 (CBACR)	20	45 (CBAC-SB)	55 (CBAC-SB)		
							50 (24 V)	35 (LS)		35 (LS)					70 (CBC-SB CBAC)	50 (24 V)	30 (SBS)	30 (SBS)		
															60 (SBS)					
															50 (LN CBAC-SB)					
leaf max width (m)	1,80	1,80	3,00	3,00	1,80	1,80	1,80	2,50	2,50	3,00 4,00	1,80 (CBC)	1,80 (CBC)	1,80 (CBC-CBAC)	1,20	2,20 (CBAC-CBAC-CBAC LN)	2,50	1,80 (CBAC)	2,00 (CBAC)		
							3,00 (24 V)				3,00 (SBS)	3,00 (SBS)	3,00 (SB-SBS)		2,50 (SB LN)		2,50 (SB)	3,00 (SB)		
															4,00 (SB)		3,50 (SBS)	4,00 (SBS)		
															7,00 (SBS)					
use of electric lock	no	no	for leaf from 1,80 to 3,00 m	for leaf from 1,80 to 3,00 m	no	no	for leaf from 1,80 to 3,00 m	for leaf from 1,80 to 3,00 m	for leaf from 1,80 to 3,00 m	for leaf from 3,00 to 4,00 m	for leaf from 1,80 to 3,00 m	for leaf from 1,80 to 3,00 m	for leaf from 1,80 to 3,00 m	optional	for leaf from 2,20 to 7,00 m	no	for leaf from 1,80 to 3,50 m	for leaf from 2,00 to 4,00 m		

(DOMO linkB7) WITH BATTERY

for residential swing gates
with single leaf length of 1.8 m and max weight of 250 kg



■ Innovative and eye-catching

Innovative and unequalled on the market of operators for residential swing gates. It runs on a 12 Vdc electric motor and has a treated, powder painted die-cast aluminium body, to provide extra dimensional stability, sturdiness, and rigidity. Compact-size, attractive, futuristic styling.

■ Conforms to new european standards

Programmable in line with the new European Standards, thanks to the innovative 'virtual' encoder system (with limit-switch and obstacle detection functions) as well as speed and force adjustment.

■ Clean security

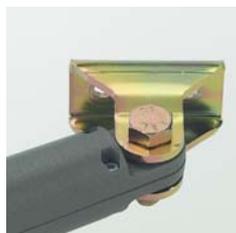
Uninterrupted operation is guaranteed in case of a power cut. Can be powered on solar panels and by standard transformers for residential applications (entry-phones, door bells). The special kinematic motion device assures high anti break-in resistance, thanks to the 'knee' effect

■ Easy to install

Easy mechanical and electrical installation. Available in Master configuration (single leaf) or Slave configuration (required in addition to the Master for two leaves). Uses the innovative BUS-network technology for connecting the Master and Slave management units.



■ Rear fitting suitable for screw fixing



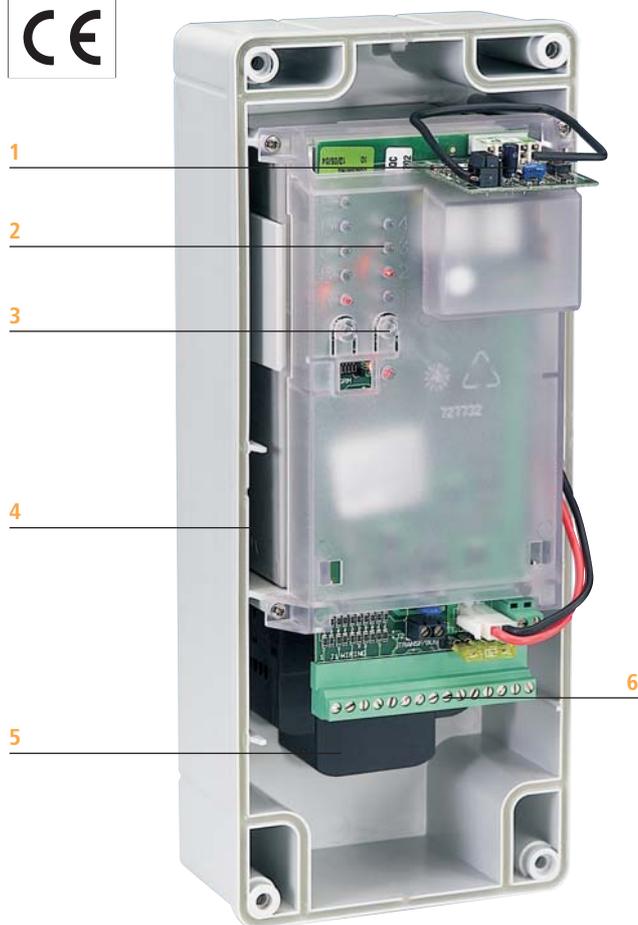
■ Front fitting with small dimensions



■ Hexagonal key unlock release for manual use

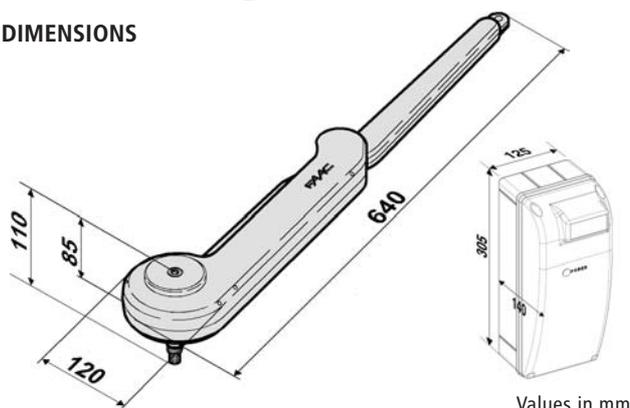


■ Operator closure point detail shows minimized crushing hazard



- 1 Quick connector for RP radio receivers or decodification cards
- 2 Programming leds
- 3 Programming push-buttons
- 4 12 Vdc battery 7,2 Ah
- 5 230 Vac/12 V 16 VA power supply (optional - only for Master)
- 6 Removable terminal strip
- 7 ABS plastic enclosure to guarantee a long lasting aesthetics
- 8 Indication led (main power supply and diagnostic)

DIMENSIONS



Values in mm

Shared characteristics of MASTER-B7/SLAVE-B7 Boards

Batteries	Sealed Lead Battery 12 Vdc 7,2 Ah dimensions 96x46x50
Enclosure protection class	IP 55
Absorbed power	16 VA
Motor max current	15 A
Operating ambient temperature	-20°C ÷ +55°C
Protection Fuses	No. 1 - 20A
Anti-crushing function	Encoder - Current control

Technical specifications	MASTER-B7 Board
Power supply	12 Vac
Transformer Characteristics (optional)	Primary 230 Vac Secondary 12 Vac - 16 VA
24 Vdc Accessories max load	150 mA
Rapid connector max load	50 mA
Function logics	Automatic/"Stepped" Automatic / Safety /"Stepped" Semi-automatic
Opening/closing time	By self-learning
Pause time	5,10,20,30 sec selectable
Opening and closing leaf delay time	(op. 0s, cl. 0s)/(op. 2s, cl. 2s) (op. 2s, cl. 4s)/(op. 2s, cl. 8s)
Speed	Selectable on 4 levels
Static force adjustment	Selectable on 4 levels

Terminal board inputs - Open/ Free leaf Open /Stop/ Op. Safety devices /Cl. Safety devices
Terminal board outputs - Flashing lamp/Motor/Bus / Indicator-light/24 Vdc - 12 Vdc power supply for accessories
Rapid connector - Minidec cards - RP cards
Programmable functions - Logic/ Pause time / Op. and Cl. leaf delays/ Anti-crushing force/Operators speed

Technical specifications	DOMO Link-B7
Power supply voltage	12 Vdc
Rated absorbed power	48 W
Maximum torque	70 Nm
Max load-free angular speed (°/sec)	23 (0.4 rad/sec)
Duty cycles (cycles/hour)	15
Consecutive cycles on charged battery*	~ 30
Battery recharge time	~ 10' for every cycle effected*
Type of reduction	epicycloid
Operating ambient temperature	-20°C ÷ +55°C
Operator weight (kg)	2.8
Protection class	IP 44
Leaf max length (m)	1.80
Leaf max weight (kg)	250
Max opening angle	110°

(*) The cycles/hour are just an indication for the full efficiency of the automation. The use frequency satisfies the residential application.

Technical specifications	SLAVE-B7 Board
Power supply	from Master-B7
Terminal board outputs	Motor/Battery/Bus

Model	Use			Control board
	Single leaf max length (m)	No. of leaves	Use frequency (cycles/hour)	
DOMO Link RH	1,80	1	15	Not Included
DOMO Link LH	1,80	1	15	Not Included

(DOMO linkT) WITH TRANSFORMER

for residential swing gates
with single leaf length of 1.8 m and max weight of 250 kg



■ Innovative and eye-catching

Innovative and unequalled on the market of operators for residential swing gates. It runs on a 12 Vdc electric motor and has a treated, powder painted die-cast aluminium body, to provide extra dimensional stability, sturdiness, and rigidity. Compact-size, attractive, futuristic styling.

■ Conforms to new european standards

Programmable in line with the new European Standards, thanks to the innovative 'virtual' encoder system (with limit-switch and obstacle detection functions) as well as speed and force adjustment.

■ Quick and simple installation

The mechanical fastening of the operators, by means of screws, is based on a simple concept, with flexible installation dimensions. As the work cycle is learned automatically, this enables immediate programming of the automated system. In any case, for those preferring to customise the operation of the automated system (gate speed, travel-limit decelerations, etc.), manual programming with "LEDs and push-buttons" is quick and easy.

■ Heavier duty cycle

The automation DOMOLINE T can fit to the exigencies in the applications of estates with 2-3 families; the use frequency suggested to maintain the system in full efficiency is about 15 cycles/hour. The system allows to execute up to 30 consecutives cycles.



■ Rear fitting suitable for screw fixing



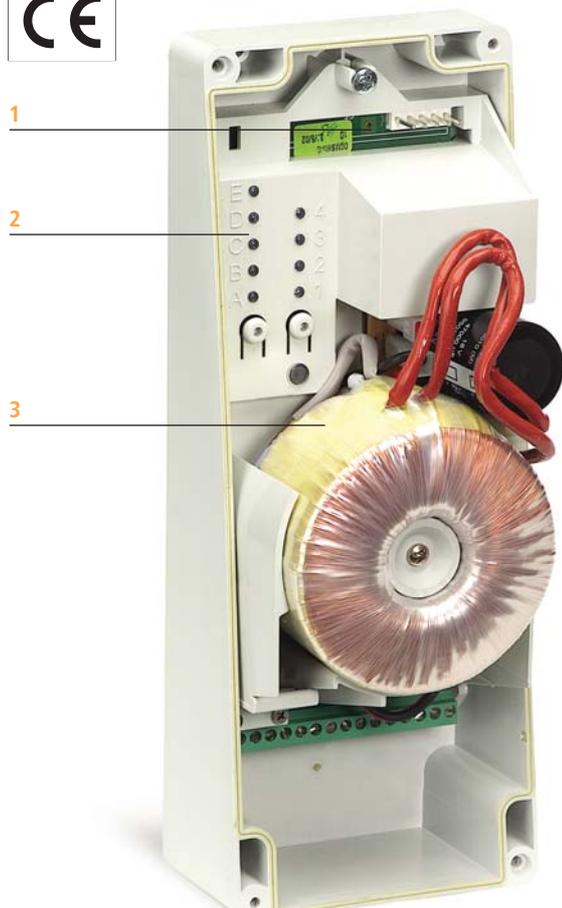
■ Front fitting with small dimensions



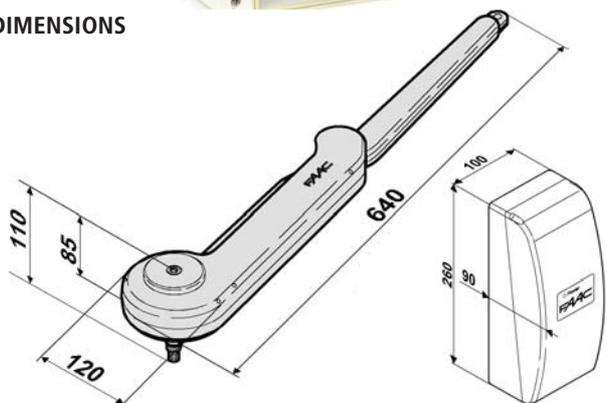
■ Hexagonal key unlock release for manual use



■ Operator closure point detail shows minimized crushing hazard

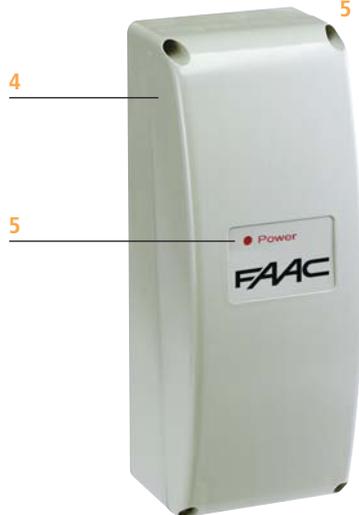


DIMENSIONS



Values in mm

- 1 Quick connector for RP radio receivers or decodification cards
- 2 Programming push-buttons and leds
- 3 230 Vac/12 V 180 VA transformer low consumption
- 4 ABS plastic enclosure to guarantee a long lasting aesthetics
- 5 Indication led (main power supply and diagnostic)



Shared characteristics of MASTER-T/SLAVE-T Boards

Transformer	Toroidal 230 Vac/12 V 180 VA low consumption
Enclosure protection class	IP 55
Absorbed power	180 VA
Motor max current	15 A
Operating ambient temperature	-20°C ÷ +55°C
Protection Fuses	N° 1 - 20 A
Anti-crushing function	Encoder/current control

Technical specifications	MASTER-T Board
Power supply	From transformer
Technical specifications transformer	Primary 230 vac Secondary 12 Vac - 180 Va
24 Vdc Accessories max load	150 mA
Rapid connector max load	50 mA
Function logics	Automatic/Stepped Automatic/Safety/Stepped Semi-automatic
Opening/closing time	By self-learning
Pause time	5,10,20,30 sec selectable
Opening and closing leaf delay time	(op. 0s, cl. 0s)/(op. 2s, cl. 2s)
Speed	Selectable on 4 levels
Static force adjustment	Selectable on 4 levels

Terminal board inputs - Open/ Free leaf Open /Stop/ Op. Safety devices /Cl. Safety devices
Terminal board outputs - Flashing lamp/Motor/Bus / Indicator-light/24 Vdc - 12 Vdc power supply for accessories
Rapid connector - Minidec cards - RP cards
Programmable functions - Logic/ Pause time / Op. and Cl. leaf delays/Anti-crushing force/Operators speed

Technical specifications	SLAVE-T Board
Power supply	From transformer
Terminal board outputs	Motor
Terminal board inputs	Power Supply unit/Bus

Technical specifications	DOMO Link-T
Power supply voltage	12 Vdc
Rated absorbed power	48 W
Maximum torque	70 Nm
Max load-free angular speed (°/sec)	23
Duty cycles (cycles/hour)*	15
Consecutive cycles	30
Recharging time	~2' for every cycle effected
Type of reduction	epicycloid
Operating ambient temperature	-20°C ÷ +55°C
Operator weight (kg)	2,8
Protection class	IP 44
Leaf max length (m)	1.80
Leaf max weight (kg)	250
Max opening angle	110°

(*) The cycles/hour are just an indication for the full efficiency of the automation. The use frequency satisfies the residential application.

Model	Use			Control board
	Single leaf max length (m)	No. of leaves	Use frequency (cycles/hour)	
DOMO Link RH	1,80	1	15	Not Included
DOMO Link LH	1,80	1	15	Not Included

390

for residential swing-leaf gates
 length of single-leaf 1.8 m (3m with electric lock)
 for bi-folding doors
 with 1.5 m maximum width of single panel



■ Quick and easy to install

Quick and easy to install, no need for expensive modifications to the existing load bearing structure. Use of electro-mechanical technology makes the FAAC 390 automatic system ideal for light duty applications.

■ The ideal choice for large pillars

The FAAC 390 electro-mechanical actuator is the most practical and economic choice for automating gates on large pillars. The non reversing movement of the actuator, for gates with length of up to 1.8 metres, means an electrical lock is not needed.

■ Electronic safety

Anti-crushing protection is ensured by an electronic device installed on the FAAC control boards, which directly controls drive torque. In case of an emergency, the release key makes it possible to operate the gate manually.

■ Less maintenance, highly reliable

The FAAC 390 electro-mechanical device cuts down considerably on maintenance. Reliability is assured under all atmospheric conditions and in an outdoor temperature range of -20°C to +55°C.



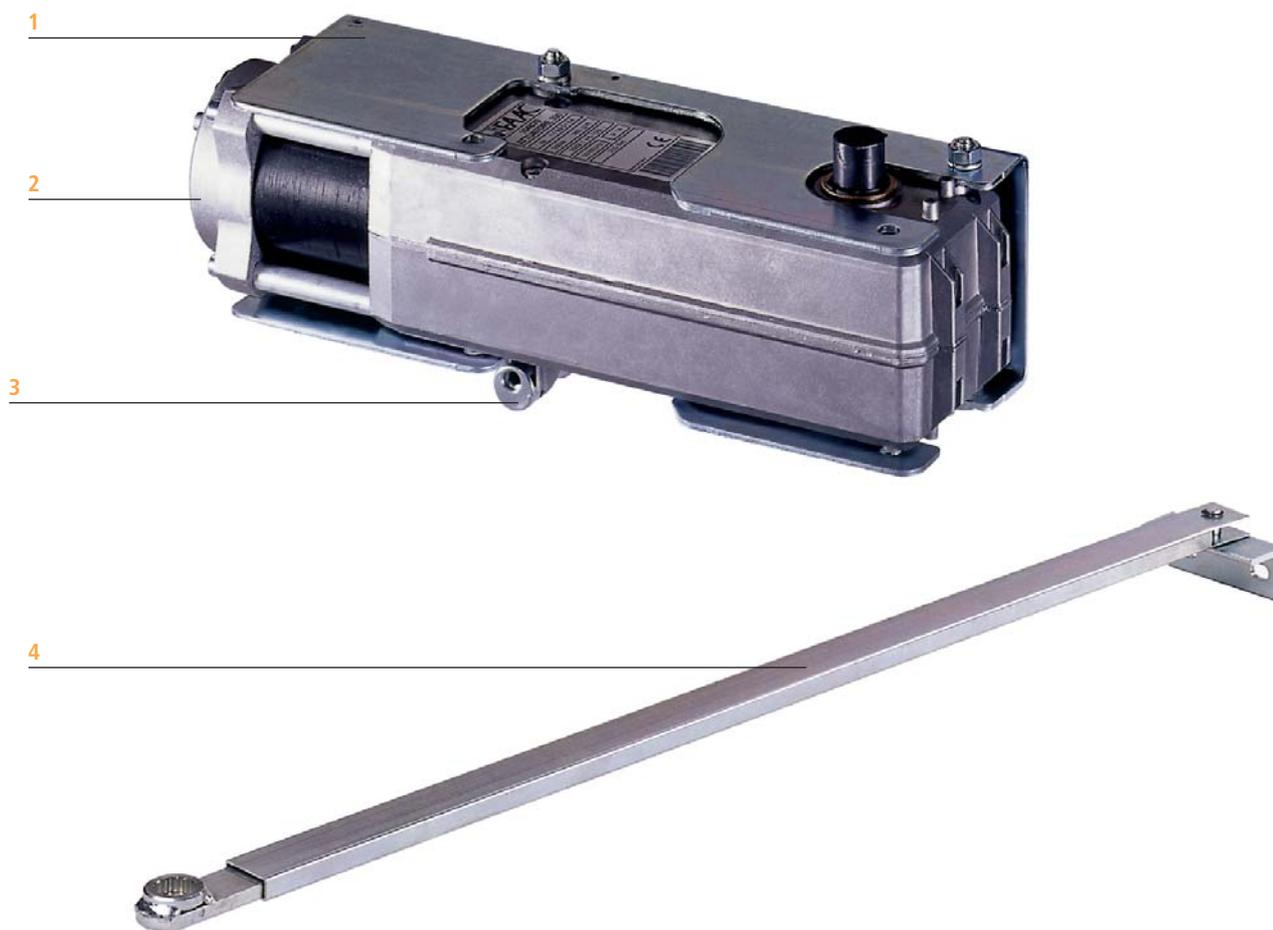
■ ABS housing

■ Articulated arm for swing-leaf gates

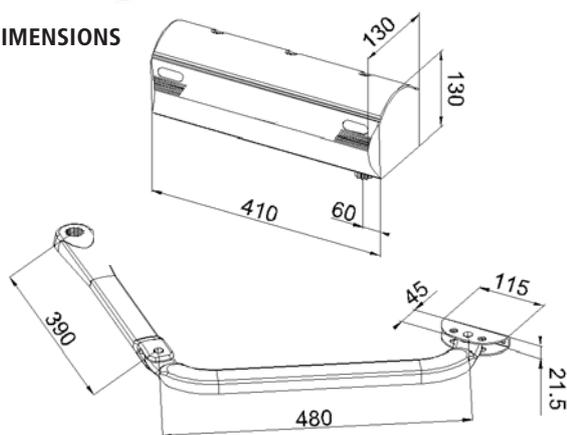
■ Front fitting



- 1 Securing bracket
- 2 Electric motor complete with thermal protection
- 3 Emergency release device
- 4 Telescopic arm for bi-folding doors with 1.5 m maximum width of single panel



DIMENSIONS



Values in mm

Technical specifications	390
Power supply	230 Vac (+6% -10%) 50 (60) Hz
Absorbed power	280 W
Absorbed current	1,2 A
Motor rotation speed	960 rpm
Rotation ratio	1:700
Angle speed	8°/s
Max torque	250 Nm
Thermal protection on motor winding	140°C
Operating ambient temperature	-20°C ÷ +55°C
Protection class	IP 44
Weight	12 kg

Use				
Model	Swing-leaf gates			Control board
	Single-leaf max. width (m)	No. of leaves	Use frequency (cycles/hour)	
390	1,80 (3 m with electric lock)	1	15	Not Included

Use				
Model	Bi-folding doors			Control board
	Single-panel max. width (m)	No. of leaves	Use frequency (cycles/hour)	
390	1,5 m	1	15	Not Included

The operator 390 can have as optional an opening and closing endstroke limit switch.

Electronic control equipment: see from page 124 to page 130.

390 - 24 Vdc

for residential swing-leaf gates
length of single-leaf 1.8 m (3m with electric lock)
for bi-folding doors
with 1.5 m maximum width of single panel



■ Quick and easy to install

Quick and easy to install, no need for expensive modifications to the existing load bearing structure.

■ The ideal choice for large pillars

The FAAC 390 - 24 Vdc electro-mechanical actuator is the most practical and economic choice for automating gates on large pillars. The non reversing movement of the actuator, for gates with length of up to 1.8 metres, means an electrical lock is not needed.

■ Electronic safety

Anti-crushing protection is ensured by an electronic device installed on the FAAC 424 D LS control boards, which directly controls drive torque. In case of an emergency, the release key makes it possible to operate the gate manually.

■ Less maintenance, highly reliable

The FAAC 390 - 24 Vdc electro-mechanical device cuts down considerably on maintenance. Reliability is assured under all atmospheric conditions and in an outdoor temperature range of -20°C to +55°C.



■ ABS housing



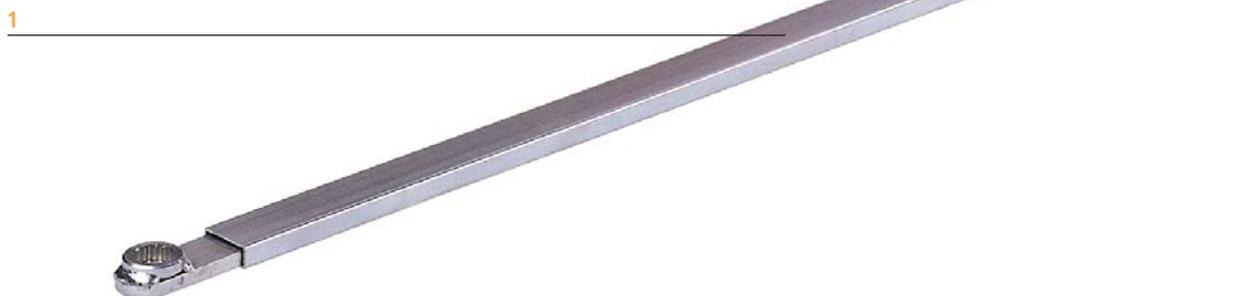
■ Articulated arm for swing-leaf gates



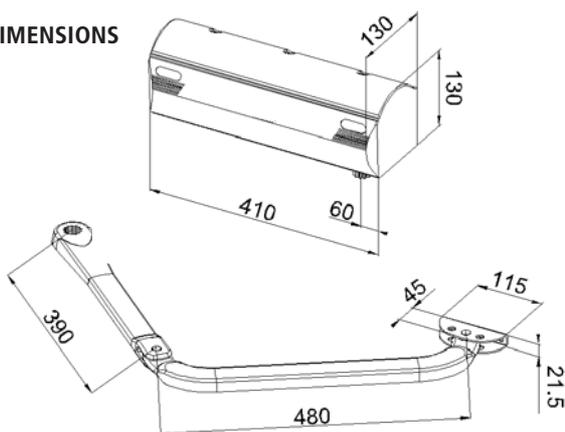
■ Front fitting



1 Telescopic arm for bi-folding doors with 1.5 m maximum width of single panel



DIMENSIONS



Values in mm

Technical specifications	390 - 24 vdc
Power supply	24 Vdc
Absorbed power	40 W
Absorbed current	2 A
Motor rotation speed	960 rpm
Rotation ratio	1:700
Angle speed	8°/s
Max torque	200 Nm
Thermal protection on motor winding	140°C
Operating ambient temperature	-20°C ÷ +55°C
Protection class	IP 44
Weight	11,5 kg

Specifications of 424 D LS control board	
Supply voltage of transformer	230 Vac (+6% - 10%) 50 Hz
Supply voltage of control unit	22 Vac (+6% - 10%) 50 (60) Hz
Absorbed power	3 W
Motor max load	2 x 70 W
Accessories max load	24 Vdc 500 mA
Flashing lamp/Courtesy light max. load	24 Vdc 15 W max
Operating ambient temperature	-20°C ÷ +55°C
Protection fuses	4
Function logics	Automatic/Stepped automatic/Semiautomatic/Stepped semi-automatic/Condo type
Thrust force	Four levels adjustable on display
Opening/closing time	Through self-learning during programming
Pause time	Through self-learning during programming
Leaf delay	2 levels
Decelaration	Opening/closing
Enclosure dimensions	305x225x125 mm
Protection class	IP 55

Terminal board inputs - Power supply 24 Vac/Battery supply/Encoder/Total opening/ Pedestrian opening/Opening-closing safety devices/Stop/Opening-closing limit-switch

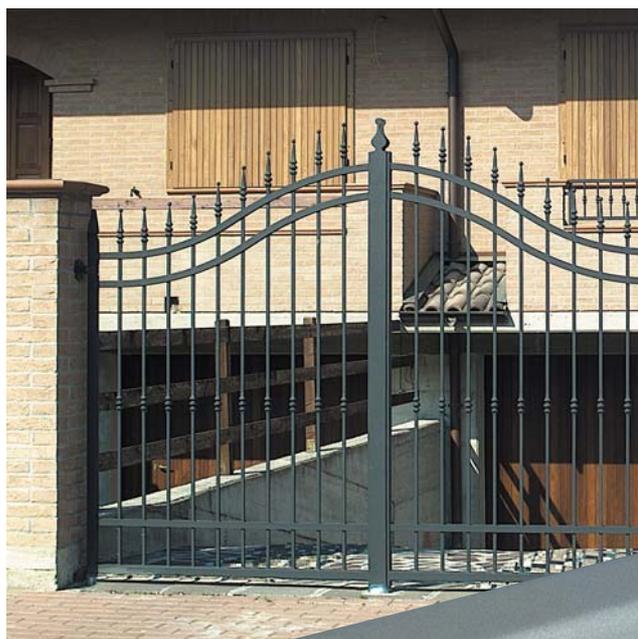
Terminal board outputs - 24 Vdc power supply to accessories/24 Vdc motors/24 Vdc courtesy light-flashing lamp/12 Vdc/Vac Electric lock

Rapid connector - Card receivers/Decoding cards

Model	Use			Control board
	Single-leaf max. width (m)	No. of leaves	Use frequency (cycles/hour)	
390 - 24 Vdc	1,80 (3 m with electric lock)	1	Continuous duty	Not Included

(DOMO swing B7) WITH BATTERY

for residential swing gates
with single leaf length of 1.8 m and max weight of 250 kg



■ Technological innovation

Technological innovation and a very stylish look are combined in a single high quality operator. This operator is aimed at residential applications for gates with leaves of up to 1.8 m in length and maximum weight of 250 kg per leaf.

■ Attractive, futuristic styling

Body in treated, powder painted die-cast aluminium, to provide extra dimensional stability, sturdiness and rigidity. Compact-size, attractive, futuristic styling.

■ Clean security

Uninterrupted operation is guaranteed in case of a power cut. Can be powered on solar panels and by standard transformers for residential applications. Programmable in line with the new European Standards, offers uninterrupted operation.

■ Easy to install

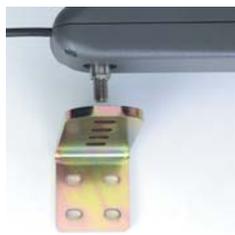
Easy mechanical and electrical installation. Available in Master configuration (single leaf) or Slave configuration (required in addition to the Master for two leaves). Uses the innovative BUS-network technology for connecting the Master and Slave management units.



■ Treated and powder painted die-cast aluminium body



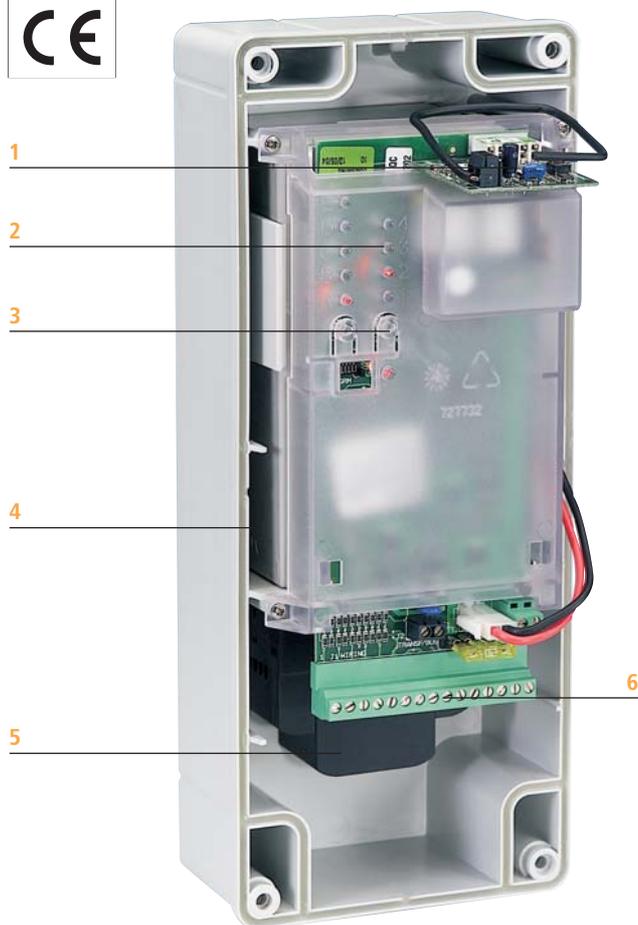
■ Front fitting suitable for screw fixing



■ "More position" rear fitting suitable for screw fixing

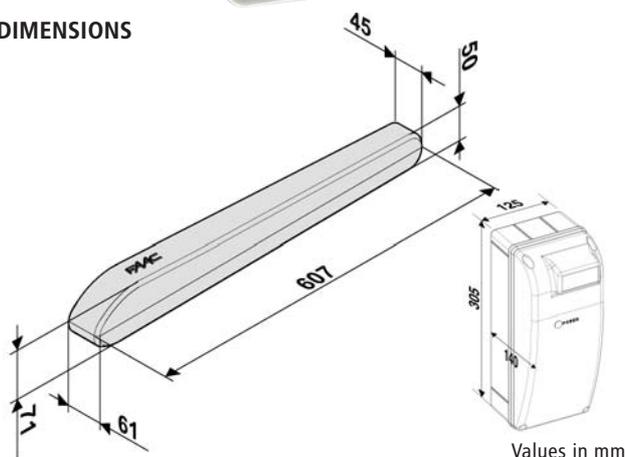


■ Hexagonal key unlock release for manual use



- 1 Quick connector for RP radio receivers or decodification cards
- 2 Programming leds
- 3 Programming push-buttons
- 4 12 Vdc battery 7,2 Ah
- 5 230 Vac/12 V 16 VA power supply (optional - only for Master)
- 6 Removable terminal strip
- 7 ABS plastic enclosure to guarantee a long lasting aesthetics
- 8 Indication led (main power supply and diagnostic)

DIMENSIONS



Values in mm

Technical specifications	DOMO Swing-B7
Power supply voltage	12 Vdc
Rated absorbed power	48 W
Max static force	1000 N
Load-free linear speed (cm/sec)	3.2
Rod effective stroke	280 mm
Duty cycles (cycles/hour)*	15
Consecutive cycles on charged battery	~ 30
Battery recharge time	~10' for every cycle effected
Operating ambient temperature	-20°C ÷ +55°C
Operator weight (kg)	2.2
Protection class	IP 44
Leaf max length (m)	1.80
Leaf max weight (kg)	250
Max opening angle	100°

(*) The cycles/hour are just an indication for the full efficiency of the automation. The use frequency satisfies the residential application.

Shared characteristics of MASTER-B7/SLAVE-B7 Boards

Batteries	Sealed Lead Battery 12 Vdc 7,2 Ah dimensions 96x46x50
Enclosure protection class	IP 55
Absorbed power	16 VA
Motor max current	15 A
Operating ambient temperature	-20°C ÷ +55°C
Protection Fuses	No. 1 - 20A
Anti-crushing function	Encoder - Current control

Technical specifications	MASTER-B7 Board
Power supply	12 Vac
Transformer Characteristics (optional)	Primary 230 Vac Secondary 12 Vac - 16 VA
24 Vdc Accessories max load	150 mA
Rapid connector max load	50 mA
Function logics	Automatic/"Stepped" Automatic / Safety /"Stepped" Semi-automatic
Opening/closing time	By self-learning
Pause time	5,10,20,30 sec selectable
Opening and closing leaf delay time	(op. 0s, cl. 0s)/(op. 2s, cl. 2s) (op. 2s, cl. 4s)/(op. 2s, cl. 8s)
Speed	Selectable on 4 levels
Static force adjustment	Selectable on 4 levels

Terminal board inputs - Open/ Free leaf Open /Stop/ Op. Safety devices /Cl. Safety devices

Terminal board outputs - Flashing lamp/Motor/Bus / Indicator-light/24 Vdc - 12 Vdc power supply for accessories

Rapid connector - Minidec cards - RP cards

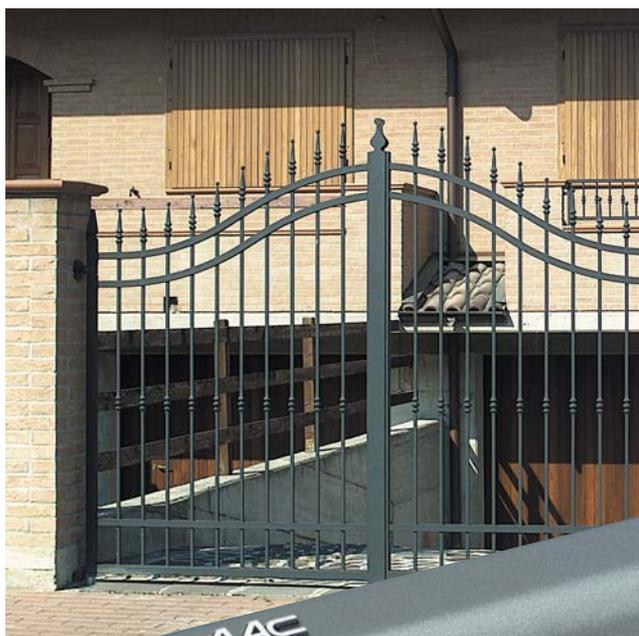
Programmable functions - Logic/ Pause time / Op. and Cl. leaf delays/ Anti-crushing force/Operators speed

Technical specifications	SLAVE-B7 Board
Power supply	from Master-B7
Terminal board outputs	Motor/Battery/Bus

Model	Use			Control board
	Single leaf max length (m)	No. of leaves	Use frequency (cycles/hour)	
DOMO Swing-B7	1,80	1	15	Not included

(DOMO swing T) WITH TRANSFORMER

for residential swing gates
with single leaf length of 1.8 m and max weight of 250 kg



■ Technological innovation

Technological innovation and a very stylish look are combined in a single high quality operator. This operator is aimed at residential applications for gates with leaves of up to 1.8 m in length and maximum weight of 250 kg per leaf.

■ Attractive, futuristic styling

Body in treated, powder painted die-cast aluminium, to provide extra dimensional stability, sturdiness and rigidity. Compact-size, attractive, futuristic styling

■ Quick and simple installation

The mechanical fastening of the operators, by means of screws, is based on a simple concept, with flexible installation dimensions. As the work cycle is learned automatically, this enables immediate programming of the automated system. In any case, for those preferring to customise the operation of the automated system (gate speed, travel-limit decelerations, etc.), manual programming with "LEDs and push-buttons" is quick and easy.

■ Heavier duty cycle

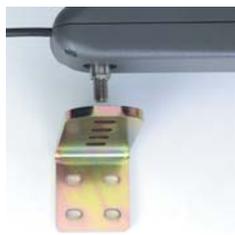
The automation DOMOLINE T can fit to the exigencies in the applications of estates with 2-3 families; the use frequency suggested to maintain the system in full efficiency is about 15 cycles/hour. The system allows to execute up to 30 consecutive cycles.



■ Treated and powder painted die-cast aluminium body



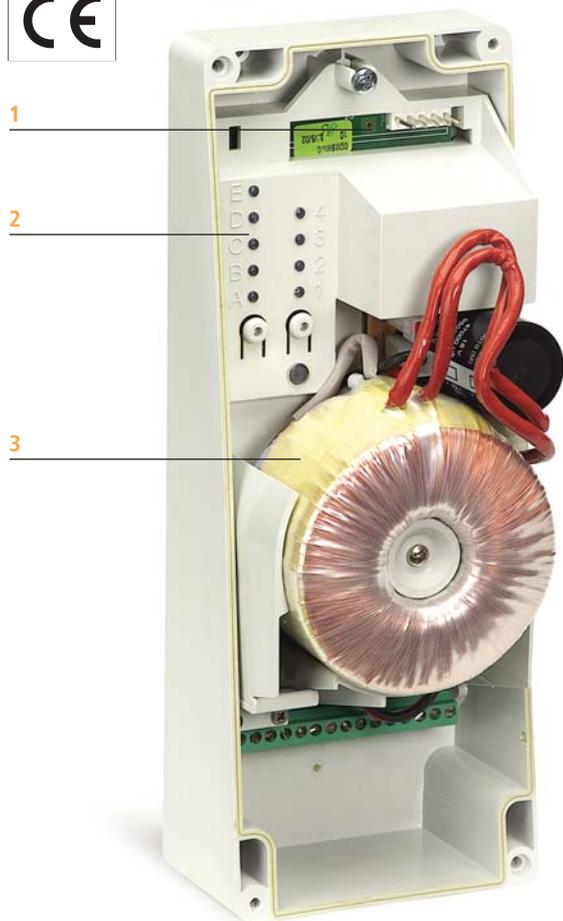
■ Front fitting suitable for screw fixing



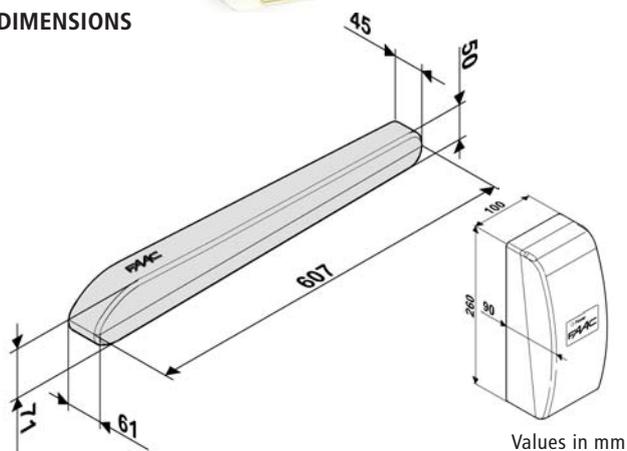
■ "More position" rear fitting suitable for screw fixing



■ Hexagonal key unlock release for manual use



DIMENSIONS

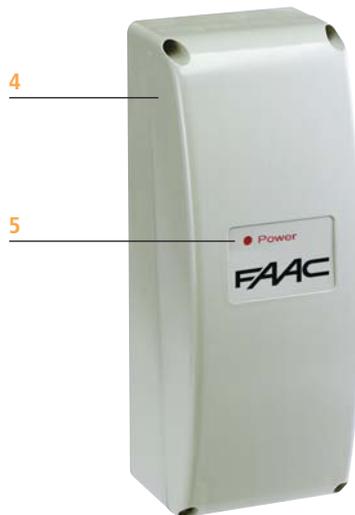


Values in mm

Technical specifications	DOMO Swing-T
Power supply voltage	12 Vdc
Rated absorbed power	48 W
Max static force	1000 N
Load-free linear speed (cm/sec)	3,2
Rod effective stroke	280 mm
Duty cycles (cycles/hour)*	15
Consecutive cycles	30
Recharging time	2' for every cycle effected
Operating ambient temperature	-20°C ÷ +55°C
Operator weight (kg)	2,2
Protection class	IP 44
Leaf max length (m)	1.80
Leaf max weight (kg)	250
Max opening angle	100°

(*) The cycles/hour are just an indication for the full efficiency of the automation. The use frequency satisfies the residential application.

- 1 Quick connector for RP radio receivers or decodification cards
- 2 Programming push-buttons and leds
- 3 230 Vac/12 V 180 VA transformer low consumption
- 4 ABS plastic enclosure to guarantee a long lasting aesthetics
- 5 Indication led (main power supply and diagnostic)



Shared characteristics of MASTER-T/SLAVE-T Boards	
Transformer	Toroidal 230 Vac/12 V 180 VA low consumption
Enclosure protection class	IP 55
Absorbed power	180 VA
Motor max current	15 A
Operating ambient temperature	-20°C ÷ +55°C
Protection Fuses	N° 1 - 20 A
Anti-crushing function	Encoder/current control

Technical specifications	MASTER-T Board
Power supply	From transformer
Technical specifications transformer	Primary 230 vac Secondary 12 Vac - 180 Va
24 Vdc Accessories max load	150 mA
Rapid connector max load	50 mA
Function logics	Automatic/Stepped Automatic/Safety/Stepped Semi-automatic
Opening/closing time	By self-learning
Pause time	5,10,20,30 sec selectable
Opening and closing leaf delay time	(op. 0s, cl. 0s)/(op. 2s, cl. 2s) (op. 2s, cl. 4s)/(op. 2s, cl. 8s)
Speed	Selectable on 4 levels
Static force adjustment	Selectable on 4 levels

Terminal board inputs - Open/ Free leaf Open /Stop/ Op. Safety devices /Cl. Safety devices

Terminal board outputs - Flashing lamp/Motor/Bus / Indicator-light/24 Vdc - 12 Vdc power supply for accessories

Rapid connector - Minidec cards - RP cards

Programmable functions - Logic/ Pause time / Op. and Cl. leaf delays/Anti-crushing force/Operators speed

Technical specifications	SLAVE-T Board
Power supply	from transformer
Terminal board outputs	Motor
Terminal board inputs	Power Supply unit/Bus

Model	Use			Control board
	Single leaf max length (m)	No. of leaves	Use frequency (cycles/hour)	
DOMO Swing T	1,80	1	15	Not included

412

for residential swing gates
with single leaf length of 1.8 m



■ **The ideal choice for residential gates**

The FAAC 412 is the most practical and economical choice for residential gates up to 1.8 metres in length per leaf. The 412 actuator is non-reversing and, therefore, does not require electric locks and bolts.

■ **Quick and easy to install**

Quick and easy to install, no need for expensive modifications to the existing load bearing structure. Use of electro-mechanical technology makes the FAAC 412 ideal for light duty applications.

■ **Electronic safety**

Anti-crushing protection is ensured by an electronic device installed on the FAAC control boards, which directly controlling operator drive torque. In case of an emergency, the release key makes it possible to operate the gate manually.

■ **Less maintenance, highly reliable**

The FAAC 412 electro-mechanical device cuts down considerably on maintenance. Reliability is assured under all atmospheric conditions and in an outdoor temperature range of -20°C to +55°C.



■ Emergency release



■ Electric motor complete with thermal protection



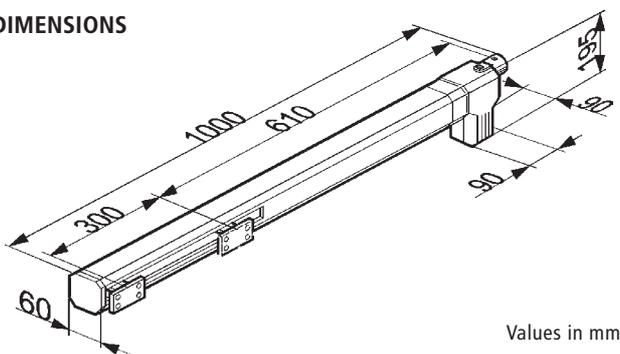
■ Rod protective housing



- 1 Rod protective housing
- 2 Emergency release
- 3 Electric motor complete with thermal protection



DIMENSIONS



Values in mm

Technical specifications	412
Power supply	230 Vac (+6% -10%) 50 (60) Hz
Absorbed power	280 W
Absorbed current	1.5 A
Motor rotation speed	1.400 rpm
Rod extension speed	1.5 cm/s
Traction and thrust force	0 ÷ 320 daN
Thermal protection on motor winding	140°C
Operating ambient temperature	-20°C ÷ +55°C
Protection class	IP 44
Weight	6.5 kg

Model	Use	
	Single leaf max length (m)	Use frequency (cycles/hour)
412 RH	1,80	18
412 LH	1,80	18

NOTE: Right (RH) and left (LH) has to be considered from inside the property.

Electronic control equipment: see from page 124 to page 130.

413

for swing gates
with single-leaf length of 1.8 m (2,5 m with electric lock)



- Operator with **OFF AXIS** thrust
- Built-in mechanical stop for opening and closing
- Available with and without limit switch
- Coupling of the half-bodies by gasket
- Release device-key protected and easy to operate
- Numbered locks 1-36 (optional)
- Opening-closing limit switch (Mod. LS) 24 Vdc power supplied to guarantee the highest security

- Management of the limit switches: stops and deceleration
- Aluminium body completely double coated guaranteeing a higher resistance to atmospheric agents
- Predisposition for the use of the "Gatecoder" deceleration kit



■ Release device-key protected and easy to operate



■ Horizontal cable exit for installations close to the ground



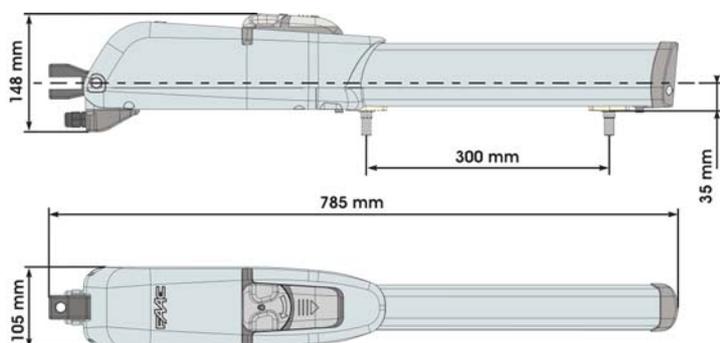
■ Easy adjustment through access from the top



- 1 Aluminium body completely double-layer coated guaranteeing a higher resistance to atmospheric agents
- 2 Coupling of the half-bodies by gasket



DIMENSIONS



Values in mm

Model	Use	
	Single leaf max length (m)	Use frequency (cycles/hour)
413	1.80 (2,5 m with electric lock)	~ 30
413 LS	1.80 (2,5 m with electric lock)	~ 25

Technical specifications	413	413 LS
Power supply	230 Vac	
Absorbed power	250 W	
Absorbed current	1,1 A	
Thermal protection	140° C	
Starting capacitor	6,3 µF	
Thrust force	200 daN	
Piston rod length	300 mm (350 mm without mechanical stops)	
Rod extension speed	1,6 cm/sec	
Single leaf max length*	2,5 m	
Type and use frequency at 20° C	S3 - 30%	S3 - 35%
Minimum cycles/hour at 20°C	~ 25	
Operating ambient temperature	-20° C ÷ +55° C	
Operator weight	6,5 Kg	
Dimensions	785 x 105 x 148	
Protection class	IP 44	
Limit switches	NO	YES
Opening and closing mechanical stops	YES	

*For leaves exceeding the length of 1,8 m (each leaf) an electric lock is necessary

Electronic control equipment: see from page 124 to page 130.

413 - 24 Vdc

for swing gates
with single-leaf length of 1.8 m (2,5 m with electric lock)



- Operator with **OFF AXIS** thrust
- Built-in mechanical stop for opening and closing
- Available with and without limit switch
- Coupling of the half-bodies by gasket
- Release device-key protected and easy to operate
- Numbered locks 1-36 (optional)
- Opening-closing limit switch (Mod. LS) 24 Vdc power supplied to guarantee the highest security

- Management of the limit switches: stops and deceleration
- Aluminium body completely double coated guaranteeing a higher resistance to atmospheric agents



■ Release device-key protected and easy to operate



■ Horizontal cable exit for installations close to the ground



■ Easy adjustment through access from the top



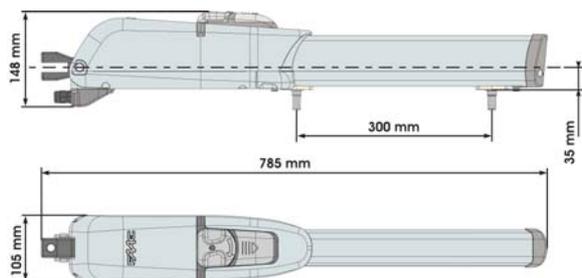
- 1 Aluminium body completely double-layer coated guaranteeing a higher resistance to atmospheric agents
- 2 Coupling of the half-bodies by gasket
- 3 Toroidal transformer
- 4 Emergency batteries (optional)
- 5 424 D LS control board



Specifications of 424 D LS control board

Supply voltage of transformer	230 Vac (+6% - 10%) 50 Hz
Supply voltage of control unit	22 Vac (+6% - 10%) 50 (60) Hz
Absorbed power	3 W
Motor max load	2 x 70 W
Accessories max load	24 Vdc 500 mA
Flashing lamp/Courtesy light max. load	24 Vdc 15 W max
Operating ambient temperature	-20°C ÷ +55°C
Protection fuses	4
Function logics	Automatic/Stepped automatic/Semiautomatic/Stepped semiautomatic/Condo type
Thrust force	Four levels adjustable on display
Opening/closing time	Through self-learning during programming
Pause time	Through self-learning during programming
Leaf delay	2 levels
Deceleration	Opening/closing
Enclosure dimensions	305x225x125 mm
Protection class	IP 55

DIMENSIONS



Values in mm

Terminal board inputs - Power supply 24 Vac/Battery supply/Encoder/Total opening/Pedestrian opening/Opening-closing safety devices/Stop/Opening-closing limit-switch

Terminal board outputs - 24 Vdc power supply to accessories/24 Vdc motors/24 Vdc courtesy light-flashing lamp/12 Vdc/Vac Electric lock

Rapid connector - Card receivers/Decoding cards

Model	Use			Control board
	Single leaf max length (m)	No. of leaves	Use frequency (cycles/hour)	
413 - 24 Vdc	1.80 (2,5 m with electric lock)	1	Continuous duty	Not Included
413 LS - 24 Vdc	1.80 (2,5 m with electric lock)	1	Continuous duty	Not Included

Technical specifications	413-24 Vdc	413 LS-24 Vdc
Power supply		24 Vdc
Absorbed power		70 W
Absorbed current		3 A
Thermal protection		-
Starting capacitor		-
Thrust force		250 daN
Piston rod length	300 mm (350 mm without mechanical stops)	
Rod extension speed		1,6 cm/sec
Single leaf max length*		2,5 m
Type and use frequency at 20° C		100%
Minimum cycles/hour at 20° C		~ 75
Operating ambient temperature		-20° C ÷ +55° C
Operator weight		6,5 Kg
Dimensions		785 x 105 x 148
Protection class		IP 44
Limit switches	NO	YES
Opening and closing mechanical stops		YES

*For leaves exceeding the length of 1,8 m (each leaf) an electric lock is necessary

415

for swing gates
with single-leaf max length of 3 m (415) and 4 m (415 L)



- Operator with **IN AXIS** thrust
- Available with rod stroke 300 mm (leaf max 3 m) and 400 mm (leaf max 4 m)
- Available with and without limit switch
- Coupling of the half-bodies by gasket
- Release device-key protected and easy to operate
- Numbered locks 1-36 (optional)
- Opening-closing limit switch (Mod. LS) 24 Vdc power supplied to guarantee the highest security
- Management of the limit switches: stops and deceleration
- Horizontal cable exit for installations close to the ground
- Predisposition for the use of the "Gatecoder" deceleration kit
- High precision micrometric limit switches, frontal adjustment
- Rod protective housing (optional for the models 300 mm)



■ Release device-key protected and easy to operate



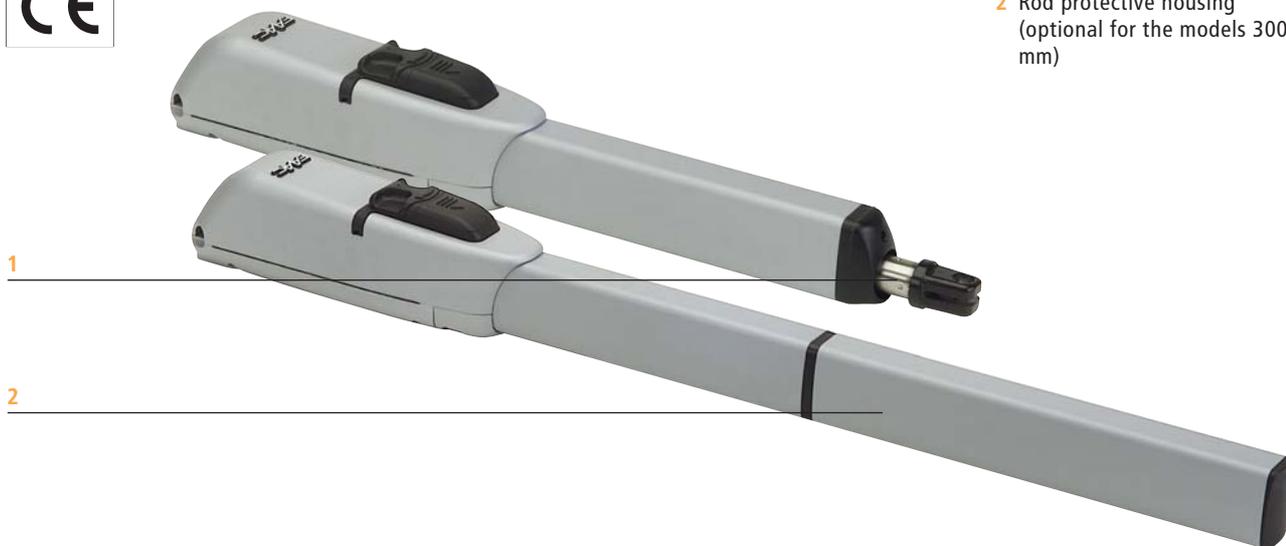
■ Horizontal cable exit for installations close to the ground



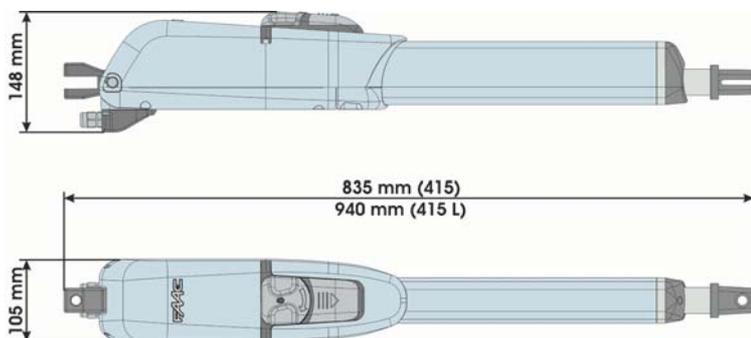
■ High precision micrometric limit switches, frontal adjustment (415)



- 1 Operator with "in axis" thrust
- 2 Rod protective housing (optional for the models 300 mm)



DIMENSIONS



Values in mm

Model	Use	
	Single leaf max length (m)	Use frequency (cycles/hour)
415	3,00	~ 30
415 LS	3,00	~ 25
415 L	4,00	~ 30
415 L LS	4,00	~ 25

Technical specifications	415	415 LS	415 L	415 L LS
Power supply	230 Vac			
Absorbed power	300 W			
Absorbed current	1,3 A			
Thermal protection	140° C			
Starting capacitor	8 µF			
Thrust force	300 daN			
Piston rod length	300 mm		400 mm	
Rod extension speed	1,6 cm/sec			
Single leaf max length	3 m*		4 m**	
Type and use frequency at 20° C	S3 - 30%	S3 - 35%	S3 - 30%	S3 - 35%
Minimum cycles/hour at 20°C	~ 30		~ 25	
Operating ambient temperature	-20° C ÷ +55° C			
Operator weight	7,8 Kg		8 Kg	
Dimensions (LxWxD) in mm	831 x 105 x 148		940 x 105 x 148	
Protection class	IP 44			
Limit switches	NO	YES	NO	YES

* For leaves exceeding the length of 2,50 m (each leaf) an electric lock is necessary

** For leaves exceeding the length of 3 m (each leaf) an electric lock is necessary

Electronic control equipment: see from page 124 to page 130.

