



INSTALLATION AND HANDLING MANUAL ELECTRIC SLIDING DOOR INSTALLATION AND HANDLING MANUAL ELECTRIC SLIDING DOOR



Cooperativa STEEL Works

Part. I.V.A. e Cod. Fisc : 02152870990 - Cap. Sociale I.V. Euro 10.000,00
Via Borzoli 54/3 - 16153 Genova Sestri Ponente - Tel. : +39 010 3040483 - Fax : +39 010 8540279
<http://www.coopsteelworks.it> - E-mail : coopsteelworks@gmail.com

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1 – GENERAL SAFETY INSTRUCTIONS

Our electric sliding doors can be installed in nautical and civil environments, to facilitate the passage of people or things even in places with intensive operation of the automatism. The framed sliding doors can be made of aisi 316 stainless steel, aisi 304 stainless steel, aluminum, iron, or simply crystal. An ordinary maintenance by the edge of all mechanical components, on an annual basis, is essential to preserve the correct functioning of the door; removing the upper and lower folders it will be possible to access all those sliding parts which must be lubricated such as the pulleys and the bearings and also check the mechanical tightening of all the nuts and bolts. If the shipboard cannot carry out such periodic maintenance, our company will be available to provide a quote for the execution of this activity.

Accident prevention during installation

The following instructions are directed at the system operator and it is assumed that the system is installed and tested by professional persons.

Please read the operating instructions carefully prior to installation or commissioning – especially the notes relating to safety – and adhere to them at all times!

Damage to the unit and personal injury may result if these instructions are not carefully followed.

Prior to installation please check if the system is in technically perfect conditions and make sure faults which could impair safety are eliminated immediately by professionals.

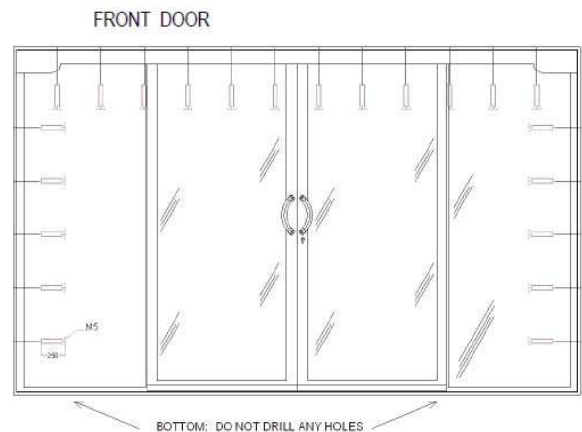
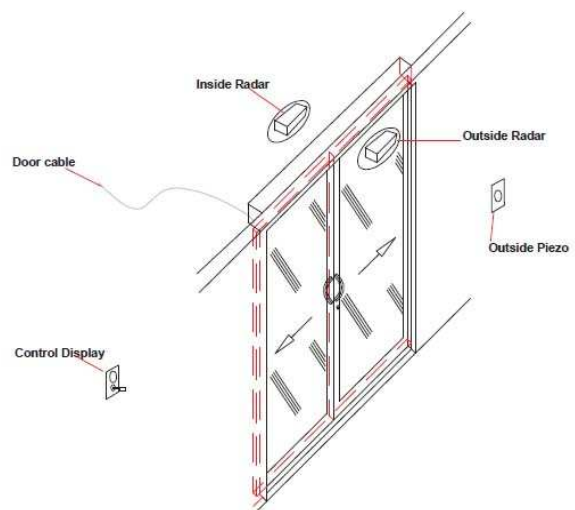
Do not install the system in explosive environments; gases or inflammable smokes may represent a serious hazard to the user or to a third party.

Safety devices - radar beams and safety beams (photocells) must be installed complying with the standard requirement of local Electric Codes as well as with general accepted legal and other wise relevant rules relating to accident prevention in the country where the door is installed.

Safety devices should prevent general hazards to the whole equipment.

During installation, maintenance and repairing make sure the electric power is disconnected before working on the operator unit.

The door manufacturer will not be liable for damages or injuries resulting from incorrect installation, use of unsafe products or wired cables modification and/or extension. Always use original spares for replacement and repair.