415 - 24 Vdc

for swing gates
with single-leaf length of 3 m (415) and 4 m (415 L)



- Operator with **IN AXIS** thrust
- Available with rod stroke 300 mm (leaf max 3 m) and 400 mm (leaf max 4 m)
- Available with and without limit switch
- Coupling of the half-bodies by gasket
- Release device-key protected and easy to operate
- Numbered locks 1-36 (optional)
- Opening-closing limit switch (Mod. LS) 24 Vdc power supplied to guarantee the highest security
- Management of the limit switches: stops and deceleration
- Horizontal cable exit for installations close to the ground
- High precision micrometric limit switches, frontal adjustment
- Rod protective housing (optional for the models 300 mm)



■ Release device-key protected and easy to operate



■ Horizontal cable exit for installations close to the ground



■ High precision micrometric limit switches, frontal adjustment (415)



- 1 Operator with "in axis" thrust
- 2 Rod protective housing (optional for the models 300 mm)
- 3 Toroidal transformer
- 4 Emergency batteries (optional)
- 5 424 D LS control board

1

2

3

4

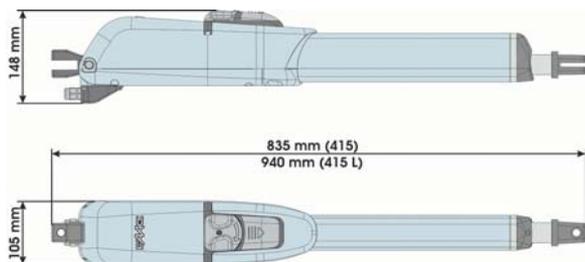
5



Specifications of 424 D LS control board

Supply voltage of transformer	230 Vac (+6% - 10%) 50 Hz
Supply voltage of control unit	22 Vac (+6% - 10%) 50 (60) Hz
Absorbed power	3 W
Motor max load	2 x 70 W
Accessories max load	24 Vdc 500 mA
Flashing lamp/Courtesy light max. load	24 Vdc 15 W max
Operating ambient temperature	-20°C ÷ +55°C
Protection fuses	4
Function logics	Automatic/Stepped automatic/Semiautomatic/Stepped semiautomatic/Condo type
Thrust force	Four levels adjustable on display
Opening/closing time	Through self-learning during programming
Pause time	Through self-learning during programming
Leaf delay	2 levels
Deceleration	Opening/closing
Enclosure dimensions	305x225x125 mm
Protection class	IP 55

DIMENSIONS



Values in mm

Terminal board inputs - Power supply 24 Vac/Battery supply/Encoder/Total opening/Pedestrian opening/Opening-closing safety devices/Stop/Opening-closing limit-switch

Terminal board outputs - 24 Vdc power supply to accessories/24 Vdc motors/24 Vdc courtesy light-flashing lamp/12 Vdc/Vac Electric lock

Rapid connector - Card receivers/Decoding cards

Model	Use			Control board
	Single leaf max length (m)	No. of leaves	Use frequency (cycles/hour)	
415 - 24 Vdc	3,00	1	Continuous duty	Not Included
415 LS - 24 Vdc	3,00	1	Continuous duty	Not Included
415 L - 24 Vdc	4,00	1	Continuous duty	Not Included
415 L LS - 24 Vdc	4,00	1	Continuous duty	Not Included

Technical specifications	415 - 24 Vdc	415 LS - 24 Vdc	415 L - 24 Vdc	415 L LS - 24 Vdc
Power supply	24 Vdc			
Absorbed power	70 W			
Absorbed current	3 A			
Thermal protection	-			
Starting capacitor	-			
Thrust force	280 daN			
Piston rod length	300 mm			400 mm
Rod extension speed	1,6 cm/sec			
Single leaf max length	3 m*			4 m**
Type and use frequency at 20° C	100%			
Minimum cycles/hour at 20°C	~ 100			~ 75
Operating ambient temperature	-20° C ÷ +55° C			
Operator weight	7,8 Kg			8 Kg
Dimensions (LxWxD) in mm	835 x 105 x 148		940 x 105 x 148	
Protection class	IP 44			
Limit switches	NO	YES	NO	YES

* For leaves exceeding the length of 2,50 m (each leaf) an electric lock is necessary

**For leaves exceeding the length of 3 m (each leaf) an electric lock is necessary

402

for residential swing gates
with single-leaf length of 1.8 m (402 CBC) and 3 m (402 SBS)



■ The hydraulic system ideal for residential gates

Quick and easy to install, the FAAC 402 system is the most practical and economic choice for residential gates of up to 1.8 metres in length per leaf. The FAAC 402 hydraulic device requires little maintenance and is low on electrical power consumption.

■ Maximum safety

The exclusive hydraulic device, ensuring maximum anti-crushing protection, features two highly sensitive by-pass valves. In case of an emergency, the release key makes it possible to operate the gate manually.

■ Low noise and reliability requiring little space

Few components and the use of hydraulic oil as motor fluid are the secrets ensuring very quiet movement and reliability under all atmospheric conditions and in an outdoor temperature range of -40°C to +55°C. Thanks to its compact size, FAAC 402 can be installed even when space is at a premium.

■ FAAC quality guaranteed through time

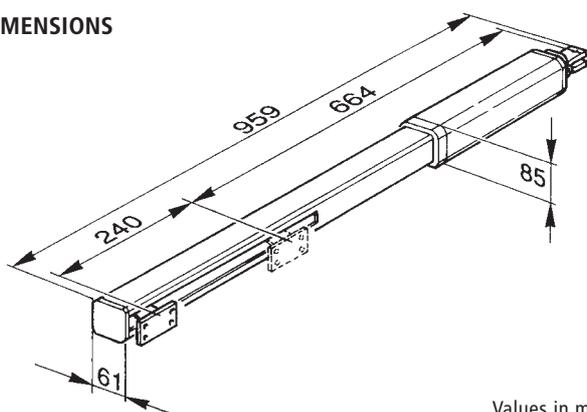
On top of the undisputed advantages of FAAC's hydraulic system, there is also a corrosion proof coating highly resistant to atmospheric agents with guaranteed long-life.



- 1 Oil tank
- 2 By-pass valves (cannot be accessed thanks to the supplied "tamper-proof" system)
- 3 Emergency release
- 4 Rod protective housing



DIMENSIONS



Values in mm

Technical specifications	402 CBC	402 SBS
Power supply	230 Vac (+6% -10%) 50 (60) Hz	
Absorbed power	220 W	
Absorbed current	1 A	
Motor rotation speed	1400 rpm	
Rod extension speed	1.3 cm/s	1 cm/s
Pump flow rate	1 l/min.	0,75 l/min
Traction and thrust force	0÷500 daN	0÷690 daN
Operating ambient temperature	-40°C ÷ +55°C	
Thermal protection on motor winding	120°C	
Weight	6.5 kg	
Type of oil	FAAC HP OIL	
Protection class	IP 55	

Model	Use	
	Single leaf max length (m)	Use frequency (cycles/hour)
402 CBC	1,80	55
402 SBS	3,00	55

Electronic control equipment: see from page 124 to page 130.

422 - 422 PED.

for residential and light commercial swing-leaf gates with single leaf length of 1.8 m (422 CBC-CBCS-CBAC-CBACS) and 3 m (422 SB-SBS) single pedestrian leaf with length from 0.8 m to 1.2 m (422 PED CBC-SB)



■ Highly versatile

The wide range of FAAC 422 offers different options: with or without hydraulic locking for swing-leaf gates in four models from 1.2 to 3 metres in length per leaf, and for pedestrian gates in two models from 0.8 to 1.2 metres.

■ Maximum safety

The exclusive hydraulic device, ensuring maximum anti-crushing protection, features two highly sensitive by-pass valves. In case of an emergency, the customised release key and a special ergonomic release makes it possible to operate the gate manually.

■ Low noise and reliability requiring little space

Few components and the use of hydraulic oil as motor fluid are the secrets ensuring very quiet movement and reliability under all atmospheric conditions and in an outdoor temperature range of -40°C to +55°C.

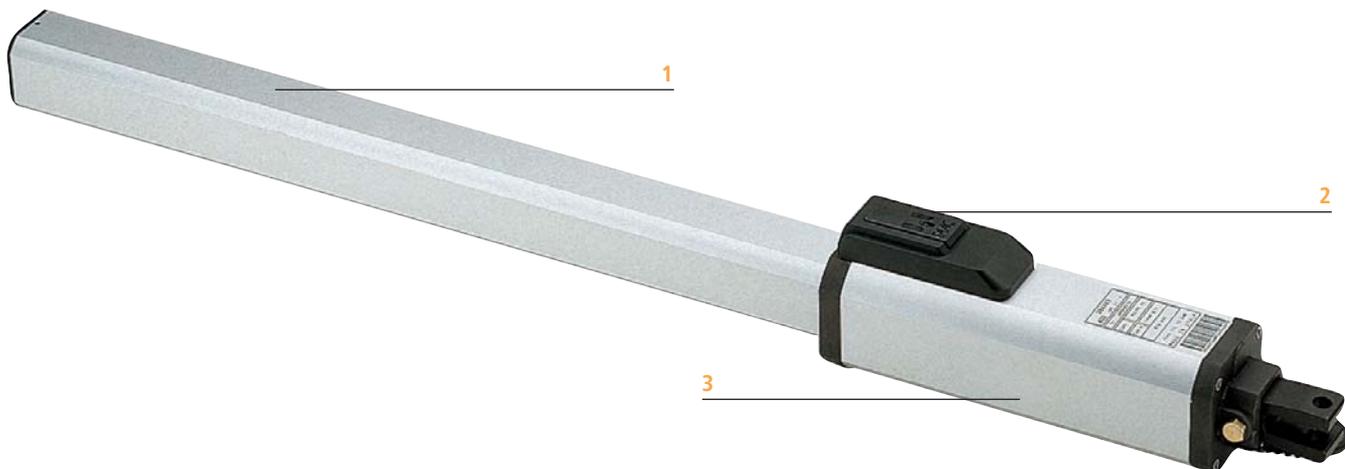
■ FAAC quality guaranteed through time

On top of the undisputed advantages of FAAC's hydraulic system, there is also corrosion proof coating highly resistant to atmospheric agents with guaranteed long-life.

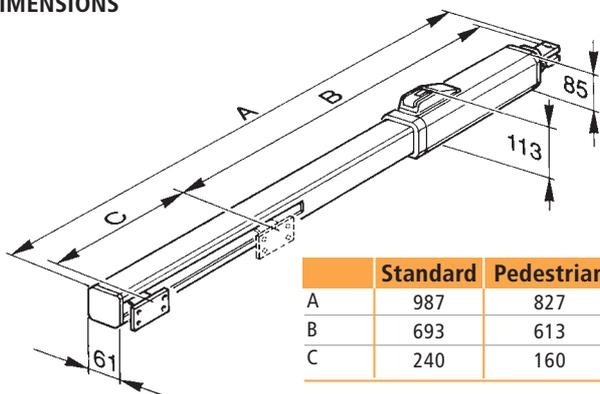




- 1 Rod protective housing
- 2 Key-operated emergency release
- 3 Oil tank



DIMENSIONS



	Standard	Pedestrian
A	987	827
B	693	613
C	240	160

Values in mm

Technical specifications	422 CBC	422 CBAC	422 SB	422 CBCS	422 CBACS	422 SBS	422 PED. CBC	422 PED. SB
Power supply	230 Vac (+6% -10%) 50 (60) Hz							
Absorbed power	220 W							
Absorbed current	1 A							
Motor rotation speed	1400 rpm							
Rod extension speed	1,3 cm/s			1 cm/s			2 cm/s	
Pump flow rate	1 l/min			0,75 l/min			1,5 l/min	
Traction and thrust force	0÷500 daN			0÷690 daN			0÷380 daN	
Operating ambient temperature	-40°C ÷ +55°C							
Thermal protection on motor winding	120°C							
Weight	7 kg							
Type of oil	FAAC HP OIL							
Protection class	IP 55							

Model	Use	
	Single leaf max length (m)	Use frequency (cycles/hour)
422 CBCS	1,80	55
422 CBACS	1,80	55
422 SBS	3,00	55
422 CBC (NEW)	1,80	55
422 CBAC (NEW)	1,80	55
422 SB (NEW)	3,00	55
422 PED. CBC	1,20 (min 0,80)	70
422 PED. SB	1,20 (min 0,80)	70

Electronic control equipment: see from page 124 to page 130.

400

for light commercial and industrial swing-leaf gates



■ A wide range of models

The FAAC 400 offers a range of 7 different operators, with or without hydraulic locking designed to automate swing gates up to 7 metres per leaf. The whole range is easily installed and models are available for very heavy gates, industrial gates and high frequency operators.

■ Safe both inside and out

The exclusive hydraulic device, ensuring maximum anti-crushing protection, features two highly sensitive by-pass valves. In case of an emergency, a customised release key makes it possible to operate the gate manually. The power of hydraulic locking gives the system exceptionally high resistance against break-in attempts.

■ FAAC's experience is a guarantee

The motor unit is contained in a compact hydraulic enbloc housing; all components are oil-bath lubricated and continuously cooled, require very little maintenance, and are low on electrical power consumption.

■ Reliability and low noise

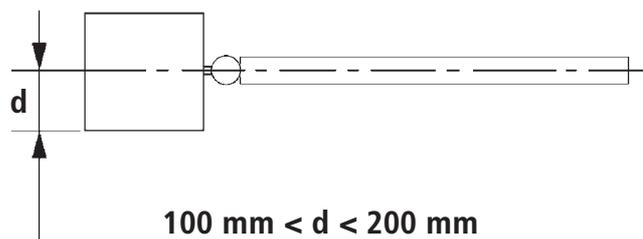
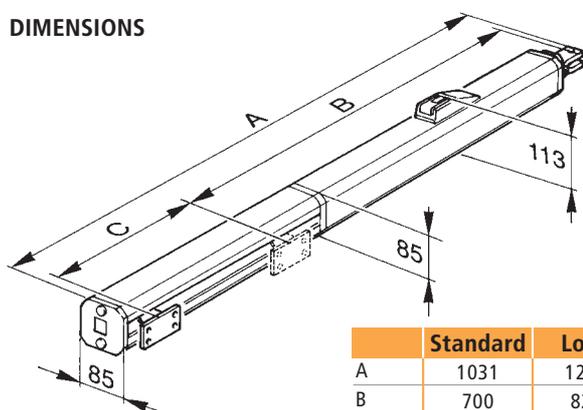
Precision mechanics and use of hydraulic oil as motor fluid are the secrets behind the extremely low noise movement. Reliability is assured under any atmospheric conditions and at extreme temperatures in the range -40° C to +55° C.



- 1 Rod protective housing
- 2 Key-operated emergency release
- 3 Oil tank



DIMENSIONS



	Standard	Long
A	1031	1285
B	700	822
C	260	380

Values in mm

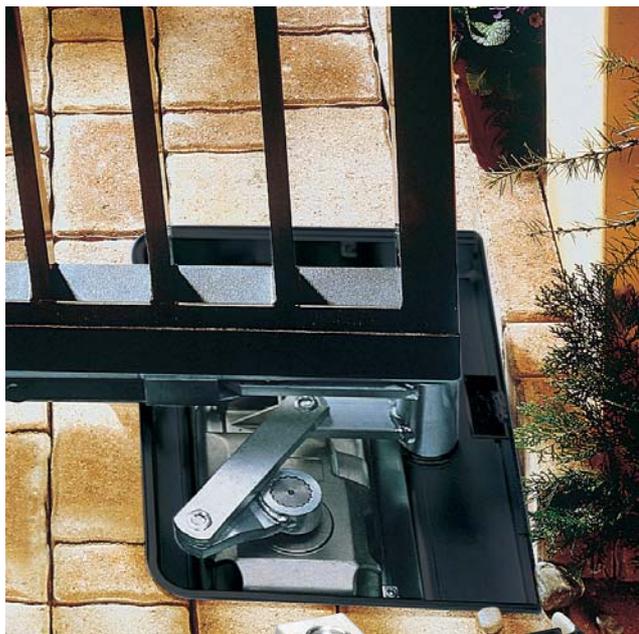
Technical specifications	400 CBC	400 CBAC	400 SB	400 SBS	400 CBACR	400 CBAC LN	400 SB LN
Power supply	230 Vac (+6% -10%) 50 (60) Hz						
Absorbed power	220 W						
Absorbed current	1 A						
Motor rotation speed	1400 rpm						
Rod extension speed	1 cm/s		0,75 cm/s		1,5 cm/s		
Pump flow rate	1 l/min		0,75 l/min		1,5 l/min		
Traction and thrust force	0÷620 daN		0÷775 daN		0÷465 daN		
Operating ambient temperature	-40°C ÷ +55°C						
Thermal protection on motor winding	120°C						
Weight	8,6 kg						
Type of oil	FAAC HP OIL						
Protection class	IP 55						

Model	Use		
	Single leaf max length (m)	No. of leaves	Use frequency (cycles/hour)
400 CBC	2,20	1	70
400 SB	4,00	1	70
400 SBS	7,00	1	60
400 CBAC	2,20	1	70
400 CBACR	2,20	1	80
400 CBAC long	2,20	1	50
400 SB long	2,50	1	50

Electronic control equipment: see from page 124 to page 130.

770

for residential swing-leaf gates
with single-leaf length of 2.5 m and max weight of 500 kg



■ A new technological threshold

The FAAC underground system is the new way of opening and closing residential gates with leaves of up to 2.5 metres in length. As is completely invisible, it does not change the appearance of the gate.

■ Electronic safety

Anti-crushing protection is ensured by an electronic device installed on the 452 MPS - 455 D equipment, which directly controls drive torque. In case of an emergency, manual operation is assured by a special lever release system with customised key, accessible from both inside and outside.

■ Total efficiency

The FAAC 770 model design includes a casing to house automated systems for gates of up to 500 kg per leaf, making installation simple. Corrosion-proof coating highly resistant to atmospheric agents, absolute weather-proofing, operator in protection class IP 67 all these are plus points in addition to the undoubted advantages of long-life and safety assured by FAAC's electro-mechanical technology.

■ Low maintenance

When maintenance is necessary, the operator can be simply removed from the foundation box without removing the gate leaf.



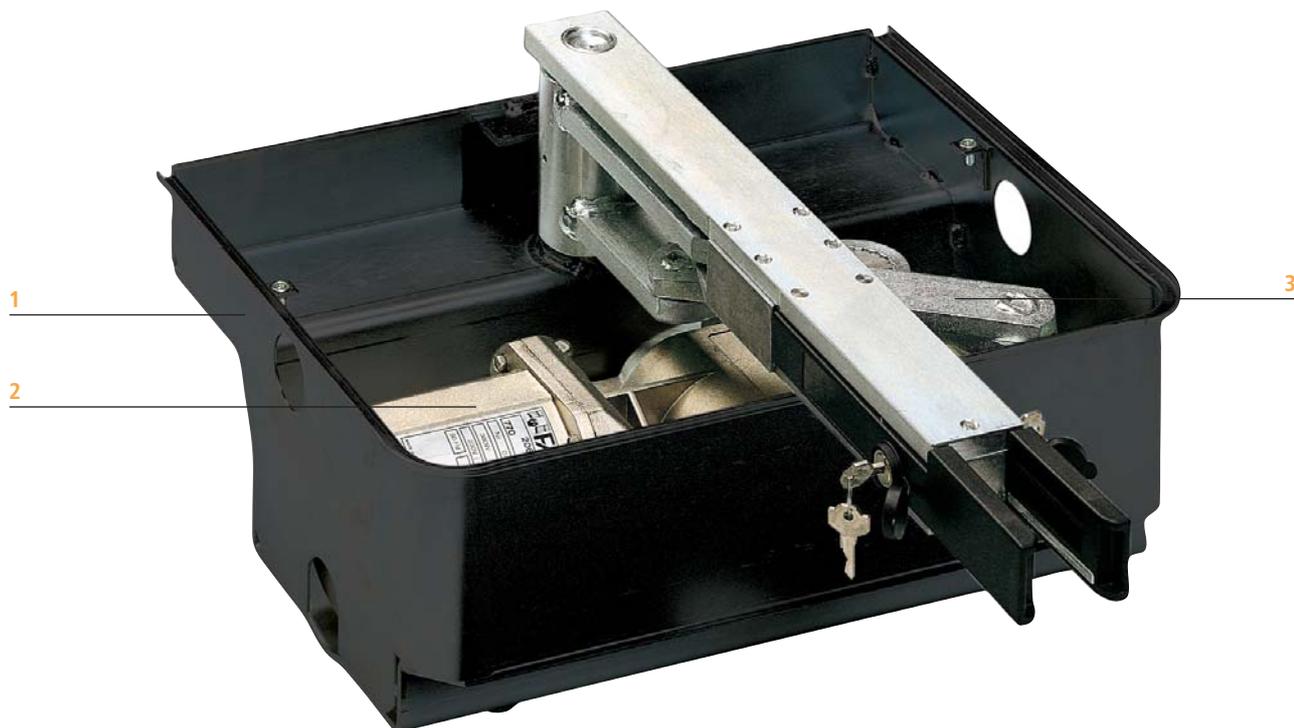
■ Gate support bracket

■ Key-operated release device

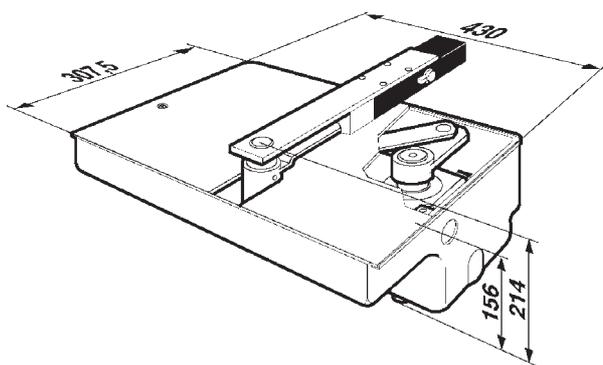
■ Casing cover



- 1 Casing
- 2 770 operator
- 3 Transmission levers



DIMENSIONS



Values in mm

Technical specifications	770
Power supply	230 Vac (+6% -10%) 50 (60) Hz
Electric motor	Single-phase, bi-directional
Thermal protection on motor winding	140°C
Motor rotation speed	1450 rpm
Absorbed power	380 W
Absorbed current	1.7 A
Torque	0÷330 Nm
Pinion angular velocity	6°/s
Operating ambient temperature	-20°C ÷ +55°C
Weight	14 kg
Leaf opening max angle	110° (140° with optional kit)
Deceleration	by unequal levers
Protection class	IP 67

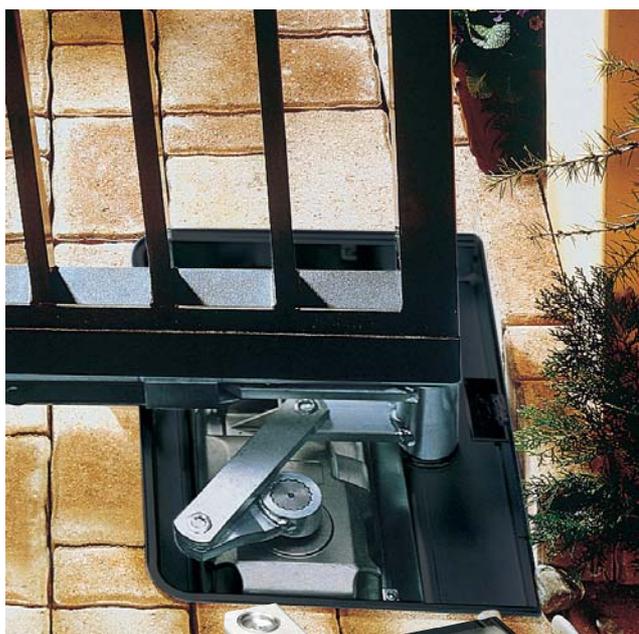
Technical specifications of casing
• in steel with cataphoresis treatment
• cover in stainless steel
• leaf support bracket with key-operated lever release system

Model	Use			
	Single leaf max length (m)	Single leaf max weight (kg)	No. of leaves	Use frequency (cycles/hour)
770	2,50	500	1	20

Electronic control equipment: see from page 124 to page 130.

770 - 24 Vdc

for residential swing-leaf gates
with single-leaf length of 2.5 m and max weight of 500 kg



■ A new technological threshold

The FAAC underground system is the new way of opening and closing residential gates with leaves of up to 2.5 metres in length. As it is completely invisible, it does not change the appearance of the gate.

■ Total efficiency

The FAAC 770 model design includes a casing to house automated systems for gates of up to 500 kg per leaf, making installation simple. Corrosion-proof coating highly resistant to atmospheric agents, absolute weather-proofing, operator in protection class IP 67: all these are plus points in addition to the undoubted advantages of long-life and safety assured by FAAC's electro-mechanical technology.

■ Easy programming: self-learning

To "initialise" the automated system, just carry out the SETUP operation, selecting a suitable dip-switch. The following parameters are automatically self-learned during this operation:

- Opening/closing times
- Pause time
- Traction/thrust force
- Deceleration at end of opening and closing
- Soft Start (starting at gradual speed)

■ Safety: anti-crushing electronic device

Continuously controlled electronic clutch, active at both opening and closing

- Two sensitivity levels
- Movement reversed in case of an obstacle
- Emergency stop function (if clutch operates for two consecutive cycles)

■ Black out: emergency operation

Emergency battery (optional) ensuring operation during a power cut (15 cycles max)



■ Gate support bracket

■ Key-operated release device

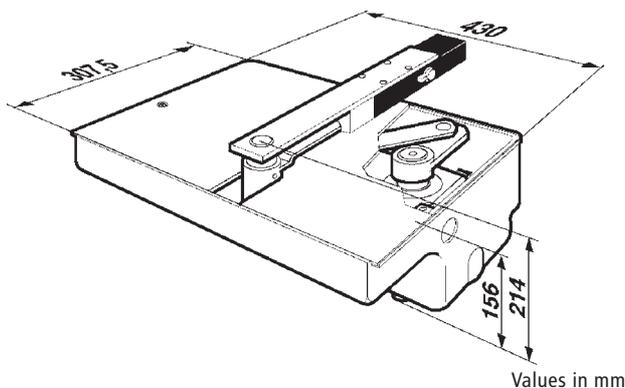
■ Casing cover



- 1 Casing
- 2 770 - 24 Vdc operator
- 3 Transmission levers
- 4 Toroidal transformer
- 5 Emergency batteries (optional)
- 6 424 D LS control board



DIMENSIONS



Values in mm

Technical specifications	770 - 24 Vdc
Power supply	24 Vdc
Thermal protection on motor winding	140°C
Motor rotation speed	1450 rpm
Pinion angular velocity	6°/s
Operating ambient temperature	-20°C ÷ +55°C
Weight	14 kg
Leaf opening max angle	110° (140° with optional kit)
Deceleration	by unequal levers
Protection class	IP 67

Technical specifications of casing

- in steel with cataphoresis treatment
- cover in stainless steel
- Leaf support bracket with key-operated lever release system

Specifications of 424 D LS control board

Supply voltage of transformer	230 Vac (+6% - 10%) 50 Hz
Supply voltage of control unit	22 Vac (+6% - 10%) 50 (60) Hz
Absorbed power	3 W
Motor max load	2 x 70 W
Accessories max load	24 Vdc 500 mA
Flashing lamp/Courtesy light max. load	24 Vdc 15 W max
Operating ambient temperature	-20°C ÷ +55°C
Protection fuses	4
Function logics	Automatic/Stepped automatic/ Semiautomatic/Stepped semiautomatic/Condo type
Thrust force	Four levels adjustable on display
Opening/closing time	Through self-learning during programming
Pause time	Through self-learning during programming
Leaf delay	2 levels
Deceleration	Opening/closing
Enclosure dimensions	305x225x125 mm
Protection class	IP 55

Terminal board inputs - Power supply 24 Vac/Battery supply/Encoder/Total opening/Pedestrian opening/Opening-closing safety devices/Stop/Opening-closing limit-switch

Terminal board outputs - 24 Vdc power supply to accessories/24 Vdc motors/24 Vdc courtesy light-flashing lamp/12 Vdc/Vac Electric lock

Rapid connector - Card receivers/Decoding cards

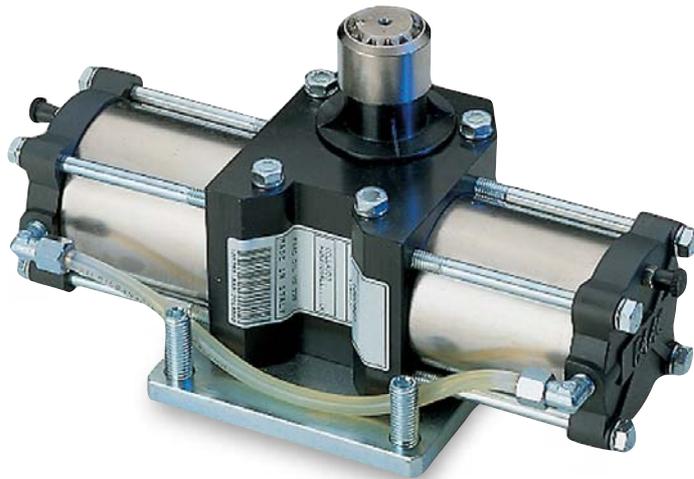
Emergency batteries (opzional)

Voltage/current	2 x 12 V/4 Ah
Dimensions	90 x 70 x 108 mm
Nr. of opening/closing operations	15 max

Model	Use			
	Single leaf max length (m)	Single leaf max weight (kg)	No. of leaves	Use frequency (cycles/hour)
770 - 24 Vdc	2,50	500	1	50

750 STANDARD

for residential and light commercial swing gates with single leaf max weight of 800 kg



■ Hydraulic jack

■ Side flange

■ Expertly versatile and invisible

The FAAC 750 offers a range of 3 different operators with or without hydraulic locking designed to automate swing gates up to 3.5 metres per leaf. The underground system is invisible and silent, and is the ideal solution for artistically valuable old gates and portals.

■ Very powerful and mechanically efficient

The whole 750 range can easily automate gates with leaves weighing up to 800 kg each. The system consists of a sturdy, compact, underground drive unit, and a hydraulic pump unit available in three different models. All components are integrated in a hydraulic circuit providing continuous lubrication and cooling.

■ Safe both inside and out

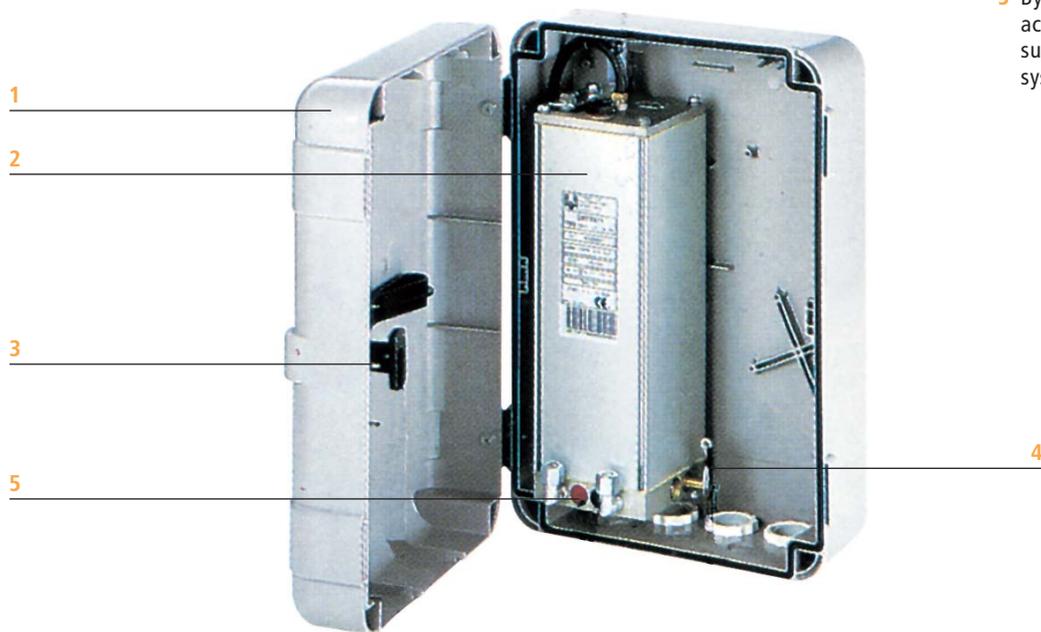
The exclusive hydraulic device, ensuring maximum anti-crushing protection, features two highly sensitive by-pass valves. In case of an emergency, a key-protected release device, in an easy-to-access position, makes it possible to operate the gate manually. The power of hydraulic locking gives the system exceptionally high resistance against break-in attempts.

■ Constant performance through time

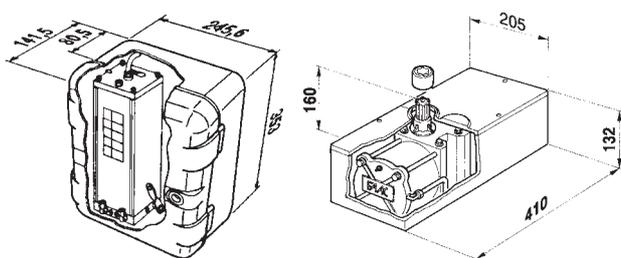
Reliability is assured under all atmospheric conditions and at extreme temperatures in the range -40° C to +55° C. And that's not all - the FAAC hydraulic device requires very little maintenance and has another advantage too: it's low on electrical power consumption.



- 1 Hydraulic pump unit enclosure (option)
- 2 Hydraulic pump unit
- 3 Enclosure lock
- 4 Manual release
- 5 By-pass valves (cannot be accessed thanks to the supplied "tamper-proof" system)



DIMENSIONS



Values in mm

Technical specifications of hydraulic jack	100° opening	180° opening
Rotation maximum angle	118°	200°
Effective torque	272 Nm (750 SBS)	543 Nm (750 CBAC-SB)
Angular velocity	5,2°/s (750 SBS) - 7,8°/s (750 CBAC-SB)	
Protection class	IP 67	

Technical specifications of hydraulic pump unit	750 CBAC	750 SB	750 SBS
Power supply	230 Vac (+6% -10%) 50 (60) Hz		
Absorbed power	220 W		
Absorbed current	1 A		
Motor rotation speed	1400 rpm		960 rpm
Pump flow rate	0,75 l/min		0,5 l/min
Operating ambient temperature	-40°C ÷ +55°C		
Protection class	IP 55		
Thermal protection on motor winding	120°C		
Weight	7 kg		
Type of oil	FAAC HP OIL		

Model	Use			
	Single leaf max length (m)	Single leaf max weight (kg)	No. of leaves	Use frequency (cycles/hour)
Pump unit 750 CBAC	1,80	/	1	45
Pump unit 750 SB	2,50	/	1	45
Pump unit 750 SBS	3,50	/	1	30
100° opening jack	/	800	1	/
180° opening jack	/	800	1	/

Electronic control equipment: see from page 124 to page 130.

750 CP

for residential and light commercial swing gates with single leaf max weight of 800 kg



Expertly versatile and invisible

The FAAC 750 offers a range of 3 different operators with or without hydraulic locking designed to automate swing gates up to 3.5 metres per leaf. The underground system is invisible and silent, and is the ideal solution for artistically valuable old gates and portals.

Very powerful and mechanically efficient

The whole 750 range can easily automate gates with leaves weighing up to 800 kg each. The system consists of a sturdy, compact, underground drive unit, and a hydraulic pump unit available in three different models. All components are integrated in a hydraulic circuit providing continuous lubrication and cooling. The 750 CP range is designed to include a foundation box that acts as the lower hinge of the gate. The 750 drive unit is simply installed without the need of removing the gate.

Safe both inside and out

The exclusive hydraulic device, ensuring maximum anti-crushing protection, features two highly sensitive by-pass valves. In case of an emergency, a key-protected release device, in an easy-to-access position, makes it possible to operate the gate manually. The power of hydraulic locking gives the system exceptionally high resistance against break-in attempts.

Constant performance through time and little maintenance

Reliability is assured under all atmospheric conditions and at extreme temperatures in the range - 40° C to + 55° C. And that's not all - the FAAC hydraulic device requires very little maintenance and has another advantage too: it's low on electrical power consumption.



■ Grooved bush



■ Hydraulic jack



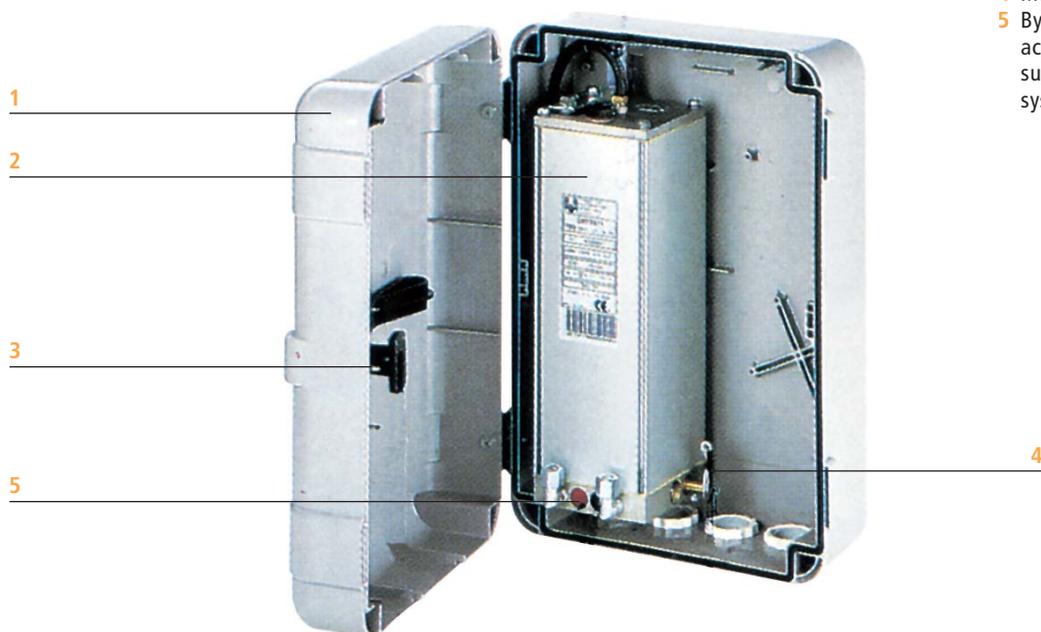
■ Casing in steel with cataphoresis treatment



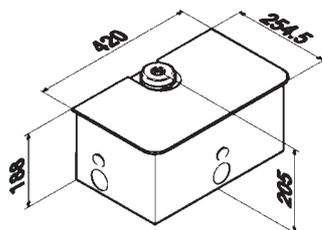
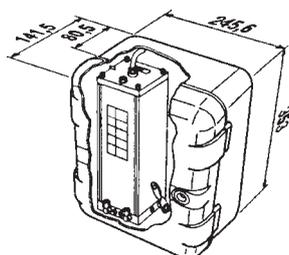
■ Cover in stainless steel



- 1 Hydraulic pump unit enclosure (option)
- 2 Hydraulic pump unit
- 3 Enclosure lock
- 4 Manual release
- 5 By-pass valves (cannot be accessed thanks to the supplied "tamper-proof" system)



DIMENSIONS



Values in mm

Technical specifications of hydraulic jack	100° opening	180° opening
Rotation maximum angle	118°	200°
Effective torque	272 Nm (750 SBS)	543 Nm (750 CBAC-SB)
Angular velocity	5,2°/s (750 SBS)	7,8°/s (750 CBAC-SB)
Protection class	IP 67	

Technical specification of casing

In steel with cataphoresis treatment

Cover in stainless steel

Splined bush

Technical specifications of hydraulic pump unit	750 CBAC	750 SB	750 SBS
Power supply	230 Vac (+6% -10%) 50 (60) Hz		
Absorbed power	220 W		
Absorbed current	1 A		
Motor rotation speed	1400 rpm		960 rpm
Pump flow rate	0,75 l/min		0,5 l/min
Operating ambient temperature	-40°C ÷ +55°C		
Protection class	IP 55		
Thermal protection on motor winding	120°C		
Weight	7 kg		
Type of oil	FAAC HP OIL		

Model	Use			
	Single leaf max length (m)	Single leaf max weight (kg)	No. of leaves	Use frequency (cycles/hour)
Pump unit 750 CBAC	1,80	/	1	45
Pump unit 750 SB	2,50	/	1	45
Pump unit 750 SBS	3,50	/	1	30
100° opening CP jack	/	800	1	/
180° opening CP jack	/	800	1	/

Electronic control equipment: see from page 124 to page 130.

760

for residential and light commercial swing gates with single-leaf max weight of 800 kg



Wide-ranging technology

The FAAC 760 underground system is the new way of opening and closing residential and light commercial gates with leaves of up to 4 metres in length. As it is completely invisible, it does not change the appearance of the gate, which can reach an opening radius of as much as 140°.

Open to all possibilities

The 760 series is highly versatile: you can choose from self-locking versions at opening or closing, reversible versions, versions with or without gate deceleration near stop-point, as well as rapid or slow versions. The patented deceleration system has both width and intensity adjustment.

Guaranteed efficiency

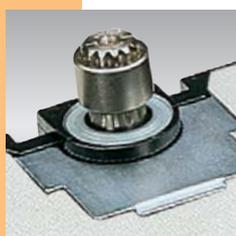
The FAAC 760 model design includes a casing to house automated systems for gates of up to 800 kg per leaf, making installation simple. As the jack and control unit are integrated in a hydraulic circuit, they ensure continuous lubrication and cooling.

Total safety

The exclusive hydraulic device, ensuring maximum anti-crushing protection, features two highly sensitive by-pass valves. In case of an emergency, manual operation is assured by a release system with customised key, accessible from both inside and outside.

Low maintenance

Maintenance is down to a minimum and is also facilitated, since the engineer can access the operator without removing the leaf. Thanks to the system's mechanical efficiency, electrical power consumption is low.



■ Grooved bush



■ Casing in pressure-cast aluminium with cathoresis treatment



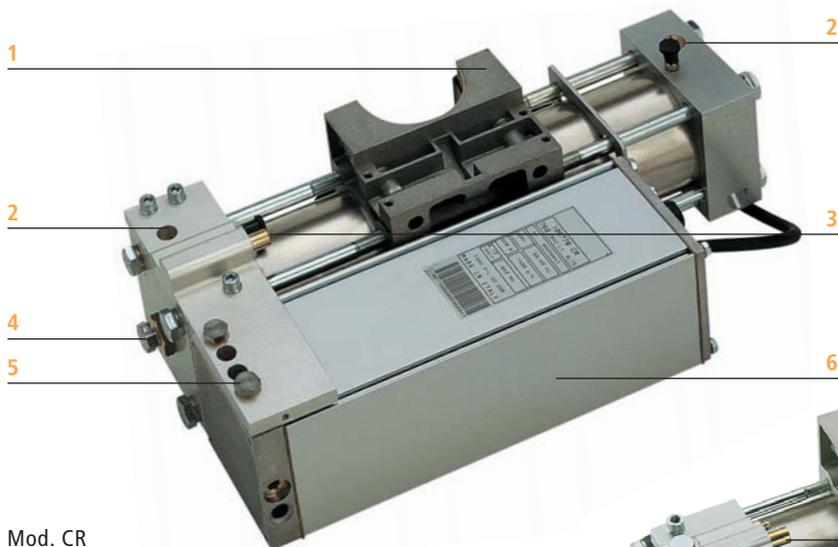
■ Protection bracket for transmission shaft



■ Cover in stainless steel



- 1 Jack
- 2 Screw for adjusting degree of deceleration
- 3 Manual release
- 4 Adjusting screw for limit-switch side contact points
- 5 By-pass valves
- 6 Hydraulic pump unit

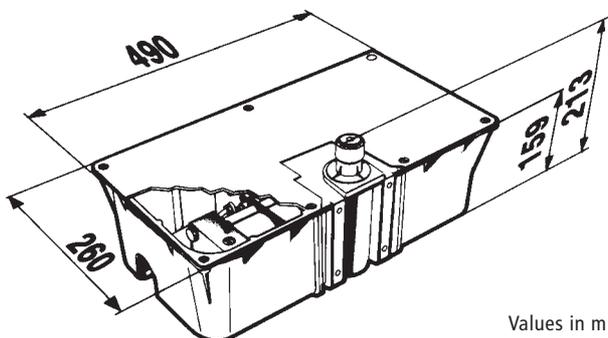


Mod. CR



Mod. SR

DIMENSIONS



Values in mm

Technical specifications of casing

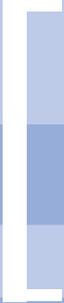
in pressure-cast aluminium, NIPLOY treated transmission shaft, two radial bearings and one thrust bearing.

Technical specifications	760 CBAC SR	760 SB SR	760 SBS SR	760 CBAC CR	760 SB CR	760 SBS CR
Power supply	230 Vac (+6% -10%) 50 (60) Hz					
Electric motor	Single-phase, bi-directional					
Thermal protection on motor winding	120°C					
Motor rotation speed	1400 rpm		960 rpm		1400 rpm	960 rpm
Absorbed power	220 W					
Absorbed current	1 A					
Effective torque	0÷543 Nm		0÷272 Nm		0÷543 Nm	0÷272 Nm
Angular velocity	7,8°/s		5,2°/s		7,8°/s	5,2°/s
Operating ambient temperature	-40°C ÷ +55°C					
Weight with oil	13 kg					
Type of oil	FAAC HP OIL					
Rotation maximum angle		162°			148°	
Protection class	IP 67					
Deceleration angle		-			10°	
Degree of deceleration		-			adjustable	

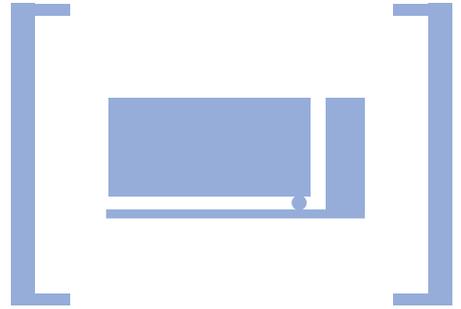
Model	Use			
	Single leaf max length (m)	Single leaf max weight (kg)	No. of leaves	Use frequency (cycles/hour)
760 CBAC SR	2,00	800	1	55
760 SB SR*	3,00	800	1	55
760 SBS SR*	4,00	800	1	30
760 CBAC CR	2,00	800	1	55
760 SB CR	3,00	800	1	55
760 SBS CR	4,00	800	1	30

* For 760 SR application on leaves from 2 m up to 4 m it's advisable to use end-cycle electronic deceleration (455 D control board, see page 127).

Electronic control equipment: see from page 124 to page 130.



**AUTOMATED SYSTEMS
FOR SLIDING GATES**



TYPE OF INSTALLATION

RESIDENTIAL	DOMO glide B7	DOMO glide T	740	741	746	820					
CONDOMINIUM (LIGHT COMMERCIAL)					746	820	844 REVERSIBLE	860	844		
INDUSTRIAL							844 REVERSIBLE	860	844	844 THREE-PHASE	884 THREE-PHASE
use cycle	20%	20%	30%	40%	70%	30%	70%	30%	70%	70%	50%-3500 kg continuous duty-2000 kg
leaf max weight (kg)	300	300	500	900	600	600	1.000	1.200	1.800	2.200	3.500
anti-crushing protection	ELECTRONIC	ELECTRONIC	ELECTRONIC	ELECTRONIC	ELECTRONIC MECHANICAL	ELECTRONIC MECHANICAL	MECHANICAL	ELECTRONIC MECHANICAL	MECHANICAL	MECHANICAL	MECHANICAL
limit-switch	MAGNETIC	MAGNETIC	MECHANICAL	MECHANICAL	INDUCTIVE (chain version)	ELECTRONIC	MAGNETIC	ELECTRONIC	INDUCTIVE (chain version)	MAGNETIC	MECHANICAL
leaf speed (m/min)	ADJUSTABLE	ADJUSTABLE	12	12	12	12	11,6	9,5	9,5	7,2	10

(DOMO glide B7) WITH BATTERY

for residential sliding gates
with max length of 5 m and max weight of 300 kg



■ Innovative

A gearmotor for residential sliding gates with 12 Vdc electric motor. Compact, finely designed, uses innovative transmission systems, and is suitable for installation on sliding gates of up to 5 m length and 300 kg in weight.

■ Conforms to new european standards

Programmable in line with the new European Standards, offers uninterrupted operation in case of a power cut. Can be powered on alternative energy sources (solar panels), or by transformers for standard entry-phones or door bells, additional battery can be installed to increase the number of possible cycles. Facility for pedestrian access; limit-switch, and obstacle detection by "virtual encoder".

■ Total security for your home

An innovative virtual encoder system combined with the operator's long-life 12 V motor, enables the user to program the automated system in conformity with European Safety Standards EN 12453 - EN 12445. The highly sensitive anti-crushing safety device means there is no need to use additional costly accessories with the system, such as safety edges.

■ User-friendly electronics

Facilitated electrical installation, thanks to electrical connections by pull-out block-connector, accessed from the gearmotor's front hatch. The LED signalled functions are quick and easy to program.



■ Carter suitable for the fixing of the card receiver antenna



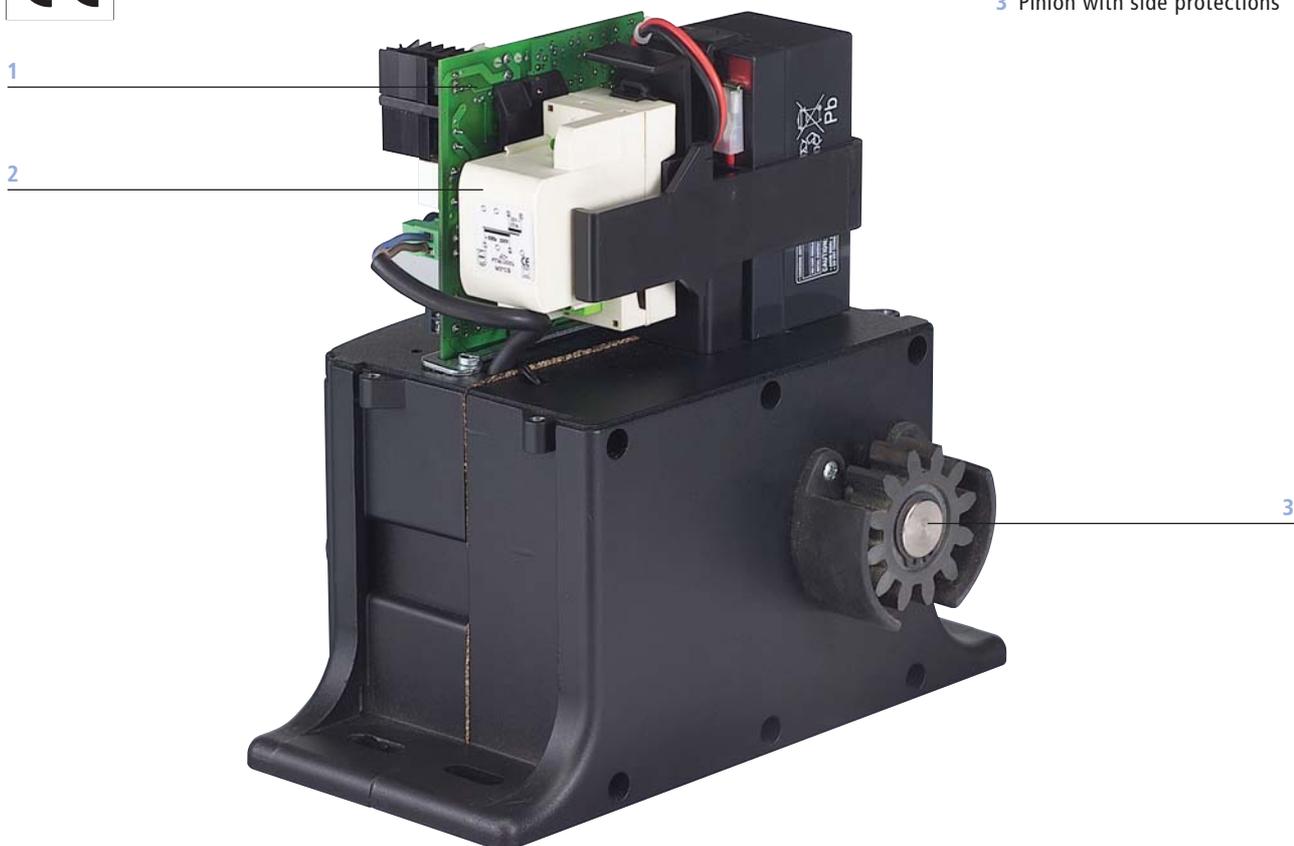
■ Foundation plate suitable for screw fixing



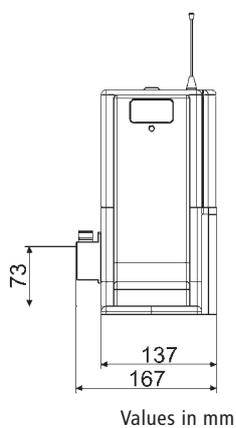
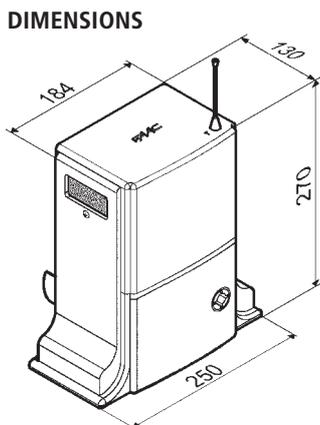
■ Door to access to cable terminal block and emergency unlock



- 1 Built-in control board
- 2 Battery 7,2 Ah
- 3 Pinion with side protections



DIMENSIONS



Values in mm

Technical specifications	DOMO Glide-B7
Power supply	12 Vdc
Rated absorbed power	48 W
Max load-free linear speed	15 m/min
Static force	150 N
Use Frequency*	20%
Duty cycles	~ 30
Battery recharge time	~ 10' for every cycle effected*
Operating ambient temperature	-20°C ÷ +55°C
Operator weight	5,3 Kg
Protection class	IP 44
Leaf max length	5 m
Leaf max weight	300 Kg

(*) The cycles/hour are just an indication for the full efficiency of the automation. The use frequency satisfies the **residential application**.

Technical specifications of DOMO Glide-B7 control board

Power supply	12 Vac
Batteries	Sealed Lead Battery 12 Vdc 7,2 Ah dimensions 96x46x50
Transformer Characteristics (optional)	Primary 230 Vac Secondary 12 Vac-16 VA
Absorbed power	16 VA
Motor max current	15 A
Operating ambient temperature	-20°C ÷ +55°C
Protection Fuses	No. 1 -20 A
Anti-crushing function	Encoder/current control
24 Vdc Accessories max load	150 mA
Rapid connector max load	50 mA
Function logics	Automatic/"Stepped" Automatic / Safety /"Stepped" Semi-automatic
Opening/closing time	By self-learning
Pause time	5,10,20,30sec. selectable
Partial opening width	90, 120, 150, 180 cm
Speed	Selectable on 4 levels
Static force adjustment	Selectable on 4 levels
Deceleration	Electronic

Terminal board inputs - Open, Partially Open, Stop, Op. Safety devices, Cl. Safety devices, Sensor

Terminal board outputs - Motor, Flashing lamp, Indicator-light, 24 Vdc - 12 Vdc power supply for accessories.

Connectors - Minidec cards, RP cards - Battery

Programmable functions - Logic, Pause time, Partial opening width, Anti-crushing force, Operator speed

Model	Use		Control board
	Max weight (kg)	Use frequency (%)	
DOMO Glide-B7	300	20	Built in

DOMO glide T WITH TRANSFORMER

for residential sliding gates
with max length of 5 m and max weight of 300 kg



■ Innovative

A gearmotor for residential sliding gates with 12 Vdc electric motor. Compact, finely designed, uses innovative transmission systems, and is suitable for installation on sliding gates of up to 5 m length and 300 kg in weight.

■ Total security for your home

An innovative virtual encoder system combined with the operator's long-life 12 V motor, enables the user to program the automated system in conformity with European Safety Standards EN 12453 - EN 12445. The highly sensitive anti-crushing safety device means there is no need to use additional costly accessories with the system, such as safety edges.

■ Easy to install

Self-learning programming of leaf opening and closing times and decelerations. Electronic selection of force, speed and function logic, plus speed adjustment. Easy mechanical and electrical installation. Practical release system.

■ Heavier duty cycle

The automation DOMOLINE T can fit to the exigencies in the applications of estates with 2-3 families; the use frequency suggested to maintain the system in full efficiency is about 15 cycles/hour. The system allows to execute up to 30 consecutives cycles.



■ Carter suitable for the fixing of the card receiver antenna



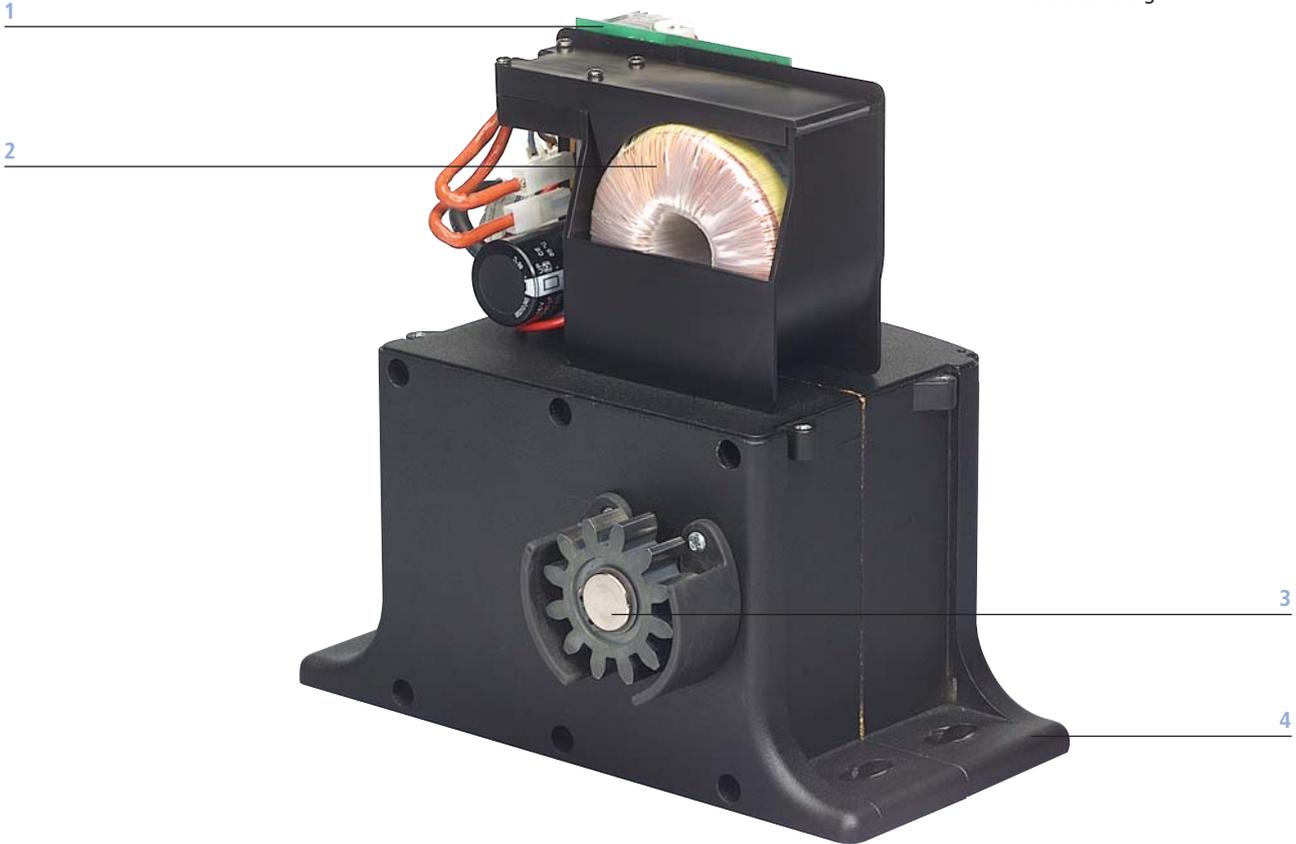
■ Foundation plate suitable for screw fixing



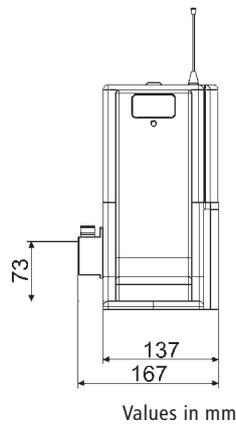
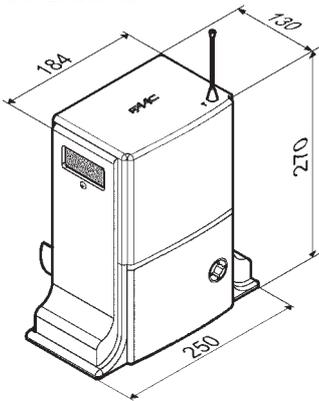
■ Door to access to cable terminal block and emergency unlock



- 1 Built-in control board
- 2 Toroidal transformer
- 3 Pinion with side protections
- 4 4 screws fixing



DIMENSIONS



Technical specifications of DOMO Glide-T control board

Power supply	12 Vdc
Transformer	Toroidal 230 Vac/12 V 180 VA low consumption
Absorbed power	180 VA
Motor max current	15 A
Operating ambient temperature	-20°C ÷ +55°C
Protection Fuses	N° 1 - 20 A
Anti-crushing function	Encoder/current control
24 Vdc Accessories max load	150 mA
Rapid connector max load	50 mA
Function logics	Automatic/"Stepped" Automatic/Safety /"Stepped" Semi-automatic
Opening/closing time	By self-learning
Pause time	5, 10, 20, 30sec. selectable
Partial opening width	90, 120, 150, 180 cm.
Speed	Selectable on 4 levels
Static force adjustment	Selectable on 4 levels
Deceleration	Electronic

Technical specifications	DOMO Glide-T
Power supply	12 Vdc
Rated absorbed power	48 W
Max load-free linear speed	15 m/min
Static force	150 N
Use Frequency*	20%
Duty cycles	30
Recharging time	2' for every cycle effected
Operating ambient temperature	-20°C ÷ +55°C
Operator weight	5,3 Kg
Protection class	IP 44
Leaf max length	5 m
Leaf max weight	300 Kg

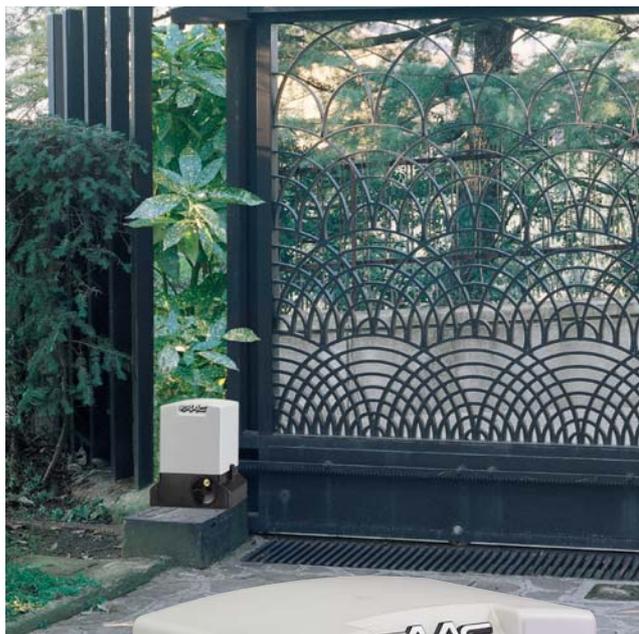
Terminal board inputs - Open, Partially Open, Stop, Op. Safety devices, Cl. Safety devices, Sensor
Terminal board outputs - Motor, Flashing lamp, Indicator-light, 24 Vdc - 12 Vdc Power Supply for accessories.
Connectors - Minidec cards, RP cards
Programmable functions - Logic, Pause time, Partial opening width, Anti-crushing force, Operator speed

(*) The cycles/hour are just an indication for the full efficiency of the automation. The use frequency satisfies the **residential application**.

Model	Use		Control board
	Max weight (kg)	Use frequency (cycles/hour)	
DOMO Glide-T	300	20	Built in

740 - 741

for residential sliding gates
with max weight of 500 kg (740) and 900 kg (741)



■ Cover

■ Rotating release device easy to operate and key "protected" (standard)

■ Automatic simplicity

A practical package, containing a gearmotor with built-in electronic equipment and securing plate, automates both new and existing sliding gates weighing up to 900 kg.

■ Ideal for residential applications

The electronic equipment inside the gearmotor facilitates and speeds up installation, at lower cost. Control board enclosure with "rotation" facility to help electrical wirings.

■ Electronic safety reliable under all conditions

Anti-crushing protection is ensured by an electronic device directly controlling drive torque. For extra safety, an efficient obstacle detector is available.

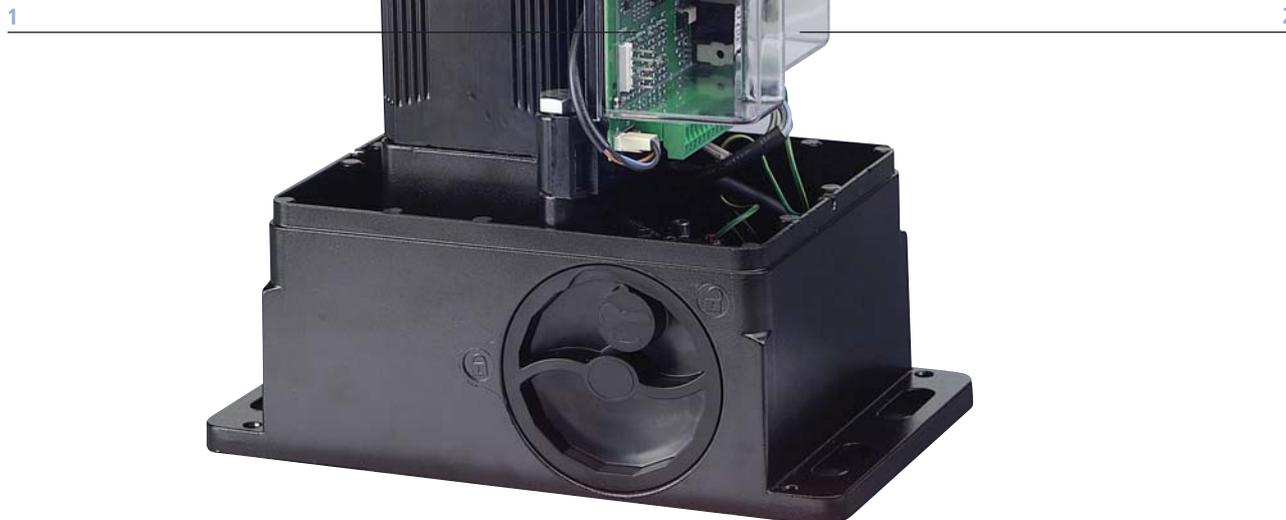
The FAAC 740/741 gearmotors perform uniformly at all latitudes and under all types of duty, and all commands are supplied by an extremely safe and reliable microprocessor.

■ Irreversible

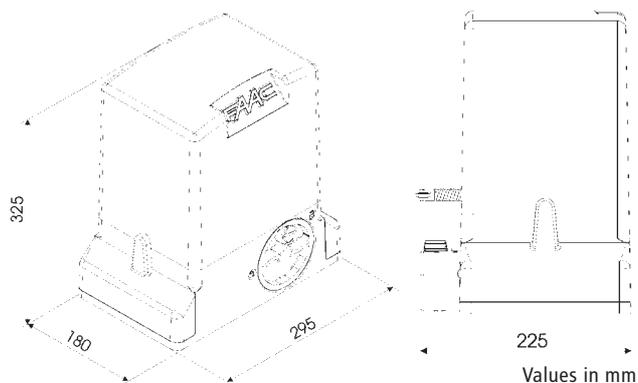
As the gearmotor is non reversing, no electric locks need be installed and, in the event of power failure, the release device (protected by a customised key) makes it possible to open and close manually.



- 1 740 D control board
- 2 Plastic cover control board



DIMENSIONS



Technical specifications	740 E Z16	741 E Z16
Power supply	230 Vac 50 (60) Hz	
Absorbed power	350 W	500 W
Absorbed current	1,5 A	2,2 A
Traction and thrust force	45 daN	65 daN
Motor rotation speed	1400 rpm	
Thermal protection on motor winding	140°C	
Reduction ratio	1:25	
Weight	500 kg	900 kg
Gate speed	12 m/min (pinion Z16)	
Operating ambient temperature	-20°C ÷ +55°C	
Protection class	IP 44	
Dimensions	295x225x325 (pinion included)	

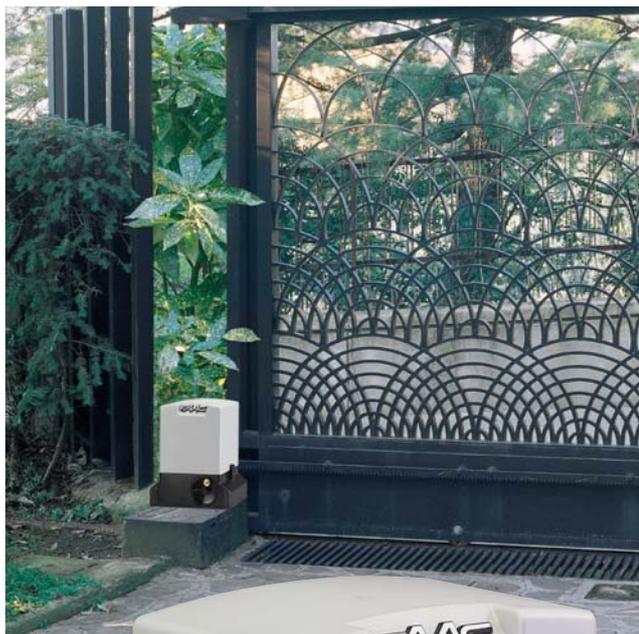
Specifications of 740 D control board

Power supply	230 Vac (+6% -10%) 50 Hz
Absorbed power	10 W
Motor maximum load	1000 W
Accessories max load	0.5 A
Operating ambient temperature	-20° C ÷ +55° C
Protection fuses	2
Function logics	Automatic / "Stepped" automatic/Semi-automatic / Safety devices / Semi-automatic B / Dead-man C / "Stepped" Semi-automatic
Work time	Programmable (from 0 to 4 min.)
Pause time	Programmable (from 0 to 4 min.)
Thrust force	Adjustable over 50 levels
Terminal board inputs	Open / Partially open / Opening safety devices / Closing safety devices / Stop / Edge / Power supply + Earth
On-connector inputs	Opening and closing limit-switches / Encoder (optional)
Terminal board outputs	Flashing lamp - Motor - 24 Vdc accessories power supply - 24 Vdc indicator-light / Timed output - Fail safe
Rapid connector	Connection for Minidec, Decoder or RP receivers
Programming	3 keys (+, -, F) and display, "basic" or "advanced" mode
"Basic" mode programmable functions	Function logic - Pause time - Thrust Force - Gate direction
"Advanced" mode programmable functions	Fail safe - Pre-flashing - Indicator-light/Timed output - Opening and closing safety devices logic - Encoder (optional) for anti-crushing electronic safety, deceleration management and partial opening - Decelerations - Partial opening time - Work time - Assistance request - Cycle counter

Model	Use		Control board
	Max weight (kg)	Use frequency (cycles/hour)	
740 E Z16	500	30 (S3)	740 D built-in
741 E Z16	900	40 (S3)	740 D built-in

740 - 24 Vdc

for sliding gates with max weight of 400 kg



■ Cover

■ Rotating release device easy to operate and key "protected" (standard)

■ Easy programming: self-learning

To "initialise" the automated system, just carry out the SETUP operation, selecting a suitable dip-switch. The following parameters are automatically self-learned during this operation:

- Opening/closing times
- Pause time
- Traction/thrust force
- Deceleration at end of opening and closing
- Soft Start (starting at gradual speed)

■ Safety: anti-crushing electronic device

Continuously controlled electronic clutch, active at both opening and closing

- Two sensitivity levels
- Movement reversed in case of an obstacle
- Emergency stop function (if clutch operates for two consecutive cycles)

■ Black out: emergency operation

Emergency battery (optional) ensuring operation during a power cut

■ Irreversible

As the gearmotor is non reversing, no electric locks need be installed and, in the event of power failure, the release device (protected by a customised key) makes it possible to open and close the gate manually.



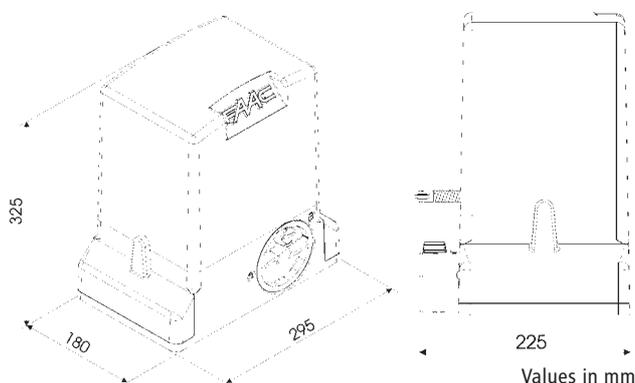
- 1 Protecting housing
- 2 Rotating release device easy to operate and key "protected" (standard)

1

2

FAAC

DIMENSIONS



Values in mm

Technical specifications of 740 - 24 Vdc gearmotor

Power supply	24 Vdc
Power	70 W
Absorbed current	3 A
Electric motor	1.400 rpm
Max torque	13,5 Nm
Traction and thrust force (pinion Z16)	0 - 40 daN
Pinion	Z16 module 4
Gate speed	12 m/min.
Operating ambient temperature	-20°C ÷ +55°C
Weight	10 kg
Limit switch	Encoder
Protection class	IP 44

Emergency battery kit for installation inside the gearmotor (optional)*

Voltage/current	12 V/1,2 Ah
Dimensions	96 x 51 x 47 mm
Nr. of opening/closing operations	15 max

Specifications of 724 D control board (built into gearmotor or in separate container)*

Supply voltage of transformer	230 Vac (+6% -10%) 50 Hz
Supply voltage of control unit	24 Vac (+6% -10%) 50 (60) Hz
Absorbed power	3 W
Motor maximum load	70 W
Accessories max load	24 Vdc 500 mA
Flashing lamp max load	24 Vdc 15 W max
Operating ambient temperature	-20°C ÷ +55°C
Protection fuses	3
Function logics	Automatic/Stepped automatic/ semi-automatic/Stepping semi-automatic/Condo type
Thrust force	Four levels adjustable on display
Opening/closing times	Through self-learning during programming
Pause times	Through self-learning during programming
Deceleration	Through self-learning during opening and closing
Enclosure dimensions	305x225x125 mm
Protection class	IP 55

Terminal board inputs - 22 Vac power supply/Battery power supply/Encoder/Total opening/Pedestrian opening/Opening-closing safety devices/Stop/Opening-closing limit-switch

Terminal board outputs - 24 Vdc power supply for accessories /24 Vdc motor / 24 Vdc courtesy light-flashing lamp

Rapid connector - Card receivers/Decoding cards

"Remote" emergency battery kit includes (optional)*

Voltage/current	12 V/4 Ah
Dimensions	90 x 70 x 108 mm
Nr. of opening/closing operations	15 max

Model	Use		Control board
	Max weight (kg)	Use frequency (cycles/hour)	
740 E Z16 - 24 Vdc	400	100	724 D built-in
740 Z16 - 24 Vdc	400	100	Not included

*WARNING: The emergency battery kit cannot be installed in the gear motor. In this case, put the battery kit in the container for the 724 D electronic unit to be installed at a maximum distance of 3 m from the 740 - 24 Vdc.

746 ER

for sliding gates with max weight of 600 kg

746 ER Z16 for rack applications

746 ER Z20 for rack applications (400 Kg)

746 ER CAT for chain applications

746 ER RF for chain applications with idle transmission



■ Ideal for residential applications

The control board inside the gearmotor facilitates and speeds up installation, at lower cost. Its compact size makes it ideal for residential applications with gates weighing up to 600 kg.

■ Totally safe, reliable in all conditions

Safety is guaranteed by the special, adjustable, oil-bath lubricated anti crushing clutch, and by an intelligent electronic device which, when it detects the presence of an obstacle, reverses and stops gate movement. The FAAC 746 gearmotor performs uniformly, and all commands are supplied by an extremely safe and reliable microprocessor.

■ Long life

Constant, complete oil-bath lubrication of mechanical components plus assembly in a high resistance pressure-cast aluminium body ensure a very long life.

■ Irreversible

As the gearmotor is non reversing, no electric locks need be installed and, in the event of power failure, the release device (protected by a customized key) makes it possible to open and close the gate manually.



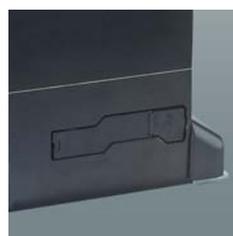
■ Cover



■ Release device with customized key



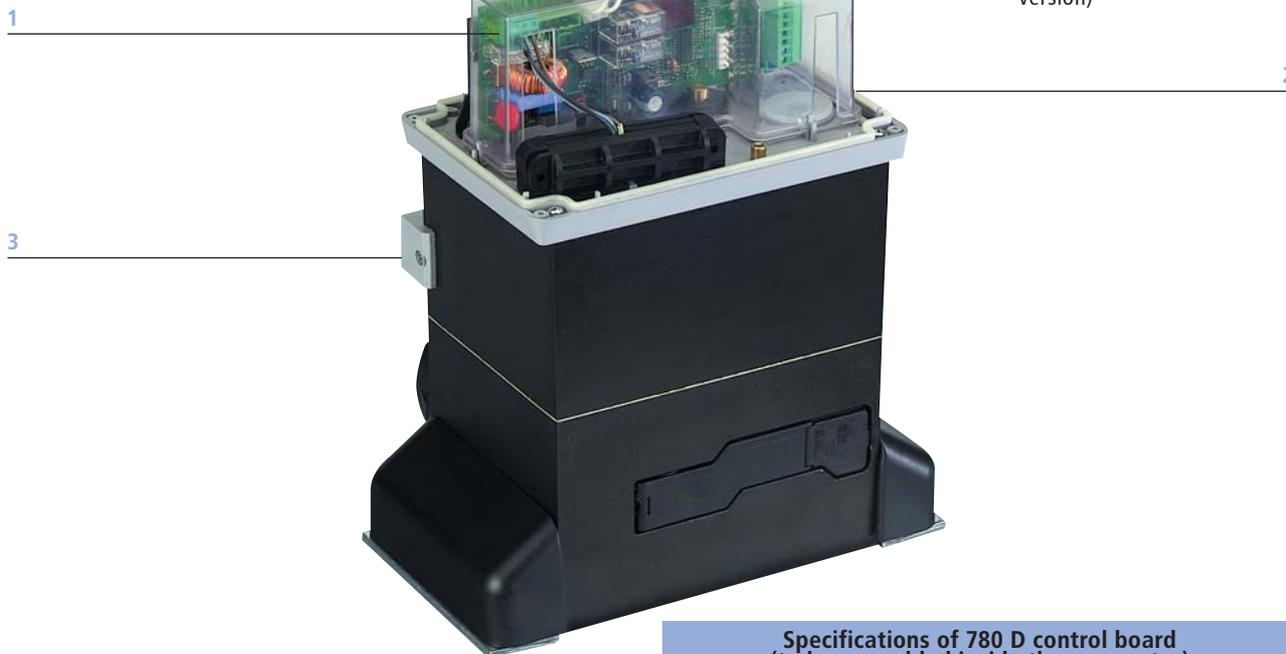
■ Screw cover



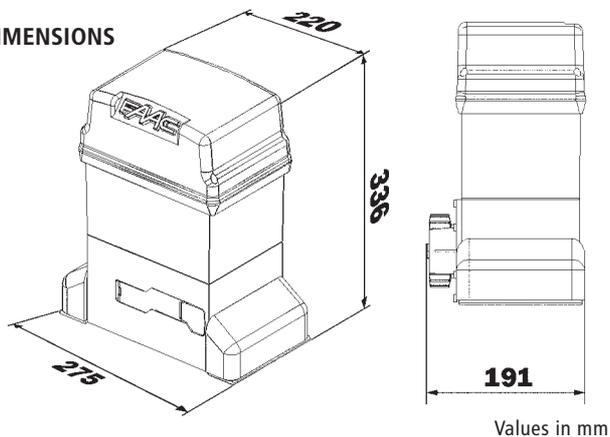
■ Base in pressure-cast aluminium with cathoporesis treatment



- 1 780D control board
- 2 Protection cover
- 3 Inductive limit-switch (chain version)



DIMENSIONS



Values in mm

Specifications of 780 D control board (to be assembled inside the gearmotor)

Power supply	230 Vac (+6%-10%) 50 Hz
Absorbed power	10 W
Motor max. load	1000 W
Accessories max. load	0,5 A
Operating ambient temperature	-20°C ÷ +55°C
Fuses	2
Function logics	Automatic/"Stepped" automatic/Semi-automatic/Safety devices/Semi-automatic B/Dead-man C/"Stepped" semi-automatic/Mixed B/C logic
Work time	Programmable (from 0 to 4,1 min)
Pause time	Programmable (from 0 to 4,1 min)
Thrust force	Adjustable over 50 levels
Terminal board inputs	Open - Partially Open - Opening safety devices - Closing safety devices - Stop - Edge - Power supply+earth
On-connector inputs	Opening and closing limit-switch/Motor capacitor
Terminal board outputs	Flashing lamp - Motor - 24Vdc accessories power supply - 24Vdc indicator-light - Timed output - Electric lock command - "Traffic lights" - Fail safe
Rapid connector	5-pin card connection for Minidéc - Decoder or RP receivers
Programming	Nr. 3 keys(+,-,F) and display, "basic" or "advanced" mode
"Basic" mode programmable functions	Function logic - Pause time - Thrust force - Opening-closing direction
"Advanced" mode programmable functions	Torque at initial thrust - Braking - Fail safe - Pre-flashing - Indicator-light/Timed output/Electric lock or "traffic lights" command- Opening and closing safety devices logic - Encoder/Anti-crushing sensitivity - Deceleration - Partial opening time - Worktime - Assistance request - Cycle counter
Status indication	Display

Technical specifications 746 ER	Z16	Z20	CAT	RF
Power supply	230 Vac (+ 6%-10%) 50 (60) Hz			
Electric motor	Single-phase, bi-directional			
Absorbed power	300 W			
Absorbed current	1.5 A			
Traction and thrust force	0÷62 daN	0÷50 daN		
Motor rotation speed	1.400 rpm			
Thermal protection on motor winding	120 °C			
Clutch	Twin-disk in oil bath			
Reduction ratio	1:30			
Operating ambient temperature	-20 °C ÷ + 55°C			
Weight with oil	14 Kg			
Type of oil	FAAC OIL XD 220			
Gate speed	9.6 m/min.	12 m/min.		
Protection class	IP 44			

Model	Use		Control board
	Max weight (kg)	Use frequency (cycles/hour)	
746 ER Z16	600	70	780 D included
746 ER Z20	400	70	780 D included
746 ER CAT (*)	-	70	780 D included
746 ER RF (*)	-	70	780 D included

*WARNING: Do not use the operator for applications that require it to be fixed at heights where it cannot be reached by users. The keyrelease device cannot be remote controlled. For "overhead" applications we recommend the use of 820/860 automations.

844 ER

for sliding gates with max weight of 1.800 kg

844 ER Z16 for rack applications

844 R for rack applications (without pinion)

844 R CAT for chain applications

844 R RF for chain applications with idle transmission



■ Ideal for commercial or industrial gates

The FAAC 844 gearmotor was designed to move the heaviest commercial or industrial gates in the simplest, most convenient way.

■ Total safety

The special twin-disk anti-crushing clutch, in oil-bath, enables thrust adjustment from 0 to 110 daN. As the gearmotor is non-reversing, no electric locks need be installed and, in the event of power failure, the key-operated release device makes it possible to open and close the gate manually.

■ Long life

Constant, complete oil-bath lubrication of mechanical components plus assembly in a high resistance pressure-cast aluminium body ensure a very long life.

■ Reliable, safe electronics

All commands come from a FAAC designed control board with microprocessor, on the leading-edge in terms of safety and reliability. Leaf stopping space can be electronically programmed.

■ Easy and inexpensive

The electronic equipment housed inside the gearmotor facilitates and speeds up installation, at lower cost.



■ Cover



■ Release device with customised key

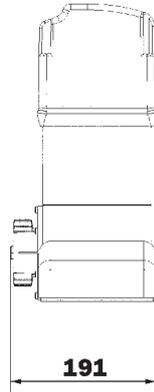
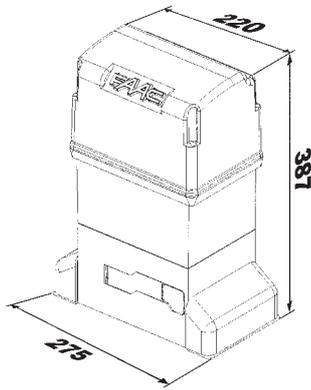


■ Screw cover



■ Base in pressure cast aluminium with cathoporesis treatment

DIMENSIONS



Values in mm



- 1 Control board
- 2 Magnetic limit-switch (rack version)
- 3 Pinion



Technical specifications of 844	ER Z16	R	R CAT	R RF
Power supply	230 Vac (+6% -10%) 50 (60) Hz			
Absorbed power	650 W			
Absorbed current	3,5 A			
Traction and thrust force	0÷110 daN (Z16)			
Motor rotation speed	1.400 rpm			
Reduction ratio	1:30			
Operating ambient temperature	-20°C ÷ +55°C			
Weight with oil	14,5 kg			
Protection class	IP 44			
Type of oil	FAAC oil XD 220			
Gate speed	9,5 m/min (Z16)			
Thermal protection on motor winding	120°C			
Electric motor	Single-phase, bi-directional			
Limit-switch	Magnetic		Inductive	
Clutch	Twin-disk in oil-bath			

Specifications	Specifications of 780 D control board (to be assembled into 844 ER Z16 model)	578 D control board (for far applications)
Transformer	Faston connection to the PCB	Integrated
Power supply	230 Vac (+6%-10%) 50 Hz	
Absorbed power	10 W	
Motor max. load	1000 W	
Accessories max. load	0,5 A	
Operating ambient temperature	-20°C ÷ +55°C	
Fuses	2	
Function logics	Automatic/"Stepped" automatic/Semi-automatic/Safety devices/Semi-automatic B / Dead-man C /"Stepped" semi-automatic / Mixed B/C logic	
Work time	Programmable (from 0 to 4 min)	
Pause time	Programmable (from 0 to 4 min)	
Thrust force	Adjustable over 50 levels	
Terminal board inputs	Open - Partially Open - Opening safety devices - Closing safety devices - Stop - Edge - Power supply + earth	Open - Partially Open - Opening safety devices - Closing safety devices - Stop - Edge - Power supply + earth - Opening and closing limit-switches - Encoder
On-connector inputs	Opening and closing limit-switch/Motor capacitor	
Terminal board outputs	Flashing lamp - Motor - 24 Vdc accessories power supply - 24Vdc indicator-light - Timed output - Electric lock command - "traffic lights" - Fail safe	
Rapid connector	5-pin card connection for Minidec, Decoder or RP receivers	
Programming	Nr. 3 keys(+,-,F) and display, "basic" or "advanced" mode	
"Basic" mode programmable functions	Function logic - Pause time - Thrust force - Opening-closing direction	
"Advanced" mode programmable functions	Torque at initial thrust - Braking - Fail safe - Pre-flashing - Indicator-light/Timed output/Electric lock or "traffic lights" command - Opening and closing safety devices logic - Encoder/Anti-crushing sensitivity - Deceleration - Partial opening time - Worktime - Assistance request - Cycle counter	
Status indication	Display	
Plastic enclosure compatibility	None	E - L - LM mod.

Model	Use		Control board
	Max weight (kg)	Use frequency (cycles/hour)	
844 ER Z16	1.800	70	780 D built-in
844 R	-	70	Not included
844 R CAT (*)	-	70	Not included
844 R RF (*)	-	70	Not included

Notes: WARNING: Do not use the operator for applications that require it to be fixed at heights where it cannot be reached by users. The keyrelease device cannot be remote controlled. For "overhead" applications we recommend the use of 820/860 automatons.

844 R THREE-PHASE

for sliding gates
with max weight of 2.200 kg (Z12)



■ Ideal for commercial or industrial gates

The FAAC 844 gearmotor was designed to move the heaviest commercial or industrial gates in the simplest, most convenient way.

■ Total safety

The special twin-disk anti-crushing clutch, in oil bath, enables torque adjustment from 0 to 62Nm. As the gearmotor is non reversing, no electric locks need be installed and, in the event of power failure, the key-operated release device makes it possible to open and close the gate manually.

■ Long life

Constant, complete oil-bath lubrication of mechanical components plus assembly in a high resistance pressure-cast aluminium body ensure a very long life.

■ Dedicated electronics

The FAAC 844 R THREE-PHASE gearmotor can be controlled by an electronic dedicated card with microprocessor, known as 844 T.

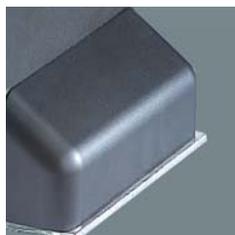
It integrates the contactors and has an electronic braking device ensuring immediate gate stop.



■ Cover



■ Release device with customised key



■ Screw cover



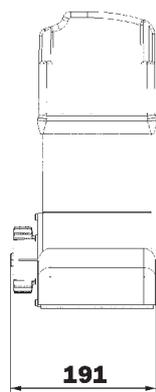
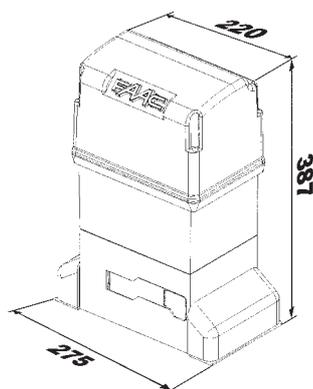
■ Base in pressure cast aluminium with cathoporesis treatment



- 1 Cover
- 2 Inductive limit-switch
- 3 Pinion



DIMENSIONS



Values in mm

Technical specifications	844 R THREE-PHASE
Power supply	400 Vac (3ph)(+6%-10%) 50 (60) Hz
Absorbed power	950 W
Absorbed current	2.5 A
Motor rotation speed	1.400 rpm
Reduction ratio	1:30
Operating ambient temperature	-20°C ÷ +55°C
Weight with oil	15 kg
Protection class	IP 44
Type of oil	FAAC OIL XD 220
Gate speed	9.5 m/min (Z16)/7.2 m/min (Z12)
Max torque	62 Nm
Limit-switch	Inductive with plate
Clutch	Twin disk in oil-bath
Protective treatment	Cataphoresis

Specifications of 844 T control board (for external applications)	
Power supply	230 V 3ph (+6% -10%) 60 Hz 400 V 3ph+N (+6% -10%) 60 Hz
Motor maximum load	1300 W
Accessories output	24 Vdc 500 mA max
Operating ambient temperature	-20°C ÷ +55°C
Power supply to indicator-light	24 Vac (5W max)
Four protection fuses	6.3 A transformer 1.6 A accessories
Safety timer	255 seconds
Motor braking	fixed

Inputs - Open, partially open, stop, closing safety devices, limit-switch
Outputs - Indicator-light, flashing lamp, motor, 24 Vdc power supply for accessories
Programming - Pause time (5/10/15/30/60/120/180 sec.), Logics A1/A2/S1/S2/E1/E2/B/C, pre-flashing

Model	Use		Control board
	Max weight (kg)	Use frequency (cycles/hour)	
844 R THREE-PHASE	2.200 (Z12)	70	Not included
	1.600 (Z16)		

844 R REVERSIBLE

for sliding gates
with max weight of 1.000 kg



■ Reversibility in all situations

The FAAC 844 R REV screw gearmotor is reversible: when no power is supplied to the motor, the sliding leaf can always be moved manually. An electric lock must be installed to maintain the gate in closed position.

■ Total safety

The special twin-disk anti-crushing clutch, in oil bath, enables thrust adjustment from 0 to 68 daN.

■ Long life

Constant, complete oil-bath lubrication of mechanical components plus assembly in a high resistance pressure-cast aluminium body ensure a very long life.

■ FAAC means reliability

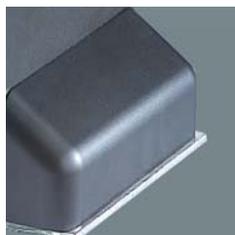
Thanks to the reliability of FAAC technology, maintenance is minimised.



■ Cover



■ Release device with customised key



■ Screw cover

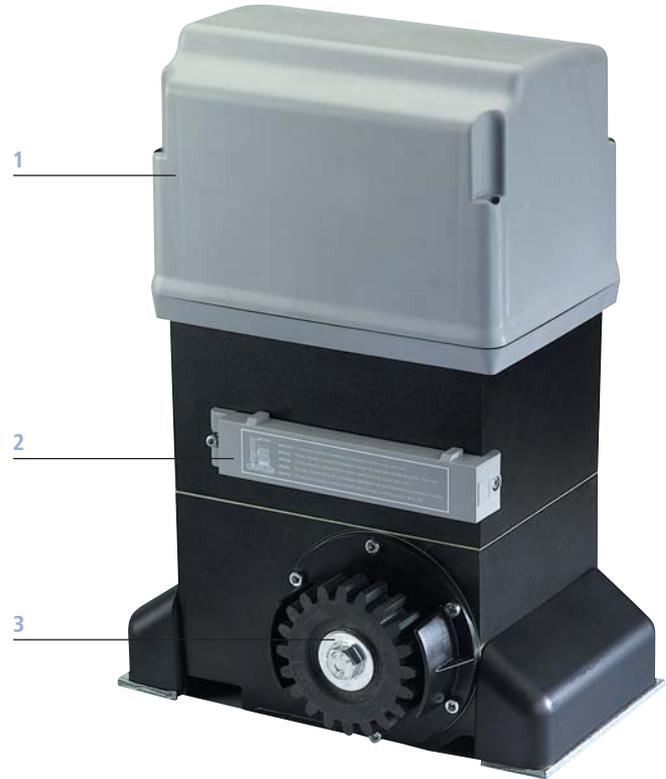
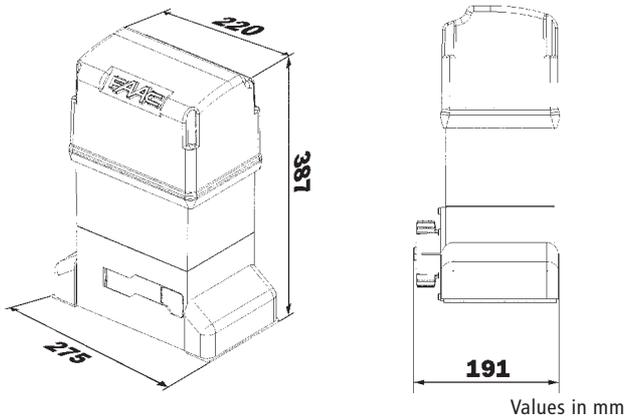


■ Base in pressure cast aluminium with cathodolysis treatment



- 1 Cover
- 2 Inductive limit-switch
- 3 Pinion

DIMENSIONS



Specifications of 578 D control board (for far applications)

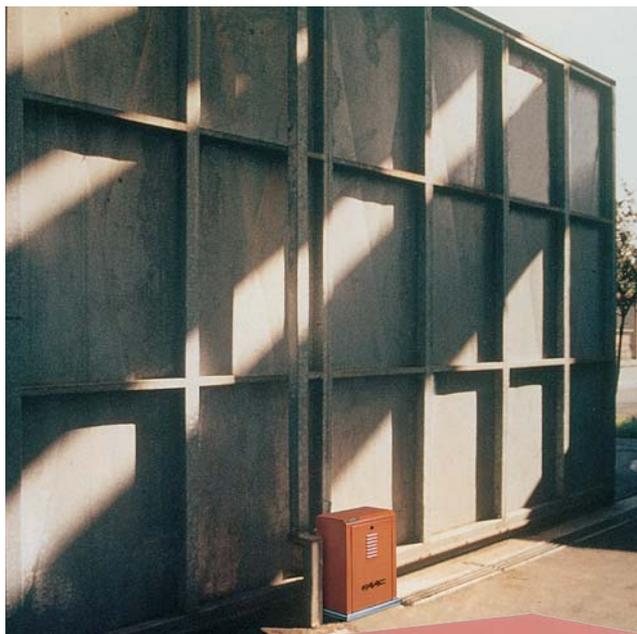
Transformer	Integrated
Power supply	230 Vac (+6%-10%) 50 Hz
Absorbed power	10 W
Motor max. load	1000 W
Accessories max. load	0,5 A
Operating ambient temperature	-20°C ÷ +55°C
Fuses	2
Function logics	Automatic/"Stepped" automatic/ Semi-automatic/Safety devices/Semi- automatic B / Dead-man C / "Stepped" semi-automatic / Mixed B/C logic
Work time	Programmable (from 0 to 4 min)
Pause time	Programmable (from 0 to 4 min)
Thrust force	Adjustable over 50 levels
Terminal board inputs	Open - Partially Open - Opening safety devices - Closing safety devi- ces - Stop - Edge - Power supply + earth - Opening and closing limit- switches - Encoder
Terminal board outputs	Flashing lamp - Motor - 24 Vdc acces- sories power supply - 24Vdc indicator- light - Timed output - Electric lock command - "traffic lights" - Fail safe
Rapid connector	5-pin card connection for Minidec, Decoder or RP receivers
Programming	Nr. 3 keys(+,-,F) and display, "basic" or "advanced" mode
"Basic" mode programmable functions	Function logic - Pause time - Thrust force - Opening-closing direction
"Advanced" mode programmable functions	Torque at initial thrust - Braking - Fail safe - Pre-flashing - Indicator-light/ Timed output/Electric lock or "traffic lights" command - Opening and clo- sing safety devices logic - Encoder/ Anti-crushing sensitivity - Deceleration - Partial opening time - Worktime - Assistance request - Cycle counter
Status indication	Display
Plastic enclosures compatibility	E - L - LM Mod

Technical specifications	844 R REVERSIBLE
Power supply	230 Vac (+6% -10%) 50 (60) Hz
Absorbed power	550 W
Absorbed current	2,5 A
Traction and thrust force	0÷68 daN (Z12)
Motor rotation speed	750 rpm
Reduction ratio	3:29
Operating ambient temperature	-20°C ÷ +55°C
Weight with oil	15 kg
Protection class	IP 44
Type of oil	FAAC OIL XD 220
Gate speed	11,6 m/min. (Z12)
Thermal protection on motor winding	140°C
Limit-switch	Inductive with plate
Clutch	Twin disk in oil-bath
Protective treatment	Cataphoresis

Model	Use		Control board
	Max weight (kg)	Use frequency (cycles/hour)	
844 R Z 12 REVERSIBLE	1.000	70	Not included

884 MC THREE-PHASE

for sliding gates
with max weight of 3.500 kg



■ Steel housing

■ Door with key lock

■ Designed for industry

The FAAC 884 gearmotor was designed to move the heaviest industrial gates in the simplest and safest way. "Industrial" duty is assured by the gearmotor's exceptional performance, enabling intensive use frequency also for gates weighing 3.500 kg.

■ The character of steel

The special twin-disk clutch, in oil bath, enables drive torque adjustment from 0 to 155 daN. The steel housing - cataphoresis treated and polyester painted - is highly resistant to any environmental aggression, offering reliability to meet the most severe demands.

■ Intelligent technology

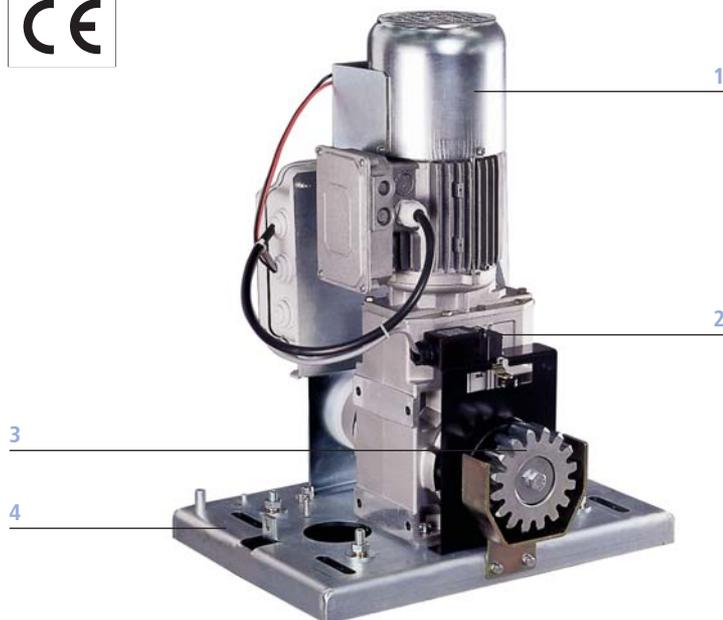
Automation is controlled by a high-tech control board with microprocessor, which controls all the necessary functions and is designed for connection to control, safety and signalling devices.

■ Guaranteed long-life

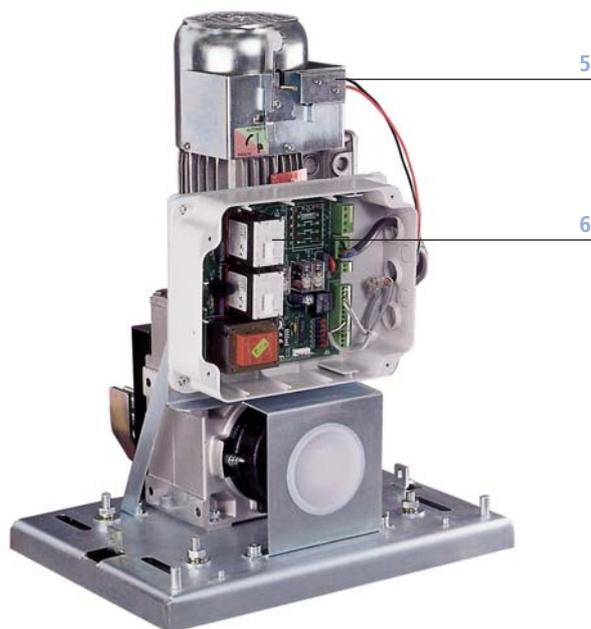
Constant oil-bath lubrication of mechanical components plus assembly in a high resistance pressure-cast enbloc aluminium body ensure extremely long operator life.

■ Irreversible

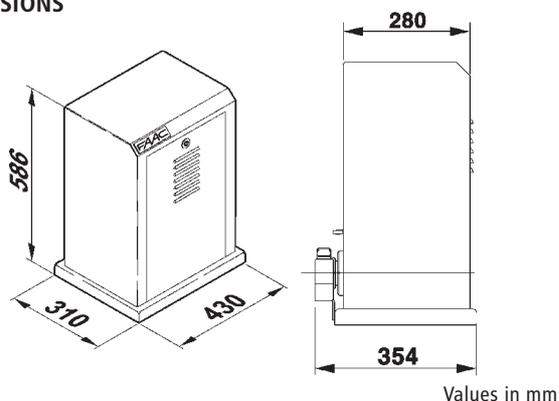
In case of emergency, the braking device guarantees leaf stop within very limited space, thus improving anti-crushing safety. The device also ensures the gate stays closed, so there is no need to install electric locks or bolts. In case of a power failure, a special key-protected release lever allows the gate to be opened and closed manually.



- 1 Self-braking electric motor
- 2 Mechanical limit-switch
- 3 Pinion Z16 M6
- 4 Base with adjusting screws
- 5 Release lever with safety microswitch
- 6 884 T control board



DIMENSIONS



Technical specifications	884 MC THREE-PHASE
Power supply	230 Vac 3ph (+6% -10%) 50 (60) Hz 400 Vac 3ph (+6% -10%) 50 (60) Hz
Absorbed power	850 W
Absorbed current	2.7 A(230V) - 1.6 A(400V)
Torque	from 0 to 155 Nm
Motor rotation speed	1.400 rpm
Reduction ratio	1:43.2
Operating ambient temperature	-20°C ÷ +55°C
Weight	50 kg
Protection class	IP 55
Type of oil	FAAC oil XD 220
Gate speed	10 m/min (Z16)
Limit-switch	With lever and roller microswitch
Clutch	Twin disk in oil-bath

Specifications of 884 T control board	
Power supply	230 Vac 3ph (+6% -10%) 50 (60) Hz 400 Vac 3ph+N (+6% -10%) 50 (60)
Motor maximum load	Hz
Accessories output	1300 W
Operating ambient temperature	24 Vdc 500 mA max -20°C ÷ +55°C
Power supply to indicator-light	24 Vac (5W max)
Two protection fuses	5 A transformer 1.6 A accessories
Safety timer	255 sec.

Inputs - Open, partially open, stop, closing safety devices, limit-switch
Outputs - Indicator-light, flashing lamp, motor, 24 Vdc power supply for accessories
Programming - Pause time (5/10/15/30/60/120/180 sec.), logics A1/A2/S1/S2/E1/E2/B/C, pre-flashing.

Model	Use		Control board
	Max weight (kg)	Use frequency (cycles/hour)	
884 MC THREE-PHASE	3.500	50 100 (2.000 kg)	884 T included

820 EMC

for sliding gates with max weight of 600 kg

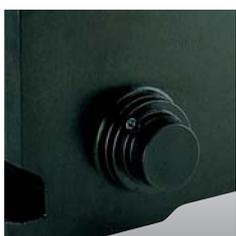
820 EMC Z20 CR for rack applications

820 EMC for chain applications

820 EMC RF for chain applications with idle transmission



■ Cover



■ Lever operated release device



■ Enbloc base in pressure-cast aluminium with cataphoresis treatment

■ Guaranteed long-life

Constant oil-bath lubrication of mechanical components plus assembly in a high resistance pressure-cast, enbloc aluminium body ensure a very long life.

■ Electronics controlling safety

Safety is guaranteed by a special anti-crushing clutch in oil-bath, with thrusts adjustment from 0 to 50 daN, and by an electronic device (standard supply) which, when it detects the presence of an obstacle, reverses gate closing movement and stops the gate as it opens.

■ Maximum access flexibility

Thanks to high-tech electronics, there is a separate opening facility for pedestrians, which offers maximum access flexibility. The gate stopping positions are stored at installation, and therefore, there is no need to install mechanical devices on the gate frame.

■ Gradual deceleration

The microprocessor which commands gradual electronic deceleration (FAAC's exclusive patent), stops the gate gently and silently. All electronic equipment is housed inside the gearmotor, to facilitate and speed up installation at lower cost.

■ Irreversible

As the gearmotor is non reversing, no electric locks need be installed and, in the event of power failure, the release device enables the gate to be opened and closed manually. The device is also available with a customised key.



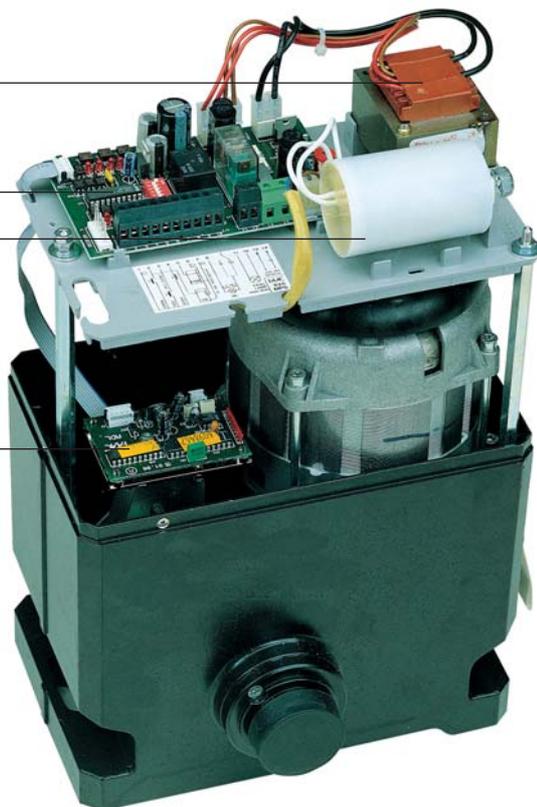
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- 1 Transformer
- 2 826 MPS control board
- 3 Initial thrust capacitor
- 4 ADL card

2

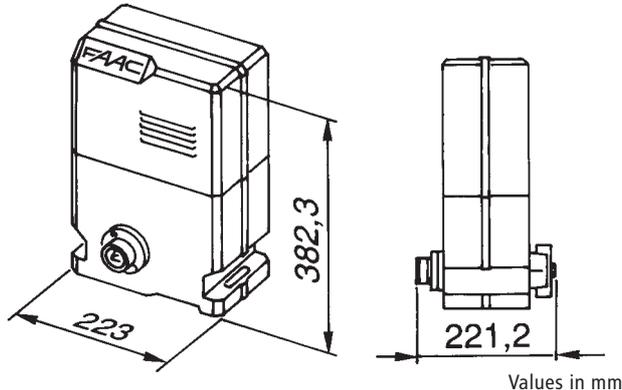
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4



FAAC

DIMENSIONS



Technical specifications 820	EMC Z20 CR	EMC	EMC RF
Power supply	230 Vac (+6% -10%) 50 (60) Hz		
Absorbed power	400 W		
Absorbed current	2 A		
Traction and thrust force	0÷50 daN		
Motor rotation speed	1.400 rpm		
Reduction ratio	1:30		
Operating ambient temperature	-20°C ÷ +55°C		
Weight with oil	14 kg		
Type of oil	FAAC oil XD 220		
Gate speed	12 m/min. (Z20)		
Gate maximum length	13 m		
Thermal protection on motor winding	135°C		
Protection class	IP 44		
Electric motor	Self-ventilated single-phase, bi-directional		
Clutch	Single-disk, oil-bath		

Specifications of 826 MPS control board	
Power supply	230 Vac (+6% -10%) 50 (60) Hz
Motor maximum load	600 W
Accessories output	24 Vdc 500 mA max
Operating ambient temperature	-20°C ÷ +55°C
Three protection fuses	0,25 A (SMT) transformer 5 A motor - 1,6 A accessories

SMT Technology

Programmable functions

- Eight function logics - Pause times
- Operation of indicator-light – Pre-flashing

Pedestrian opening

Analogic Digital Limit-(ADL)

Travel-limit electronic deceleration

Obstacle detection electronic device

Input and alarm signalling LEDs

Indicator-light output

Model	Use		Control board
	Max weight (kg)	Use frequency (cycles/hour)	
820 EMC Z20 CR	600	30	826 MPS included
820 EMC	600	30	826 MPS included
820 EMC RF	600	30	826 MPS included

860 MC/EMC

for sliding gates with maximum weight of 1.200 kg

860 MC Z16/EMC Z16 for rack applications

860 MC/EMC for chain applications

860 MC RF/EMC for chain applications with idle transmission



■ Strength and safety

The special anti-crushing clutch, in oil bath, enables thrust adjustment from 0 to 110 daN. For maximum safety, a version (860 EMC) with an electronic device is available, which, when an obstacle is detected, reverses the gate movement as it closes and stops it at opening.

■ Maximum access flexibility

Thanks to high-tech electronics, there is a separate opening facility for pedestrians, which offers maximum access flexibility. The gate stopping positions are stored at installation, and therefore, there is no need to install mechanical devices on the gate frame.

■ Gradual slow-down

The microprocessor which commands gradual electronic deceleration (FAAC's exclusive patent), stops the gate gently and silently. All electronic equipment is housed inside the gearmotor, to facilitate and speed up installation at lower cost.

■ Irreversible

As the gearmotor is non reversing, no electric locks need be installed and, in the event of power failure, the release device enables the gate to be opened and closed manually. The device is also available with a customised key.



■ Cover



■ Lever operated release device



■ Enbloc base in pressure cast aluminium, with cataphoresis treatment



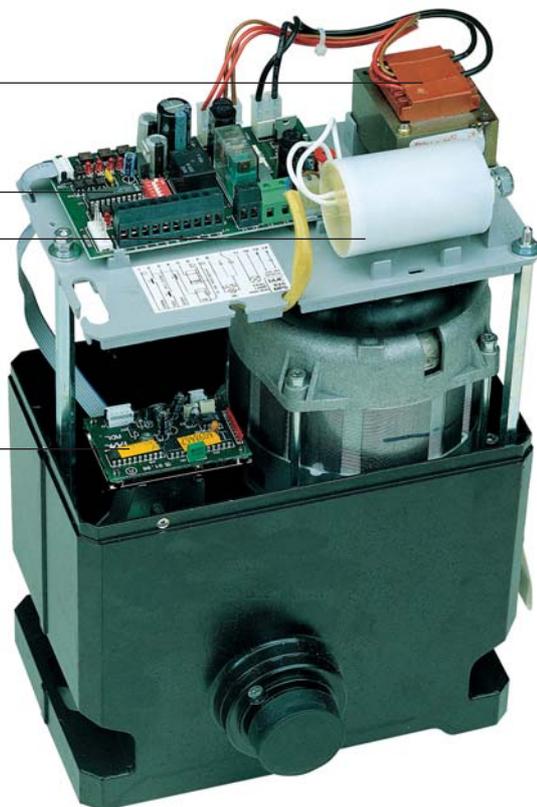
1

- 1 Transformer
- 2 826 MPS equipment
- 3 Initial thrust capacitor
- 4 ADL card

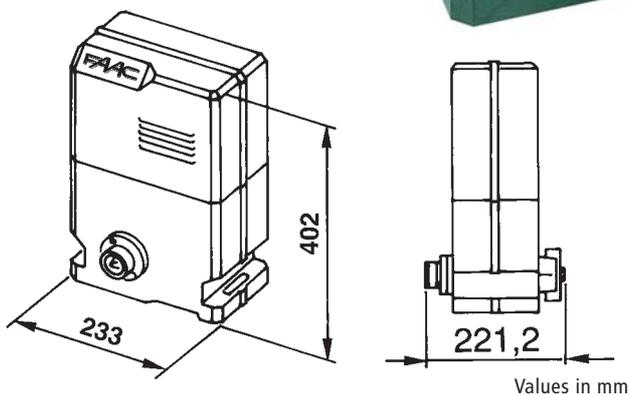
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DIMENSIONS

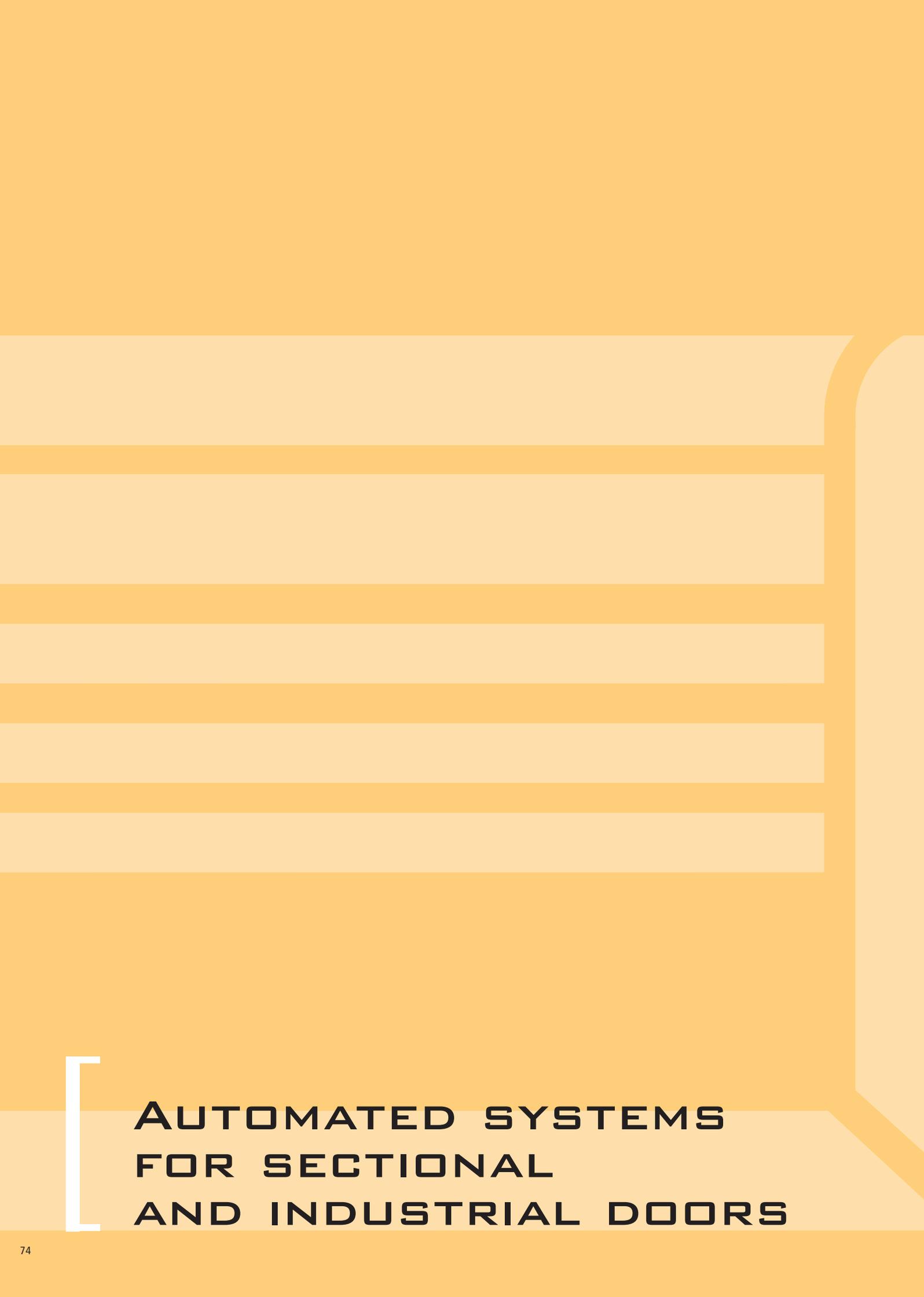


Technical specifications	MC Z16	MC	MC RF	EMC Z16	EMC
Power supply	230 Vac (+6% -10%) 50 (60) Hz				
Absorbed power	600 W				
Absorbed current	3 A				
Traction and thrust force	0÷110 daN				
Motor rotation speed	1.400 rpm				
Reduction ratio	1:30				
Operating ambient temperature	-20°C ÷ +55°C				
Weight with oil	15 kg				
Type of oil	FAAC oil XD 220				
Gate speed	9.5 m/min (Z16)				
Gate maximum length	10 m				
Thermal protection on motor winding	135°C				
Protection class	IP 44				
Electric motor	Self-ventilated single-phase, bi-directional				
Clutch	Single-disk, oil-bath				

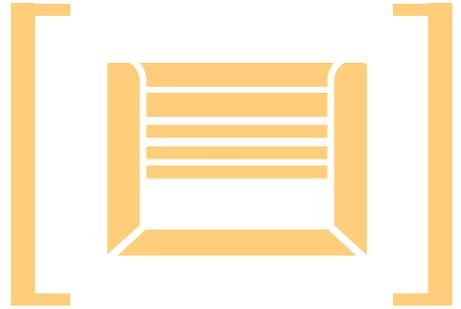
Specifications of 826 MPS electronic equipment	
Power supply	230 Vac (+6% -10%) 50 (60) Hz
Motor maximum load	600 W
Accessories output	24 Vdc 500 mA max
Operating ambient temperature	-20°C ÷ +55°C
Three protection fuses	0.25 A (SMT) transformer 5 A motor - 1.6 A accessories

- SMT Technology**
Programmable functions
 - Eight function logics
 - Pause times
 - Operation of indicator-light - Pre-flashing
Pedestrian opening
Analogic Digital Limit-(ADL)
Travel-limit electronic deceleration
Obstacle detection electronic device (EMC version only)
Input and alarm signalling LED
Indicator-light output

Model	Use		Control board
	Max weight (kg)	Use frequency (cycles/hour)	
860 MC Z16 CR	1.200	30	826 MPS included
860 MC CAT	1.200	30	826 MPS included
860 MC RF	1.200	30	826 MPS included
860 EMC Z16 CR	1.200	30	826 MPS included
860 EMC CAT	1.200	30	826 MPS included



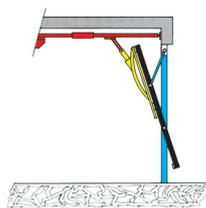
**AUTOMATED SYSTEMS
FOR SECTIONAL
AND INDUSTRIAL DOORS**



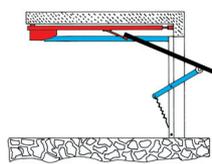
TYPE OF INSTALLATION

RESIDENTIAL	531 EM				
CONDOMINIUM (LIGHT COMMERCIAL)		576 EM			
INDUSTRIAL			540	541	541 3PH
operator	ON-CEILING ELECTRO-MECHANICAL	ON-CEILING ELECTRO-MECHANICAL	LATERAL FIXING ELECTRO-MECHANICAL	LATERAL FIXING ELECTRO-MECHANICAL	LATERAL FIXING ELECTRO-MECHANICAL
max cycles/hour	20	20	40% USE FREQUENCY	40% USE FREQUENCY	60% USE FREQUENCY
door max dimensions W x H (m)	3,00 x 3,80 SPRING/COUNTERBALANCED UP-AND-OVER DOORS 5,00 x 3,80 SECTIONAL DOORS	3,00 x 3,80 SPRING/COUNTERBALANCED UP-AND-OVER DOORS 5,00 x 3,80 SECTIONAL DOORS			
anti-crushing protection	ELECTRONIC	ELECTRONIC	NONE DEAD-MAN FUNCTIONING	ELECTRONIC	ELECTRONIC
control board	INTEGRATED	INTEGRATED	INTEGRATED	NOT INTEGRATED	NOT INTEGRATED

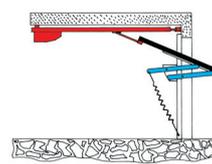
Counterbalanced
up-and-over door
types that can be
automated with:
531 EM
576 EM



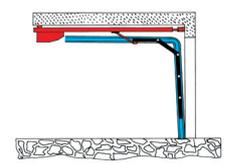
COUNTERBALANCED
(with gda 3000 adapter)



HORIZONTAL TRACK



DOUBLE LEVER



SECTIONAL
(with curved arm)

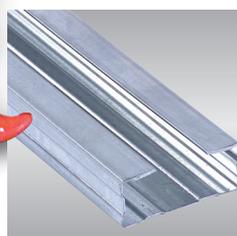
531 EM - 576 EM



for spring, counterbalanced up-and-over doors and sectional doors
for residential (531 EM 600 N)
and light commercial use (576 EM 1000 N)



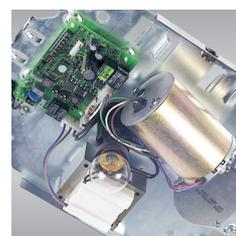
■ Quick insertion system to permit extremely fast assembly of operator and rail



■ Steel formed profile rail, to guarantee an higher resistance of the automation to flexure



■ Pre-assembled one-piece rail, in wich chain, or belt and pinion (on bearings) are already fitted and tensioned



■ Electronic control unit, 24 Vdc motor, transformer and courtesy light are integrated into the operator

■ Versatility

The 531 EM - 576 EM operators can be used for spring and sectional doors, and by using an adapter, for counterbalanced up-and-over doors. The existing structure does not require any modification to install the automated system.

■ Quick and easy to install

The automated system is easy to install as it is fitted to the ceiling. A simple Set Up operation ensures automatic memory storage of stroke limit positions and deceleration spaces. At the end of the initialising cycle, the automated system operates correctly without further adjustments.

■ Maximum safety

The electronic anti-crushing device adjusts itself automatically at Set Up. The operator keeps the tripping threshold constantly at minimum level, and adapts at all times to the differences in force required to move the door. The device stops the door movement as it opens and reverses it at closing.

■ Electronic speed control

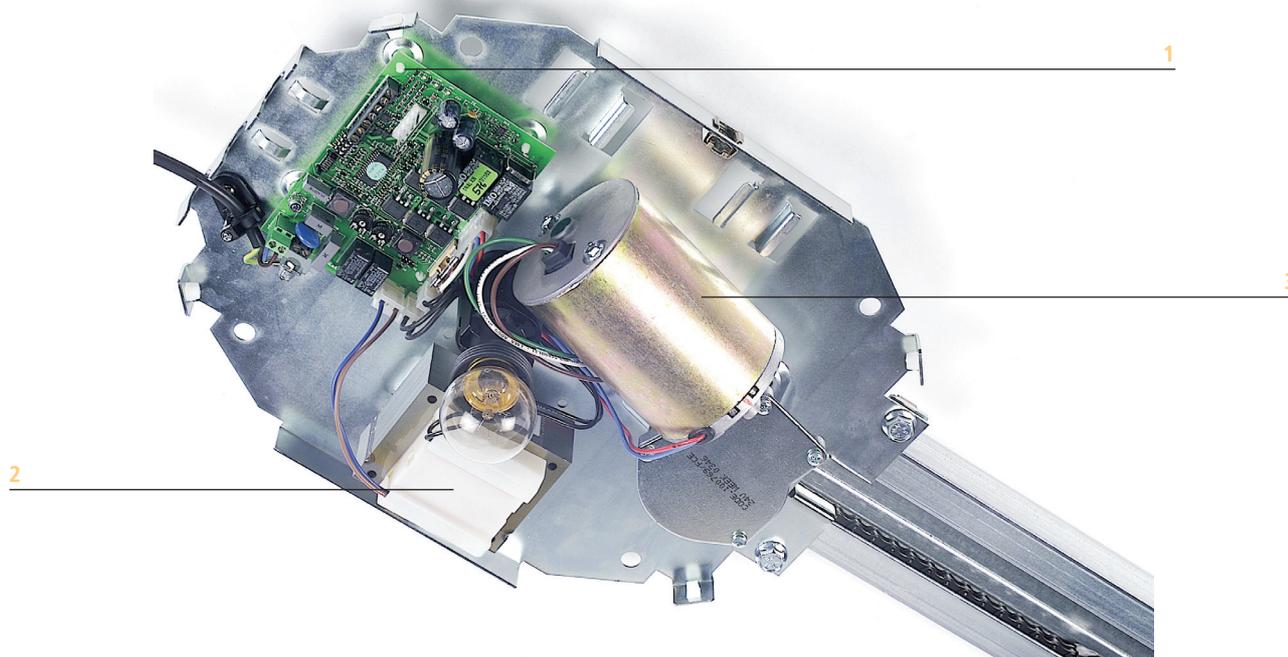
To protect the door against mechanical stress as the movement begins, an electronic control gradually increases the speed of the operator (Soft Start). Deceleration, both at opening end phase and closing (Soft Stop), prevents the door reaching the mechanical stops in a damaging, noisy way.

■ Anti-break-in non-reversing facility

Break-in protection is guaranteed by the non-reversing gearmotor, which thus does avoids installation of electrical locks or bolts. If a power cut occurs, a patented "bi-stable device", activated from the inside, facilitates manual operation and prevents spontaneous, unwanted, restoring of the automated system. By using appropriate accessories, you can release the device from the outside either with a customised key or by using the door handle.



- 1 Control board
- 2 Transformer
- 3 Gearmotor



Technical specifications	531 EM 600 N	576 EM 1000 N
Power supply	230 Vac 50 (60) Hz	
Electric motor	24 Vdc	
Absorbed power	220 W	350 W
Maximum cycles per hour (max load)	20 (28 kg)	20 (56 kg)
Max consecutive cycles	6	
Minimum clearance from ceiling	35 mm	
Max pull/thrust force	600 N	1000 N
Protection class	IP 20	
Courtesy lamp	230 Vac 40 W	
Courtesy lamp timer	2 minutes	
Carriage speed	6,6 m/min	8,5 m/min
Operating ambient temperature	-20°C ÷ + 55°C	

Specifications of 531 MPS - 576 MPS control board	
Power supply	230 Vac 50 (60) Hz
Power supply for accessories	24 Vdc
Accessories max load	200 mA

Protection fuses - transformer/motor/accessories
Terminal board connections - open, stop, safety devices, fail safe, flashing lamp
Rapid connector - for RP card receivers/decoding cards
Fail Safe - Yes (can be disabled)
Functions - soft-start, soft -stop, automatic or manual Set Up (*)
Anti-crushing electronic device - sensitivity 150N - 300N
Function logics - automatic and semi-automatic

(*) The Set Up operation enables initialisation of the automated system, including memory storage of stroke limit positions and adjustment of anti-crushing, soft-start and soft-stop functions.

Model	Use frequency (cycles/hour)	Control board	Max pull/thrust force
531 EM	20	531 MPS	600 N
576 EM	20	576 MPS	1000 N

IMPORTANT: each 531 EM or 576 EM always require a rail in one or two pieces with chain or belt transmission

Application of 531 EM e 576 EM operators

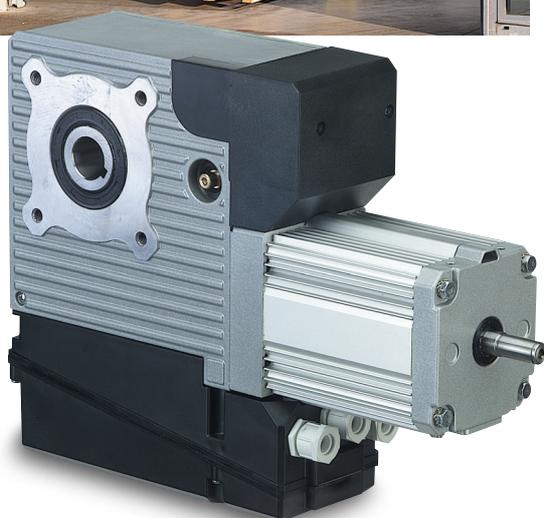
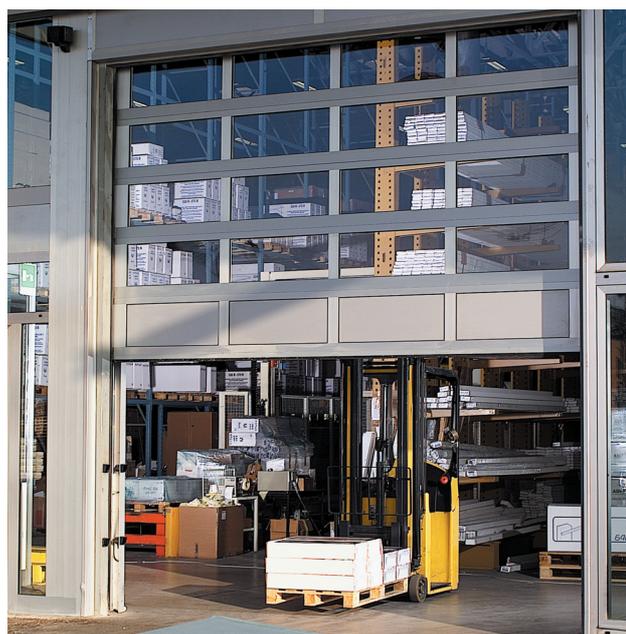
Operator	Rail	Door type	Door max dimensions WxH (m) (*)	Rail length (mm)	Max carriage run (mm)	Use frequency (cycles/hour)
<p style="text-align: center;">Values in mm</p>	One piece rail chain transmission	Spring/counterbalanced doors	3.00 x 2.15	2.400	2.020	20
		Sectional doors	5.00 x 2,02			
	One piece rail chain transmission	Spring/counterbalanced doors	3.00 x 2.60	3.000	2.620	20
		Sectional doors	5.00 x 2,62			
	One piece rail chain transmission	Spring/counterbalanced doors	3.00 x 3.20	3.600	3.200	20
		Sectional doors	5.00 x 3,20			
	One piece rail chain transmission	Spring/counterbalanced doors	3.00 x 3.80	4.200	3.800 (**)	20
		Sectional doors	5.00 x 3,80			
	Two rail pieces chain transmission	Spring/counterbalanced doors	3.00 x 2.60	3.000	2.620	20
		Sectional doors	5.00 x 2,62			
	Two rail pieces chain transmission	Spring/counterbalanced doors	3.00 x 3.20	3.600	3.200	20
		Sectional doors	5.00 x 3,20			
	Two rail pieces chain transmission	Spring/counterbalanced doors	3.00 x 3.80	4.200	3.800 (**)	20
		Sectional doors	5.00 x 3,80			
	One piece rail belt transmission	Spring/counterbalanced doors	3.00 x 2.15	2.400	2.020	20
		Sectional doors	5.00 x 2,02			
	One piece rail belt transmission	Spring/counterbalanced doors	3.00 x 2.60	3.000	2.620	20
		Sectional doors	5.00 x 2,62			
	One piece rail belt transmission	Spring/counterbalanced doors	3.00 x 3.20	3.600	3.200	20
		Sectional doors	5.00 x 3,20			
One piece rail belt transmission	Spring/counterbalanced doors	3.00 x 3.80	4.200	3.800 (**)	20	
	Sectional doors	5.00 x 3,80				
Two rail pieces belt transmission	Spring/counterbalanced doors	3.00 x 2.60	3.000	2.620	20	
	Sectional doors	5.00 x 2,62				
Two rail pieces belt transmission	Spring/counterbalanced doors	3.00 x 3.20	3.600	3.200	20	
	Sectional doors	5.00 x 3,20				
Two rail pieces belt transmission	Spring/counterbalanced doors	3.00 x 3.80	4.200	3.800 (**)	20	
	Sectional doors	5.00 x 3,80				

(*) The maximum height depends on door geometry. The indicated values refer to traditional configurations.

(**) The rails with length 3.800 mm permits the automation of doors with big dimensions (height). We advise to use those rails together with 576 EM operators and remind that the use remains RESIDENTIAL or LIGHT COMMERCIAL

540

with built-in electronic control board



■ The solution for industrial applications

The 540 gearmotors were specifically designed to satisfy all closing requirements in industrial and commercial environments, and are able to automate sectional doors, large ones included.

■ Sturdy and safe

The operation of the oil bath gearbox is guaranteed by a steel worm-screw coupled to a bronze ring-gear, enclosed in a solid die-cast aluminium body.

The gearmotor is non-reversing. In the event of a power cut, the door can be moved manually by using the "rapid" release cord device (standard supply for all models) or, in the 540 V versions, by manually activating the chain winch. If one of the two manual activation systems is activated, a safety microswitch prevents electrical operation.

■ The importance of versatility

The gearmotors were conceived for lateral fitting with "direct" transmission on the spring shaft, or with "indirect" transmission by chain.

The latter application make it possible to increase the automated system's versatility, enabling use even if lateral space is insufficient, or for particularly heavy doors.

The gearmotor is highly compact, in particular its width of only 92 mm makes it easy to install even where space is tight.

The use frequency of the gearmotors (almost intensive) means that they can be used also for particularly heavy duty cycles.



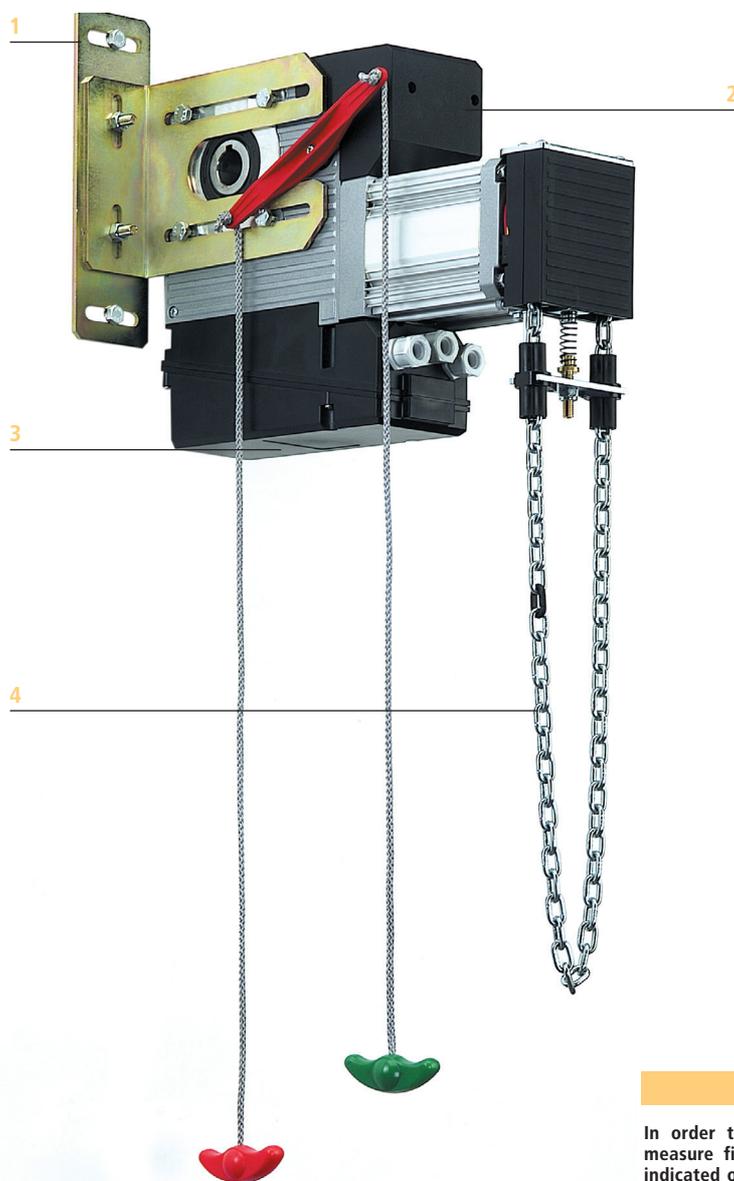
■ Wall mounting bracket



■ Release device by cords (Mod. 540-540 V)

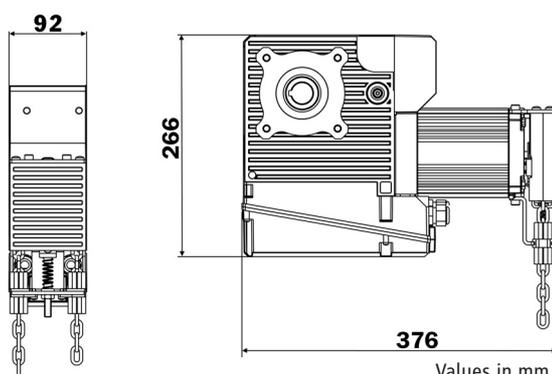
INDUSTRIAL SECTIONAL DOORS GEARMOTORS

540



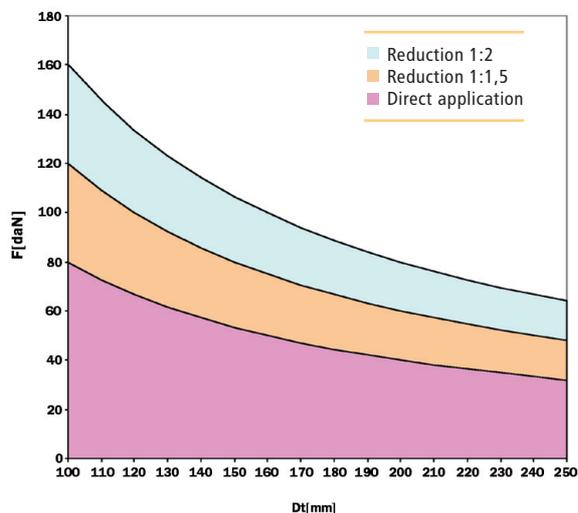
- 1 Three-dimensional adjustment plate (optional)
- 2 Limit switch assembly
- 3 540 BT control board (540) or 540 BPR
- 4 Chain winch (Mod. 540 V and 540 X)

DIMENSIONS



(*)GRAPH – APPLICATION RULES

In order to evaluate the correct operator application you need to measure first the required strength to lift the door (value normally indicated of the door documentation) and then the rope-winding drum diameter. The graph will allow to determine the possible application of the gear motor and the eventual need of a "out of the axis" reduction kit (see specific accessories needed for 540)



LEGENDA:
 F= Maximum strength needed to manually move the door
 Dt= Rope-winding drum diameter

Model	Use		Control board
	Applications	Use frequency %	
540	See graphic (*)	40% (S3)	540 BT built-in
540 V	See graphic (*)	40% (S3)	540 BT built-in
540 X NEW	See graphic (*)	40% (S3)	540 BT built-in
540 BPR NEW	See graphic (*)	40% (S3)	540 BPR built-in
540 V BPR NEW	See graphic (*)	40% (S3)	540 BPR built-in
540 X BPR NEW	See graphic (*)	40% (S3)	540 BPR built-in

Technical specifications of gearmotors 540	
Power supply	230 Vac (+6% -10%) 50 (60) Hz
Electric motor	single-phase induction 1450 rpm
Max absorbed power	800 W
Absorbed current	3.5 A
Thrust capacitor	20 µF
Rotation speed	23 rpm
Winding thermal protection	140° C
Use frequency	40% S3
Max consecutive cycles	5
Drive	Through shaft diam. 25.4mm (1")
Shaft rated torque	50 Nm
Drive max revs	24
Protection class	IP54
Operating ambient temperature	-20°C ÷ +55°C
Gearmotor max weight	14 Kg
Type of oil	FAAC OIL XD 220
Oil quantity	0.75 l

Specifications of 540 BT control board (built into models 540)	
Power supply voltage	230 Vac (+6% -10%) 50 Hz
Low voltage commands	24 Vdc
Motor max. load	800 W
Opening/closing push-buttons	Interlocked
Operating ambient temperature	- 20°C ÷ +55°C
Two fuse	Transformer 0.25 A Motor 6.3 A

Specifications of 540 BPR control board (built into models 540 BPR)	
Power supply	230 Vac (+6% -10%) 50 Hz
Motor max. load	800 W
Accessories max. load	0,2 A
Terminal board inputs	Open/Close/Stop/Closing safety device/Opening and closing limit switch
Terminal board outputs	Motor/24 vdc power supply to accessories
Rapid connector	Plug-in RP receiver single/double channel Decoding card
Function logics	AP, EP, C, B B/C, P
Pause time	Default 30" (programmable from 0 to 10 min.)
Programming	N. 1 push button
Operating ambient temperature	- 20°C ÷ +55°C
Two protection fuses	0,2 A self-restoring accessories 6,3 A motor/transformer

541

with remote control board



■ The solution for industrial applications

The 541 gearmotors were specifically designed to satisfy all closing requirements in industrial and commercial environments, and are able to automate sectional doors, large ones included.

■ Sturdy and safe

The operation of the oil bath gearbox is guaranteed by a steel worm-screw coupled to a bronze ring-gear, enclosed in a solid die-cast aluminium body.

The gearmotor is non-reversing. In the event of a power cut, the door can be moved manually by using the "rapid" release cord device (standard supply for all models) or, in the 541 V versions, by manually activating the chain winch. If one of the two manual activation systems is activated, a safety microswitch prevents electrical operation.

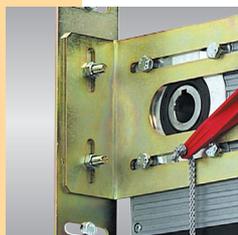
■ The importance of versatility

The gearmotors were conceived for lateral fitting with "direct" transmission on the spring shaft, or with "indirect" transmission by chain.

The latter application make it possible to increase the automated system's versatility, enabling use even if lateral space is insufficient, or for particularly heavy doors.

The gearmotor is highly compact, in particular its width of only 92 mm makes it easy to install even where space is tight.

The use frequency of the gearmotors (almost intensive) means that they can be used also for particularly heavy duty cycles.



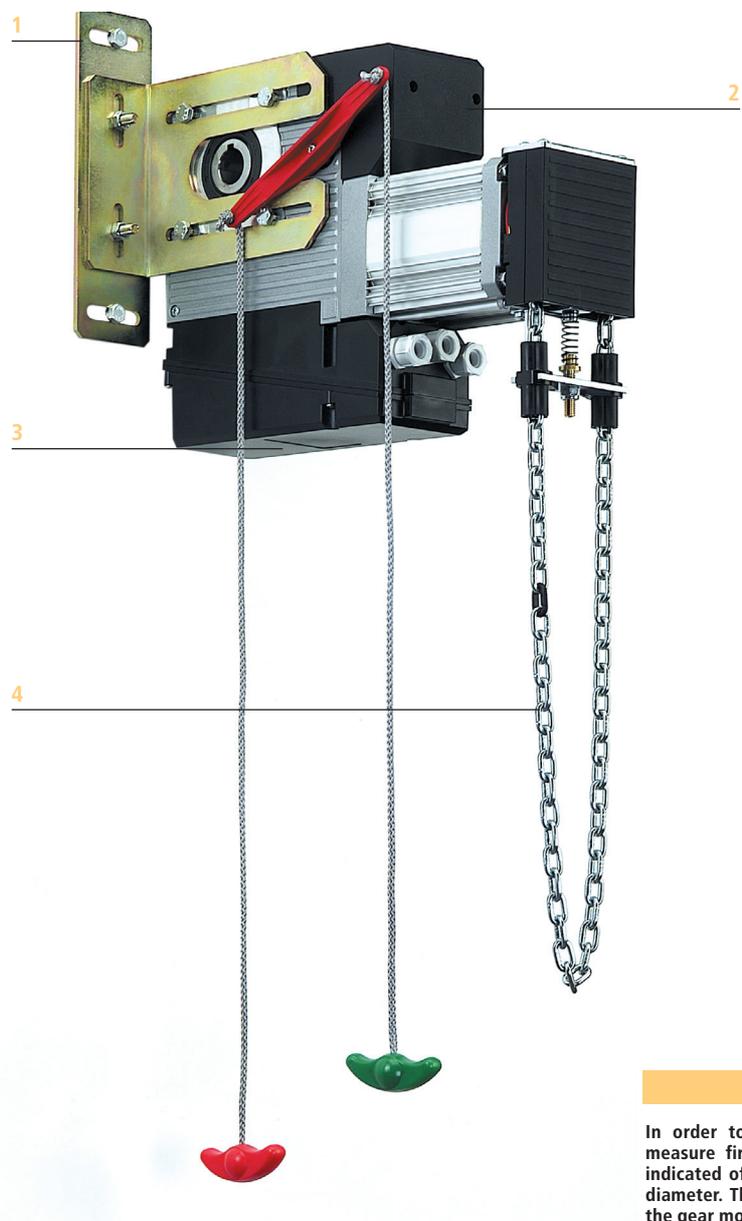
■ Wall mounting bracket



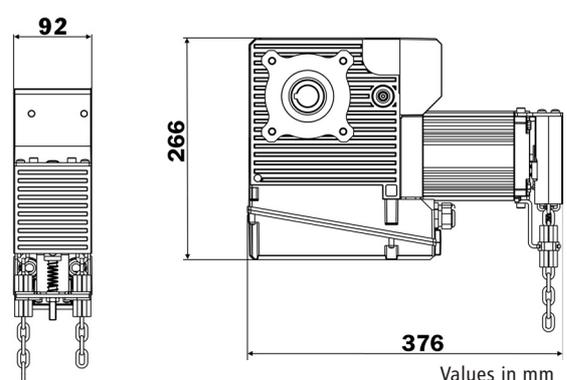
■ Release device by cords (Mod. 541-541 V)



- 1 Three-dimensional adjustment plate (optional)
- 2 Limit switch assembly
- 3 Release device by cards (Mod. 541 - 541 V)
- 4 Chain winch (Mod. 541 V and 541 X)

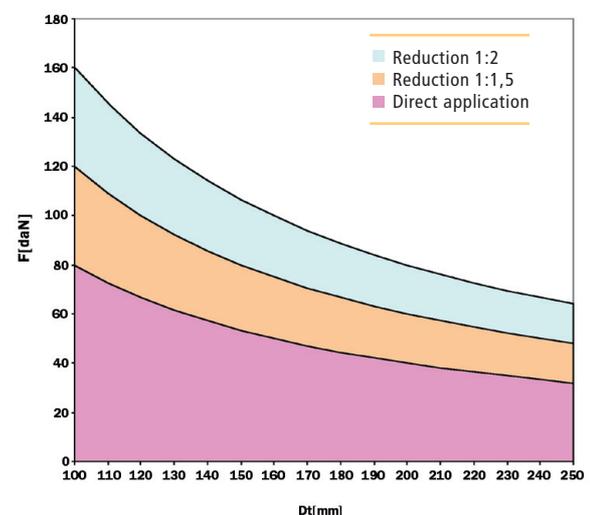


DIMENSIONS



(*)GRAPH – APPLICATION RULES

In order to evaluate the correct operator application you need to measure first the required strength to lift the door (value normally indicated of the door documentation) and then the rope-winding drum diameter. The graph will allow to determine the possible application of the gear motor and the eventual need of a "out of the axis" reduction kit (see specific accessories needed for 541)



LEGENDA:
 F= Maximum strength needed to manually move the door
 Dt= Rope-winding drum diameter

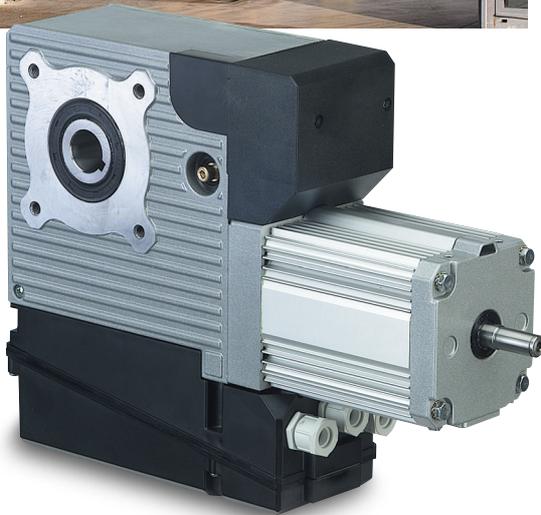
Model	Use		Control board
	Applications	Use frequency %	
541	See graphic (*)	40% (S3)	Not included
541 V	See graphic (*)	40% (S3)	Not included
541 X	NEW See graphic (*)	40% (S3)	Not included

Technical specifications of gearmotors 541	
Power supply	230 Vac (+6% -10%) 50 (60) Hz
Electric motor	single-phase induction 1450 rpm
Max absorbed power	800 W
Absorbed current	3.5 A
Thrust capacitor	20 µF
Rotation speed	23 rpm
Winding thermal protection	140° C
Use frequency	40% S3
Max consecutive cycles	5
Drive	Through shaft diam. 25.4mm (1")
Shaft rated torque	50 Nm
Drive max revs	24
Protection class	IP54
Operating ambient temperature	-20°C ÷ +55°C
Gearmotor max weight	14 Kg
Type of oil	FAAC OIL XD220
Oil quantity	0.75 l

Specifications of 578 D control board	
Power supply	230 Vac (+6%-10%) 50 Hz
Absorbed power	10 W
Motor max. load	1000 W
Accessories max. load	0,5 A
Operating ambient temperature	-20°C ÷ +55°C
Fuses	2
Function logics	Automatic/"Stepped" automatic/Semi-automatic/ Safety/Semi-automatic B/Dead- man C/ "Stepped" semiautomatic
Work time	Programmable (from 0 to 4 min)
Pause time	Programmable (from 0 to 4 min)
Thrust force	Adjustable over 50 levels
Terminal board inputs	Open/Partially Open/Opening safety devices/Closing safety devices/Stop/Edge/Power supply + earth
On-connector inputs	Opening and closing travel-limit/ Encoder
Terminal board outputs	Flashing lamp - Motor - 24Vdc power supply to accessories - 24Vdc indicator-light/Timed output - Failsafe
Rapid connector	5-pin card connection for Minidec, Decoder or RP receivers
Programming	Nr. 3 keys(+,-,F) and display, "basic" or "advanced" mode
"Basic" mode programmable functions	Function logic - Pause time - Thrust force - Gate direction
"Advanced" mode programmable functions	Thrust torque - Braking - Failsafe - Pre-flashing - Indicator-light/ Timed output - Opening and closing safety devices logic - Encoder (optional) for anti- crushing electronic safety device, management of slowdowns and partial opening in real-time - Slowdowns - Partial opening time - Work time - Assistance request - Cycle counter

541 3PH

with remote control board



■ The solution for industrial applications

The 541 3PH gearmotors were specifically designed to satisfy all closing requirements in industrial and commercial environments, and are able to automate sectional doors, large ones included.

■ Sturdy and safe

The operation of the oil bath gearbox is guaranteed by a steel worm-screw coupled to a bronze ring-gear, enclosed in a solid die-cast aluminium body.

The gearmotor is non-reversing. In the event of a power cut, the door can be moved manually by using the "rapid" release cord device (standard supply for all models) or, in the 541 V 3PH versions, by manually activating the chain winch. If one of the two manual activation systems is activated, a safety microswitch prevents electrical operation.

■ The importance of versatility

The gearmotors were conceived for lateral fitting with "direct" transmission on the spring shaft, or with "indirect" transmission by chain.

The latter application make it possible to increase the automated system's versatility, enabling use even if lateral space is insufficient, or for particularly heavy doors.

The gearmotor is highly compact, in particular its width of only 92 mm makes it easy to install even where space is tight.

The use frequency of the gearmotors (almost intensive) means that they can be used also for particularly heavy duty cycles.



■ Wall mounting bracket



■ Release device by cords (Mod. 541 3PH-541 3PH V)

INDUSTRIAL SECTIONAL DOORS GEARMOTORS

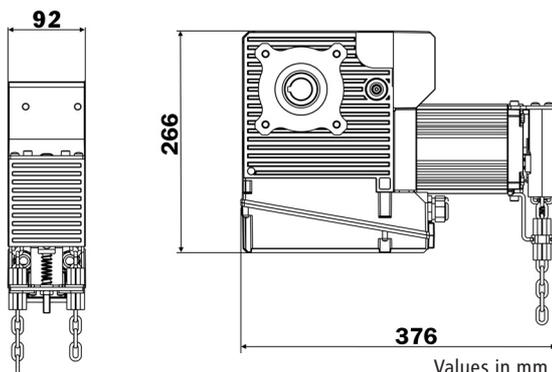
541 3PH



- 1 Three-dimensional adjustment plate (optional)
- 2 Limit switch assembly
- 3 Chain winch (Mod. 541 3PH V - 541 3PH X)

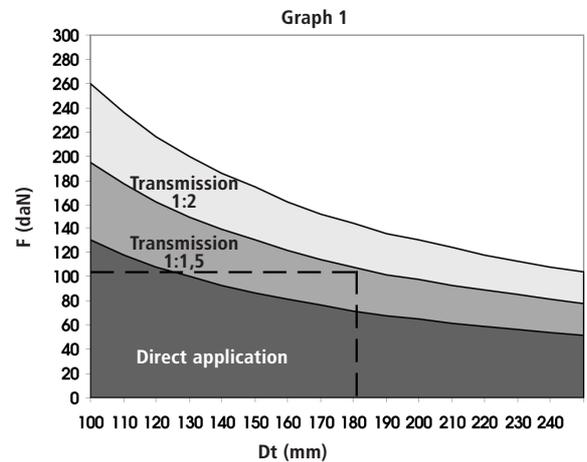


DIMENSIONS



Graph 1 shows with wich type of application the 541 3PH can be installed, considering the maximum force required to manually move the door F , in daN (1 daN = force required to lift 1,02 kg), and the diameter of the rope-winding drum Dt in millimeters. For example, if a door can be moved with a force of 108 daN and the drum diameter is 180 mm, a 541 3PH with chain transmission of 1:1.5 must be installed.

N.B.: Force F can be measured with a dynamometer. It is not directly related to the weight of the door, but its balance.

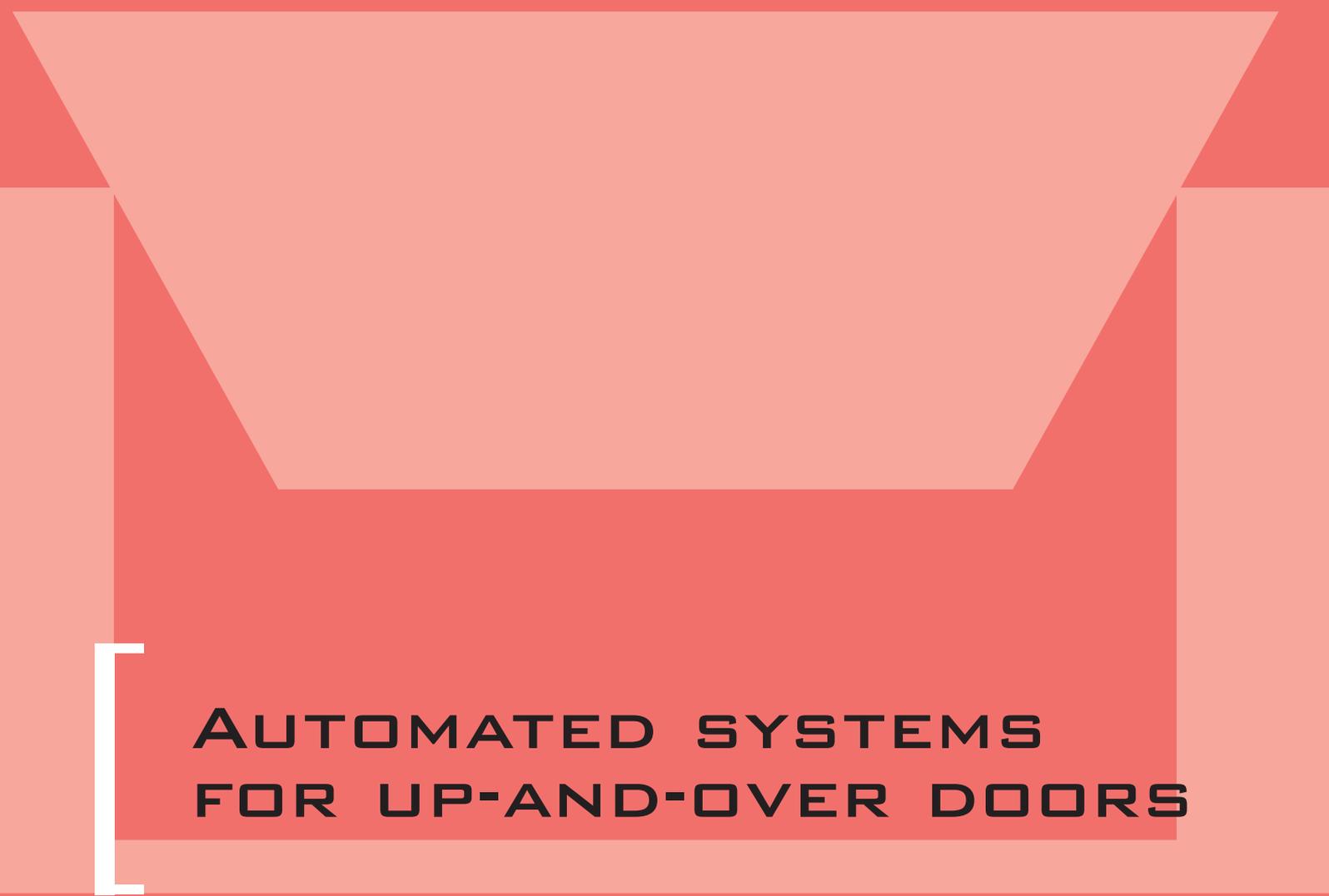


LEGENDA:
 F = Maximum strength needed to manually move the door
 Dt = Rope-winding drum diameter

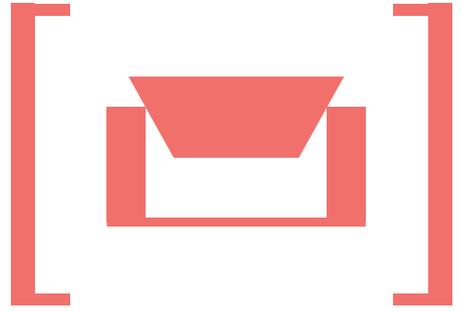
Model	Applications	Use frequency (cycles/hour)	Control board
541 3PH NEW	See graphic (*)	60% (S3)	Not included
541 X 3PH NEW	See graphic (*)	60% (S3)	Not included
541 V 3PH NEW	See graphic (*)	60% (S3)	Not included

Technical specifications of gearmotors 541 3PH	
Power supply	400 Vac (+6 -10%) 50 (60Hz)
Electric motor	1450 rpm
Max absorbed power	420 W
Absorbed current	1,1 A
Winding thermal protection	140 °C
Use frequency	60% (S3)
Max consecutive cycles	6
Power take-off	Through shaft diam. 25.4 mm (1")
Power take-off rotation speed	23 rpm
Rated torque of power take-off	70 Nm
Power take-off max revs	24
Protection class	IP 54
Operating ambient temperature	-20 ÷ +55 °C
Gearmotor max weight	14 Kg
Type of oil	FAAC OIL XD 220
Oil quantity	0,9 l

Specification of 844 T control board (for 541 3PH models- installation in "remote")	
Power supply	230 V 3ph (+6% -10%) 60 Hz 400 V 3ph+N (+6% -10%) 60 Hz
Motor maximum load	1300 W
Accessories output	24 Vdc 500 mA max
Operating ambient temperature	-20°C ÷ +55°C
Power supply to indicator-light	24 V~ (5W max)
Four protection fuses	6.3 A transformer 1.6 A accessories
Safety timer	255 seconds
Motor braking	fixed
Inputs - Open, partially open, stop, closing safety devices, limit-switch Outputs - Indicator-light, flashing lamp, motor, 24 Vdc power supply for accessories Programming - Pause time (5/10/15/30/60/120/180 sec.), Logics A1/A2/S1/S2/E1/E2/B/C, pre-flashing	



**AUTOMATED SYSTEMS
FOR UP-AND-OVER DOORS**

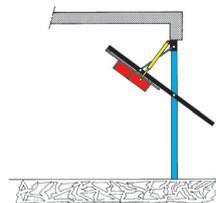


TYPE OF INSTALLATION

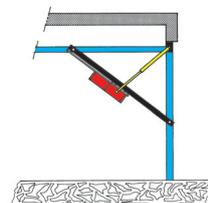
RESIDENTIAL	550	593	595	
CONDOMINIUM (LIGHT COMMERCIAL)		593	595	580
INDUSTRIAL				580
operator	ELECTRO-MECHANICAL	HYDRAULIC	HYDRAULIC	HYDRAULIC
max cycles/hour	15 25 (WITH LIMIT-SWITCH KIT)	50	50	60
door max dimensions W x H (m)	3,00x2,70 4,00x3,00 WITH 2 OPERATORS	3,50x2,70 5,00x3,00 WITH 2 OPERATORS	3,50x2,70 5,00x3,00 WITH 2 OPERATORS	3,50x3,00 6,00x4,00 WITH 2 OPERATORS
anti-crushing protection	ELECTRONIC	HYDRAULIC	HYDRAULIC	HYDRAULIC
control board	INTEGRATED	NON INTEGRATED	INTEGRATED	NON INTEGRATED

Counterbalanced up-and-over door types that can be automated with:

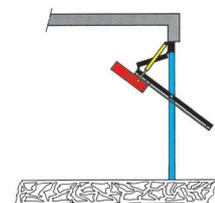
550
593
595
580



PROJECTING



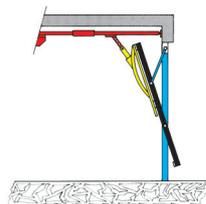
NON-PROJECTING



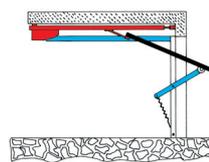
ARTICULATED PANEL

Counterbalanced up-and-over door types that can be automated with:

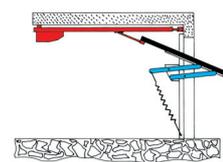
531 EM
576 EM



COUNTERBALANCED
(with gda 3000 adapter)



HORIZONTAL TRACK



DOUBLE LEVER

550

for counterbalanced up-and-over doors
for residential use



■ Ideal for domestic use garages

The FAAC 550 electro-mechanical automated system moves counterbalanced up-and-over doors of up to 3 metres in width. As it makes use of 2 operators - Master and Slave - it can be fitted also on doors of up to 4 metres in width.

■ Highly reliable and extremely solid

Reliability is assured by a gearmotor, control board, and enbloc-integrated timed courtesy lamp in a protective housing. A sturdy securing longitudinal member (optional) increases the solidity of the frame and its bending and forcing resistance.

■ Total safety

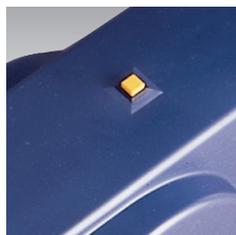
Anti-crushing protection is ensured by an electronic device directly controlling drive torque - the device can be cut-out at initial thrust. The FAAC 550 reversible system integrates a, from-the-inside, release facility and offers an optional external release by customised key.

■ Limit-switches for higher frequencies

The entire 550 range is designed for optional installation of opening and closing limit-switches, to allow for greater use frequency.



■ Ceiling light



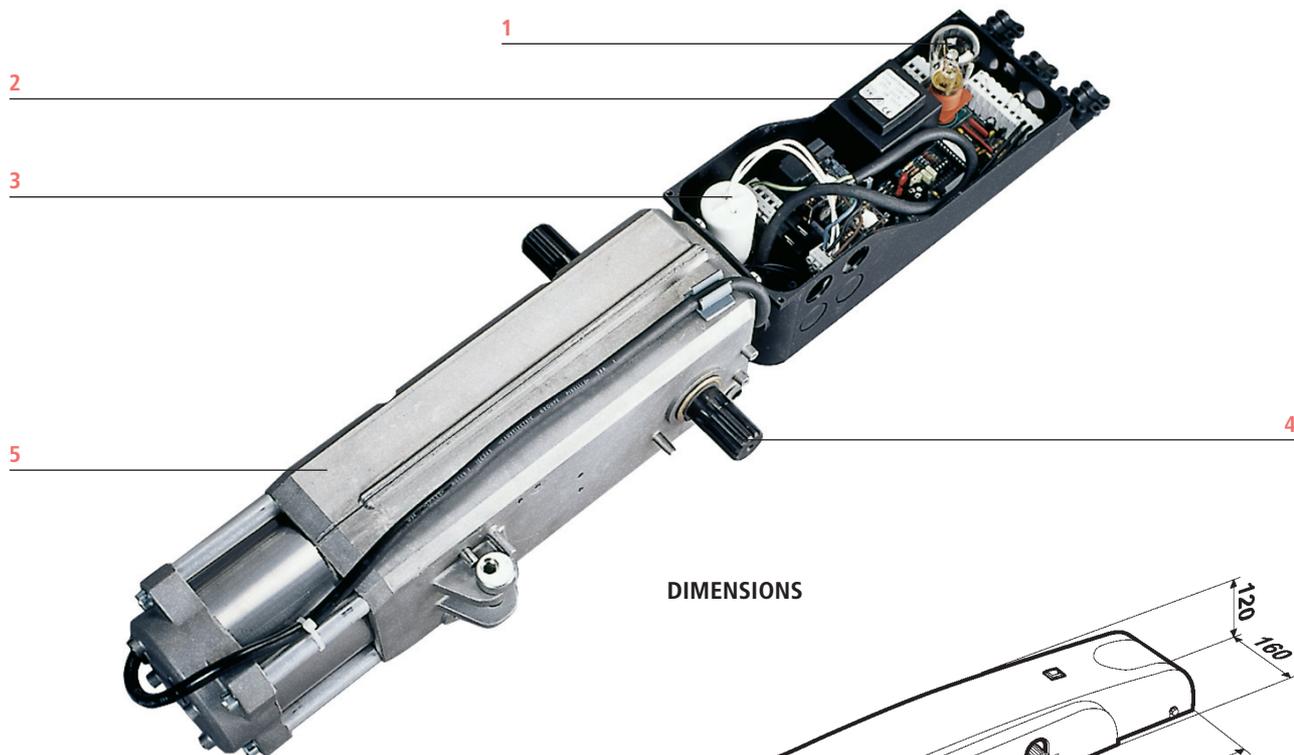
■ Opening/closing push-button



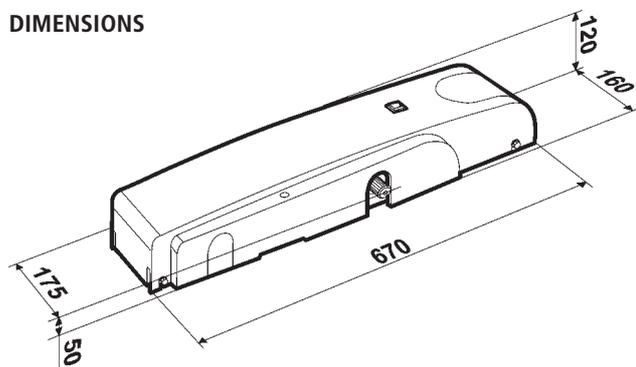
■ Housing



- 1 Courtesy lamp
- 2 Control board
- 3 Initial thrust capacitor
- 4 Transmission shaft (designed for the limit-switch kit - optional)
- 5 Electro-mechanical operator



DIMENSIONS



Values in mm

Specifications of 550 D control board

Power supply	230 Vac - 50 Hz
Max absorbed power	12 VA
Max motor load	800 W
Power supply for accessories	24 Vdc
Max accessories load	300 mA
Operating ambient temperature	-20°C ÷ +55°C
Protection fuses	net/accessories circuit
Max load of built-in courtesy light	25 W
Max load of external courtesy light	250 W

Connector for decoding cards or RP plug-in receivers

Removable terminal boards

Terminal board inputs

- Open/stop/safety device closing/opening/limit-switch closing-opening

Terminal board outputs

- Motor, power supply for accessories 24Vdc, flashing lamp 230 Vac

- 60W, external courtesy light 230VAC

Programming by display (3 buttons)

Inputs status signaling via display

2 programming levels

- 1st level: operation logics automatic/semiautomatic, work time,

pause times, anti-crushing safety (8 levels)

- 2nd level: timing courtesy lamp, max torque at initial thrust - fail safe, pre-flashing - travel-limit deceleration

Built-in in 550 I operator

Possibility of installation in enclosures Mod. E - L - LM

Technical specifications	550	550 L
Power supply	230 Vac (+6% -10%) 50 (60) Hz	
Electric motor	Single-phase, bi-directional	
Absorbed power	350 W	280 W
Absorbed current	1,5 A	1,2 A
Rated torque	0÷300 Nm	0÷250 Nm
Angular velocity	12°/s	8°/s
Motor rotation speed	1400 rpm	900 rpm
Thermal protection on motor winding	140°C	
Capacitor	10 μ	8 μ
90° Door opening time	15 s	22 s
Operating ambient temperature	-20°C ÷ +55°C	
Weight	7,5 kg	
Protection class	IP 31 (for internal use only)	

Model	Use			
	Door max dimensions W x H (m)	Door max weight (kg/sqm)	Use frequency (cycles/hour)	Control board
550	3,00 x 2,70	10	15-25 (*)	550D built-in
550 SLAVE	4,00 x 3,00 (**)	10	15-25 (*)	/
550 L	3,00 x 2,70	10	15-25 (*)	550D built-in
550 SLAVE L	4,00 x 3,00 (**)	10	15-25 (*)	/

(*) A frequency of 25 cycles/hours can be obtained by installing the limit-switch kit.

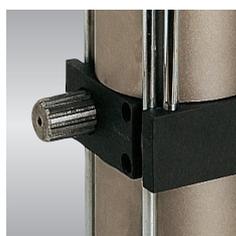
(**) For up-and-over doors in the width range of 3.00 to 4.00 metres (height 3.00 m), use a 550 I operator and a 550 SLAVE. In this case, the 550 D control board built into the 550 I also controls the 550 SLAVE.

593

for counterbalanced up-and-over doors



Oil tank



Transmission shaft
(designed for the limit-
switch kit - optional)



Cylinder

■ Ideal for residential and light commercial garages

The FAAC 593 hydraulic system is designed to lift counterbalanced up-and-over doors of residential and light commercial garages. It is capable of lifting doors with width of up to 3.5 metres in the single operator application and up to 5 metres in the 2-operators version.

■ Mechanically assembled accessories are used

The supplied installation accessories allows you to install the operator without doing any welding. The sturdy securing longitudinal member (optional) makes it possible to install the operator in the ideal position for any type of door, without any modification to existing structures.

■ Maximum safety threshold

Safety is guaranteed by the exclusive hydraulic device with anti-crushing protection double bypass valve. The anti break-in facility is provided by the opening and closing hydraulic lock, which stops the door in any position without using electric locks or bolts. In case of a power cut, a release facility from inside the garage is supplied, and another from the outside (optional), with customised key.

■ The hydraulic system ensures efficiency

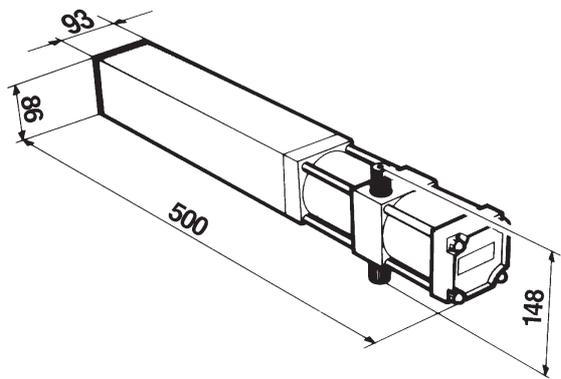
Safety, long-life, power, and silent operation are superior and constant advantages of the hydraulic system: that's why hydraulics are central to FAAC technology and to many systems ensuring a high degree of operational and service reliability. The oil re-circulation system enables smoother long-term performances, also prolonging operator life.



- 1 Manual release
- 2 Distribution flange
- 3 By-pass valves (cannot be accessed thanks to the supplied "tamper-proof" system)
- 4 Oil re-circulation tube
- 5 Lower flange



DIMENSIONS



Values in mm

Technical specifications	593
Power supply	230 Vac (+6% -10%) 50 (60) Hz
Electric motor	Single-phase bi-directional
Motor rotation speed	1.400 rpm
Absorbed power	220 W
Absorbed current	1 A
Rated torque	0÷400 Nm
Angular velocity	9°15"/s
Thermal protection on motor winding	120°C
Operating ambient temperature	-40°C ÷ +55°C
Weight with oil	10 kg
Type of oil	FAAC HP OIL
Protection class	IP 55
Pump flow rate	0,75 l/min.

Specifications of 596 MPS control board

Power supply	230 Vac (+6% -10%) 50 (60) Hz
Maximum load of motors	500 W
Accessories output	24 Vdc 360 mA max
Operating ambient temperature	-20°C ÷ +55°C
Two protection fuses	5 A electric motor 0,5 A accessories
Enclosure dimensions mod. E	204 x 265 x 85 mm (LxHxD)
Protection class	IP 55

Programmable functions

- Function logics: automatic and semi-automatic
- Pause times
- Work times
- "Closing photocell" function logic
- Photocells fail safe

Terminal board outputs

- Motor, power supply for accessories, timed courtesy lamp

Terminal board inputs

- Open, stop, safety device, opening and closing limit-switch

SMT technology

Model	Use			
	Door max dimensions W x H (m)	Door max weight (kg/sqm)	Use frequency (cycles/hour)	Control board
593	3,50 x 2,70 5,00 x 3,00 (with two operators)	15	50	Not included

595

for counterbalanced up-and-over doors



■ Ideal for residential and light commercial garages

The FAAC 595 hydraulic system is designed to lift counterbalanced up-and-over doors of residential and light commercial garages. Lifts doors with width of up to 3.5 metres. By adding another operator, the Slave version can lift doors with width of up to 5 metres.

■ Mechanically assembled accessories are used

The supplied installation accessories allows you to install the operator without doing any welding. The sturdy securing longitudinal member (optional) makes it possible to install the operator in the ideal position for any type of door, without any modifications to existing structures.

■ Maximum safety threshold

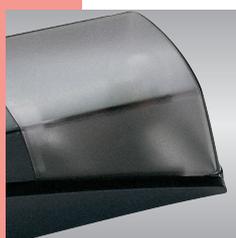
Safety is guaranteed by the exclusive hydraulic device with anti-crushing protection double bypass valve. The anti break-in facility is provided by the opening and closing hydraulic lock, which stops the door in any position without using electric locks or bolts. In case of a power cut, a release facility from inside the garage is supplied, and another from the outside (optional), with customised key.

■ High-tech

FAAC 595 is supplied with the 596 MPS control board using SMT technology, which includes a high powered transformer, a connector for inserting decoding cards or radio-receiver modules, and a stop input. FAAC 596 MPS has a double function logic - automatic and semi-automatic - and enables the fail safe function for automatically verifying the efficiency of the photocells.

■ Integrated components

In the 595 I version, all components are integrated in an enbloc protected by ABS housing: operator, control board, timed courtesy lamp, and opening/closing push-button.



■ Ceiling light



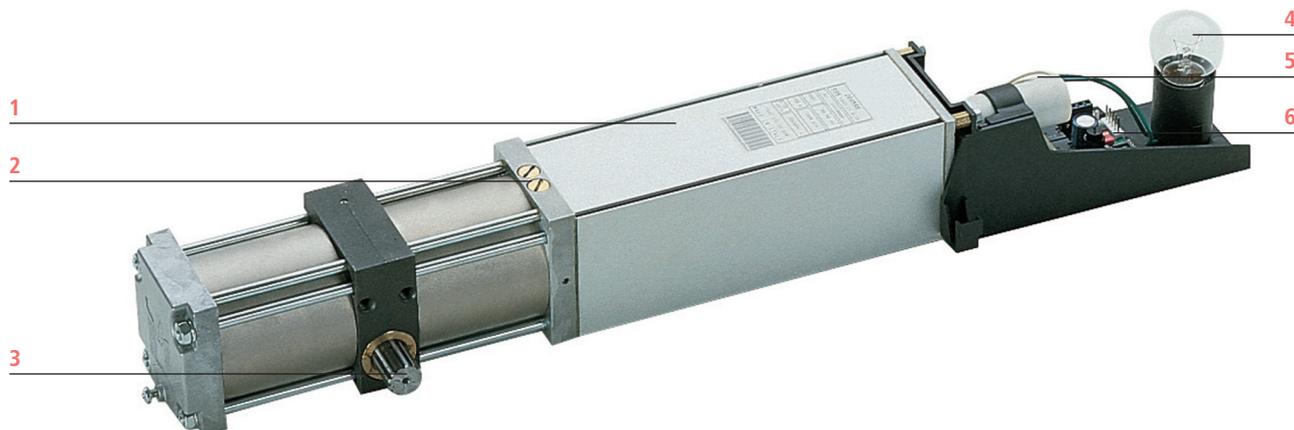
■ Opening/closing push-button



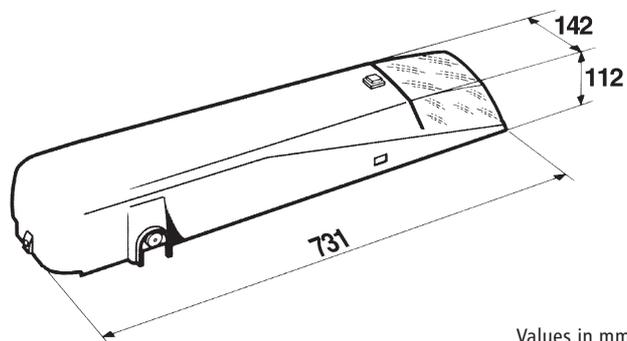
■ Carter



- 1 Hydraulic operator
- 2 By-pass valves
- 3 Transmission shaft (designed for the limit-switch kit - optional)
- 4 Courtesy lamp
- 5 Control board
- 6 Initial thrust capacitor



DIMENSIONS



Values in mm

Technical specifications	595
Power supply	230 Vac (+6% -10%) 50 (60) Hz
Electric motor	Single-phase bi-directional
Motor rotation speed	1.400 rpm
Absorbed power	220 W
Absorbed current	1 A
Rated torque	0÷400 Nm
Angular velocity	9°15'/s
Thermal protection on motor winding	120°C
Operating ambient temperature	-40°C ÷ +55°C
Weight with oil	11 kg
Type of oil	FAAC HP OIL
Protection class	IP 31 (for internal use only)
Pump flow rate	0,75 l/min.

Specifications of 596 MPS control board	
Power supply	230 Vac (+6% -10%) 50 (60) Hz
Maximum load of motors	500 W
Accessories output	24 Vdc 360 mA max
Operating ambient temperature	-20°C ÷ +55°C
Two protection fuses	5 A electric motor 0,5 A accessories

Programmable functions

- Function logics: automatic and semi-automatic
- Pause times
- Work times
- "Closing photocell" function logic
- Photocells fail safe

Terminal board outputs

- Motor, power supply for accessories, timed courtesy lamp

Terminal board inputs

- Open, stop, safety device, opening and closing limit-switch

SMT technology

Model	Use			
	Door max dimensions W x H (m)	Door max weight (kg/sqm)	Use frequency (cycles/hour)	Control board
595 I	3,50 x 2,70	15	50	596 MPS built-in
595 SLAVE	5,00 x 3,00 (*)	15	50	/

(*) For up-and-over doors in the width range of 3.50 a to 5.00 metres (height 3.00 m), use a 595 I operator and a 595 SLAVE. In this case, the 596MPS control board built into the 595 I also controls the 595 SLAVE.

580

for counterbalanced up-and-over doors
for intensive use



■ Ideal for heavy traffic garages

For counterbalanced up-and-over doors for accessing heavy traffic garages, with its speed, power and safety, the 580 range satisfies the most demanding applications, without modifying existing structures.

■ Maximum safety

Safety is guaranteed by the exclusive hydraulic device with anti-crushing protection double bypass valve. The double hydraulic locking facility (supplied as standard) ensures anti break-in security and keeps the door in opening position even in a strong wind.

In case of a power cut, a release facility from inside the garage is supplied, and another from the outside (optional), with customised key.

■ Silent movement and the reliability of hydraulics

The use of hydraulic oil as motor fluid and highly sophisticated mechanics ensure perfectly silent, smooth movement.

The high precision mechanics of all motor unit components create a single hydraulic block with constant lubrication and cooling.

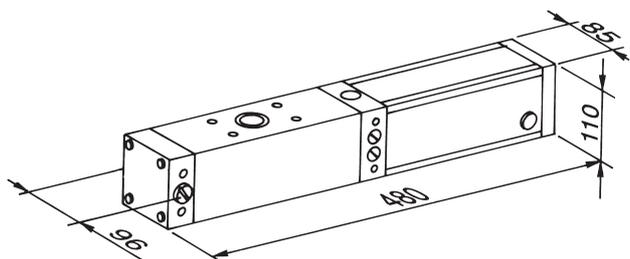
■ Low maintenance costs

The degree of reliability of the FAAC hydraulic device cuts down on both maintenance costs and energy consumption. The external components in aluminium ensure unlimited life.



- 1 Oil level indicator
- 2 Oil tank
- 3 By-pass valves (cannot be accessed thanks to the supplied "tamper-proof" system)
- 4 Manual release

DIMENSIONS



Values in mm

Technical specifications	580
Power supply	230 Vac (+6% -10%) 50 (60) Hz
Electric motor	Single-phase, bi-directional
Absorbed power	220 W
Absorbed current	1 A
Effective torque	0÷450 Nm
Angular velocity	9°15'/s
Motor rotation speed	1.400 rpm
Pump flow rate	0,75 l/min.
Thermal protection on motor winding	120°C
Operating ambient temperature	-40°C ÷ +55°C
Weight with oil	12 kg
Type of oil	FAAC HP OIL
Protection class	IP 55

Specifications of 596 MPS control board	
Power supply	230 Vac (+6% -10%) 50 (60) Hz
Maximum load of motors	500 W
Accessories output	24 Vdc 360 mA max
Operating ambient temperature	-20°C ÷ +55°C
Two protection fuses	5 A electric motor 0,5 A accessories
Enclosure dimensions mod. E	204x265x85 (LxHxD)
Protection class	IP 55

Programmable functions

- Function logics: automatic and semi-automatic
- Pause times
- Work times
- "Closing photocell" function logic
- Photocells fail safe

Terminal board outputs

- Motor, power supply for accessories, timed courtesy lamp

Terminal board inputs

- Open, stop, safety device, opening and closing limit-switch

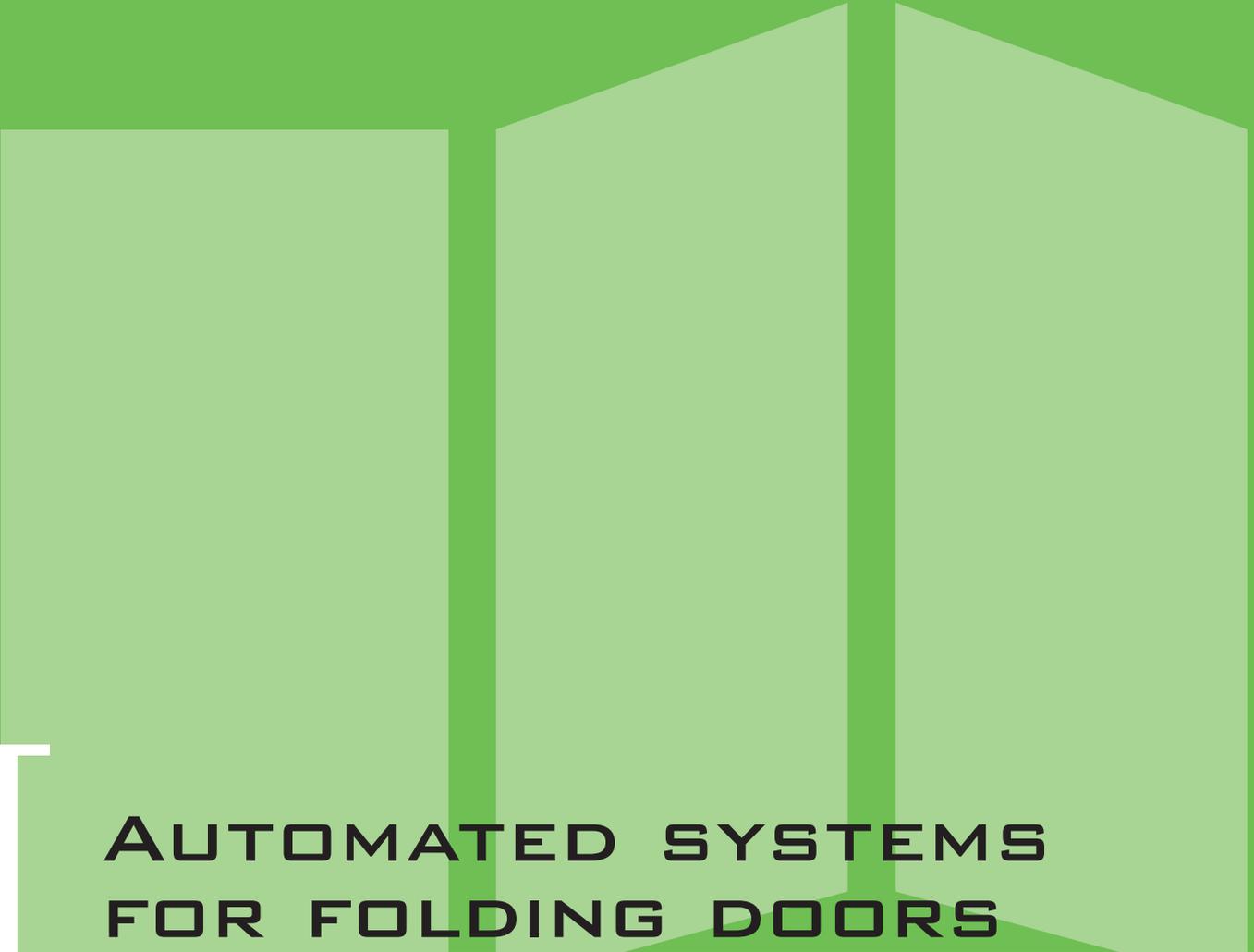
SMT technology

Timed courtesy lamp

Model	Use			
	Door max dimensions W x H (m)	Door max weight (kg/sqm)	Use frequency (cycles/hour)	Control board
580 CBAC	3,50 x 3,00 (*)	15	60	Not included
580 SB	3,50 x 3,00 (*)	15	60	Not included

(*) For doors with width of over 3.50 m, install two operators.

NOTE: The operator 580 can be controlled also by 452 MPS, 455 D and 462 DF boards, thus enabling the timed electronic deceleration (See pages 124 - 130)



**AUTOMATED SYSTEMS
FOR FOLDING DOORS**

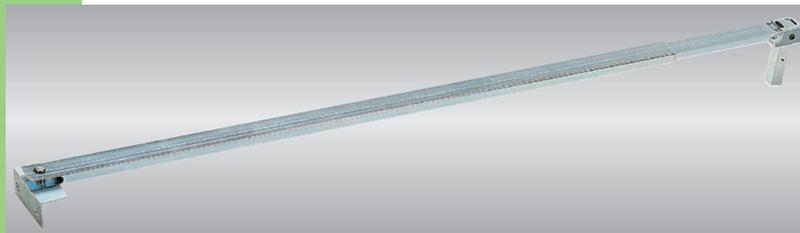


TYPE OF INSTALLATION

RESIDENTIAL	390 see pages 16 - 17	390 24 Vdc see pages 18 - 19	
CONDOMINIUM (LIGHT COMMERCIAL)			560
INDUSTRIAL			560
operator	ELECTRO-MECHANICAL	ELECTRO-MECHANICAL	HYDRAULIC
max cycles/hour	30% (use frequency)	INTENSIVE USE	50 (CBAC-SB) 60 (CBACR)
single panel max width (m)	1,50	1,50	2,00 (SB) 1,50 (CBAC) 0,50 (CBACR)
anti-crushing protection	ELECTRONIC	ELECTRONIC	HYDRAULIC

560

for bi-folding doors
for intensive use



■ Telescopic arm

■ Ideal for two-leaf folding doors

FAAC 560 was designed for automating bi-folding doors: it is fixed on one leaf only, and opens and closes by means of a telescopic arm.

■ Perfect movement

The FAAC hydraulic system and guide with telescopic arm ensure smooth, perfectly linear movement.

■ Highly reliable

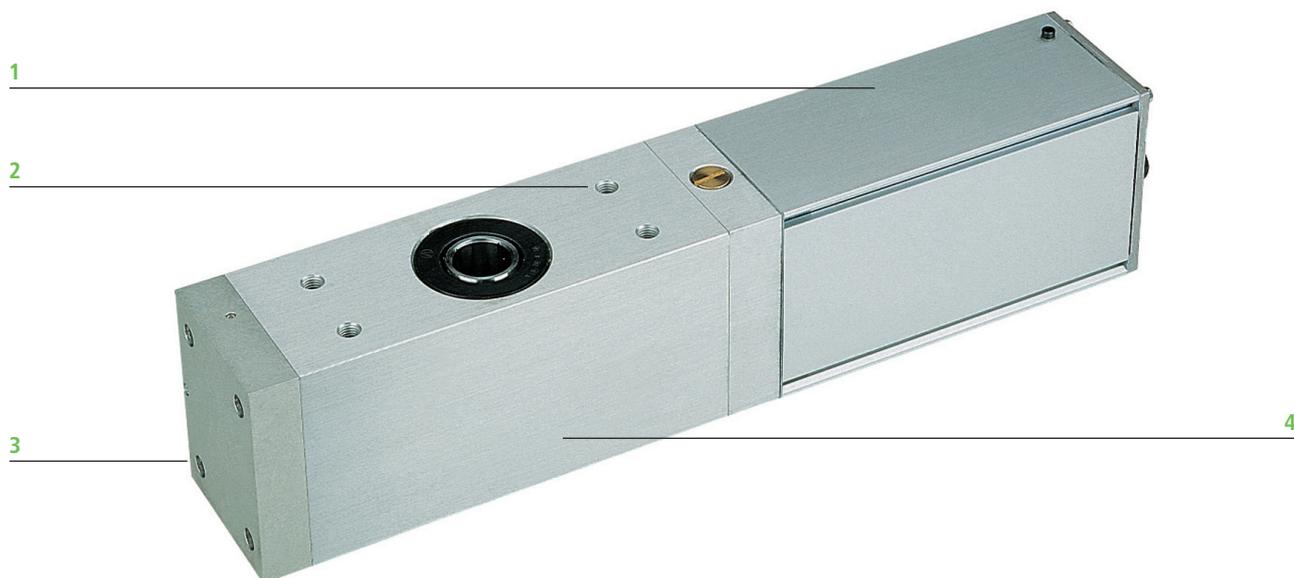
The electric motor, hydraulic pump and internal rack-and-pinion transmission system are compactly housed in a single block in anodised aluminium.

■ Total safety

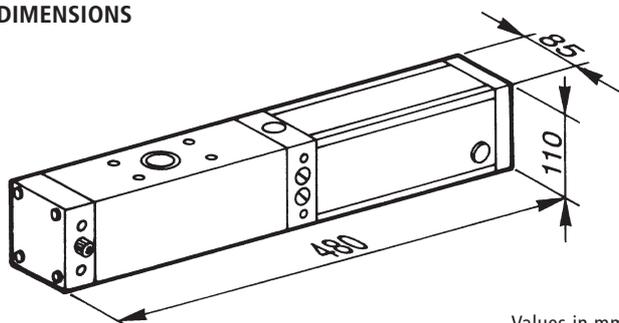
Thanks to the built-in hydraulic device, the closing locking facility provides anti-break-in protection. Total anti-crushing protection is provided, assured by a pair of adjustable by-pass valves. In all emergencies and in the event of a power-cut, the release device on the operator enables manual opening and closing.



- 1 Oil tank
- 2 By-pass valves (cannot be accessed thanks to the supplied "tamper-proof" system)
- 3 Manual release
- 4 Transmission unit enbloc



DIMENSIONS



Values in mm

Technical specifications	560 CBAC	560 SB	560 CBACR
Power supply	230 Vac (+6% -10%) 50 (60) Hz		
Electric motor	single-phase, bi-directional		
Absorbed power	220 W		
Absorbed current	1 A		
Effective torque	0÷320 Nm		0÷230 Nm
Angular velocity	12,4°/s		18,6°/s
Motor rotation speed	1.400 rpm		
Pump flow rate	1 l/min		1,5 l/min
Thermal protection on motor winding	120°C		
Operating ambient temperature	-40°C ÷ +55°C		
Weight with oil	12 kg		
Type of oil	FAAC HP OIL		
Protection class	IP 55		

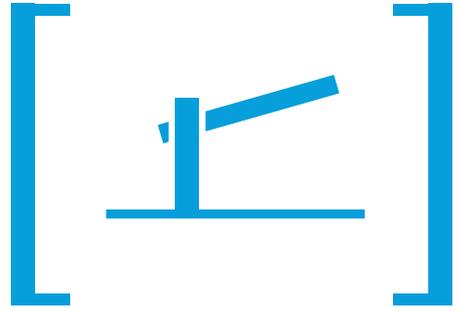
Model	Use		Control board
	Single panel max width (m)	Use frequency (cycles/hour)	
560 CBAC	1,50	50	Not included
560 SB	2,00	50	Not included
560 CBACR	0,50	60	Not included

NOTES

For operators without lock an electric lock must be installed.
 Electro-mechanical operator 390 for two-wing folding doors: see page 16.
 Slowing down kit GATECODER - see page 128.

The image features a dark blue background with several light blue geometric shapes. On the left, there is a vertical rectangular bar. To its right, a long, thin, tilted rectangular bar extends across the middle of the page. At the bottom left, a white L-shaped bracket is positioned to the left of the text. The text 'AUTOMATIC BARRIERS' is written in a bold, black, sans-serif font, with 'AUTOMATIC' on the top line and 'BARRIERS' on the bottom line.

**AUTOMATIC
BARRIERS**

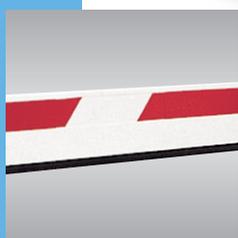
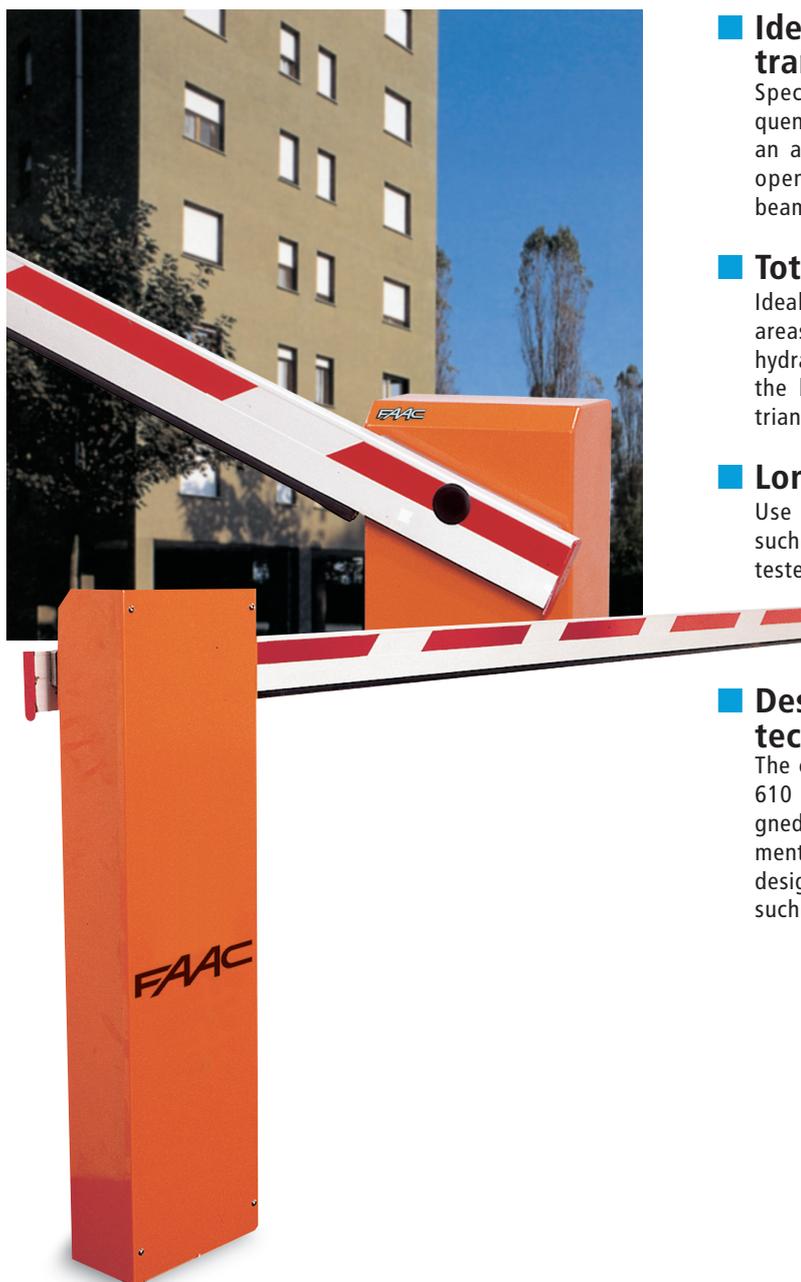


TYPE OF INSTALLATION

TYPE OF INSTALLATION	615 RAPID	615 STANDARD	620 STANDARD			642 INOX
RESIDENTIAL	615 RAPID	615 STANDARD	620 STANDARD			642 INOX
CONDOMINIUM (LIGHT COMMERCIAL)	615 RAPID	615 STANDARD	620 STANDARD	620 RAPIDA		642 INOX
INDUSTRIAL				620 SR	640	642 INOX
PARKING				620 RAPID	620 SR	642 INOX
use cycles	40%	50%	70%	100%	100%	70% 100%
beam max length (m)	2,50	5,00	5,00	4,00 - 3,00 (SR)	7,00	7,00
opening times (s)	3	6	from 3,5 to 4,5	from 2 to 3 - 0,8 (SR)	from 4 to 8	from 2 to 8

615

for beams up to 5 m



■ Beam



■ Self-supporting barrier body

■ Ideal for medium transit frequency

Specifically designed for medium transit frequency, the FAAC 615 range is available also with an articulated beam for low ceilings. For rapid opening, the 615 RAPID version is ideal for beams up to 2.5 m in length.

■ Total safety

Ideal for controlling small and medium private areas, the whole 615 range has an anti-crushing hydraulic safety device, a hydraulic lock to hold the barrier open or closed, manual release by triangular key.

■ Long term reliability

Use of cutting-edge materials and treatments such as cataphoresis and niplon, plus tried-and-tested FAAC hydraulic technology, all combine to ensure long-life.

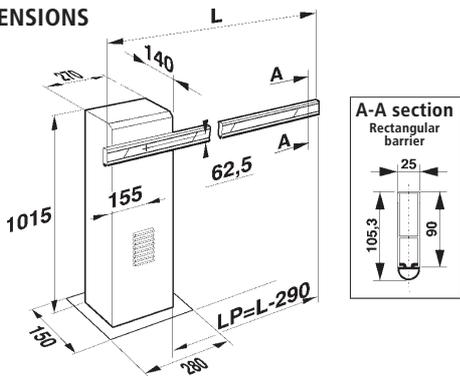
■ Designed to house other technological items

The compartment is designed to house both the 610 MPS electronic equipment, specifically designed for this barrier, and other electronic equipment in the FAAC range. The FAAC 615 barrier is designed to accommodate use of optional items such as the limit-switch kit and anti-vandal valve.



- 1 Balancing spring
- 2 Double-acting piston
- 3 Hydraulic control unit
- 4 Release device by triangular key
- 5 Electronic equipment

DIMENSIONS



Values in mm

Technical characteristics of 610 MPS control board

Power supply	230 Vac (+6% -10%) 50 (60) Hz
Motor maximum load	800 W
Accessories output	24 Vdc 250 mA max
Operating ambient temperature	-20°C ÷ +55°C
Two protection fuses	5 A transformer primary winding 500 mA accessories
Dimensions enclosure Mod. E (l x h)	204x265x85 mm
Protection class	IP 55

SMT technology

Programmable functions - Two function logics: automatic and semi-automatic, Pause times, Fail safe

Inputs signalling LED, alarm and limit-switch

Terminal board outputs - Flashing Lamp

Terminal board inputs - Open, stop, closing safety devices, limit-switch

Rapid connectors for:

- Decoding cards/ card receivers

Technical characteristics	615 STD	615 RAP.
Power supply	230 Vac (+6% -10%) 50 (60) Hz	
Electric motor	single-phase, bi-directional	
Absorbed power	220 W	
Absorbed current	1A	
Motor rotation speed	1.400 rpm	2.800 rpm
Pump flow rate	1.5 l/min.	3 l/min
Thermal protection on motor winding	120°C	
Effective torque	0÷400 Nm	0÷300 Nm
Operating ambient temperature	-20°C ÷ +55°C	
Weight	34 kg	
Type of oil	FAAC HP OIL	
Barrier body treatment	Cataphoresis	
Paint	Polyester RAL 2004	
Protection class	IP 44	
Max. consecutive cycles (at 20°)	220	340
Type of rectangular beam	standard - standard with skirt (4m) - standard articulated	standard

Model	Use			Control board
	Beam max. length (m)	Opening time (s)	Use frequency (cycles/hour)	
615 STANDARD	5,00	6	50	Not included
615 RAPID	2,50	3	40	Not included

620 STANDARD

for beams up to 5 m



■ The ideal solution for heavy traffic

The Standard 620 for barriers of up to 5 m is suitable for heavy but not continuous traffic. The barrier is supplied with a wide range of accessories, including a skirt to prevent unwanted break-ins.

■ Totally flexible

The FAAC 620 range is equipped with electronic deceleration at opening and closing. A version with articulated beam for low ceilings is available on request.

■ Long term reliability

Use of cutting-edge materials and treatments such as cathodolysis and niproly, plus tried-and-tested FAAC hydraulic technology, all combine to ensure long-life.

■ Leading-edge technology

SMT microprocessor electronic technology is supplied standard to ensure exceptional performance. By means of an optional card, the barrier can also control auxiliary services and an additional opposing beam. Barrier statuses can be signalled to traffic control devices.

■ Electronic intelligence

The electronic intelligence of the 620 range functions by means of three differentiated logics: automatic, semi-automatic and parking (P) - the latter was expressly designed for automatic parking systems.



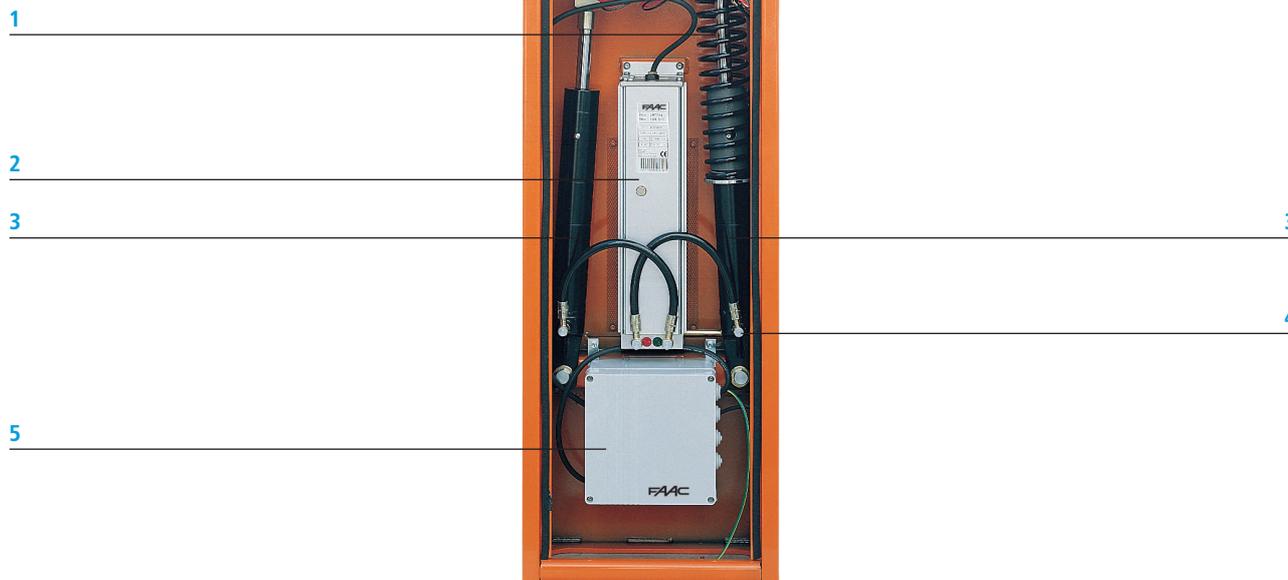
■ Beam



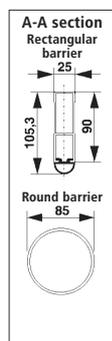
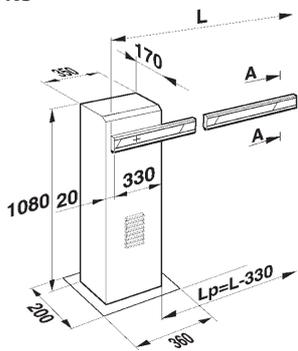
■ Self-supporting barrier body



- 1 Balancing spring
- 2 Hydraulic pump unit
- 3 Cylinders with plunger pistons
- 4 Release device by triangular key
- 5 624 MPS control board



DIMENSIONS



L = Beam length
LP = Transit space length

Values in mm

Technical characteristics of 624 MPS control board

Power supply	230 Vac (+6% -10%) 50 (60) Hz
Motor maximum load	300 W
Accessories output	24 Vdc 500 mA max
Operating ambient temperature	-20°C ÷ + 55°C
Three protection fuses	0.25 A transformer - 5 A motor - 1.6 A accessories
Enclosure dimensions	174x178x102 mm (LxHxD)
Protection class	IP 55

SMT technology

Programmable functions: - Three function logics - A/E/P, Pause times, Pre-flashing, Electronic deceleration (short or long), Operation of indicator-light
Inputs signalling LED, alarm and limit-switch
Terminal board outputs Indicator-light, flashing Lamp
Terminal board inputs - Open, stop, safety devices, anti-panic
Rapid connectors for: Motor, limit-switch, decoding cards/card receivers, optional cards
Reset push-button

Technical characteristics	620 STANDARD LH/RH
Power supply	230 Vac (+6% -10%) 50 (60) Hz
Electric motor	single-phase, bi-directional
Absorbed power	220 W
Absorbed current	1 A
Motor rotation speed	1.400 rpm
Pump flow rate	0.75/1 l/min.
Thermal protection on motor winding	120°C
Effective torque	0÷200/0÷150 Nm
Electronic deceleration	Adjustable with cams
Operating ambient temperature	-20°C ÷ +55°C
Weight	73 kg
Type of oil	FAAC HP oil
Barrier body treatment	Cataphoresis
Paint	RAL 2004 polyester
Protection class	IP 44
Type of beam	rectangular: standard - with skirt - articulated standard rectangular - round: standard - pivoting

Model	Use			Control board
	Beam max. length (m)	Opening time (s)	Use frequency (cycles/hour)	
620 STANDARD LH/RH	5,00	3,5 (3m) 4,5 (4m)	70	624 MPS built-in
620 STD ART. LH/RH	4,00 (articulated)	3,5 (3m) 4,5 (4m)	70	624 MPS built-in

620 RAPID

for beams up to 4 m



■ Use versatility

The "rapid" version of the FAAC 620 offers the continuity solution to the traffic problem. It enables uninterrupted use frequency thanks to real-time detection of oil temperature. For barriers of up to 3 metres in length, opening time is under 2 seconds.

■ Totally flexible

The FAAC 620 range is equipped with electronic deceleration at opening and closing. A version with articulated barrier for low ceilings is available on request.

■ Long term reliability

Use of cutting-edge materials and treatments such as cataphoresis and niplay, plus tried-and-tested FAAC hydraulic technology, all combine to ensure long-life.

■ Leading-edge technology

SMT microprocessor electronic technology is supplied standard to ensure exceptional performance. By means of an optional card, the barrier can also control auxiliary services and an additional opposing beam. Barrier statuses can be signalled to traffic control devices.

■ Electronic intelligence

The electronic intelligence of the 620 range functions by means of three differentiated logics: automatic, semi-automatic and parking (P) - the latter was expressly designed for automatic parking systems.



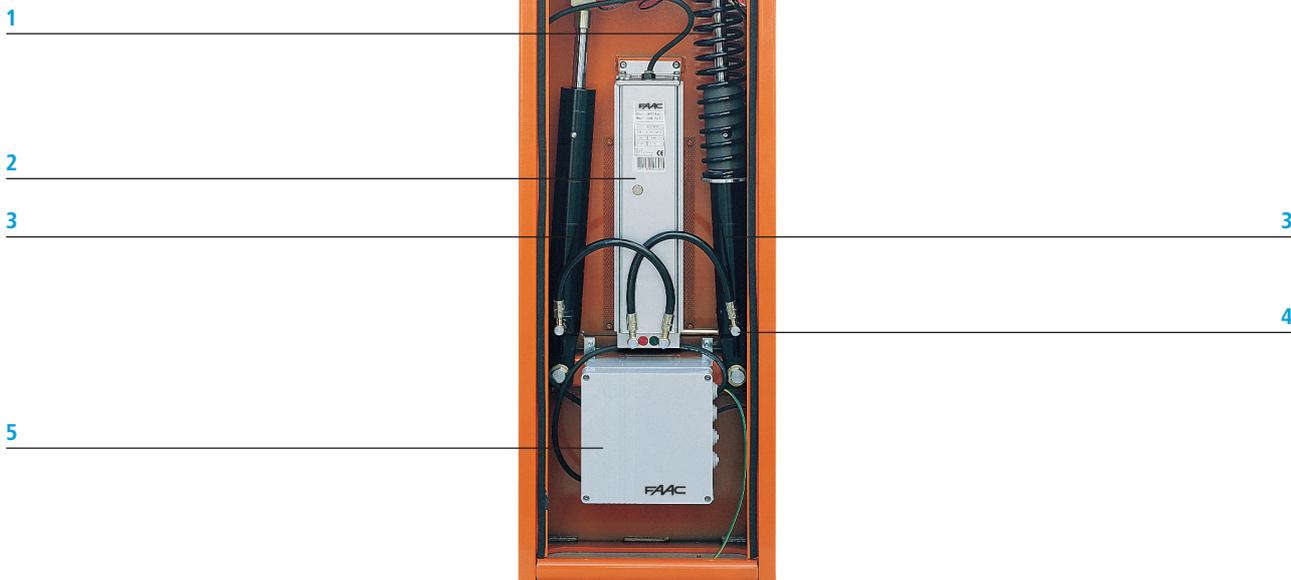
■ Beam



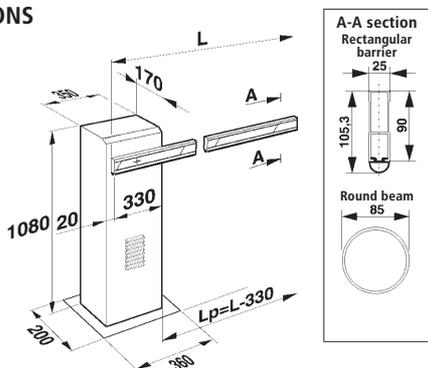
■ Self-supporting barrier body



- 1 Balancing spring
- 2 Hydraulic pump unit
- 3 Cylinders with plunger pistons
- 4 Release device by triangular key
- 5 624 MPS control board



DIMENSIONS



L = Beam length
LP = Transit space length

Values in mm

Technical characteristics of 624 MPS control board

Power supply	230 Vac (+6% -10%) 50 (60) Hz
Motor maximum load	300 W
Accessories output	24 Vdc 500 mA max
Operating ambient temperature	-20°C ÷ + 55°C
Three protection fuses	0,25 A transformer - 5 A motor - 1,6 A accessories
Enclosure dimensions	174x178x102 mm (LxHxD)
Protection class	IP 55

SMT technology

Programmable functions: - Three function logics - A/E/P, Pause times, Pre-flashing, Electronic deceleration (short or long), Operation of indicator-light

Inputs signalling LED, alarm and limit-switch

Terminal board outputs - Indicator-light, flashing Lamp

Terminal board inputs - Open, stop, safety devices, anti-panic

Rapid connectors for: Motor, limit-switch, decoding cards/card receivers, optional cards

Reset push-button

Technical characteristics	620 RAPID LH/RH
Power supply	230 Vac (+6% -10%) 50 (60) Hz
Electric motor	Single-phase, bi-directional
Absorbed power	220 W
Absorbed current	1A
Motor rotation speed	1.400 - 2.800 rpm
Pump flow rate	1,5 /2 l/min.
Thermal protection on motor winding	120°C
Effective torque	0÷100 / 0÷80 Nm
Electronic deceleration	Adjustable with cams
Operating ambient temperature	-20°C ÷ +55°C
Weight	73 kg
Type of oil	FAAC HP OIL
Barrier body treatment	Cataphoresis
Paint	RAL 2004 polyester
Protection class	IP 44
Cooling	Forced air
Type of beam	rectangular: standard - with skirt - articulated standard rectangular - round: standard - pivoting

Model	Use			Control board
	Beam max. length (m)	Opening time (s)	Use frequency (cycles/hour)	
620 RAPID LH/RH	4,00	2 (3m) 3 (4m)	100	624 MPS built-in
620 RAPID ART. LH/RH	3,00 (articulated)	3	100	624 MPS built-in

620 SR

for beams up to 3 m



■ Use versatility

The "rapid" version of the FAAC 620 SR offers the continuity solution to the traffic problem. It enables uninterrupted use frequency thanks to real-time detection of oil temperature. For barriers of up to 3 metres in length, opening time is under 2 seconds.

■ Totally flexible

The FAAC 620 SR range is equipped with adjustable opening and closing electronic deceleration.

■ Long term reliability

Use of cutting-edge materials and treatments such as cataphoresis and niproly, plus tried-and-tested FAAC hydraulic technology, all combine to ensure long-life.

■ Leading-edge technology

SMT microprocessor electronic technology is supplied standard to ensure exceptional performance. By means of an optional board, the barrier can also control auxiliary services and an additional opposing beam. Barrier statuses can be signalled to traffic control devices.

■ Electronic intelligence

The electronic intelligence of the 620 range functions by means of three differentiated logics: automatic, semi-automatic and parking (P) - the latter was expressly designed for automatic parking systems.

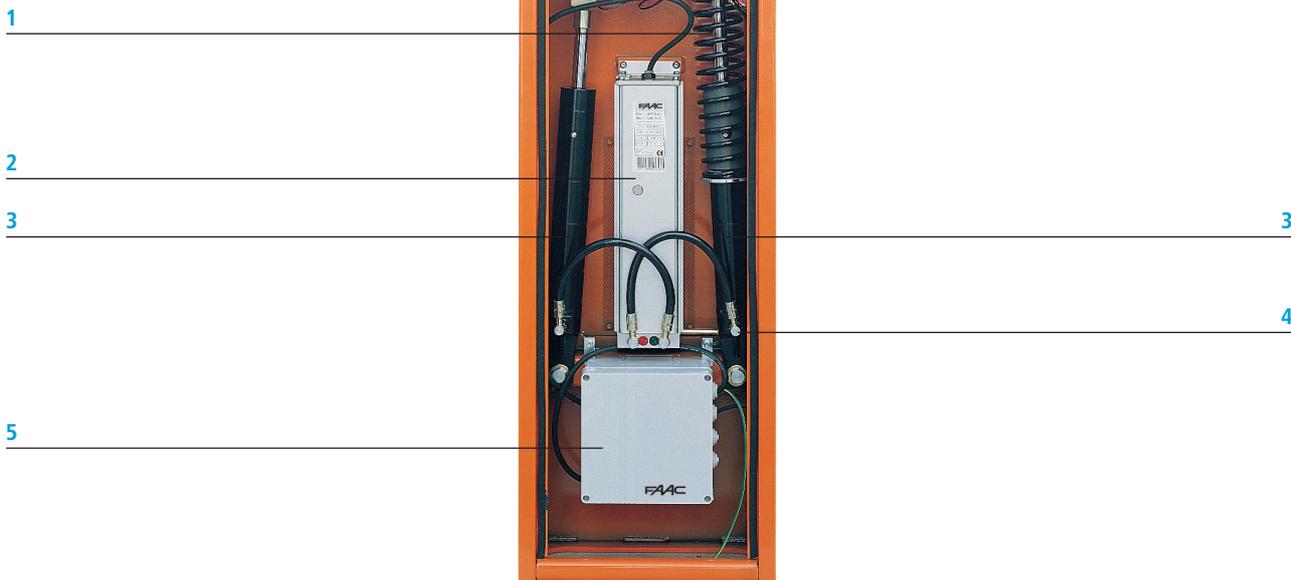


■ Beam

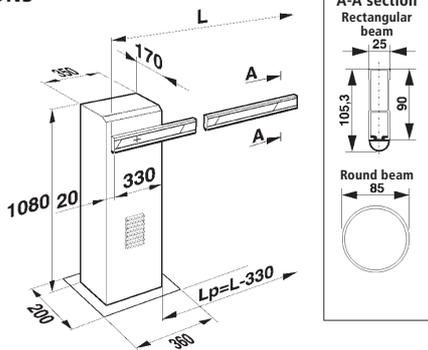
■ Self-supporting barrier body



- 1 Balancing spring
- 2 Hydraulic pump unit
- 3 Cylinders with plunger pistons
- 4 Release device by triangular key
- 5 625 MPS control board



DIMENSIONS



L = Beam length
LP = Transit space length

Values in mm

Technical characteristics of 625 MPS control board

Power supply	230 Vac (+6% -10%) 50 Hz
Motor maximum load	220 W
Accessories output	24 Vdc 500 mA max
Operating ambient temperature	-20°C ÷ +55°C
Three protection fuses	0.25 A transformer - 5 A motor - 1.6 A accessories
Enclosure dimensions	174x178x102 mm (LxHxD)
Protection class	IP 55

SMT technology

Programmable functions: - Three function logics - A/E/P, Pause times, Pre-flashing, Electronic deceleration (short or long), Operation of indicator-light

Inputs signalling LED, alarm and limit-switch

Terminal board outputs - Indicator-light, flashing Lamp

Terminal board inputs - Open, stop, safety devices, anti-panic

Rapid connectors for: Motor, limit-switch, decoding cards/card receivers, optional cards

Reset push-button

Technical characteristics	620 SR LH/RH
Power supply	230 Vac (+6% -10%) 50 (60) Hz
Electric motor	Single-phase, bi-directional
Absorbed power	220 W
Absorbed current	1 A
Motor rotation speed	2,800 rpm
Pump flow rate	3 l/min
Thermal protection on motor winding	130°C
Effective torque	0÷100 / 0÷80 Nm
Electronic deceleration	Adjustable with cams
Operating ambient temperature	-20°C ÷ +55°C
Weight	80 kg
Type of oil	FAAC HP OIL
Barrier body treatment	Cataphoresis
Paint	RAL 2004 polyester/stainless-steel
Protection class	IP 44
Cooling	Forced air
Type of beam	rectangular - round - pivoting round

Model	Use			Control board
	Beam max. length (m)	Opening time (s)	Use frequency (cycles/hour)	
620 SR LH/RH	3,00	ap. ch. 0,8/0,8	100	625 MPS built-in
	3,00	ap. ch. 0,8/2,2	100	625 MPS built-in

640

for beams up to 7 m



■ The right solution for large industrial accesses

With its length of 4 to 7 metres, the FAAC 640 range is ideal for traffic-control in large industrial accesses, with particularly demanding use.

■ Reliable and resistant

Use of cutting-edge materials and treatments such as cataphoresis and niproly, plus tried-and-tested FAAC hydraulic technology, all combine to ensure long-life.

■ High-tech

SMT microprocessor electronic technology is supplied standard to ensure exceptional performance. By means of an optional card, the barrier can also control auxiliary services and an additional opposing beam. Barrier statuses can be signalled to traffic control devices.

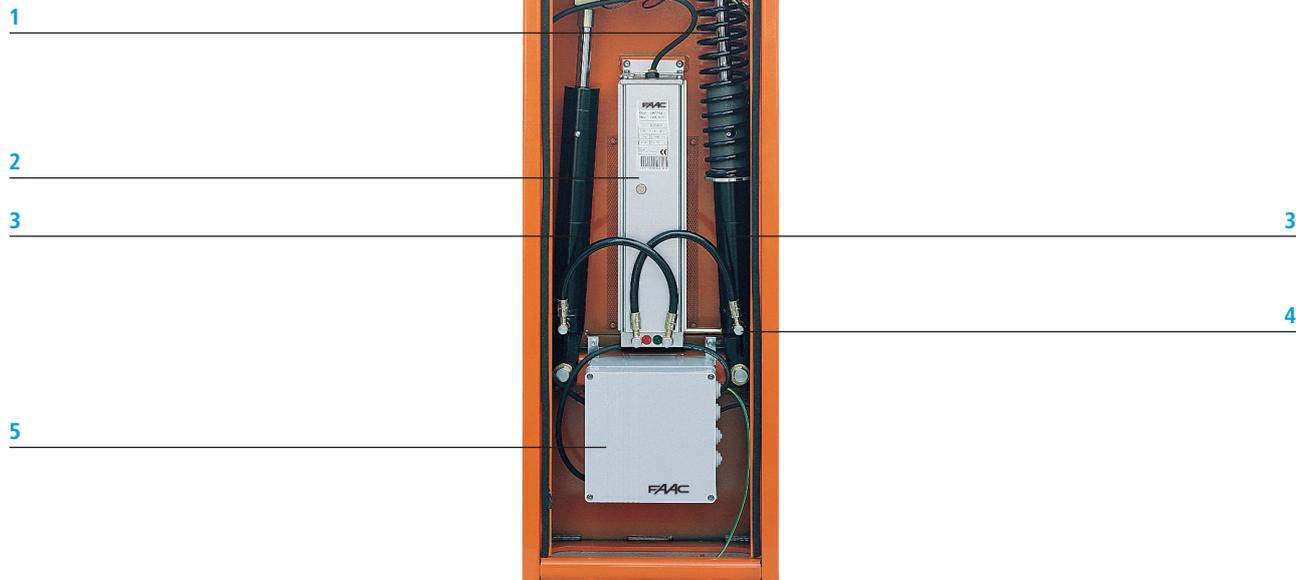
■ Precise stopping

Perfectly calibrated stopping thanks to the adjustable electronic brake that slows down closing and opening movement. A thermal probe detects temperature and activates a cooling fan.

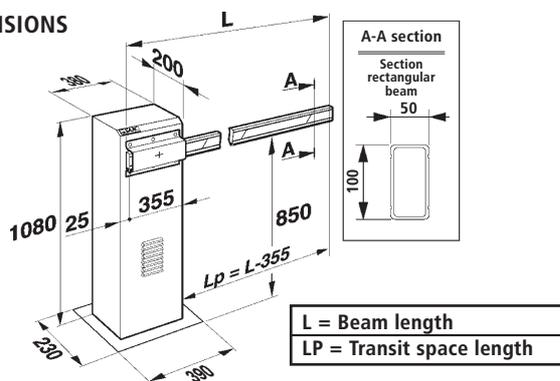


■ Beam

■ Self-supporting barrier body



DIMENSIONS



Values in mm

- 1 Balancing spring
- 2 Hydraulic pump unit
- 3 Cylinders with plunger pistons
- 4 Release device by triangular key
- 5 624 MPS control board

Technical characteristics of 624 MPS control board

Power supply	230 Vac (+6% -10%) 50 (60) Hz
Motor maximum load	300 W
Accessories output	24 Vdc 500 mA max
Operating ambient temperature	-20°C ÷ +55°C
Three protection fuses	0,25 A transformer - 5 A motor - 1,6 A accessories
Enclosure dimensions	174x178x102 mm (LxHxD)
Protection class	IP 55

SMT technology

Programmable functions: - Three function logics - A/E/P, Pause times, Pre-flashing, Electronic deceleration (short or long), Operation of indicator-light
Inputs signalling LED, alarm and limit-switch
Terminal board outputs - Indicator-light, flashing Lamp
Terminal board inputs - Open, stop, safety devices, anti-panic
Rapid connectors for: Motor, limit-switch, decoding cards/card receivers, optional cards
Reset push-button

Technical characteristics	640
Power supply	230 Vac (+6% -10%) 50 (60) Hz
Electric motor	Single-phase, bi-directional
Absorbed power	220 W
Absorbed current	1A
Motor rotation speed	1.400 - 2.800 rpm
Pump flow rate	0,75 - 1 - 1,5 - 2 l/min.
Thermal protection on motor winding	120°C
Effective torque	0÷470 / 0÷340 / 0÷250 / 0÷210 Nm
Electronic deceleration	Adjustable with cams
Operating ambient temperature	-20°C ÷ +55°C
Weight	84 kg
Type of oil	FAAC HP OIL
Barrier body treatment	Cataphoresis
Paint	RAL 2004 polyester
Protection class	IP 44
Cooling	Forced air
Type of beam	rectangular, rectangular with skirt

Model	Use			Control board
	Beam max. length (m)	Opening time (s)	Use frequency (cycles/hour)	
640 LH/RH	7,00	4 (5m)	100	624 MPS built-in

642 INOX

for beams up to 7 m



■ Fast and versatile

For beams of up to 4 metres, the "rapid" version of the FAAC 642/40 offers the continuity solution to the traffic problem, by enabling uninterrupted use frequency. The "Standard" version is suitable for lighter traffic, and can be equipped with a skirt to prevent break-ins.

■ The right solution for large industrial accesses

With its length of 4 to 7 metres, the FAAC 642/70 range is ideal for traffic-control in large industrial accesses, with particularly demanding use. On top of that, the stainless-steel version ensures resistance against any environmental aggression and reliability in line with the severest demands.

■ High-tech

SMT microprocessor electronic technology is supplied standard to ensure exceptional performance.

By means of an optional card, the barrier can also control auxiliary services and an additional opposing beam. Barrier statuses can be signalled to traffic control devices.

■ Precise stopping

Perfectly calibrated stopping thanks to the adjustable electronic brake that slows down closing and opening movement.

A thermal probe detects temperature and activates a cooling fan.



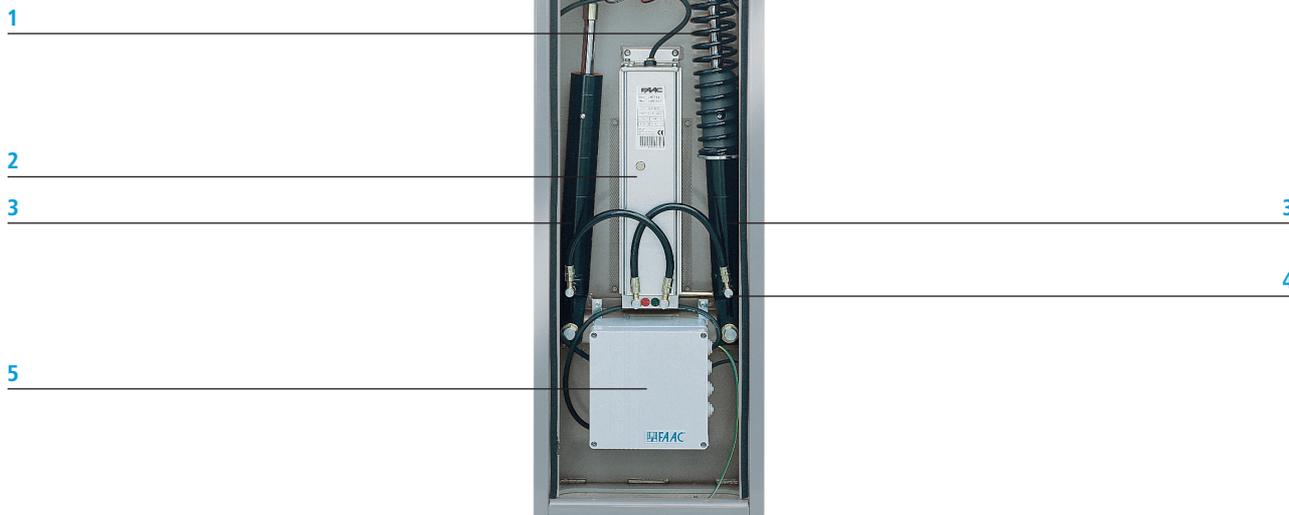
■ Beam



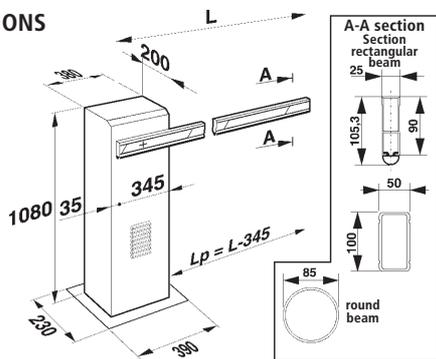
■ Self-supporting barrier body



- 1 Balancing spring
- 2 Hydraulic pump unit
- 3 Cylinders with plunger pistons
- 4 Release device by triangular key
- 5 624 MPS control board



DIMENSIONS



L = Beam length
LP = Transit space length

Values in mm

Technical characteristics of 624 MPS control board

Power supply	230 Vac (+6% -10%) 50 (60) Hz
Motor maximum load	300 W
Accessories output	24 Vdc 500 mA max
Operating ambient temperature	-20°C ÷ +55°C
Three protection fuses	0,25 A transformer - 5 A motor - 1,6 A accessories
Enclosure dimensions	174x178x102 mm (LxHxD)
Protection class	IP 55

SMT technology

Programmable functions: - Three function logics - A/E/P, Pause times, Pre-flashing, Electronic deceleration (short or long), Operation of indicator-light

Inputs signalling LED, alarm and limit-switch

Terminal board outputs - Indicator-light, flashing Lamp

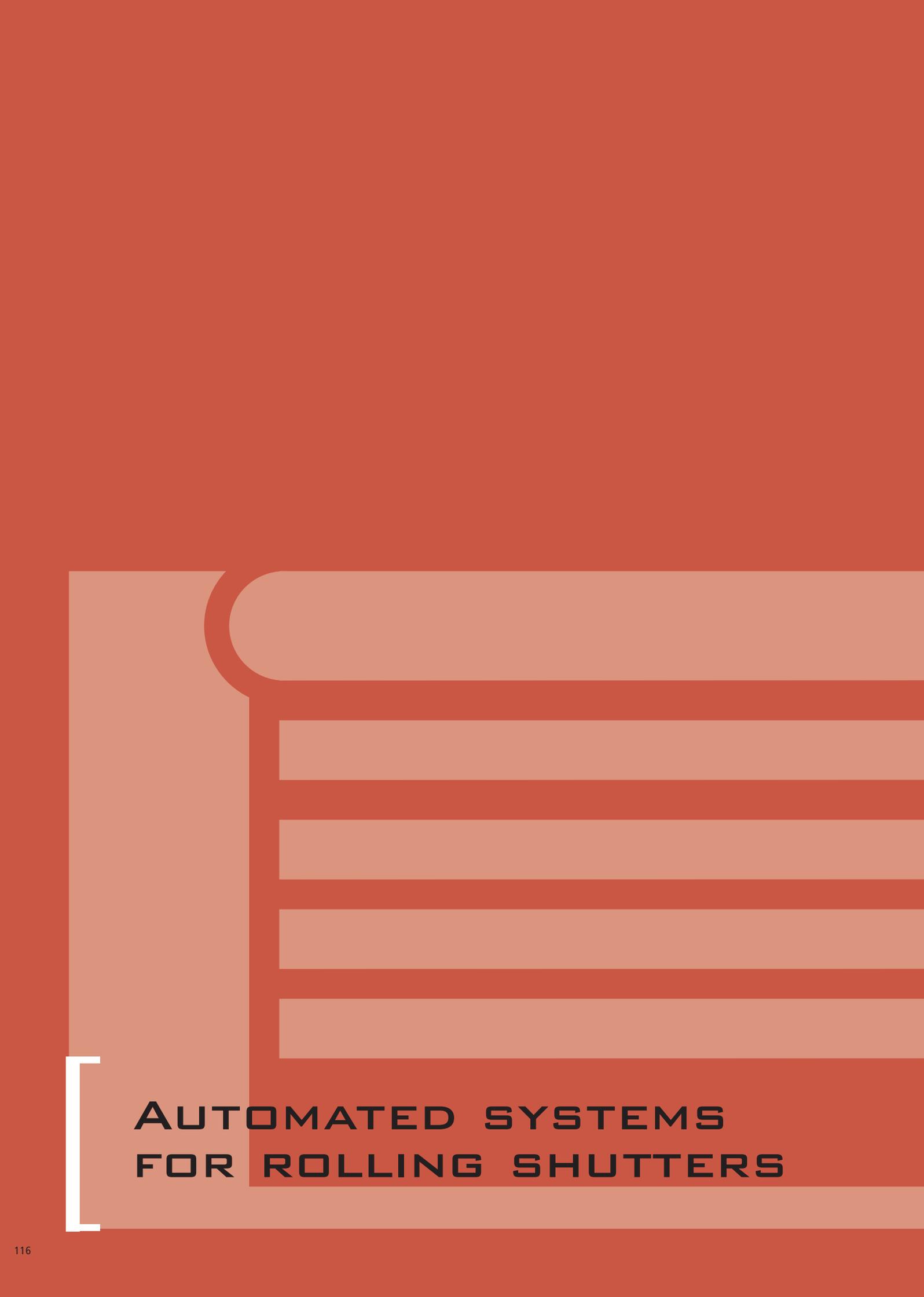
Terminal board inputs - Open, stop, safety devices, anti-panic

Rapid connectors for: Motor, limit-switch, decoding cards/card receivers, optional cards

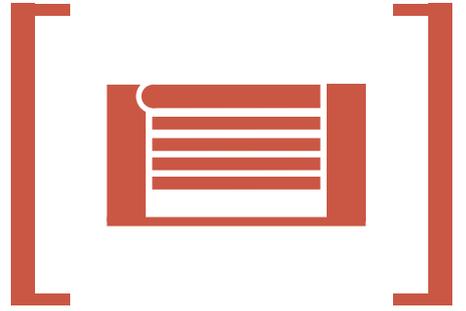
Reset push-button

Technical characteristics	642 STD/40 LH/RH	642 R/40 LH/RH	642 /70 LH/RH
Power supply	230 Vac (+6% -10%) 50 (60) Hz		
Electric motor	Single-phase, bi-directional		
Absorbed power	220 W		
Absorbed current	1A		
Motor rotation speed	1.400 rpm	1.400 - 2.800 rpm	
Pump flow rate	0,75 l/min. - 0,75-1 l/min.	1,5 - 2 l/min.	0,75 - 1 - 1,5 - 2 l/min.
Thermal protection on motor winding	120°C		
Effective torque	0÷200 / 0÷150 Nm	0÷110 / 0÷90 Nm	0÷470/0÷340 /0÷250 /0÷210 Nm
Electronic deceleration	Adjustable with cams		
Operating ambient temperature	-20°C ÷ +55°C		
Weight	73 kg		84 kg
Type of oil	FAAC HP OIL		
Barrier body treatment	STAINLESS STEEL		
Protection class	IP 44		
Cooling	Forced air		
Type of beam	rigid rectangular - rigid rectangular with skirt - round - pivoting round	rigid rectangular - round - pivoting round	rectangular - rectangular with skirt

Model	Use			Control board
	Beam max. length (m)	Opening time (s)	Use frequency (cycles/hour)	
642 STD/40 LH/RH	4,00	3,5 (3m) 4,5 (4m)	70	624 MPS built-in
642 R/40 LH/RH	4,00	<2 (3m) <3 (4m)	100	624 MPS built-in
642/70 LH/RH	7,00	4 (5m) 5,5 (6m) 8 (7m)	100	624 MPS built-in

The image features a solid reddish-orange background. On the left side, there is a large, white, stylized bracket shape that extends vertically from the bottom towards the middle of the page. To the right of this bracket, there are several horizontal bars of varying lengths and colors, including shades of light orange, dark orange, and white, arranged in a way that suggests a list or a series of items. The overall design is modern and minimalist.

**AUTOMATED SYSTEMS
FOR ROLLING SHUTTERS**



TYPE OF INSTALLATION

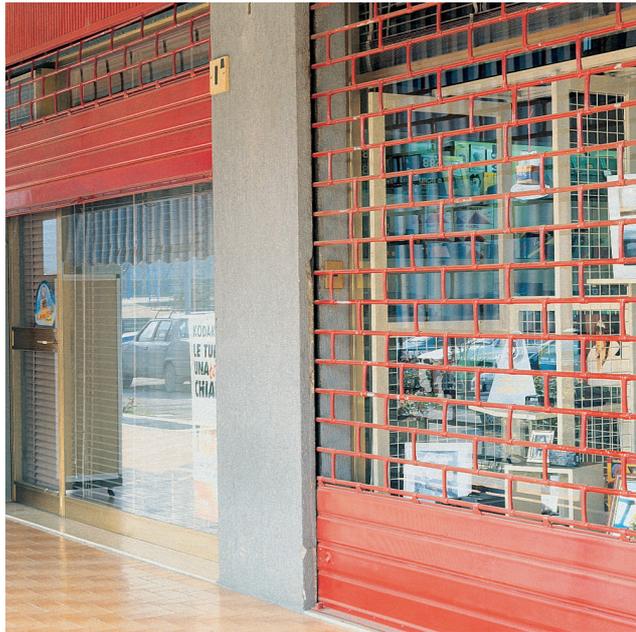
RESIDENTIAL	226 L	226 M		220 M		
CONDOMINIUM (LIGHT COMMERCIAL)	226 L	226 M	226 T	220 M	220 T	227 L
INDUSTRIAL		226 M	226 T	220 M	220 T	227 L
PARKING						
use cycles	20%	20%	20%	20%	20%	20%
shutter shaft diameter (mm)	60 48* 42*	60 48* 42*	60 48* 42*	60 48* 42*	60 48* 42*	76
shutter winding flange diameter (mm)	200 220**	200 220**	200 220**	220	220	240
lifting capacity (kg)	105	180	280	160	250	160

(*) By compensators

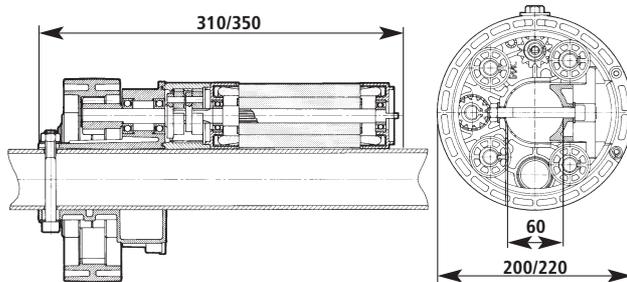
(**) By spacers/crown

220 - 226 - 227

for spring balanced
rolling shutters



DIMENSIONS



Values in mm



■ Electric brakes

■ Simple, rapid installation

The special concept of the FAAC 200 series ensures easy, rapid installation on new- or old-type shutters.

■ Maximum reliability, minimum maintenance

Simple technology and high wear resistance selected materials make the 200 series unequalled in terms of functionality and reliability. No maintenance whatever is required; can be installed on any rolling shutter with balancing springs.

■ Highly versatile

The FAAC 200 range is available in six models varying in power, lifting capacity and crown diameter.

■ High level of safety

For all emergencies, the manual brake release can be activated by a knob inside the building, and from the outside by a device protected by a customised key.

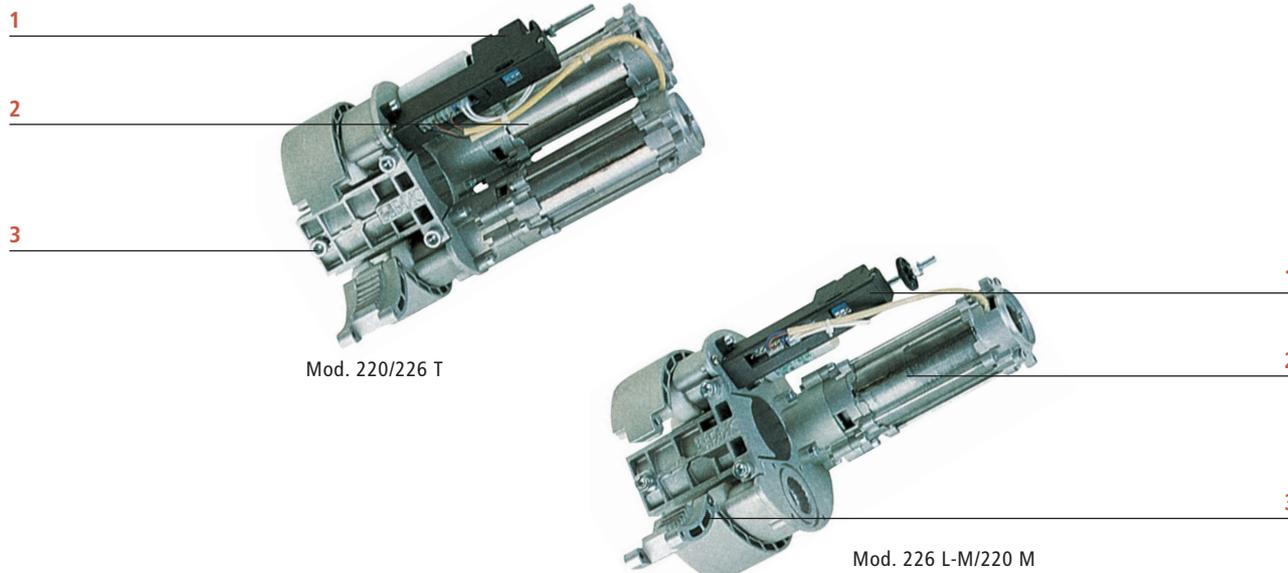
In case of a power-cut, FAAC 200's perfect reversing capability, ensures the shutter can be opened manually.

■ The non-reversing facility brakes problems

The whole 200 range is also designed for installing the electromagnetic brake to make the automated system non-reversing if necessary.



- 1 Limit-switch
- 2 Electric motor
- 3 Winding flange



Mod. 220/226 T

Mod. 226 L-M/220 M

Specifications of 200 BT control board

Power supply	230 Vac (+6% -10%) 50 (60) Hz
Low voltage controls	24 Vdc
Motor maximum load	800 W
Opening/closing push-buttons	Interlocked
Operating ambient temperature	-20°C ÷ +55°C
Two protection fuses	0,25 A transformer 6,3 A motor
Enclosure dimensions	100x100x50 mm (LxHxD)
Protection class	IP 55

Specifications of 200 MPS control board

Power supply	230 Vac (+6% -10%) 50 (60) Hz
Motor maximum load	800 W
Operating ambient temperature	-20°C ÷ +55°C
Accessories output	24 Vdc 360 mA
Safety timer	60 s
Three protection fuses	0,25 A transformer - 6,3 A motor - 0,5 A accessories
Enclosure dimensions mod. E	204x265x85 mm (LxHxD)
Protection class	IP 55

Electric brakes (optional)

Power supply	90 Vdc
Current consumption	50 mA
Braking torque	1,5 Nm
Internal emergency release	standard
Weight	0,5 kg
Dimensions	90 x 50 mm

SMT technology

Programmable functions - Two A/EP function logics - Pause times - FAAC LAMP pre-flashing - Two function logics safety devices

Input signalling LED

Rapid connector for card receivers or decoding cards

Automatic detection of limit-switch tripping

Reset push-button

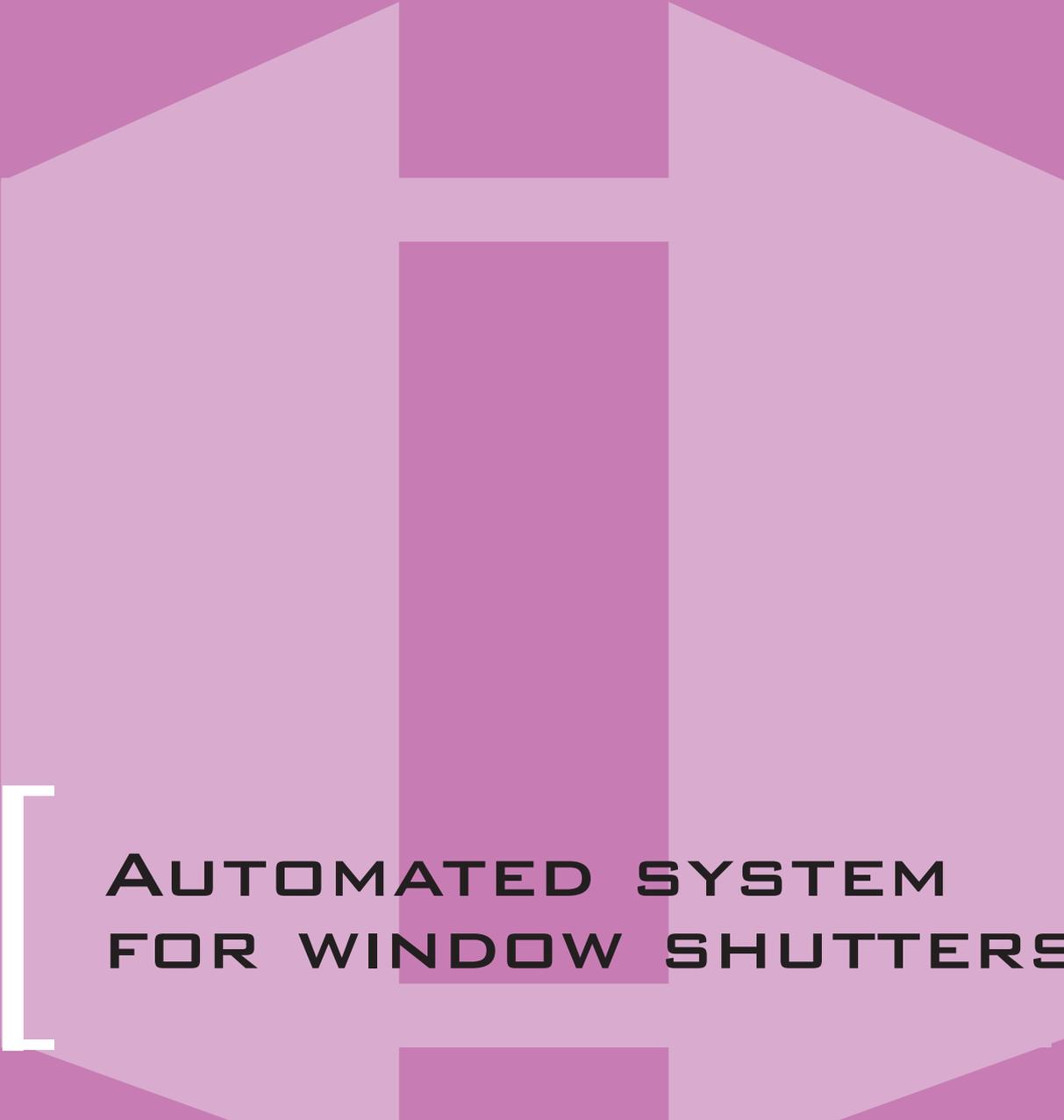
Technical specifications	226 L	226 M (220M)	226 T (220T)	227 L
Power supply	230 Vac (+6% -10%) 50 (60) Hz			
Electric motor	single-phase, bi-directional			
Motor capacity	250 W	400 W	800 W	300 W
Motor rotation speed	1.400 rpm			
Thermal protection on motor winding	120°C			
Operating ambient temperature	-20°C ÷ +55°C			
Lifting capacity	105 kg	180 kg 160 kg (220 M)	280 kg 250 kg (220 T)	160 kg
Winding flange speed	10rpm			9 rpm
Power cable	4 m			

Two-stage reversible epicyclic gearmotor.
Crown in pressure cast aluminium.
Gears in sintered steel with anti-wear treatment.

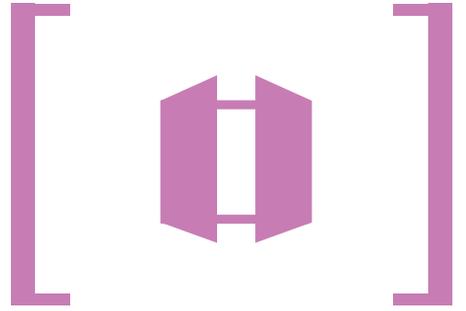
Polyamide sliding rollers.
Transmission shaft on double ball-bearings.
Micrometric screw limit-switch with clutch and position mechanical memory.

Model	Use			Control board
	Shutter shaft diameter (mm)	Diameter of spring boxes (mm)	Use frequency (%)	
226 L	60/48 ⁽¹⁾ /42 ⁽¹⁾	200/220 ⁽²⁾	20	Not included
226 M	60/48 ⁽¹⁾ /42 ⁽¹⁾	200/220 ⁽²⁾	20	Not included
226 T	60/48 ⁽¹⁾ /42 ⁽¹⁾	200/220 ⁽²⁾	20	Not included
220 M	60/48 ⁽¹⁾ /42 ⁽¹⁾	220	20	Not included
220 T	60/48 ⁽¹⁾ /42 ⁽¹⁾	220	20	Not included
227 L	76	240	20	Not included

(1) by reduction tubes
(2) by adapters



**AUTOMATED SYSTEM
FOR WINDOW SHUTTERS**



TYPE OF INSTALLATION

	NIGHT & DAY Mod. BASIC	
		NIGHT & DAY Mod. DE LUXE
RESIDENTIAL		NIGHT & DAY LIMIT SWITCH
operator	ELECTRO-MECHANICAL	ELECTRO-MECHANICAL
window width	780-1500 mm	900-1600 mm
number of leaves	2	2
anti-crushing protection	MECHANICAL	MECHANICAL
functioning	DEAD-MAN (MAINTAINED CONTACT)	SEMI-AUTOMATIC (RADIO KEY-PAD)

NIGHT&DAY

automated system for window shutters
(window width: min. 780 mm - max. 1500 mm)



BASIC mod.

- Electro-mechanical operator
- Dead-man push-button (optional)

automated system for heavy shutters
(window width: min.900 mm - max. 1600 mm)



Easy to install

With the NIGHT & DAY kit you can easily automate new or existing shutters. As it is very compact, the kit can be used even if iron bars or mosquito nets are installed: all you need is 10 cm of space! The automated system is quick to install and, thanks to quality materials, it guarantees high resistance to wear and weather.

Respects your window's appearance

The automated system consists of a tubular motor and transmission housed in an attractively shaped enclosure of extruded aluminium. Its compact size makes the automated system almost invisible, thus preserving the appearance of the building's façade. Choice of white or brown means you can select the version most suitable for your window.

Smooth, silent motion

Drive is transmitted to the shutter by two curved arms sliding along a guide secured on each shutter leaf to ensure smooth, silent motion. Whatever the degree of opening, the system offers sufficient wind resistance, keeping the shutters restrained without using your hands: banging shutters are just a thing of the past!

Real-time control

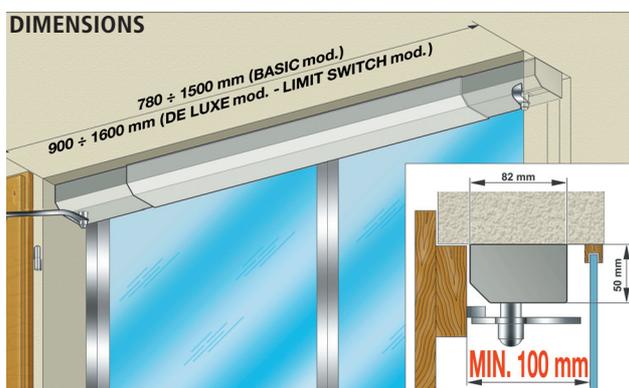
With the BASIC kit, you activate the shutters by holding the "open/close" push-button pressed.

DE LUXE mod.

- Electro-mechanical operator with integrated receiver
- Radio push-button (standard)

LIMIT SWITCH mod.

- Electro-mechanical operator with limit-switch embodied
- Switching logic push-button
- Radio push-button (not available)



Technical specifications	BASIC Mod.	DE LUXE Mod.	LIMIT SWITCH Mod.
Power supply voltage	230 Vac - 50 Hz	230 Vac - 50 Hz	230 Vac - 50 Hz
Motor power	115 W	150 W	150 W
Motor torque	10Nm	20Nm	20Nm
Motor rotation speed	15 rpm	16 rpm	16 rpm
Reduction ratio	3/17	3/17	3/17
Opening/closing time	About 14 sec	About 12 sec	About 12 sec
Power cable exit point	On right	On right	On right
Colour range	White RAL9010- Brown RAL8017	White RAL9010 - Brown RAL8017	White RAL 9010 Brown RAL 8017
Control	By "open/close" selector switch (maintained command)	By "open/close/stop" radio button board (pulse command)	By "open/close" selector switch (maintained command)

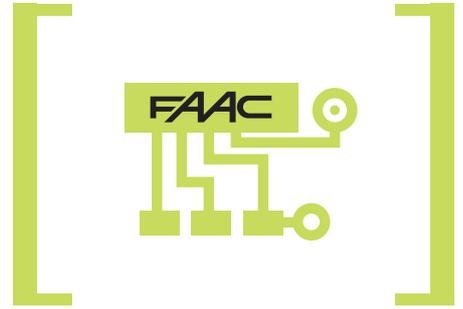
Application limits	BASIC Mod.		DE LUXE Mod.		LIMIT SWITCH Mod.	
Number of leaves	2	1	2	1	2	1
Minimum width	780 mm	630 mm	900 mm	730 mm	900 mm	730 mm
Maximum width	1.500 mm	1.100 mm	1.600 mm	1.300 mm	1.600 mm	1.300 mm
Delayed leaf(*)	right/left		right/left		right/left	
Shutter maximum thickness	36 mm		50 mm		50 mm	
Shutter maximum area						
Windy zone	1,5 sq.m		2,5 sq.m		2,5 sq.m	
Protected zone	1,8 sq.m		3,0 sq.m		3,0 sq.m	

* View from the inside

The image features a light green background with a large, stylized graphic of a circuit board. The graphic consists of various rectangular blocks and lines, with two circular components on the right side. The FAAC logo is positioned in the upper left quadrant of the graphic.

FAAC

**ELECTRONIC
CONTROL EQUIPMENT**



FUNCTIONS

	452 MPS	455 D	462 DF	462 DF
	DIP-SWITCHES	DISPLAY	WITH DIGIPROGRAMM	WITH FAACOTUM
programming	YES	YES	DIGIPROGRAMM	YES
function logics "automatic – semi-automatic"	YES	YES	YES	YES
function logics "dead-man"	NO	NO	NO	YES
"customisable" function logics	YES	YES	YES	YES
opening/closing safety device	YES	YES	YES	YES
safety device function logics	YES	YES	YES	YES
free leaf	YES	YES	YES	YES
8/12 Vac electric lock (opening and/or closing)	YES	YES	YES	YES
12 Vdc electric lock (opening and/or closing)	NO	NO	YES	YES
indicator-light	YES	YES	YES	YES
timed courtesy lamp	NO	YES	YES	YES
opening/closing limit-switch	NO	YES	YES	YES
electronic deceleration	NO	YES	YES	YES
electronic obstacle detection and deceleration	NO	GATECODER	GATECODER	GATECODER
deceleration by gate position "reading"	NO	GATECODER	GATECODER	GATECODER
enable timer	NO	NO	NO	YES
leaf closing delay	YES	YES	YES	YES
leaf opening delay	YES	YES	YES	YES
torque adjustment (each motor independently)	YES	YES	YES	YES
fail safe (photocells automatic test)	YES	YES	YES	YES
watch dog on microprocessor	YES	YES	YES	YES
entrances status signalling	LED	DISPLAY	LED	LED
diagnostics	NO	NO	NO	YES
learning cycle for opening, closing positions and deceleration operator tests	YES	YES	YES	YES
operator tests	YES	YES	YES	YES
pre-flashing	YES	YES	YES	YES (ADJUSTABLE)
cycle countdown	NO	YES	YES	YES
assistance request	NO	YES	YES	YES

452 MPS


FAAC

control board



Model	Use	Accessories
452 MPS	For hydraulic and electro-mechanical operators	Enclosures see pag. 130

Technical specifications of 452 MPS

Power supply	230 Vac
Absorbed power	15 W
Motor max. load	800 W
Accessories max. load	500 mA
Electric lock max. load	15VA/12 Vac
Operating ambient temperature	-20°C ÷ +55°C
Protection fuses	2 (motors and primary transformer/low voltage and accessories)
Terminal board inputs	Open/Open single leaf/Stop/Opening safety devices/Closing safety devices /Power supply + earth
Terminal board outputs	Flashing lamp/Motors / 24 Vdc accessories power supply/24 Vdc indicator light max 3 W/Fail safe/12 Vac electric lock power supply
Rapid connector	Decoding cards/ RP plug-in receivers

The 452 MPS control board can control one or two operators

Functions programming through microswitches

Function logics	Automatic (A-SP) Semi-automatic (E-EP/ "stepped") Dead man (B-C)
Pause time	0,10,20,30,60,120 s
Closing leaf delay	0,5,10,20 s
Opening leaf delay	2 s (can be disabled)
Thrust force	Dip-switch adjustable on 8 levels for each motor
Closing photocells logic	Reverses if released/reverses immediately
Fail safe (the photocells control test)	Can be disabled
Closing end stroke + Reversing stroke	Can be disabled

(*) function to optimize the electric lock activation control.

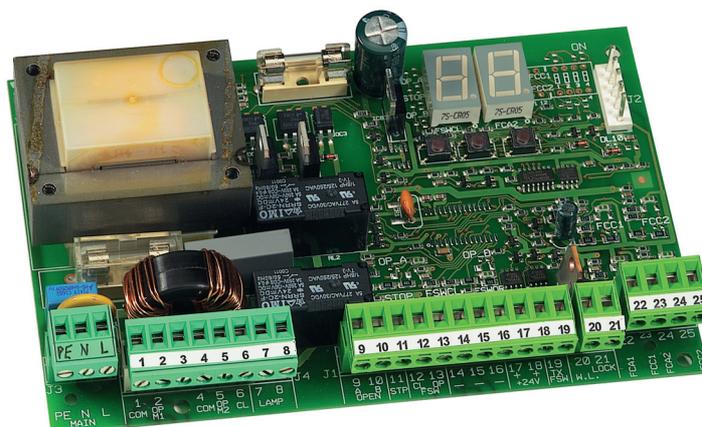
Function "programming pushbutton"

Work time self learning	From 0 to 120 s
Pre-flashing	5 s (selectable)

455 D



control board



Model	Use	Accessories
455 D	For hydraulic and electro-mechanical operators	Enclosures see pag. 130 Gatecoder deceleration kit see pag. 128

Technical specifications of 455 D

Power supply	230 Vac
Absorbed power	15 W
Motor max. load	800 W
Accessories max. load	500 mA
Electric lock max. load	15VA/12 Vac
Operating ambient temperature	-20°C ÷ +55°C
Protection fuses	2 (motors and primary transformer/low voltage and accessories)
Terminal board inputs	Open/Open free leaf/Stop/Opening safety devices/Closing safety devices/Power supply + earth
Terminal board outputs	Flashing lamp/Motors - 24 Vdc accessories power supply/24 Vdc indicator light max 3 W/Fail safe/12 Vac electric lock power supply
Rapid connector	Decoding cards/ RP plug-in receivers
Gate status indication	By display

The 455 D control board can control one or two operators

Functions programming through display and push-buttons

Basic programming

Function logics	Automatic (A-S-AP-SP) Semi-automatic (E-EP/ "step by step") Dead man (B-C)
Pause time	Programmable (from 0 up to 4 min.)
Closing leaf delay	Programmable (from 0 up to 4 min.)
Thrust force	Adjustable: 50 levels per each motor
Working time learning (from 0 up to 120 s)	Simple (self learning of the leavesworking time simultaneously) Complete "manual" self learning of each leaf. End travel deceleration, by time, settable.
Deceleration	By time, by limit-switches, by gatecoder

Advanced programming

Max torque at initial thrust	Programmable (useful for heavy leaves)
Pre-flashing	5 s (programmable)
Opening leaf delay	2 s (can be excluded)
Closing photocells logic	Reverse at disengagement/Immediate reverse
Fail safe (photocells test)	Programmable
Electric lock on leaf 2	Programmable
Cycles countdown	Programmable (countdown settable up to 99 thousand cycles)
Assistance request	Programmable (at the end of countdown it effects 8 s. of pre-flashing at every open)
Warning light/courtesy light	Programmable (warning light output can be customised as courtesy light output-max 4 min.)
Overclosing stroke	Selectable (help the electric lock engage)
Reversing stroke	Selectable (help the electric lock release)

462 DF

The 462 DF control board, dedicated to all automation professionals, is designed for hydraulic and electro-mechanical operators as well as gearmotors for sliding gates.

Its high level programming means the system can be customised so that it can satisfy even the most particular customer requirements.

The board's programming versatility is backed by using DIGIPROGRAM, the economic programming unit, to create installations with standard functioning logics, or by using FAACOTUM for nearly total customising of the system.

The FAACODE v.2.0. software means you can use a computer to simplify programming and archive data.

The 462 DF board is designed to accommodate the GATECODER kit: real-time reading of the gate ensures efficient limit-switch decelerations and can be in compliance with the safety requirements of the EN 12453 European Standards (impact curve).



Model	Use
462 DF	For hydraulic and electro-mechanical operators

Accessories

Enclosures	see pag. 130
------------	--------------

Technical specifications of 462 DF

SMT technology
REFLOW technology
Microprocessor control
Mains filter
Watch dog on microprocessor
Connector for decoding cards/PLUG-IN receiver
Connector for FAACOTUM programmer/DIGIPROGRAM programming unit
Removable numbered terminal boards
Management 12 Vac/12 Vdc electric lock/s - Nr 2 outputs
Terminal board inputs: open - closed open single leaf - stop - opening and closing safety device - opening and closing safety edge - emergency input - opening limit-switch/gatecoder kit - closing limit-switch/gatecoder kit
Terminal board outputs: motors (2) - warning light max 3 w - flashing lamp

GATECODER



PATENTED

GATECODER characteristics

electronic deceleration kit for operators 402-422-400
installation on operator rear bracket
real-time reading of gate's exact position
programmable function for electronic anti-crushing safety device
connection to 462 DF control board by pre-wired 1 m length 3x0.35mm2 cable
power supply: 24 Vdc
protection class IP 66
operating ambient temperature: -20°C ÷ +55°C
installation kit for 750/760 automated systems (optional)
installation kit for 560 automated systems (optional)
installation kit for 610 barriers (optional)

DIGIPROGRAM



programming unit



DIGIPROGRAM characteristics

ABS portable programming unit
Connector for connecting to 462 DF control board
Nr. 3 programming buttons
2 digit display

Functions programming through display and push-buttons

Basic programming

Function logics: Automatic (A-S) Semi-automatic (E-EP/ "step by step"), Dead man (B-C)

Pause time: programmable (from 0 up to 4 min.)

Closing leaf delay time: programmable (from 0 up to 4 min.)

Thrust force: Adjustable 50 levels per each motor

Working time learning:

- Simple (self learning of the leavesworking time simultaneously)
- Complete "manual" self learning of each leaf. End travel deceleration, by time, settable.

Advanced programming

Closing photocells logic: Reverse at disengagement/Immediate reverse

Opening leaf delay: 2 s (can be excluded)

Fail safe (photocells test): Programmable

Overclosing stroke (help the electric lock activation): programmable

Reversing stroke (help the electric lock disengagement): programmable

Max torque at initial thrust: programmable (useful for heavy leaves)

Electric lock on leaf 2: Programmable

Cycles countdown: Programmable

(countdown settable up to 99 thousand cycles)

Assistance request: Programmable (at the end of countdown it effects 8 s. of pre-flashing at every open)

Warning light/courtesy light: Programmable (warning light output can be customised as courtesy light output-max 4 min.)

Application for sliding gate

- deceleration with limit-switch for sliding gate
- Adjustment of partial opening for sliding gate

FAACTOTUM



Characteristics and functions of FAACTOTUM programmer

backlit LCD display, 4 lines x 20 characters
ABS enclosure
polycarbonate alphanumeric touch-screen
connector for flat cable connection to 462 DF control board
connector for RS 232 output (personal computer)
connection flat cable to 462 DF control board, standard supply
language selection (5 languages)
STAND-ALONE operation or with 462 DF control board
programming operations can be allocated to internal memory
data transfer from/to 462 DF control board
programming access protection by installer PASSWORD

462 DF programming of functions

By using the FAACTOTUM programmer, you can achieve near-total customising of the system's programming. Some of the most important functions are mentioned below - for further details, consult the technical manual.

Logics function: automatic (A-S), semi-automatic (E-EP/"step bystep"), dead man (B-C)

Safety devices function logics

Indicator - light function logics

Pre flashing at opening and/or closing

Independent opening and closing times for each motor and with remaining time memory

Pause times

Leaf opening delay

Leaf closing delay

Electric lock/s management on direct current (alternate current with outside power supply)

Reverse stroke at opening and/or closing

Electronic deceleration:

- timed
- with limit-switch
- with GATECODER
- with limit-switch and GATECODER

Anti-crushing electronic safety device (with GATECODER only)

Operators test program

Management of gearmotor for sliding gates

Diagnostics

DIGIPROGRAM cannot be used on a control board programmed with FAACTOTUM. On the contrary, FAACTOTUM can be used later on a control board programmed with DIGIPROGRAM

FAACODE



for personal computer management of 462 DF control board

Function

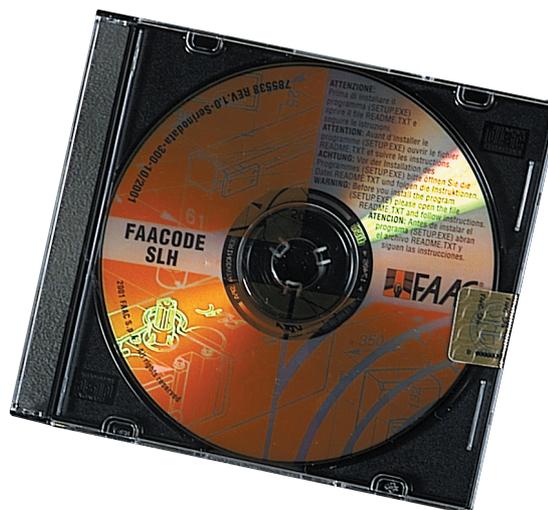
General archival of system data (client, address, installation date, configuration, etc.)

Archival of system configuration data (single or double leaf, operator type, function logic, entrances used, etc.)

Facility for programming on Personal Computer and subsequent transfer to FAACOTUM

Guide menu for managing special functions

Printing of system configuration



ENCLOSURES



E mod.



L/LM mod.



Characteristics of Mod. L-LM

IP 55 protection class	Removable hinges for right or left opening
Wall- or flush-mounting	Seats for capacitor supports
Designed for securing to DIN guide	Lock with standard triangular key
Fuse-holder	Coded-key lock (optional)
Designed for installation of door locking switch	

Characteristics of Mod. L

Dimensions: 213 x 270 x 118 mm (LxHxW)	N. 2 knockout holes Ø 19
N. 3 closing plugs for Ø 29 hole	

Characteristics of Mod. LM

Dimensions: 246 x 353 x 142 mm (LxHxW)	N. 2 knockout holes Ø 29
N. 2 closing plugs for Ø 29 hole	N. 2 knockout holes Ø 19

Characteristics of Mod. E

IP 55 protection class	Designed for installation of door locking switch
Wall- or flush-mounting	Cover closing by 4 self-tapping screws
Designed for securing to DIN guide	Seats for capacitor supports
Fuse-holder	Dimensions: 204 x 265 x 85 mm (LxHxW)



ACCESSORIES



868 DS



FAAC

saw resonator remote controls
coding by micro-switches



PL 868



PLUS 1 868

TM1 868 DS



TM2 868 DS



TM3 868 DS



Characteristics 868 MHz DS

Multi-channel receiver **PLUS 1 868** with built-in bipolar aerial and separate coding

- Power supply 20 ÷ 30 Vdc 24 Vac ± 10% - Max nr. of channels 100 - IP 44 protection class - SAW input filter for eliminating interferences

Multichannel receiver board **PL 868** with integrated antenna and separate codes, installed inside the FAACLIGHT.

- Power supply 20 ÷ 30 Vdc 24 Vac ± 10% - 50 channels maximum; SAW filter to avoid interferences.

One channel plug-in receiver **RP 868 DS** (open collector output) with built-in aerial and coding Plug-in connector

- Power supply 24 Vdc

- Slot for connecting external aerial - SAW input filter for eliminating interferences

MINIDEC DS decoding card (.open collector. output) for piloting FAAC control boards

- Plug-in connector - Power supply 24 Vdc

DECODER DS decoding card (.relay. output) for piloting FAAC control board and/or controlling auxiliary services

- Plug-in or terminal connector - Power supply 24 Vdc/24 Vac

868.35 MHz frequency

4.096 combinations (for single-channel models)

Transmitters with LEDs - Battery 12 V

Operating ambient temperature -20°C ÷ +55°C (RP 868)/-10°C ÷ +55°C (TM1 - TM2 - TM3)

868 SLH - SLH LR



saw resonator remote controls
hopping code - miniature size
hopping code - LR version



Characteristics 868 MHz SLH

- Multi-channel receiver **PLUS 1 868** with built-in bipolar aerial and separate coding
 - Power supply 20 ÷ 30 Vdc 24 Vac ± 10% - Max nr. of channels 50 - IP 44 protection class - SAW input filter for eliminating interferences
- Multichannel receiver board **PL 868** with integrated antenna and separate codes, installed inside the FAACLIGHT.
 - Power supply 20 ÷ 30 Vdc 24 Vac ± 10% - 50 channels maximum; SAW filter to avoid interferences.
- One channel plug-in receiver **RP 868 SLH** (open collector output) with built-in aerial and coding - Plug-in connector - Power supply 24 Vdc
 - Slot for connecting external aerial - SAW input filter for eliminating interferences
- MINIDEC SLH** decoding card (open collector output) for piloting FAAC control boards - Memory capacity 250 codes
 - Plug-in connector - Power supply 24 Vdc
- DECODER SLH** decoding card (.relay. output) for piloting FAAC control board and/or controlling auxiliary services
 - Memory capacity 1.000 codes - Programming push-button - Plug-in or terminal connector - Power supply 24 Vdc
- 868.35 MHz frequency
- Hopping code (72 millions of billions combinations)
- Two-channel **T2 868 SLH / DL2 868 SLH** and four-channel **T4 868 SLH/DL4 868 SLH** transmitters - Miniature size - Multi-function LEDs
 - Lithium battery (life of 4-5 years) - Removable keyring (T2/T4 only) - Transmitter code duplication feature

Characteristics 868 MHz SLH LR

- Multi-channel receiver **PLUS 1 868** with built-in aerial and separate coding
 - Power supply 20 ÷ 30 Vdc 24 Vac ± 10% - Max nr. of channels 50 - IP 44 protection class - SAW input filter for eliminating interferences
- One channel plug-in receiver **RP 868 SLH** (open collector output) with built-in aerial and coding - Plug-in connector
 - Power supply 20 ÷ 30 Vdc 24 Vac ± 10% - Slot for connecting external aerial - SAW input filter for eliminating interferences
- MINIDEC SLH** decoding card (open collector output) for piloting FAAC control boards
 - Memory capacity 250 codes
 - Plug-in connector - Power supply 24 Vdc
- DECODER SLH** decoding card (.relay. output) for piloting FAAC control board and/or controlling auxiliary services
 - Memory capacity 1.000 codes. Programming push-button
 - Plug-in or terminal connector - Power supply 24 Vdc
- 868.35 MHz frequency
- Hopping code (72 millions of billions combinations)
- Two-channel **TML2 868 SLH LR** and four-channel **TML4 868 SLH LR** transmitters. **High transmission power.**
 - **Transmission antenna increased from the standard version** - Multi-functions LEDs - Transmitter code duplication feature. 12 V battery
 - SLAVE** transmitters which cannot be duplicated in at all.
 - MASTER** transmitters which cannot be duplicated in at all

868 SLH

programmable saw resonator remote controls
hopping code - miniature size

Specifications 868 MHz SLH PROGRAMMABLE

Multi-channel **PLUS 1 868** receiver with built-in bipolar aerial and separate coding

- Power supply $20 \div 30$ Vdc 24 Vac $\pm 10\%$ - Max nr. of channels 50 - IP 44 protection class - SAW input filter for eliminating interferences

DECODER SLHP decoding card (relay output)

- Memory capacity 1000 codes
- Slot for additional MEX SLH memory (a further 1000 codes)
- Slot for connection to PROGRAMMING KEYPAD SLH

Two-channel **T2 868 SLH/DL2 868 SLH** and four-channel **T4 868 SLH/DL4 868 SLH** transmitters

- MASTER and SLAVE versions - Miniature size - Multi-function
- Lithium batteries (life of 4-5 years)
- Removable keyring (T2/T4 868 SLH only)

SLAVE transmitters which cannot be duplicated in any way

MASTER transmitters which can be duplicated

868.35 MHz frequency

Hopping code (72 millions of billions combinations)



868 SLH LR

programmable saw resonator remote controls
hopping code - LR version

Specifications 868 MHz SLH LR PROGRAMMABLE

Multi-channel **PLUS 1 868** receiver with built-in bipolar aerial and separate coding

- Power supply $20 \div 30$ Vdc 24 Vac $\pm 10\%$ - Max nr. of channels 50 - IP 44 protection class - SAW input filter for eliminating interferences

DECODER SLHP decoding card (relay output)

- Memory capacity 1000 codes - Slot for additional MEX SLH memory (a further 1000 codes)
- Slot for connection to PROGRAMMING KEYPAD SLH

868.35 MHz frequency

Hopping code (72 millions of billions combinations)

Two-channel **TML2 868 SLH LR** and four-channel **TML4 868 SLH LR** transmitters - MASTER and SLAVE versions - **High transmission power** - **Transmission antenna increased from the standard version** - Multi-functions LEDs - Transmitter code duplication feature - 12 V battery

SLAVE transmitters which cannot be duplicated in any way

MASTER transmitters which can be duplicated



PROGRAMMING KEYBOARD SLH



Features and functions

ABS portable programming unit
Connectors for connecting to **DECODER SLHP**
and **RADIOCODER SLH** coding units
RS 232 interface for PC connection
Connector for external power supply
Programming buttons
4-digit display
Password entry
System code saving
Saving of single transmitters with display
of the memory location
Automatic saving process increment
Single transmitter enabling/disabling/cancelling
Data export program for copying the memory to an expansion
module

CODING UNIT RADIOCODER SLH



Specifications RADIOCODER SLH

ABS container
Transmission signal LED
Transmission of the customised codes from the programming
keypad or from the Personal Computer to the T2/T4/TML2/TML4
868 SLHP

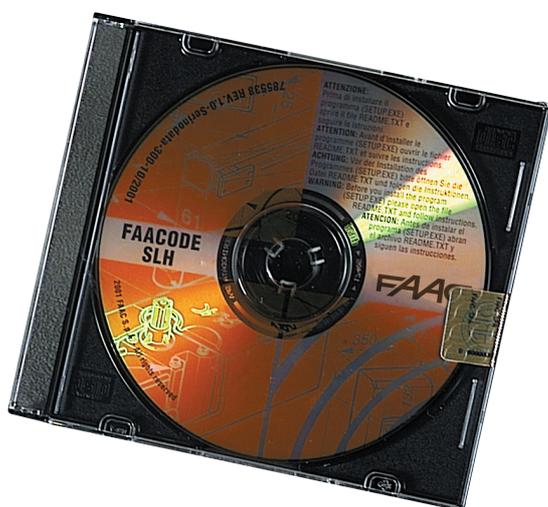


SLH SOFTWARE



Specifications and functions

DECODER SLHP programming
Transmitter coding
Modifying transmitters from MASTER to SLAVE and vice versa
Archiving of general system data (customer, address, installation
date, configuration, etc.)
Possibility of associating the user name to every transmitter
System configuration table ordered by transmission number or
by user name to facilitate the search operations
Possibility of configuring the system with a Personal Computer and
subsequent transfers to a **DECODER SLHP** or programming keypads
System configuration print-outs
Printing of labels for transmitter identification
Minimum system requirements:
- Pentium 100 Mhz - 66 Microprocessor or higher
- Windows 95 tm operating system
- Hard disk with at least 10 free MB
- 16 MB RAM
- Mouse or other suitable pointing device
- VGA or higher screen supported by Windows 95
- CD-ROM drive
- RS 232 serial port
"Null Modem 9 Pins" serial cable not provided into the packaging



433 DS



saw resonator remote controls



Characteristics 433 MHz DS

PLUS 1 433 multi-channel superheterodyne receiver with built-in bipolar antenna and separate coding

- 20 ÷ 30 Vdc 24 Vac ± 10% power supply - 100 channels max - In IP44 protection class - SAW filter at input to eliminate interference

Multichannel receiver board **PL 433** with integrated antenna and separate codes, installed inside the FAACLIGHT.

- Power supply 20 ÷ 30 Vdc 24 Vac ± 10% - 50 channels maximum; SAW filter to avoid interferences.

RP 433 DS single-channel superheterodyne (open collector output) receiver with built-in antenna and integrated coding

- Connection by connector - 24 Vdc power supply - Designed for connection to external antenna - SAW filter at input to eliminate interference

MINIDEC DS decoding card (open collector output) for piloting FAAC control board

- Connection by connector - 24 Vdc power supply

DECODER DS decoding card (relay output) for piloting FAAC control board and/or auxiliary controls

- Connector and/or terminal connection - 24 Vdc/24 Vac power supply.

Frequency 433.92 Mhz

4,096 combinations (for single-channel models)

Transmitters with signalling LED

- 12 V battery

Operating ambient temperature -20°C ÷ + 55°C (PLUS 1 433 - RP 433 MINIDEC - DECODER)/-10°C ÷ + 55°C (TM1 - TM2 - TM3)

433 SLH



saw resonator remote controls
hopping code



Characteristics 433 MHz SLH

PLUS 1 433 multi-channel superheterodyne receiver with built-in bipolar antenna and separate coding

- 20 ÷ 30 Vdc 24 Vac ± 10% power supply - 100 channels max - In IP44 protection class - SAW filter at input to eliminate interference

Multichannel receiver board **PL 433** with integrated antenna and separate codes, installed inside the FAACLIGHT.

- Power supply 20 ÷ 30 Vdc 24 Vac ± 10% - 50 channels maximum; SAW filter to avoid interferences.

RP 433 DS single-channel superheterodyne (open collector output) receiver with built-in antenna and integrated coding - Connection by connector - 24 Vdc power supply - Designed for connection to external antenna - SAW filter at input to eliminate interference

MINIDEC SLH decoding card (open collector output) for piloting FAAC control board . Memory capacity 250 codes

- Connection by connector - 24 Vdc power supply

DECODER SLH decoding card (relay output) for piloting FAAC control board and/or auxiliary controls

- Memory capacity 1000 codes. Programming push-button

- Connector and/or terminal connection. 24 Vdc power supply

Frequency 433.92 MHz

Hopping code (72 millions of billions combinations)

Two-channel **TML2 SLH** and four-channel **TML4 SLH** transmitters. - Multi-function LEDs - Transmitter code duplication feature . 12 V battery

433 SLH

programmable saw resonator remote controls
hopping code

Characteristics 433 MHz SLH programmable

PLUS 1 433 Multi-channel superheterodyne receiver with built-in bipolar antenna and separate coding
- 20 ÷ 30 Vdc 24 Vac ± 10% power supply . 100 channels max .
In IP 44 protection class . SAW filter at input to eliminate interference

DECODER SLHP decoding card (relay output) - Memory capacity 1000 codes

- Slot for additional MEX SLH memory (a further 1000 codes)
- Slot for connection to PROGRAMMING KEYBOARD SLH power supply 24 Vdc-24Vac

Frequency 433.92 MHz

Hopping code (72 millions of billions combinations)

Two-channel **TML2 SLH** and four-channel **TML4 SLH** transmitters.
- MASTER and SLAVE versions . Multi-function LEDs. Transmitter code duplication feature. 12 V battery

SLAVE transmitters which cannot be duplicated in at all MASTER transmitters which can be duplicated

CE

PLUS 1 433



TML4 433 SLH

TML2 433 SLH



PROGRAMMING KEYBOARD SLH

CE



Features and functions

ABS portable programming unit

Connectors for connecting to **DECODER SLHP** and **RADIOCODER SLH** coding units

RS 232 interface for PC connection

Connector for external power supply

Programming buttons

4-digit display

Password entry

System code saving

Saving of single transmitters with display of the memory location

Automatic saving process increment

Single transmitter enabling/disabling/cancelling

Data export program for copying the memory to an expansion module

FAAC

FAAC

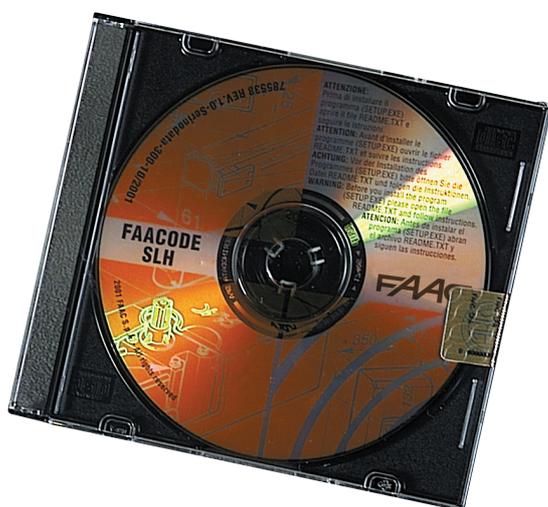
CODING UNIT RADIOCODER SLH



Specifications RADIOCODER SLH

ABS container
Transmission signal LED
Transmission of the customised codes from the programming keypad or from the Personal Computer to the TML2/TML4 433 SLH

SLH SOFTWARE



Specifications and functions

DECODER SLHP programming

Transmitter coding
Modifying transmitters from MASTER to SLAVE and vice versa
Archiving of general system data (customer, address, installation date, configuration, etc.)
Possibility of associating the user name to every transmitter
System configuration table ordered by transmission number or by user name to facilitate the search operations
Possibility of configuring the system with a Personal Computer and transfers to a **DECODER SLHP** or programming keypads
System configuration print-outs

Printing of labels for transmitter identification

Minimum system requirements:
- Pentium 100 Mhz - 66 Microprocessor or higher
- Windows 95 tm operating system
- Hard disk with at least 10 free MB
- 16 MB RAM
- Mouse or other suitable pointing device
- VGA or higher screen supported by Windows 95
- CD-ROM drive
- RS 232 serial port

"Null Modem 9 Pins" serial cable not provided into the packaging

T10 - T11 - T20 - T21

CE

key-operated
push-buttons



DOUBLE COLUMN
IN ALUMINIUM

ALUMINIUM
COLUMN



T20 I/T21 I



T20 E/T21 E



T10 E/T11 E



T10/T11

Characteristics

T10 - T11

Flush-mounted or column installation
1 exchange microswitch (T10)
2 exchange microswitches (T11)
Contacts max capacity 0.1A/24 Vdc

T10E - T11E

Wall-mounted or column installation
1 exchange microswitch (T10 E)/2 exchange microswitches (T11 E)
Contacts max capacity 0.1A/24 Vdc

T20 E - T21 E

Wall-mounted
1 exchange microswitch (T20 E)/2 exchange microswitches (T21 E)
Contacts max capacity 10 A/250 Vac

T20 I - T21 I

Flush-mounted
1 exchange microswitch (T20 I)/2 exchange microswitches (T21 I)
Contacts max capacity 10 A/250 Vac

T21 EF - T21 IF

Wall- (T21 EF) or flush-mounted (T21 IF)
2 exchange microswitches
Contacts max capacity 10 A/250 Vac

Designed to include release for rolling-shutter winder electric brake

Protection class IP54

Operating ambient temperature -20°C ÷ +55°C

FAAC

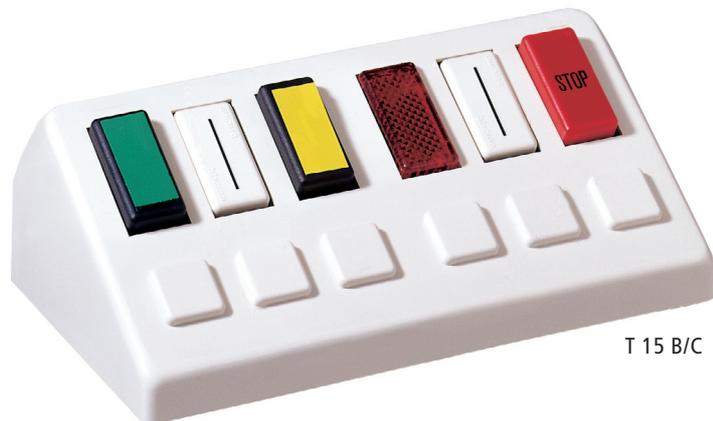
FAAC SWITCH - T 15

CE

control push-buttons
control button panels



FAAC SWITCH



T 15 B/C

Specifications of FAAC SWITCH

Flush-mounted or column installation

2 exchange microswitches

Contacts max capacity 0.1A/24 Vdc

Siluro S6 24V 5 W indicator-light

IP 54 protection class

Operating ambient temperature -20°C ÷ +55°C

METAL DIGIKEY

CE

keyboard device and decoding system



Characteristics

Metal Digikey

Flush-mounted or column installation
24 Vdc power supply
Anti-break-in electronic protection
Indicator-light and buzzer confirming recognition
Reset push-button

Max number of connectable decoders: 100

IP 55 protection class

Decoder DS

Decoding card (relay output) for piloting FAAC control board and/or auxiliary controls

Connector and/or terminal connection

12 - 24 Vdc /12 - 24 Vac power supply

12-bit binary code (4.096 combinations)

Max distance of Metal Digikey/Decoder: 100 m

Operating ambient temperature -20°C ÷ +55°C

DIGICARD

CE

magnetic card reader and decoding system



Specifications

Digicard

Flush-mounted or column installation
12 - 24 Vdc/14 Vac power supply
Anti-break-in electronic protection
Indicator-light and buzzer confirming recognition
Reset push-button

Max number of connectable decoders: 100

IP 55 protection class

Decoder DS

Decoding card (relay output) for piloting FAAC control board and/or auxiliary controls

Connector and/or terminal connection

12 - 24 Vdc/12 - 24 Vac power supply

12-bit binary code (4.096 combinations)

Max distance of Metal Digikey/Decoder: 100 m

Operating ambient temperature -20°C ÷ +55°C

RADIO KEY PAD 868 SLH



radio key pad



RADIO KEYPAD 868 SLH

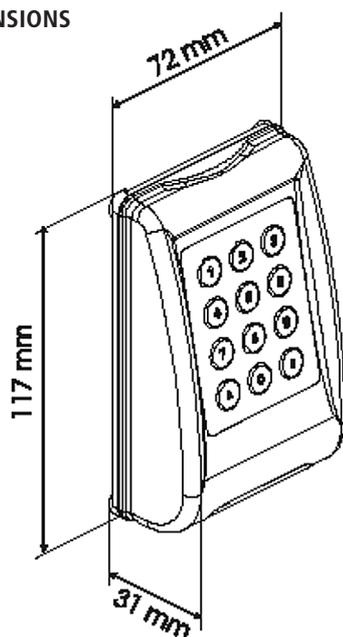


PLUS 1 868



PL 868

DIMENSIONS



Values in mm

Specifications

Transmission frequency	868,35 Mhz \pm 200 Khz
Type of code	Self-learning encrypted rolling code
Power supply	9 V alkaline battery
Durata media batteria (10 attivazioni al giorno)	2 years
Absorption on stand-by	< 2 μ A
Protection class	IP 54
Dimensions	See figure
Operating ambient temperature	-20 $^{\circ}$ C \div + 55 $^{\circ}$ C
Backlit keypad with LEDs	
Keys beep when pressed	
3 commands protected by 5 digit access code (PIN)	
1 direct command	

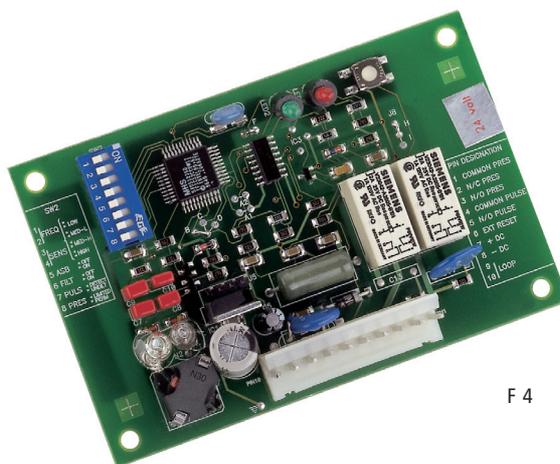
NOTES

The PLUS 1 868 and PL 868 receivers do not have a decoding card. Therefore, a MINIDEC or DECODER card must be added every channel to be controlled.

F4 - FG1 - FG2



metal detectors (detectors)



F 4



FG 1



FG 2

Specifications

F4 single-channel detector

- Controls one loop
- 24 Vdc power supply
- Contacts max capacity 1A/230V
- Four sensitivity levels
- Electrical connection to connector
- Presence relay (N.O./N.C.)
- Impulsive relay (during/end of detection)
- Self-setting at power-up
- Multi-function signalling LED

FG1 single-channel detector - FG2 two-channel detector

- One loop control (FG1) or two-loop control (FG2)
- 24 Vdc/24 Vac power supply
- Contacts max capacity 250 mA/24 V
- Four sensitivity levels irrespective of loop inductance
- Continuous updating of work frequency
- Presence relay (N.O./N.C.)
- Impulsive relay (at end of detection)
- Self-setting at power-up
- Loop interruption or short-circuit signalled
- Installation on DIN guide
- Multi-function signalling LED
- Operating ambient temperature -20°C ÷ +55°C

GRS - 01

token acceptor

Specifications

Structure in steel sheet protected by cataphoresis treatment and polyester painted

Token container with 1.000 pieces capacity

Designed to accept DIN guide, detector and shutter



CE

FAAC

T30

pneumatic drive-over-strip



DW 20 PRESSURE SWITCH

CE

Specifications

Floor installation

Adjustable sensitivity pressure switch

N.O./N.C. pressure switch contacts

Contacts max capacity 250 mA/24 V

IP 44 protection class (pressure switch enclosure)

Operating ambient temperature $-20^{\circ}\text{C} \div +55^{\circ}\text{C}$

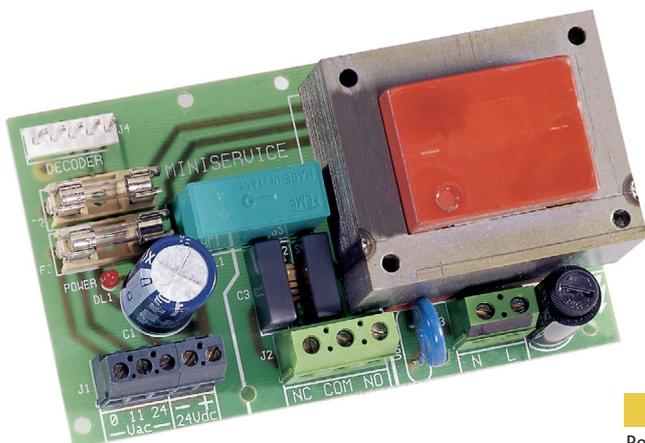


T30 pneumatic drive-over strip

MINISERVICE



additional power supply unit for controlling extra accessories



Specifications

Power supply: 230 Vac (+5%-10%) 50 (60) Hz
 35 VA absorbed power
 Relay contacts max capacity: 10A/24Vdc - 10A/230V
 12 Vac Output for electric lock
 Accessories output: 500 mA/24 Vdc
 Operating ambient temperature -20°C ÷ +55°C
 Power ON LED
 Designed to accept FAAC rapid-connector remote controls

FOTOSWITCH



flush mounted photocells safety device type D (EN 12453)



Specifications

Flush-mounted or column installation
 Absorption: 90 mA
 IP44 protection class
 Directional photocell with alignment
 Obstacle detection time: 7 ms
 Rated range: 30 m
 Contacts type: N.O./N.C.
 Contacts max capacity: 100 mA/24 Vdc
 Operating ambient temperature -20°C ÷ +55°C

SAFEBEAM

CE

self aligning photocells
to be flush mounted
safety device type D (EN 12453)



SAFEBEAM

COLUMN
FOR SAFEBEAM

Specifications SAFEBEAM

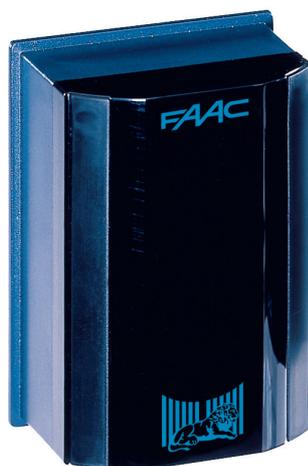
Rated range 20 m
Installation flush-mounted
Type of alignment automatic
Dimensions 35x105x25 mm (LxHxP)
Self-alignment angle $\pm 7^\circ$ (20 m) $\pm 13,5^\circ$ (5 m)
Obstacle detection time 13 ms
Absorption 50 mA
Protection class IP 54
Contact type N.C.
Contact max capacity 60 VA/24 W
Power supply 24 Vdc/24 Vac
Operating ambient temperature $-20^\circ\text{C} \div +55^\circ\text{C}$

FAAC

PHOTOBREAM

CE

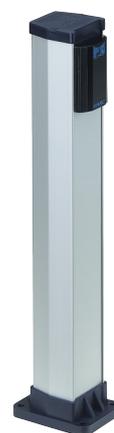
wall mounted
photocells
safety device
type D
(EN 12453)



PHOTOBREAM

Specifications PHOTOBREAM

Flush-mounted or column installation
Absorption: 50 mA
IP54 protection class
Directional photocell with alignment
Obstacle detection time: 20 ms
Detection angle: $\pm 4^\circ$
Rated range: 30 m
Contacts type: N.O./N.C.
Contacts max capacity: 100 mA/24 Vdc
Operating ambient temperature $-20^\circ\text{C} \div +55^\circ\text{C}$

DOUBLE COLUMN
IN ALUMINIUMALUMINIUM
COLUMN

CN 60 E

safety edge with conductive element
safety device type C (EN 12453)



Safety edge



Control unit

CE

Specifications

Safety device with sensitive element in conductive rubber
Control unit in enclosure fit for installation on DIN bar
Conforms to European standards
Aluminium support profile, in two pieces to simplify installation
Rubber profile, height 60 mm
Obstacle detection, with angles of +/- 60°
Control of up to two series, consisting of 4 edges in parallel
Selection with DIP SWITCHES of number of installed edges
Signalling LEDs
Protection class: IP55 (safety edges); IP 20 (control unit)
Operating ambient temperature -20°C ÷ +55°C

S 30/DW 10 - DW 20

pneumatic edge S30 and pressure switches
"Auxiliary" safety device*



DW 10 pressure switch



S30 safety edge

CE

Specifications of pneumatic edge

- Rubber profile: with double chamber
- Installation: on-wall
- IP55 protection class
- Operating ambient temperature -20°C ÷ +55°C



DW 20 pressure switch

* Can be used on systems with "dead-man" control, or on systems already conforming to the prescription of safety standard EN 12453

M 60

electro-mechanical device
"Auxiliary" safety device*

Specifications of M60

- Rubber profile. Height 60 mm
- Microswitch for detecting obstacles
- Connection terminal board
- Operating ambient temperature -20°C ÷ +55°C
- Microswitch for controlling cable voltage
- Sensitivity adjustment
- IP55 protection class



* Can be used on systems with "dead-man" control, or on systems already conforming to the prescription of safety standard EN 12453

PNEUMATIC DEVICE

single-chamber pneumatic device (supplied as kit)
"Auxiliary" safety device*

Specifications of single-chamber pneumatic device

- Rubber profile height: 30 mm
- Housing protection: IP 55
- Operating ambient temperature: -20°C ÷ +55°C
- Wall mounting



FLASHING LAMPS

flashing lamps and lighting card

FAAC LAMP



FAACLIGHT



Specifications

- Absorbed power: 60 W (FAAC LAMP)/40 W (MINILAMP-FAAC LIGHT) /50 W (BILAMP)
- IP 55 protection class (FAAC LAMP-BILAMP- FAAC LIGHT)
- Power supply 230 V (+5%-10%) 50 (60) Hz
- Operating ambient temperature: -20°C ÷ +55°C

INSTALLATION ACCESSORIES KIT

CE

FAAC

Package for external installation

- 1 PLUS 1 433 receiver
- MINIDEC DS decoding card
- 1 TM1 433 DS transmitter
- 1 FAAC LIGHT
- 1 pair of PHOTOBREAM photocells
- 1 T10 E key-operated push-button
- 1 sign: "Automatico FAAC"

Package for flush-mounting

- 1 PLUS 1 433 receiver
- MINIDEC DS decoding card
- 1 TM1 433 DS transmitter
- 1 FAAC LAMP flashing lamp
- 1 pair of FOTOSWITCH photocells
- 1 T10 E key-operated push-button
- 1 sign: "Automatico FAAC"



MECHANICAL STOPS

CE



Mechanical stops

Ground or wall installation versions

ELECTRIC LOCKS

CE



Electric locks

12 Vac electric lock complete with floor-mounted coupling plate
 12 Vdc electric lock complete with floor-mounted coupling plate
 (for electronic card 460 P only)
 Pillar-mounted electric lock coupling plate (single-leaf gates)
 Internal cylinder with 2 keys
 External cylinder with 2 keys

FAAC

BLOCKIT

CE



FAAC HP OIL

CE

Hydraulic oil

Hydraulic oil "FAAC HP OIL" (package of 12 1-litre bottles)
 Hydraulic oil "FAAC HP OIL" (25-litre can)





SPECIFICATIONS



AUTOMATED SYSTEMS FOR SWING LEAF GATES

external motor

DOMOLINK B7

Electro-mechanical automated system, with low-voltage articulated operator, for residential swing gates of up to 1.80 m per leaf and max weight of 250 kg • Body in treated, powder painted die-cast aluminium • 12V electric motor, compact, long-life • Epicycloid reduction • Hexagonal key operated release device • Max opening angle of 110° • IP44 protection class • Angular speed 23°/s (load-free) • Rated absorbed power 48 W • Maximum torque of 70 Nm • Duty cycle ~ 15 cycles/hour • ~ 30 consecutive cycles • Battery recharge time: ~ 10' for every cycle effected • Operating ambient temperature -20°C ÷ +55°C • Both MASTER and SLAVE control boards are required for a two-leaf gate; each board must be located on the pillar near the operator. Both MASTER and SLAVE control boards are required for a two-leaf gate; each board must be located on the pillar near the operator.

MASTER B7 control board

Power supply voltage 12 Vac • Transformer characteristics: primary 230 Vac, secondary 12 Vac-16 VA • 24 Vdc accessories max load 150 mA • Rapid connector max load 50mA • Motor max load 15 A • Operating ambient temperature - 20°C ÷ +55°C • Removable terminal board • ABS enclosure dimensions 125x305x140mm (WxHxD) • Signalling LED (power ON and diagnostics) • LEDs and push-buttons programming (user friendly interface) • IP55 protection class • Protection fuse • Function logics: Automatic, "Stepped" Automatic, Safety, "Stepped" Semi-automatic • Self-learning of opening and closing times (facility for avoiding the opening and closing mechanical stops) • Selectable pause times (5,10,20,30 sec) • Selectable opening and closing leaf delay time • Anti-crushing function by encoder and current control • Speed control over 4 levels • Static force control over 4 levels (programmable according to European Standards) • Travel-limit decelerations • Terminal board inputs: Open, free leaf Open, Stop, Opening and closing safety devices • Terminal board outputs: 12 V Flashing lamp, Motor, Bus, Indicator-light, 24 Vdc-12 Vdc power supply for accessories • Rapid connector, card receivers, decoding cards • Programmable functions: Logic/Pause time/Opening and closing leaf delays/Anti-crushing force/Operators speed • Designed for alternative energy sources (solar panels).

SLAVE B7 control board

Power supply from MASTER • Sealed lead battery 12 Vdc 7,2 Ah • ABS enclosure dimensions 25x305x140mm (WxHxD) • IP55 protection class • Signalling LED (power ON and diagnostics) • Anti-crushing function by encoder and current control • Terminal board outputs: Motor/Battery/Bus

DOMOLINK T

Electro-mechanical automated system, with low-voltage articulated operator, for residential swing gates of up to 1.80 m per leaf and max weight of 250 kg • Body in treated, powder painted die-cast aluminium • 12 V electric motor, compact, long-life • Epicycloid reduction • Hexagonal key operated release device • Max opening angle of 110° • IP44 protection class • Angular speed 23°/s (load-free) • Rated absorbed power 48 W • Maximum torque of 70 Nm • Duty cycle 15 cycles/hour • 30 consecutive cycles • Recharging time ~ 2' for every cycle effected • Operating ambient temperature -20°C ÷ +55°C • Both MASTER and SLAVE control boards are required for a two-leaf gate; each board must be located on the pillar near the operator.

MASTER T control board

Power supply from toroidal transformer (Primary 230 Vac - Secondary 12 Vac-180 Vac • Accessories max load 150 mA • Rapid connector max load 50 mA • Motor max load 15 A • Operating ambient temperature -20°C ÷ +55°C • Removable terminal board • ABS enclosure dimensions 100x260x90mm (WxHxD) • Signalling LED (power ON and diagnostics) • LEDs and push-buttons programming (user friendly interface) • IP55 protection class • Protection fuse • Function logics: Automatic, "Stepped" Automatic, Safety, "Stepped" Semi-automatic • Self-learning of opening and closing times (facility for avoiding the opening and closing mechanical stops) • Selectable pause times (5,10,20,30 sec) • Selectable opening and closing leaf delay time • Anti-crushing function by encoder and current control • Speed control over 4 levels • Static force control over 4 levels (programmable according to European Standards) • Travel-limit decelerations • Terminal board inputs: Open, free leaf Open, Stop, Opening and closing safety devices • Terminal board outputs: 12 V Flashing lamp, Motor, Bus, Indicator-light, 24 V-12 V power supply for accessories • Rapid connector, card receivers, decoding cards. • Programmable functions: Logic/Pause time/Opening and closing leaf delays/Anti-crushing force/Operators speed

SLAVE T control board

Power supply from transformer • ABS enclosure dimensions 100x260x90mm (WxHxD) • IP55 protection class • Signalling LED (power ON and diagnostics) • Anti-crushing function by encoder and current control • Terminal board outputs: Motor • Terminal board inputs: Power Supply unit/Bus

390

Non-reversing electro-mechanical actuator • Use frequency max. 15 cycles/hour • Torque 250 Nm • Angle speed 8°/s • Electric motor power supply 230 Vac (+6% -10%) - 50 (60) Hz • Electric motor power 280 W • Thermal protection at 140° built into motor winding • Overall dimensions 410 x 130 x 130 mm (LxWxH) • Protection class IP44 • Operating ambient temperature -20°C ÷ +55°C • Internal release device with hexagonal key • Designed to have external release device with cable and sheath (optional) • Motor housing with corrosion-proof treatment • Reduction

ratio of motor/transmission shaft 1:700 • Painted housing in ABS • Application with articulated arm for swing-leaf gates, with single leaf length of 1,8 m (3 m with electric lock) • Pillar installation • Maximum distance between gate hinge and pillar edge: 300 mm • Leaf opening inwards or outwards • Maximum opening angle: 120° • Application by telescopic arm on bi-folding doors with single panel width of 1,5 m

390 24 Vdc

Non-reversing, low voltage, electro-mechanical actuator • Use frequency max. 100% • Torque 200 Nm • Angle speed 8°/s • Electric motor power supply 24 Vdc • Electric motor power 40 W • Overall dimensions 410 x 130 x 130 mm (LxWxH) • Protection class IP44 • Operating ambient temperature -20°C ÷ +55°C • Internal release device with hexagonal key • Designed to have external release device with cable and sheath (optional) • Motor housing with corrosion-proof treatment • Reduction ratio of motor/transmission shaft 1:700 • Painted housing in ABS • Application with articulated arm for swing-leaf gates, with single leaf length of 1,8 m (3 m with electric lock) • Pillar installation • Maximum distance between gate hinge and pillar edge: 300 mm • Leaf opening inwards or outwards • Maximum opening angle: 120° • Application by telescopic arm on bi-folding doors with single panel width of 1,5 m

DOMO SWING B7

Electro-mechanical automated system, with low-voltage linear operator, for residential swing gates of up to 1.80 m per leaf and max weight of 250 kg • Body in treated, powder painted die-cast aluminium • 12V electric motor, compact, long-life • Epicycloid reduction • Hexagonal key operated release device • Max opening angle of 110° • IP44 protection class • Angular speed 23°/s (load-free) • Rated absorbed power 48 W • Maximum torque of 70 Nm • Duty cycle ~ 15 cycles/hour • ~ 30 consecutive cycles • Battery recharge time: ~ 10' for every cycle effected • Operating ambient temperature -20°C ÷ +55°C • Both MASTER and SLAVE control boards are required for a two-leaf gate; each board must be located on the pillar near the operator. Both MASTER and SLAVE control boards are required for a two-leaf gate; each board must be located on the pillar near the operator.

MASTER B7 control board

Power supply voltage 12 Vac • Transformer characteristics: primary 230 Vac, secondary 12 Vac-16 VA • 24 Vdc accessories max load 150 mA • Rapid connector max load 50mA • Motor max load 15 A • Operating ambient temperature -20°C ÷ +55°C • Removable terminal board • ABS enclosure dimensions 125x305x140mm (WxHxD) • Signalling LED (power ON and diagnostics) • LEDs and push-buttons programming (user friendly interface) • IP55 protection class • Protection fuse • Function logics: Automatic, "Stepped" Automatic, Safety, "Stepped" Semi-automatic • Self-learning of opening and closing times (facility for avoiding the opening and closing mechanical stops) • Selectable pause times (5,10,20,30 sec) • Selectable opening and closing leaf delay time • Anti-crushing function by encoder and current control • Speed control over 4 levels • Static force control over 4 levels (programmable according to European Standards) • Travel-limit decelerations • Terminal board inputs: Open, free leaf Open, Stop, Opening and closing safety devices • Terminal board outputs: 12 V Flashing lamp, Motor, Bus, Indicator-light, 24 Vdc-12 Vdc power supply for accessories • Rapid connector, card receivers, decoding cards • Programmable functions: Logic/Pause time/Opening and closing leaf delays/Anti-crushing force/Operators speed • Designed for alternative energy sources (solar panels).

SLAVE B7 control board

Power supply from MASTER • Sealed lead battery 12 Vdc 7,2 Ah • ABS enclosure dimensions 25x305x140mm (WxHxD) • IP55 protection class • Signalling LED (power ON and diagnostics) • Anti-crushing function by encoder and current control • Terminal board outputs: Motor/Battery/Bus

DOMO SWING T

Electro-mechanical automated system, with low-voltage linear operator, for residential swing gates of up to 1.80 m per leaf and max weight of 250 kg • Body in treated, powder painted die-cast aluminium • 12 V electric motor, compact, long-life • Epicycloid reduction • Hexagonal key operated release device • Max opening angle of 110° • IP44 protection class • Angular speed 23°/s (load-free) • Rated absorbed power 48 W • Maximum torque of 70 Nm • Duty cycle 15 cycles/hour • 30 consecutive cycles • Recharging time ~ 2' for every cycle effected • Operating ambient temperature -20°C ÷ +55°C • Both MASTER and SLAVE control boards are required for a two-leaf gate; each board must be located on the pillar near the operator.

MASTER T control board

Power supply from toroidal transformer (Primary 230 Vac - Secondary 12 Vac-180 Vac • Accessories max load 150 mA • Rapid connector max load 50 mA • Motor max load 15 A • Operating ambient temperature -20°C ÷ +55°C • Removable terminal board • ABS enclosure dimensions 100x260x90mm (WxHxD) • Signalling LED (power ON and diagnostics) • LEDs and push-buttons programming (user friendly interface) • IP55 protection class • Protection fuse • Function logics: Automatic, "Stepped" Automatic, Safety, "Stepped" Semi-automatic • Self-learning of opening and closing times (facility for avoiding the opening and closing mechanical stops) • Selectable pause times (5,10,20,30 sec) • Selectable opening and closing leaf delay time • Anti-crushing function by encoder and current control • Speed control over 4 levels • Static force control over 4 levels (programmable according to European Standards) • Travel-limit decelerations • Terminal board inputs: Open, free leaf Open, Stop, Opening and closing safety devices • Terminal board outputs: 12 V Flashing lamp, Motor, Bus, Indicator-light, 24 V-12 V power supply for accessories • Rapid connector, card receivers, decoding cards. • Programmable functions: Logic/Pause time/Opening and closing leaf delays/Anti-crushing force/Operators speed

SLAVE T control board

Power supply from transformer • ABS enclosure dimensions 100x260x90mm (WxHxD) • IP55 protection class • Signalling LED (power ON and diagnostics) • Anti-crushing function by encoder and current control • Terminal board outputs: Motor • Terminal board inputs: Power Supply unit/Bus

412

Non-reversing electro-mechanical screw actuator for swing-leaf gates • Leaf maximum length 1.8 m • Max use frequency 18 cycles/hour • Pillar installation • Leaf opening inwards or outwards • Max opening angle 110° • Max

traction/thrust force of 320 daN • Rod speed 1.6 cm/s • Rod effective stroke 290 mm • Electric motor power supply 230 Vac (+6% -10%) - 50(60) Hz • Electric motor power 280 W • Thermal protection at 140° built into motor winding • Overall dimensions 1.000x90x195 mm (LxWxH) • Protection class IP44 • Operating ambient temperature -20°C ÷ +55°C • Built-in release device with hexagonal key • Motor body transversally located, and painted • Screw housing in anodised aluminium

413 - 413 LS

Non-reversing electro-mechanical screw actuator for swing-leaf gates with "OFF-AXIS" thrust • Maximum leaf length 2.5 m • Max use type and frequency at 20° C S3 - 30% (413), 35% (413 LS) • Pillar installation • Leaf opening inwards or outwards • Max traction/thrust force of 200 daN • Rod speed 1.6 cm/s • Rod effective stroke 300 mm (350 mm without mechanical stops) • Power supply 230 Vac • Absorbed power 250 W • Thermal protection at 140° • Overall dimensions (Length x Width x Height) 785x105x148 mm • Protection class IP44 • Operating ambient temperature -20°C ÷ +55°C • Release device key "protected" • Aluminium body completely double coated.

413 24 Vdc - 413 LS 24 Vdc

Non-reversing electro-mechanical screw actuator for swing-leaf gates with "OFF-AXIS" thrust • Maximum leaf length 2.5 m • Max use type and frequency at 20° C 100% • Pillar installation • Leaf opening inwards or outwards • Max traction/thrust force of 250 daN • Rod speed 1.6 cm/s • Rod effective stroke 300 mm (350 mm without mechanical stops) • Power supply 24 Vdc • Absorbed power 70 W • Overall dimensions (Length x Width x Height) 785x105x148 mm • Protection class IP44 • Operating ambient temperature -20°C ÷ +55°C • Release device key "protected" • Aluminium body completely double coated.

415 - 415LS - 415 L - 415 L LS

Non-reversing electro-mechanical screw actuator for swing-leaf gates with "IN -AXIS" thrust • Maximum leaf length 3 m (415 - 415 LS) and 4 m (415 L - 415 L LS) • Max use type and frequency at 20° C S3-30% (415 - 415 LS) S3 - 35% (415 L - 415 L LS) • Pillar installation • Leaf opening inwards or outwards • Max opening angle 110° • Max traction/thrust force of 300 daN • Rod speed 1.6 cm/s • Rod effective stroke 300 mm (415 - 415 LS) and 400 mm (415 L - 415 L LS) • Power supply 230 Vac • Electric motor power 300 W • Thermal protection at 140° • Overall dimensions (Length x Width x Height) 835x105x148 mm (415 - 415 LS) 940x105x148 mm (415 L - 415 L LS) • Protection class IP44 • Operating ambient temperature -20°C ÷ +55°C • Release device key "protected" • Aluminium body completely double coated.

415 24 Vdc- 415LS 24 Vdc - 415 L 24 Vdc - 415 L LS 24 Vdc

Non-reversing electro-mechanical screw actuator for swing-leaf gates with "IN -AXIS" thrust • Maximum leaf length 3 m (415 24 Vdc- 415 LS 24 Vdc) and 4 m (415 L 24 Vdc - 415 L LS 24 Vdc) • Max use type and frequency at 20° C 100% • Pillar installation • Leaf opening inwards or outwards • Max opening angle 110° • Max traction/thrust force of 280 daN • Rod speed 1.6 cm/s • Rod effective stroke 300 mm (415 24 Vdc- 415 LS 24 Vdc) and 400 mm (415 L 24 Vdc - 415 L LS 24 Vdc) • Power supply 24 Vdc • Absorbed power 70 W • Overall dimensions (Length x Width x Height) 835x105x148 mm (415 24 Vdc- 415 LS 24 Vdc) 940x105x148 mm (415 L 24 Vdc - 415 L LS 24 Vdc) • Protection class IP44 • Operating ambient temperature -20°C ÷ +55°C • Release device key "protected" • Aluminium body completely double coated.

402

Hydraulic operator with piston for swing-leaf gates • Models with hydraulic locking and without hydraulic locking • Models suitable for max. leaf length up to 3.0 m • Max use frequency 55 cycles/hour • Pillar installation • Leaf opening inwards or outwards • Max opening angle 110° • Models with max traction/thrust force 690 daN • Models with max rod speed 1.3 cm/s • Rod effective stroke 240 mm • Electric motor power supply 230 Vac (+6% -10%) - 50 (60) Hz • Electric motor power 220 W • Thermal protection at 120° C built into motor winding • Overall dimensions 959x90x85 mm (LxWxH) • Protection class IP55 • Operating ambient temperature -40°C ÷ +55°C • Built-in release device with triangular key • Single-phase motor with two rotation directions (1.400 rpm) • Hydraulic gerotor pump (max low noise) • Die-cast distribution flange • Separate control of opening and closing force by by-pass valves with tamper-proof plate • Rod in stainless steel • Tank and piston protective housing in anodised aluminium • Mineral hydraulic oil with additives

422

Hydraulic actuator with piston for swing-leaf gates • Models available with hydraulic locking in closed position, open and closed position, and without any locking • Models suitable for max leaf length up to 3.0 m • Max use frequency 55 cycles/hour • Pillar installation • Leaf opening inwards or outwards • Max opening angle 110° • Max traction/thrust force of 690 daN • Rod speed 1 cm/s • Rod effective stroke 240 mm • Electric motor power supply 230 Vac (+6% -10%) - 50(60) Hz • Electric motor power 220 W • Thermal protection at 120°C built into motor winding • Overall dimensions 987x90x85 mm (LxWxH) • Protection class IP55 • Operating ambient temperature -40°C ÷ +55°C • Built-in release device with customised key • Single-phase motor with two rotation directions (1.400 rpm) • Hydraulic gerotor pump (max low noise) • Pressure die-cast distribution flange • Separate control of opening and closing force by by-pass valves with tamper-proof plate • Rod in stainless steel • Fastening to front fitting by ball joint • Tank and piston protective housing in anodised aluminium • Air breather screw • Mineral hydraulic oil with additives • Models for pedestrian gates • Leaf length from 0.8 to 1.2 m • Use frequency of 70 cycles/hour • Max traction/thrust force of 380 daN • Rod extension speed 2 cm/s • Pump flow rate 1.5 l/min • Rod effective stroke 160 mm

400

Hydraulic operator with piston for swing-leaf gates • Models available with hydraulic locking on closing, opening and closing, and without locking • Models suitable for max leaf length up to 7 m • Models with max use frequency up to 50 cycles/hour • Models with max traction/thrust force up to 775 daN • Models with rod extension speed 1 cm/s and 1.5 cm/s

- Models with pump flow rate of 0.75 - 1 - 1.5 l/min • Models with rod effective stroke 280 mm and 380 mm • Pillar installation • Leaf opening inwards or outwards • Max opening angle 120° • Electric motor power supply 230 Vac (+6% -10%) - 50 (60) Hz • Electric motor power 220 W • Thermal protection at 120°C built into motor winding • Overall dimensions 1.031x90x113 mm (LxWxH) • Protection class IP 55 • Operating ambient temperature -40°C ÷ +55°C • Built-in release device with customised key • Single-phase motor with two rotation directions (1.400 rpm) • Hydraulic gerotor pump (max low noise) • Die-cast distribution flange • Separate control of opening and closing force by by-pass valves • Rod in stainless steel • Securing to front fitting by ball joint • Tank and piston protective housing in anodised aluminium • Air breather screw • Mineral hydraulic oil with additives

underground motor

770

Non-reversing electro-mechanical concealed operator for swing-leaf gates • Leaf max length 2.5 m and max weight 500 kg • Max use frequency 20 cycles/hour • Underground installation • Leaf opening inwards or outwards • Max opening angle 110° or 140° (with optional kit) • Max torque 330 Nm • Transmission-shaft angular velocity 6°/s • Electric motor power supply 230 Vac (+6% -10%) -50 (60) Hz • Electric motor power 380 W • Thermal protection at 140°C built into motor winding • Protection class IP67 • Operating ambient temperature -20°C ÷ +55°C • Operator body with corrosion proof treatment • Reduction ratio of motor/transmission shaft 1.450:1 • Motion transmission levers • Leaf deceleration by unequal levers • Grease lubrication • Casing in steel with cathoporesis treatment • Cover in stainless steel • Leaf support bracket with key-operated lever release system • Overall dimensions 430x308x156 mm (LxWxH)

770 24 Vdc

Electro-mechanical operator, low voltage, non reversing, concealed, for swing gates • Leaf max length 2.5 m and max weight 500 kg • Max use frequency 50 cycles/hour • Underground installation • Leaf opening inwards or outwards • Max opening angle 110° or 140° (with optional kit) • Electric motor power supply 24 Vdc • Thermal protection at 140°C built into motor winding • Protection class IP67 • Operating ambient temperature -20°C ÷ +55°C • Operator body with corrosion proof treatment • Motion transmission levers • Leaf deceleration by unequal levers • Grease lubrication • Self-learning of: Opening/closing times - Pause time - Traction/thrust force - Travel limit deceleration • Soft Start (starting at gradual speed) • Emergency battery (optional) • Casing in steel with cathoporesis treatment • Cover in stainless steel • Leaf support bracket with key-operated lever release system • Overall dimensions 430x308x156 mm (LxWxH)

750

Hydraulic pump unit • Models with hydraulic locking at opening and closing and without hydraulic locking • Models with max leaf length up to 3.5 m • Max use frequency 45 cycles/hour • Electric motor power supply 230 Vac (+6% -10%) - 50(60) Hz • Electric motor power 220 W • Thermal protection at 120°C built into motor winding • Operating ambient temperature -40°C ÷ +55°C • Lever operated built-in release device • Single-phase motor with two rotation directions • Hydraulic gerotor pump (max low noise) • Pump flow rate 0.5 l/m and 0.75 l/m • Die-cast distribution flange • Separate control of opening and closing force by by-pass valves with tamper-proof plate • Tank in anodised aluminium • Air breather screw • Oil filling plug with level stick • Mineral hydraulic oil with additives Enclosure for hydraulic pump unit (optional) • ABS enclosure • Protection class IP55 • Wall- or flush-mounting • Designed for securing to DIN guide • Designed for installation of door locking switch • Fuse-holder • Seats for capacitor supports • Removable hinges for right or left opening • Lock with triangular or customized key (optional) • Dimensions: 246 x 353 x 142 mm (LxHxW) Hydraulic jack • Hydraulic jack with rack piston and transmission shaft • Leaf max weight 800 Kg • Max torque 543 Nm (with hydraulic units with pump capacity of 0.75 l/m)/272 Nm (with hydraulic units with pump capacity of 0.5 l/m) • Angular velocity 7.8°/s (with hydraulic units with pump capacity of 0.75 l/m)/5.2°/s (with hydraulic units with pump capacity of 0.5 l/m) • Models with rotation maximum angle 118° and 200° • Body in extruded aluminium • NIPLOY treated jack liner • NIPLOY-treated transmission shaft • Height adjustment dowels • Protection class IP67

750 CP

Hydraulic pump unit • Models with hydraulic locking at opening and closing and without hydraulic locking • Models with max leaf length up to 3.5 m • Max use frequency 45 cycles/hour • Electric motor power supply 230 Vac (+6% -10%) - 50(60) Hz • Electric motor power 220 W • Thermal protection at 120°C built into motor winding • Operating ambient temperature -40°C ÷ +55°C • Lever operated built-in release device • Single-phase motor with two rotation directions • Hydraulic gerotor pump (max low noise) • Pump flow rate 0.5 l/m and 0.75 l/m • Die-cast distribution flange • Separate control of opening and closing force by by-pass valves with tamper-proof plate • Tank in anodised aluminium • Air breather screw • Oil filling plug with level indicator stick • Mineral hydraulic oil with additives Enclosure for hydraulic pump unit (optional) • ABS enclosure • Protection class IP55 • Wall- or flush-mounting • Designed for securing to DIN guide • Designed for installation of door locking switch • Fuse-holder • Seats for capacitor supports • Removable hinges for right or left opening • Lock with triangular or customized key (optional) • Dimensions: 246 x 353 x 142 mm (LxHxW) Hydraulic jack • Hydraulic jack with rack piston and transmission shaft • leaf max weight 800 Kg • Max torque 543 Nm (with hydraulic units with pump capacity of 0.75 l/m) 272 Nm (with hydraulic units with pump capacity of 0.5 l/m) • Angular velocity 7.8°/s (with hydraulic units with pump capacity of 0.75 l/m)/5.2°/s (with hydraulic units with pump capacity of 0.5 l/m) • Models with rotation maximum angle 118° and 200° • Body in extruded aluminium • NIPLOY treated jack liner • NIPLOY-treated transmission shaft • Height adjustment dowels • Protection class IP67 Casing • Casing in steel with cathoporesis treatment and cover in stainless steel • Drain pipe and electric cable holes • NIPLOY treated grooved bush • Overall dimensions 420 x 255 x 188 mm (LxWxH)

760

Integrated hydraulic operator consisting of pump unit and jack • Hydraulic pump unit models with hydraulic locking on opening and closing and without hydraulic locking • Models suitable for max leaf length up to 4 m • Leaf max weight 800 kg • Models with leaf max opening angle 162° and 148° • Models with max use frequency 30 and 55 cycles/hour • Models with max torque 272 Nm and 543 Nm • Models with angular velocity 5.2°/s and 7.8°/s • Electric motor power supply 230 Vac (+6% -10%) - 50(60) Hz • Electric motor power 220 W • Thermal protection at 120°C built into motor winding • Operating ambient temperature -40°C ÷ +55°C • Protection class IP67 • Release device with triangular or customised key (optional) accessible both from inside and outside • Single-phase motor with two rotation directions • Hydraulic gerotor pump (max low noise) • Models with pump flow rate 0.5 l/min and 0.75 l/min • Die-cast distribution flange • Separate control of opening and closing force by by-pass valves • Tank in anodised aluminium • Rack piston and jack • Die-cast aluminium jack body • NIPLOY treated jack liner • Mineral hydraulic oil with additives Casing • Casing die casting in aluminium with cataphoresis treatment and cover in stainless steel • Drain pipe and electric cable holes • NIPLOY treated integrated transmission shaft • Radial bearings and thrust bearing • Dimensions 490 x 260 x 159 mm (LxWxH)



AUTOMATED SYSTEMS FOR SLIDING GATES

DOMOGLIDE B7

Low voltage gearmotor for residential sliding gates with max length of 5 m and max weight of 300 kg • Body in treated, powder painted die-cast aluminium • 12 V electric motor, compact, long-life • Hexagonal key operated release device • IP44 protection class • Max load free linear speed 15 m/min • Rated absorbed power 48 W • Static force 150 N • Duty cycles 20% • Fully charged battery consecutive cycles -30 • Battery recharge time -10' for every cycle effected • Operating ambient temperature -20°C ÷ +55°C • Built-in control board • Incorporable primary transformer (optional).

Domoglide-B7 control board

• Power supply 12 Vac • Sealed lead battery 12 Vdc 7,2 Ah • Transformer characteristics: Primary 230 Vac - Secondary 12 Vac -16 VA • 24 Vdc accessories max load 150 mA • Rapid connector max load 50 mA • Motor max load 15 A • Operating ambient temperature -20°C ÷ +55°C • Removable terminal board • LEDs and push-buttons programming (user friendly inter face) • Protection fuse n.1 - 20 A • Function logics: Automatic, "Stepped" Automatic, Safety, "Stepped" Semi-automatic • Self-learning of opening and closing times • Magnetic safety limit-switches • Selectable pause times (5,10,20,30 sec) • Partial opening width of 90, 120, 150, 180 cm • Anti-crushing function by encoder and current control • Speed control over 4 levels • Static force control over 4 levels • Travel-limit decelerations • Terminal board inputs: Open, Open for partial opening, Stop, Op. and Cl. safety devices, sensor • Terminal board outputs: 12 V Flashing lamp, Motor, Bus, Indicator-light, 24 V-12 V power supply for accessories • Connectors: Minidec Cards, RP Cards, battery • Programmable functions: Logic/Pause time/Opening and closing leaf delays/Anti-crushing force/Operators speed

DOMOGLIDE T

Low voltage gearmotor for residential sliding gates with max length of 5 m and max weight of 300 kg • Body in treated, powder painted die-cast aluminium • 12 V electric motor, compact, long-life • Hexagonal key operated release device • IP44 protection class • Max loadfree linear speed 15 m/min • Rated absorbed power 48 W • Static force 150 N • Duty cycles 20% • Consecutive cycles 30 • Recharge time 2' for every cycle effected • Operating ambient temperature -20°C ÷ +55°C • Built-in control board and toroidal transformer

Domoglide-T control board

Power supply 12 Vac • Transformer: toroidal 230 Vac/12 Vac -180 VA low consumption • 24 Vdc accessories max load 150 mA • Rapid connector max load 50 mA • Motor max load 15 A • Operating ambient temperature -20°C ÷ +55°C • Removable terminal board • LEDs and push-buttons programming (user friendly inter face) • Protection fuse n.1 - 20 A • Function logics Automatic, "Stepped" Automatic, Safety, "Stepped" Semi-automatic • Self-learning of opening and closing times • Magnetic safety limit-switches • Selectable pause times (5,10,20,30 sec) • Partial opening width of 90, 120, 150, 180 cm • Anti-crushing function by encoder and current control • Speed control over 4 levels • Static force control over 4 levels • Travel-limit decelerations • Terminal board inputs: Open, Open for partial opening, Stop, Op. and Cl. safety devices • Terminal board outputs: 12 V Flashing lamp, Motor, Bus, Indicator-light, 24 V-12 V power supply for accessories • Rapid connector, card receivers, decoding cards • Programmable functions: Logic/Pause time/Opening and closing leaf delays/Anti-crushing force/Operators speed

740 - 741

Non-reversing screw gearmotor o Gate max weight 500 Kg (740), 900 Kg (741) • Gate max length 10 m • Gate speed 12 m/min • Max. use frequency 30% (740 E Z16) 40% (741 E Z16) • Max thrust 45 daN (740 E Z16), 65 daN (741 E Z16) • Electric motor power supply 230 Vac (+6% -10%) - 50 (60) Hz • Electric motor power 350 W (740 E Z16), 500 W (741 E Z16) • Thermal protection at 140°C built into motor winding • Operating ambient temperature -20°C ÷ +55°C • Protection class IP44 • Coded lever-operated release device • Single-phase bi-directional motor (1.400 rpm) • Pinion Z 16/module 4 o Reduction ratio 1:25 • Limit-microswitch • ABS protective housing • Galvanised foundation plate • Dimensions 295 x 225 x 325 mm (LxWxH) with pinion • Built-in control board • 2 protection fuses • Function logics: Automatic/"Stepped" automatic/Semi-automatic/Safety devices/Semi-automatic B/Dead-man C/"Stepped" semi-automatic • Work time programmable (from 0 to 4 min.) • Pause time programmable (from 0 to 4 min.) • Thrust force adjustable over 50 levels • Terminal board inputs: Open/Partially Open/Opening safety devices/Closing safety devices/Stop/Edge/Power supply + Earth • On-connector inputs: opening and closing limit-switches/Encoder • Terminal board outputs: Flashing lamp -Motor - 24 Vdc accessories power supply - 24 Vdc indicator-light/Timed output - Fail safe • Rapid connector: for Minidec, Decoder or RP receivers • Programming with keys and display • "Basic" mode programmable functions: Function logic - Pause time - Thrust force - Gate direction • "Advanced" mode programmable functions: Torque at initial thrust - Braking - Fail safe - Pre-flashing - Indicator-light/Timed output - Opening and closing safety devices logic -Encoder (optional) for anti-crushing electronic safety, deceleration management and partial opening - Decelerations - Partial opening time - Work time - Assistance request - Cycle counter

740 - 24 VDC

Non-reversing screw gearmotor • Gate max. weight 400 Kg • Gate speed 12 m/min • Max. use frequency 100% • Max thrust 40 daN (Z16) • Electric motor power supply 24 Vdc • Electric motor power 70 W • Operating ambient

temperature -20°C ÷ +55°C • Protection class IP 44 • Lever operated release device with coded key • Pinion Z 16/module 4 • Encoder controlled stroke limit • ABS protective housing • Galvanised foundation plate • Dimensions 295x225x325 mm (LxWxH) • Built-in control board • Self-learning of: Opening/closing times - Pause time - Traction/thrust force - Travel limit deceleration • Soft Start (starting at gradual speed) • Emergency battery for installation "inside" the gearmotor or "remote" installation in the container for the 724 D electronic unit (optional)

746 ER Z20

Non-reversing screw gearmotor • Gate max. weight 600 kg • Gate speed 12 m/min (Z20) and 9.5 m/min (Z16) • Max. use frequency 70% • Max thrust 50 daN • Electric motor power supply 230 Vac (+6% - 10%) - 50 (60) Hz • Electric motor power 300 W • Thermal protection at 120 °C built into motor winding • Operating ambient temperature - 20°C ÷ + 55°C • Protection class IP 44 • Lever operated release device with code key • Single - phase motor with two rotation directions (1.400 rpm) • Pinion gear Z20/module 4 • Inductive limit - switch (chain version) • Magnetic limit-switch (rack version) • Lower and upper half-body in die - cast aluminium with cathoporesis treatment • Twin-disk clutch in oil-bath • Opening/closing force adjustable by hexagonal key • Galvanised foundation plate with side and height adjustment (optional) • Dimensions 275x191x336 mm (LxWxH) • Built-in control board • ABS control board enclosure

780D control board

Transformer: faston connection to the PCB • Power supply: 230 Vac (+6%-10%) 50 Hz • Absorbed power: 10 W • Motor max. load: 1000 W • Accessories max. load: 0,5 A • Operating ambient temperature: -20°C ÷ +55°C • Fuses: 2 • Function logics: Automatic/"Stepped" automatic/Semi-automatic/Safety devices/Semi-automatic B / Dead-man C / "Stepped" semi-automatic / Mixed B/C logic • Work time: Programmable (from 0 to 4,1 min) • Pause time: Programmable (from 0 to 4,1 min) • Thrust force: Adjustable over 50 levels • Terminal board inputs: Open - Partially Open - Opening safety devices - Closing safety devices - Stop - Edge - Power supply + Earth • On-connector inputs: Opening and closing limit-switch/Motor capacitor • Terminal board outputs: Flashing lamp - Motor - 24 Vdc accessories power supply - 24Vdc indicator-light - Timed output - Electric lock command - "traffic lights" - Fail safe • Rapid connector: Plug-in receiver - Decoding card • Programming: Nr. 3 keys(+,-,F) and display, "basic" or "advanced" mode • "Basic" mode programmable functions: Function logic - Pause time - Thrust force - Opening-closing direction • "Advanced" mode programmable functions: Torque at initial thrust - Braking - Fail safe - Pre-flashing - Indicator-light/Timed output/Electric lock or "traffic lights" command - Opening and closing safety devices logic - Encoder/Anti-crushing sensitivity - Deceleration - Partial opening time - Worktime - Assistance request - Cycle counter

844 ER Z16

Non-reversing screw gearmotor • Gate maximum weight 1.800 Kg • Gate speed 9,5 m/min • Use frequency max. 30% • Max thrust 110 daN • Electric motor power supply 230 Vac (+6% -10%) -50 (60) Hz • Electric motor power 650 W • Thermal protection at 130° C built into motor winding • Operating ambient temperature -20°C ÷ +55°C • Protection class IP 44 • Lever operated release device with coded key • Single-phase, bi-directional motor (1,400 rpm) • Pinion gear Z16/module 4 • Inductive limit-switch (chain version) • Magnetic limitswitch (rack version) • Lower and upper half-body in pressure cast aluminium with cathoporesis treatment • Twin-disk clutch in oil-bath • Opening/closing force adjustable by hexagonal key • galvanised foundation plate with side and height adjustment (optional) • Dimensions 275x191x387 mm (LxWxH) • Built-in 780D control board • ABS control board enclosure with triangular key

780D control board

Transformer: faston connection to the PCB • Power supply: 230 Vac (+6%-10%) 50 Hz • Absorbed power: 10 W • Motor max. load: 1000 W • Accessories max. load: 0,5 A • Operating ambient temperature: -20°C ÷ +55°C • Fuses: 2 • Function logics: Automatic/"Stepped" automatic/Semi-automatic/Safety devices/Semi-automatic B / Dead-man C / "Stepped" semi-automatic / Mixed B/C logic • Work time: Programmable (from 0 to 4,1 min) • Pause time: Programmable (from 0 to 4,1 min) • Thrust force: Adjustable over 50 levels • Terminal board inputs: Open - Partially Open - Opening safety devices - Closing safety devices - Stop - Edge - Power supply + Earth • On-connector inputs: Opening and closing limit-switch/Motor capacitor • Terminal board outputs: Flashing lamp - Motor - 24 Vdc accessories power supply - 24Vdc indicator-light - Timed output - Electric lock command - "traffic lights" - Fail safe • Rapid connector: Plug-in receiver - Decoding card • Programming: Nr. 3 keys(+,-,F) and display, "basic" or "advanced" mode • "Basic" mode programmable functions: Function logic - Pause time - Thrust force - Opening-closing direction • "Advanced" mode programmable functions: Torque at initial thrust - Braking - Fail safe - Pre-flashing - Indicator-light/Timed output/Electric lock or "traffic lights" command - Opening and closing safety devices logic - Encoder/Anti-crushing sensitivity - Deceleration - Partial opening time - Worktime - Assistance request - Cycle counter for maintenance request • Status indication: Display • Plastic enclosures compatibility: none

Note: 844 R, 844 R CAT, 844 R RF mod.: without control board, for 578 D remote application into E-L-LM plastic enclosure.

844 R THREE-PHASE

Non-reversing screw gearmotor • Gate maximum weight 2,200 Kg (Z12)/1.600 Kg (Z16) • Gate speed 7.2 m/min (Z12)/9.5 m/min (Z16) • Use frequency max. 60% • Max torque 62 Nm • Electric motor power supply 400 Vac (3ph) (+6% -10%) - 50 (60) Hz • Electric motor power 950 W • Operating ambient temperature -20°C ÷ +55°C • Protection class IP 44 • Lever operated release device with coded key • Magnetic limit-switch • Lower and upper half-body in pressure cast aluminium with cathoporesis treatment • Twin-disk clutch in oil-bath • Opening/closing force adjustable by hexagonal key • Galvanised foundation plate with side and height adjustment (optional) • Dimensions 275 x191 x 387 mm (LxWxH) • Cover in ABS with triangular key

844 T control board

Electronic card with limit-switch inputs for controlling three-phase gearmotors for sliding gates • Power contactors • Motor max load of 1.3 KW • 24 Vdc - 500 mA max. output for accessories • Microprocessor control • 2 protection fuses (motor/accessories) • Inputs status signalling LEDs • Connector for card receiver/decoding cards • Separate high and low voltage terminal boards • Programming Dip Switches • Electronic braking device • Automatic (A1-A2-S1-S2), semi-

automatic (E1-E2) and dead-man (B-C) function logics • Two logics for safety devices (Dip Switches) • Pause times in selection range of 5 s to 180 s (Dip Switches) • Selectable 5 s pre-flashing (Dip Switch) • Inputs: closing safety devices, stop push-button, total opening push-button, partial opening/closing push-button, limit-switch • Outputs: power supply for accessories, motor, flashing lamp and indicator-light

844 R REVERSIBLE

Reversible screw gearmotor • Gate max. weight 1.000 Kg (Z12) • Gate speed 11.6 m/min (Z12) • Max. use frequency 30% • Thrust force 68 daN • Electric motor power supply 230 Vac (+6% -10%) - 50(60) Hz • Electric motor power 550 W • Thermal protection at 140°C built into motor winding • Operating ambient temperature -20°C ÷ +55°C • Protection class IP 44 • Lever operated release device with coded key • Magnetic limit-switch • Lower and upper half-body in die-cast aluminium with cathoporesis treatment • Twin-disk clutch in oil-bath • Opening/closing force adjustable by hexagonal key • Galvanised foundation plate with side and height adjustment (optional) • Dimensions 275 x 191 x 387 mm (LxWxH) • Cover in ABS with triangular key

578 D control board

Power supply 230 Vac (+6% -10%) 50 Hz • Absorbed power 10 W • Motor max load 1000 W • Accessories max load 0.5 A • Operating ambient temperature -20°C ÷ +55°C • Two Fuses • Function Logics: Automatic/"Stepped" automatic/Semi-automatic/Safety devices/Semi-automatic B / Dead-man C /"Stepped" semi-automatic / Mixed B/C logic • Programmable Work time (from 0 to 4 min.) • Programmable Pause time (from 0 to 4 min.) • Thrust Force Adjustable on 50 levels • Terminal board inputs Open - Partially Open - Opening safety devices - Closing safety devices - Stop - Edge - Power supply + earth - Opening and closing limit-switches - Encoder • On-connector inputs Opening and closing limit-switch • Encoder • Terminal board outputs: Flashing lamp - Motor - 24 Vdc accessories power supply - 24Vdc indicator-light - Timed output - Electric lock command - "traffic lights" - Fail safe • Rapid connector 5-pin card connection for Minidec, Decoder or RP receivers • On-display Programming with three keys • Two programming modes: "basic" or "advanced" • "Basic" mode programmable functions Function Logic - Function logic - Pause time - Thrust force - Opening-closing direction • "Advanced" mode programmable functions: Torque at initial thrust - Braking - Fail safe - Pre-flashing - Indicator-light/Timed output/Electric lock or "traffic lights" command - Opening and closing safety devices logic - Encoder/Anti-crushing sensitivity - Deceleration - Partial opening time - Worktime - Assistance request - Cycle counter • Status indication: Display • Plastic enclosures compatibility: Mod. E - L - LM

884

Reversing gearmotor with brake motor • Gate max. weight 3.500 Kg (Z16) • Gate speed 10 m/min • Max. use frequency 50% (100% for max gate weight of 2,000 Kg) • Max torque 155 Nm • Electric motor power supply 230/400 Vac (3ph) (+6% -10%) - 50(60) Hz • Electric motor power 850 W • Straight shaft gearbox • Operating ambient temperature -20°C ÷ +55°C • Protection class IP55 • Lever operated release device with safety microswitch • Mechanical limit-switch with lever and roller microswitch • Steel housing protected by cathoporesis treatment and polyester paint RAL 2004 • Base with levelling screws • Door with triangular key and safety microswitch • Twin-disk clutch in oil-bath • Device for adjusting clutch with a hexagonal key • Galvanised foundation plate (optional) • Dimensions: 430 x 310 x 586 mm (LxWxH)

884 T control board

Control board with limit-switch inputs for controlling three-phase gearmotors for sliding gates • Power contactors • Motor maximum load 1.3 KW • 24 Vdc - 500 mA max. output for accessories • Microprocessor control • 2 protection fuses (motor/accessories) • Inputs status signalling LEDs • Connector for card receiver/decoding cards • Separate high and low voltage terminal boards • Inputs status signalling LEDs • Programming Dip Switches • Electronic braking device • Automatic (A1-A2-S1-S2), semi-automatic (E1-E2) and "deadman" function logics (B-C) • Two logics for safety devices (Dip Switches) • Pause times in selection range of 5 s to 180 s (Dip Switches) • Selectable 5 s pre-flashing (Dip Switch) • Inputs: closing safety devices, stop push-button, total opening push-button, partial opening/closing push-button, limit-switch • Outputs: power supply for accessories, motor, flashing lamp and indicator-light

820 EMC Z20 CR

Non-reversing screw gearmotor • Gate max. weight 600 Kg • Gate max length 13 m • Gate speed 12 m/min • Max. use frequency 30% • Max thrust 50 daN • Electric motor power supply 230 Vac (+6% -10%) - 50 (60) Hz • Electric motor power 400 W • Thermal protection at 135°C built into motor winding • Operating ambient temperature -20°C ÷ +55°C • Protection class IP 44 • Release device activated by lever or customised key (optional) • Self-ventilated single-phase electric motor with two rotation directions (1.400 rpm) • Pinion Z 20/module 4 • Enbloc base in pressure-cast aluminium with cathoporesis treatment • Steel cover, polyester painted • Single-disk clutch in oil bath • Clutch adjustment with Allen spanner • Galvanised foundation plate with side and height adjustment (optional) • Dimensions 235 x 221 x 382 mm (LxWxH) • Built-in control board • Control board protective housing • Programmable electronic limit switch without on-gate fittings • Obstacle detection electronic device • Travel-limit electronic deceleration • 24 Vdc - 500 mA max. output for accessories • Microprocessor control • 3 protection fuses (motor/accessories - transformer) • Connector for card receiver/decoding cards • Separate high and low voltage terminal boards • Input and alarm status signalling LEDs • Programming Dip Switches • Braking control trimmer • Automatic (A1-A2-S1-S2), semi-automatic (E1-E2) and "dead-man" function logics (B-C) • Pause times in selection range of 5 s to 180 s (Dip Switches) • Selectable 5 s pre-flashing (Dip Switch) • Inputs: closing safety devices, stop push-button, total opening push-button, partial opening push-button • Outputs: power supply for accessories, motor, flashing lamp and indicator-light

860 MC Z16 CR

Non-reversing screw gearmotor • Gate maximum weight 1,200 Kg • Gate maximum length 10 m • Gate speed 9.5 m/min • Use frequency max. 30% • Max thrust 110 daN • Electric motor power supply 230 Vac (+6% -10%) -50 (60) Hz • Electric motor power 600 W • Thermal protection at 135°C built into motor winding • Operating ambient temperature -20°C ÷ +55°C • Protection class IP 44 • Release device activated by lever or customised key (optional) • Self-ventilated single-phase

electric motor with two rotating directions (1.400 rpm) • Pinion gear Z 16/module 4 • Enbloc base in pressure cast aluminium with cathoporesis treatment • Steel cover, polyester painted • Single-disk clutch in oil bath • Clutch adjustment with Allen spanner • Foundation plate with side and height adjustment (optional) • Dimensions 235 x 221 x 402 mm (LxWxH) • Built-in electronic card • Electronic card protective housing • Programmable electronic limit-switch without on-gate fittings • Travel-limit electronic deceleration • 24 Vdc - 250 mA max. output for accessories • Microprocessor control • 3 protection fuses (motor/accessories - transformer) • Connector for card receiver/decoding cards • Separate high and low voltage terminal boards • Input and alarm status signalling LEDs • Programming Dip Switches • Braking control trimmer • Automatic (A1-A2-S1-S2), semi-automatic (E1-E2) and dead-man operation logics (B-C) • Pause times in selection range of 5s to 180 s (Dip Switches) • Selectable 5s pre-flashing (Dip Switch) • Inputs: closing safety devices, stop push-button, total opening push-button, partial opening push-button • Outputs: power supply for accessories, motor, flashing lamp and indicator-light



AUTOMATED SYSTEMS FOR SECTIONAL AND INDUSTRIAL DOORS

531

Automatic system for sprung overhead, counterbalanced up-and-over doors and sectionals doors • Applications for counterbalanced overhead doors with adapter • Door max width 3 m (spring/counterbalanced doors) 5 m (sectional doors) • Models suitable for max door height of 2.15 m, 2.60 m, 3.20 m and 3.80 m • Models with effective stroke 2020 mm, 2620 mm, 3200 mm and 3800 mm • Ceiling installation o Minimum clearance from ceiling 35 mm • Max pull/thrust force 600 N (~ 60kg) for 531 EM, 1000 N (~ 120 kg) for 576 EM • Load free pulling speed 6,6 m/min (531 EM mod.) 8,5 m/min (576 EM mod.) • Max use frequency 20 cycles/hour (at max load of 28 Kg for 531 EM, and 56 Kg for 576 EM) • Max consecutive cycles • Main components of the automated system: guide beam ("one piece rail" or two rail pieces), chain transmission or by belt, housing containing 24 Vdc gearmotor, power transformer, control board and courtesy lamp • Protective housing in PC+ABS with built-in OPEN push-button and designed to install receiver antenna • "Bistable" release device (locked statuses/voluntary release and reset) cable activated • Customised key-operated external release devices or for application to existing handle (optional) • Initialisation of automatic or manual operation (Set Up) • Automatic Set Up: recognition of opening and closing stroke limit positions and memory storage of deceleration • Manual Set Up: customising, by OPEN pulses, of deceleration and stroke limit positions • Automatically adjusted anticrushing device with intervention minimum threshold maintained for entire door movement (Set Up) • Anti-crushing device tripping: stops the door movement at opening and reverses it at closing • Selection of anti-crushing sensitivity: 150 N - 300 N • Two settable pull/thrust levels: (800 N - 1000 N) 1000 N for 576 EM • Soft Start: door movement started gradually • Possibility of reduction (half) of opening and closing speed • Automatic and semi-automatic function logics • Outputs: 24 Vdc power supply for accessories/flushing lamp • Inputs: open/stop/closing safety devices • Fail safe for safety devices (can be disabled) • Two protection fuses (motor/accessories) • Internal connector for card receiver or decoding cards • Courtesy lamp 25 W at 230 Vac time at 2 minutes • Protection class IP20 • Power supply 230 Vac 50 (60) Hz • Max absorbed power 220 W for 531 EM, 350 W for 576 EM • Operating ambient temperature -20°C ÷ +55°C

540

Power supply 230 Vac (+6% -10%) 50-60Hz • Single-phase electric induction motor 1450 rpm • Max absorbed power 800W • Absorbed current 3.5 A • Thrust capacitor 20 μ F • Rotation speed 23 rpm • Winding thermal protection to 140 °C • Use frequency (S3) 40% • Max number of consecutive cycles 5 • Through Shaft diam 25.4 mm (1") drive • Shaft rated torque 50 Nm • Drive max. revs 24 • Protection class IP 54 • Operating ambient temperature -20°C ÷ + 55°C • Gearmotor maximum weight 14 kg • Oil type FAAC OIL XD 220 • Oil quantity 0.75 l • Transmission by steel worm-screw and bronze ring-gear in oil bath • Die-cast aluminium body • Travel-limit unit with micrometric screw • Rapid release device for manual activation with cord • Chain winch (models 540 V and 540 X) for manual activation • Built-in "dead man" control board (models 540)

540 BT control board (built into models 540)

• Power supply 230 Vac (+6% -10%) 50 Hz • Low voltage commands 24 Vdc • Motor max load 800 W • Interlocked opening/closing push-but-tons • Two fuses 0.25 A for transformer and 6.3 A for motor

540 BPR control board (built into models 540 BPR)

Power supply 230 Vac (+6% -10%) 50 Hz • Motor max load 800 W • Accessories max load 0,2 A • Operating ambient temperature -20°C ÷ +55°C • Two Fuses 0.25 A for transformer and 6.3 A for motor • Function Logics: AP, EP, C, B, B/C, P • Pause time: Default 30" (programmable from 0 to 5 min.) • Terminal board inputs Open - Close - Stop - Closing safety devices - Opening and closing limit-switch • Terminal board outputs - Motor - 24 Vdc power supply to accessories

541

Power supply 230 Vac (+6% -10%) 50-60Hz • Single-phase electric induction motor 1450 rpm • Max absorbed power 800W • Absorbed current 3.5 A • Thrust capacitor 20 μ F • Rotation speed 23 rpm • Winding thermal protection to 140 °C • Use frequency (S3) 40% • Max number of consecutive cycles 5 • Through Shaft diam 25.4 mm (1") drive • Shaft rated torque 50 Nm • Drive max. revs 24 • Protection class IP 54 • Operating ambient temperature -20°C ÷ + 55°C • Gearmotor maximum weight 14 kg • Oil type FAAC OIL XD 220 • Oil quantity 0.75 l • Transmission by steel worm-screw and bronze ring-gear in oil bath • Die-cast aluminium body • Travel-limit unit with micrometric screw • Rapid release device for manual activation with cord • Chain winch (models 541/541 V) for manual activation • Built-in encoder (models 541) for control via board 578 D

578 D control board

Power supply 230 Vac (+6% -10%) 50 Hz • Absorbed power 10 W • Motor max load 1000 W • Accessories max load 0.5 A • Operating ambient temperature -20°C ÷ +55°C • Two Fuses • Function Logics: Automatic/"Stepped" automatic/Semi-automatic/Safety devices/Semi-automatic B / Dead-man C /"Stepped" semi-automatic / Mixed B/C logic • Programmable Work time (from 0 to 4 min.) • Programmable Pause time (from 0 to 4 min.) • Thrust Force Adjustable on 50 levels • Terminal board inputs Open - Partially Open - Opening safety devices - Closing safety devices - Stop - Edge - Power supply + earth - Opening and closing limit-switches - Encoder • On-connector inputs Opening and closing limit-switch • Encoder • Terminal board outputs: Flashing lamp - Motor - 24 Vdc accessories

power supply - 24Vdc indicator-light - Timed output - Electric lock command - "traffic lights" - Fail safe • Rapid connector 5-pin card connection for Minidec, Decoder or RP receivers • On-display Programming with three keys • Two programming modes: "basic" or "advanced" • "Basic" mode programmable functions Function Logic - Function logic - Pause time - Thrust force - Opening-closing direction • "Advanced" mode programmable functions: Torque at initial thrust - Braking - Fail safe - Pre-flashing - Indicator-light/Timed output/Electric lock or "traffic lights" command - Opening and closing safety devices logic - Encoder/Anti-crushing sensitivity - Deceleration - Partial opening time - Worktime - Assistance request - Cycle counter • Status indication: Display • Plastic enclosures compatibility: Mod. E - L - LM

541 3PH

Power supply 400 Vac (+6% -10%) 50-60Hz • Single-phase electric induction motor 1450 rpm • Max absorbed power 420 W • Absorbed current 1,1 A • Rotation speed 23 rpm • Winding thermal protection to 140 °C • Use frequency (S3) 60% • Max number of consecutive cycles 6 • Through Shaft diam 25.4 mm (1") drive • Shaft rated torque 70 Nm • Drive max. revs 24 • Protection class IP 54 • Operating ambient temperature -20°C ÷ + 55°C • Gearmotor maximum weight 14 kg • Oil type FAAC OIL XD 220 • Oil quantity 0.75 l • Transmission by steel worm-screw and bronze ring-gear in oil bath • Die-cast aluminium body • Travel-limit unit with micrometric screw • Rapid release device for manual activation with cord • Chain winch (models 541/541 V) for manual activation

884 T control board

• Motor maximum load: 1300 W • Motor maximum load: 24 Vdc - 500 mA max • Operating ambient temperature: -20°C ÷ + 55°C • Power supply to indicator-light: 24 Vac (5 W max) • 4 protection fuses • Safety timer: 255 s • Motor braking fixed • Inputs: Open, partially open, stop, closing safety devices, limit-switch • Outputs: indicator-light, flashing lamp, motor, 24 Vdc power supply for accessories • Programming: Pause time (5710/15730/60/120/180 sec), Logics A1/A2/S1/S2/E1/E2/B/C, pre-flashing.



AUTOMATED SYSTEMS FOR UP-AND-OVER DOORS

550

Electro-mechanical automated system for counterbalanced up-and-over doors • Door max. width 3 m • Door max height 2.7 m • Door max weight 10 Kg/sqm • Installation on door panel by securing longitudinal member (optional) • Application with transmission tubes and straight or curved telescopic arms • Max torque 300 Nm (250 Nm 550 L) • Angular velocity 12°/s (8°/s 550 L) • Max use frequency 15 cycles/hour - 25 cycles/hour with limit-switch (optional) • Main components of the automated system: non-reversing gearmotor, electronic card and courtesy lamp integrated in an enbloc • Protective ABS housing with integrated OPEN push-button • Manual internal release device • Customised key-operated external release devices or for application to existing handle (optional) • Power supply 230 Vac 50 (60) Hz • Max absorbed power 360 W (280 W - 550 L) • Operating ambient temperature -20°C ÷ +55°C • Protection class IP 31 (IP 40 with optional Kit) • Dimensions 160x670x120 mm (LxWxH) • Microprocessor control led unit • Protection fuses (net/accessories circuit) • Two programming levels: 1st level - operation logics automatic/semiautomatic, work time, pause times, anti-crushing safety (8 levels) - 2nd level - timing courtesy lamp, max torque at initial thrust, fail safe, pre-flashing, travel-limit deceleration • Removable terminal boards • Terminal board outputs: motor, power supply for accessories 24 Vdc, flashing lamp 230 Vac- 60W, external courtesy light 230 Vac • Terminal board inputs: open, stop, safety device closing/opening/limit-switch-closing-opening • Connector for decoding cards or RP plug in receivers • Programming by display (3 buttons) • Inputs status signaling via display

593

Hydraulic operator for counterbalanced up-and-over doors with locking at opening and closing • Door max width 3.5 m • Door max height 2.7 m • Door max weight 15 Kg/sqm • Two-motor application for doors with max width 5 m and max height 3 m • Installation on door panel by securing longitudinal member (optional) • Application with transmission tubes and straight or curved telescopic arms • Max torque 400 Nm • Max use frequency 50 cycles/hour • Angular velocity 9°15'/s • Electric motor power supply 230 Vac (+6% -10%) -50(60) Hz • Electric motor power 220 W • Thermal protection at 120°C built into motor winding • Overall dimensions 500x148x93 mm (LxWxH) • Protection class IP55 • Operating ambient temperature -40°C ÷ +55°C • Single-phase motor with two rotation directions (1,400 rpm) • Hydraulic gerotor pump (max low noise) • Die-cast distribution flange • Activated by rack and piston, and transmission shaft • Piston bores in NIPLOY treated steel • Oil re-circulation tube • Separate control of opening and closing force by by-pass valves with tam-per-proof plate • Built-in manual release device • External release device with customised key (optional) • Tank in anodised aluminium • Mineral hydraulic oil with additives • Designed to install limit switch kit (optional)

596 MPS control board

SMT technology control board • Power supply 230 Vac (+6% -10%) - 50(60) Hz • Absorbed power 10 W • Motors maximum load 800 W • 24 Vdc - 360 mA max output for accessories • Operating ambient temperature -20°C ÷ +55°C • SMT technology • Microprocessor control • Mains filter • 2 protection fuses (power supply- accessories - motors) • Connector for card receiver/decoding cards • Separate high and low voltage terminal boards • Automatic (A) and semi-automatic (E) function logics • Programming Dip Switches • Fail-safe on photocell (can be disabled) • Two logics for safety devices • Selection range for opening/closing times: 25s-30s-35s-40s • Selectable pause times 30s/60s • Inputs: closing safety devices, stop push-button, opening push-button • Outputs: power supply for accessories, motor, courtesy lamp • Max lamp load 40 W Enclosure for control board • Protection class IP55 • Wall- or flush-mounting • Designed for securing to DIN guide • Designed for installation of door locking switch • Fuse-holder • Seats for capacitor supports • Cover closing by 4 self-tapping screws • Dimensions: 204x265x85 mm (LxHxW)

595

Hydraulic operator for counterbalanced up-and-over doors with locking at opening and closing • Door max width 3.5 m • Door max height 2.7 m • Door max weight 15 Kg/sqm • Two-motor application for doors with max width 5 m and max height 3 m • Main components of the automated system: operator, control board and courtesy lamp integrated in an enbloc • Protective ABS housing with built-in OPEN push-button • Installation on door panel by securing longitudinal member (optional) • Application with transmission tubes and straight or curved telescopic arms • Max torque 400 Nm • Max use frequency 50 cycles/hour • Angular velocity 9°15'/s • Electric motor power supply 230 Vac (+6% -10%) - 50(60) Hz • Electric motor power 220 W • Thermal protection at 120°C built into motor winding • Overall dimensions 731x142x112 mm (LxWxH) • Protection class IP31 • Operating ambient temperature -40°C ÷ +55°C • Single-phase motor with two rotation directions (1,400 rpm) • Hydraulic gerotor pump (max low noise) • Die-cast distribution flange • Activated by rack and piston, and transmission shaft • Piston bores in NIPLOY treated steel • Oil re-circulation tube • Separate control of opening and closing force by by-pass valves with tamper-proof plate • Built-in lever operated manual release device • External release device with customised key (optional) • Tank in anodised aluminium • Mineral hydraulic oil with additives • Designed to install limit-switch kit (optional)

596 MPS control board

SMT technology electronic card • Motor maximum load 800 W • 24 Vdc - 360 mA max output for accessories • SMT technology • Microprocessor control • Mains filter • 2 protection fuses (power supply for accessories -motors)

- Connector for card receiver/decoding cards
- Separate high and low voltage terminal boards
- Automatic (A) and semi-automatic (E) function logics (Programming Dip Switches
- Fail-safe on photocell (can be disabled)
- Two logics for safety devices
- Selection range for opening/closing times: 25" - 30" - 35" - 40"
- Selectable pause times 30"/60"
- Inputs: closing safety devices, stop push-button, opening push-button
- Outputs: power supply for accessories, motor, courtesy lamp
- Max lamp load 40 W
- Designed to control two motors

580

Hydraulic operator for counterbalanced up-and-over doors

- Models with hydraulic locking at opening and closing and without hydraulic locking
- Door max width 3.5 m
- Door max height 3 m
- Two-motor application for doors with max width 5 m and max height 3 m
- Door max weight 15 Kg/sqm
- Installation on door panel by securing longitudinal member (optional)
- Application with transmission tubes and straight or curved telescopic arms
- Max torque 450 Nm
- Max use frequency 60 cycles/hour
- Angular velocity 9°15'/s
- Electric motor power supply 230 Vac (+6% -10%) - 50(60) Hz
- Electric motor power 220 W
- Thermal protection at 120°C built into motor winding
- Overall dimensions 480x110x96 mm (LxWxH)
- Protection class IP55
- Operating ambient temperature -40°C ÷ +55°C
- Single-phase motor with two rotation directions (1,400 rpm)
- Hydraulic gerotor pump (max low noise)
- Activation by rack piston and square transmission shaft
- Operator body in NIPLOY treated aluminium
- Oil re-circulation system
- Separate control of opening and closing force by by-pass valves with tamper-proof plate
- Built-in manual release device
- External release device with customised key (optional)
- Tank in anodised aluminium
- Oil level indicator
- Mineral hydraulic oil with additives.



AUTOMATED SYSTEMS FOR FOLDING DOORS

560

Hydraulic operator for bi-folding doors

- Models with hydraulic locking at opening and closing and without hydraulic locking
- Models suitable for max panel width up to 2.0 m
- Telescopic arm application
- Models with max torque 230 Nm and 320 Nm
- Models with max use frequency 50 and 60 cycles/hour
- Models with angular velocity 12.4°/s and 18.6°/s
- Electric motor power supply 230 Vac (+6% -10%) - 50(60) Hz
- Electric motor power 220 W
- Thermal protection at 120°C built into motor winding
- Overall dimensions 480x110x96 mm (LxWxH)
- Protection class IP55
- Operating ambient temperature -40°C ÷ +55°C
- Single-phase motor with two rotation directions (1,400 rpm)
- Hydraulic gerotor pump (max low noise)
- Activation by rack piston and square transmission shaft
- Operator enbloc in aluminium with NIPLOY treatment
- Oil re-circulation system
- Separate control of opening and closing force by bypass valves with tamper-proof plate
- Built-in manual release device
- External release device with customised key (optional)
- Tank in anodised aluminium
- Mineral hydraulic oil with additives.



AUTOMATIC BARRIERS

615

Automatic barrier for beams up to 5m • 40% use frequency (Rapid Version) 50% (Standard Version) • Opening/closing time 3 s. (Rapid Version) 6 s. (Standard Version) • Activation system comprising hydraulic pump unit, double-acting piston, equaliser and transmission shaft • Balancing by extended spring • Internal stops adjustable for open or closed beam positions • Load bearing housing in steel protected by cathaphoresis treatment and polyester powder paint RAL 2004 • Release device accessible from the outside by triangular key • Hydraulic pump unit with hydraulic locking in open and closed position • Electric motor power supply 230 Vac (+6% -10%) -50 (60) Hz • Electric motor power 220 W • Thermal protection at 120°C built into motor winding • Operating ambient temperature: -20°C ÷ +55°C • Single-phase motor with two rotation directions • Hydraulic gerotor pump (very low-noise) • Pump flow-rate 3,0 l/m (Rapid Version) 1,5 l/m (Standard Version) • Torque from 0 to 300 Nm (Rapid Version)/from 0 to 400 Nm (Standard Version) • Die-cast distribution flange • Separate adjustment of opening and closing power by by-pass valve • Tank in anodised aluminium • Mineral hydraulic oil with additives • Designed to accommodate standard rectangular beams, standard beams with skirt (4 m), standard articulated beams

610 MPS electronic card

Power supply 230 Vac (+6% -10%) - 50(60) Hz • Absorbed power: 10 W • Motors maximum load 800 W • 24 Vdc -250 mA max. output for accessories • Operating ambient temperature -20°C ÷ +55°C • Microprocessor control • SMT technology • Mains filter • Two protection fuses (transformer primary winding - accessories) • Connector for decoding cards /card receiver • Separate high and low voltage terminal boards • Programming Dip Switches • Programmable functions: Fail safe on photocell/Two logics for safety devices/Automatic (A) and semi-automatic (E) operation logics/Opening/closing times/Pause times • Inputs: closing safety device, stop push-button, opening push-button, opening/closing limit-switch • Outputs: power supply for accessories, motors and flashing lamp

620

Automatic barrier for beams up to 5 m • Use frequency 70% • Opening/closing time 3.5s (3 m) 4.5s (5m) • Actuating system consisting of hydraulic pump unit, plunger pistons, equaliser and transmission shaft • Balancing by compression spring • Internal stops adjustable for open or closed beam positions • Load bearing housing in steel protected by cathaphoresis treatment and polyester powder paint RAL 2004 • Overall dimensions 200x380x1080 mm (LxWxH) • Protection class IP 44 • Release device accessible from the outside by triangular or customised key (optional) • Hydraulic pump unit with hydraulic locking on opening and closing • Electric motor power supply 230 Vac (+6% -10%) - 50(60) Hz • Electric motor power 220 W • Thermal protection at 120°C built into motor winding • Operating ambient temperature -20°C ÷ +55°C • Single-phase motor with two rotation directions (1.400 rpm) • Hydraulic gerotor pump (max low noise) • Pump flow rate 0.75-1 l/m • Die-cast distribution flange • Separate control of opening and closing force by by-pass valves • Tank in anodised aluminium • Mineral hydraulic oil with additives • Travel-limit deceleration • Adjustable deceleration angle by cams • Designed to accommodate rectangular, rectangular with skirt, articulated rectangular, round, round pivoting beams • Built-in electronic control board

620 RAPID

Automatic barrier for beams up to 4 m • Use frequency 100% • Opening/closing time < 3 s • Activation system comprising hydraulic pump unit, plunger pistons, equaliser and transmission shaft • Balancing by compression spring • Internal stops adjustable for open or closed beam positions • Load bearing housing in steel protected by cathaphoresis treatment and polyester powder paint RAL 2004 • Overall dimensions 200x380x1080 mm (LxWxH) • Protection class IP 44 • Release device accessible from the outside by triangular or customised key (optional) • Hydraulic pump unit with hydraulic locking at opening and closing • Electric motor power supply 230 Vac (+6% -10%) - 50(60) Hz • Electric motor power 220 W • Thermal protection at 120°C built into motor winding • Operating ambient temperature -20°C ÷ +55°C • Single-phase motor with two rotation directions (1,400 rpm) • Hydraulic gerotor pump (max low noise) • Pump flow rate 1.5 - 2 l/m • Die-cast distribution flange • Separate control of opening and closing force by by-pass valves • Tank in anodised aluminium • Mineral hydraulic oil with additives • Travel-limit deceleration • Adjustable deceleration angle by cams • Automatically activated cooling ventilation • Designed to accommodate rectangular, articulated rectangular, round, pivoting round beams • Built-in electronic control equipment

620 SR

Automatic barrier for beams up to 3 m • Use frequency 100% • Opening/closing time 0.8s (models 0.8/0.8) or 2.2 s (models 0.8/2.2) • Activation system comprising hydraulic pump unit, adjustable pistons with hydraulic deceleration, equaliser and transmission shaft • Balancing by compression spring • Internal stops adjustable for open or closed beam positions • Load bearing housing in steel protected by cathaphoresis treatment and polyester powder paint RAL 2004 • Overall dimensions 200x380x1080 mm (LxWxH) • Protection class IP 44 • Release device accessible from the outside by triangular or customised key (optional) • Hydraulic pump unit with opening and closing hydraulic locking • Electric motor power supply 230 Vac (+6% -10%) - 50(60) Hz • Electric motor power 220 W • Thermal protection

at 130°C built into motor winding • Operating ambient temperature -20°C ÷ +55°C • Single-phase motor with two rotation directions (2,800 RPM) • Hydraulic gerotor pump (max low noise) • Pump flow rate 3 l/m • Die-cast distribution flange • Separate control of opening and closing force by by-pass valves - Anti-crushing safety • Tank in anodised aluminium • Mineral hydraulic oil with additives • Adjustable hydraulic deceleration • Adjustable deceleration angle by cams • One- or two-fan ventilation • Designed to accommodate standard rectangular, round, pivoting round beams • Built-in electronic control equipment

640

Automatic barrier for beams up to 7 m • Use frequency 100% • Opening/closing time from 4 to 8 s • Activation system comprising hydraulic pump unit, plunger pistons, equaliser and transmission shaft • Balancing by compression spring • Internal stops adjustable for open or closed beam positions • Load bearing housing in steel protected by cataphoresis treatment and polyester powder paint RAL 2004 • Overall dimensions 230x390x1080 mm (LxWxH) • Protection class IP 44 • Release device accessible from the outside by triangular or customised key (optional) • Hydraulic pump unit with hydraulic locking at opening and closing • Electric motor power supply 230 Vac (+6% -10%) - 50(60) Hz • Electric motor power 220 W • Thermal protection at 120°C built into motor winding • Operating ambient temperature -20°C ÷ +55°C • Single-phase motor with two rotation directions (1,400 rpm) • Hydraulic gerotor pump (max low noise) • Pump flow rate 0.75-1-1.5-2 l/m • Die-cast distribution flange • Separate control of opening and closing force by by-pass valves • Tank in anodised aluminium • Mineral hydraulic oil with additives • Travel-limit deceleration • Adjustable deceleration angle by cams • Automatically activated cooling ventilation • Designed to accommodate rectangular, rectangular with skirt beams • Built-in electronic control equipment

642 INOX

Automatic barrier for beams up to 7m • Models with max use frequency 100% • Opening/closing time from 2s (3m) to 8s (7m) Activation system comprising hydraulic pump unit, plunger pistons, equaliser and transmission shaft • Balancing by compression spring • Internal stops adjustable for open or closed beam positions • Load bearing housing in stainless steel • Overall dimensions 230x390x1080 mm (LxWxH) • Protection class IP 44 • Release device accessible from the outside by triangular or customised key (optional) • Hydraulic pump unit with hydraulic locking at opening and closing • Electric motor power supply 230 Vac (+6% -10%) -50 (60) Hz • Electric motor power 220 W • Thermal protection at 120°C built into motor winding • Operating ambient temperature -20°C ÷ +55°C • Single-phase motor with two rotation directions (1,400 rpm) • Hydraulic gerotor pump (max low noise) • Pump flow rate 0.75-1 - 1.5-2 l/m • Die-cast distribution flange • Separate control of opening and closing force by by-pass valves • Tank in anodised aluminium • Mineral hydraulic oil with additives • Travel-limit deceleration • Adjustable deceleration angle by cams • Designed to accommodate rectangular, rectangular with skirt, round, pivoting round beams • Built-in electronic control equipment.



AUTOMATED SYSTEMS FOR ROLLING SHUTTERS

220

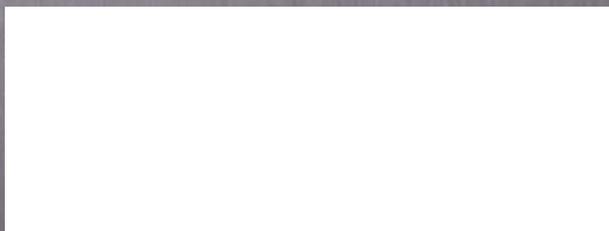
Gearmotors for spring balanced rolling shutters • Shutter max height: 8 m • Shutter max width: 4.5 m • Use frequency 20% • Application possible (using adapters if necessary) on shutters with shaft diameter of 60/48/42 mm and spring boxes of 200/220 mm • Torque 100 Nm • Models with lifting capacity of up to 280 Kg • Two-stage reversible epicyclic gearmotor • Crown in die-cast aluminium • Gears in sintered steel with wear-resistant surface treatment • Polyamide sliding rollers • Transmission shaft on double ball-bearings • Micrometric screw limit-switch with clutch and position mechanical memory • Designed for application of electric brake (optional) • Winding flange speed 10 rpm • Electric motor power supply 230 Vac (+6% -10%) - 50(60) Hz • Electric motor power 250 W • Thermal protection at 120°C built into motor winding • Single-phase motor with two rotation directions (1,400 rpm) • Operating ambient temperature -20°C ÷ +55°C • Max overall dimensions 220 x 350 mm (Diameter x Length) 200 BT electronic control equipment • SMT technology control board • Power supply 230 Vac (+6% -10%) - 50(60) Hz • Operating ambient temperature -20°C ÷ +55°C • 2 protection fuses (transformer/motor) • "Dead-man" function logic • Motor maximum load 800 W • Low voltage controls (24 Vdc) • Opening and closing push-button interlock • ABS enclosure • Overall dimensions 100 x 100 x 50 mm (LxHxW) • Protection class IP55

200 MPS electronic control board

• SMT technology control board • Power supply 230 Vac (+6% -10%) -50 (60) Hz • Motor maximum load 800 W • 24 Vdc - 360 mA max output for accessories • Operating ambient temperature -20°C ÷ +55°C • Microprocessor control • 3 protection fuses (transformer/motor - accessories) • Connector for card receiver/decoding cards • Separate high and low voltage terminal boards • Automatic (A) and "stepped" semi-automatic (EP) function logics • Programming Dip Switches • Two logics for safety devices • 5 s pre-flashing (selectable) • Pause time control trimmer • Inputs: closing safety devices, stop push-button, opening push-button, limit-switch • Outputs: power supply for accessories, motor, flashing lamp • Safety timer 60 s • Automatic detection of tripped limit-switch Enclosure for control boards Mod. E • ABS enclosure • Protection class IP55 • Wall- or flush-mounting • Designed for securing to DIN guide • Designed for installation of door locking switch • Fuse-holder • Seats for capacitor supports • Cover closing by 4 self-tapping screws • Dimensions: 204 x 265 x 85 mm (LxHxW)



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FAAC S.p.A. Via Benini, 1 • 40069 Zola Predosa - (Bologna) Italy
Tel. +39 051 61724 • Fax +39 051 758518
www.faacgroup.com