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2 – TECHNICAL FEATURES

Features

Mains voltage: 230 V – 50 Hz AC

Maximum power with toroidal transformer: 324 VA

Maximum consumption :150 W

Control board voltage : 24 AC

Accessories voltage: 12 DC

Brushless motor controlled by control Driver: 110 V 50 Hz / 60 Hz AC

Performances

Recommended weight for each sliding panel:

one pane-door – 300 kilos;

two-pane door : 180 kilos + 180 kilos

Opening/closing speed: adjustable

Door opening time: 0 to 10 seconds (adjustable)

Operating environment, ambient temp. : -15° C to + 60°C

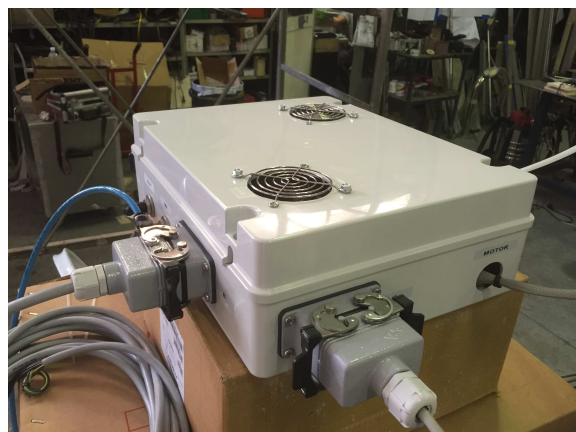
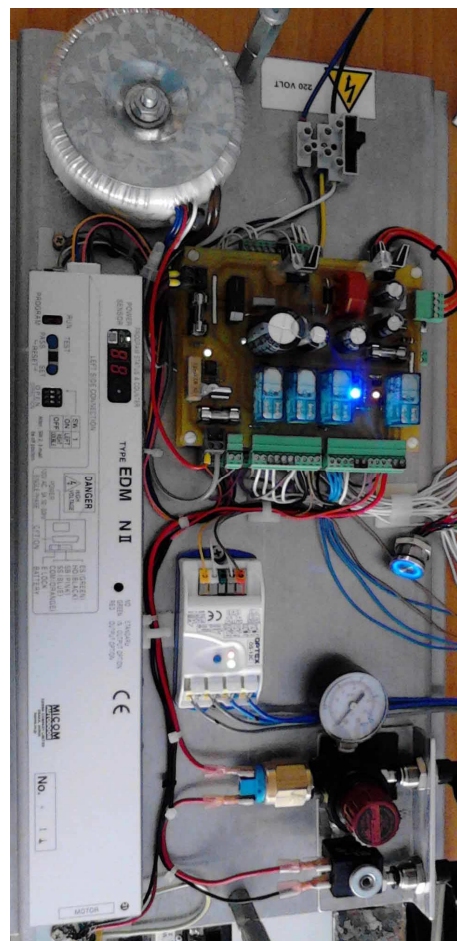
3 – INSTALLATION NOTES

Before proceeding with the door installation please check what follows:

- Make sure that the rough opening angles are 90°, so that the door is not installed out of square.
- Verify that the deck where the lower track is installed is totally flat.
- These are standard requirements which should be followed for a technically correct installation.

4 - IDENTIFICAZIONE DELLE PARTI

1. Door frame
2. Sliding panel
3. Control box
4. Piezo push buttons
5. Display
6. Motor EDM30 NII
7. Radar beams
8. Electromagnetic lock
9. Belt



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5 – INSTALLATION PROCEDURES

For a correct door installation make sure that the upper track is fixed to a flat superstructure, which has to withstand the weight of the panels or, in case the superstructure is not strong enough, use an iron support as the upper track is not self-supporting.

Use a level to make sure that the door is not installed out of square.

Fix the track of the door to the superstructure or to the iron support using stainless steel inserts M6 or equivalent, and make sure that the head of the screw is not thicker than 8 mm.

Use holes already drilled on the upper track.

Make sure during drilling and fixing not to damage the sliding track.

Once all screws have been fixed clean the lower track accurately, stainless steel shavings may interfere with the door sliding system.

Prior to electrical activation of the door make sure the panels slide manually without any obstacles or friction.

Once the power is switched on the door has to complete its teaching process before it starts to operate in a correct manner (it takes about 30 to 40 seconds).

All electric sliding doors are tested in our factory, also bended - as per the attached picture - for a period of five consecutive hours, which corresponds to a life span of approximately one year.



6 – DOOR FUNCTIONS

If the green button located on the left of the display panel is pressed , the door opens.

In activating the first six positions on the Display Menu the Piezo turn green (you can enter and go out).

When the door is key locked the engine is blocked and the Piezo shifts colours (red-gree-blu)

The following contacts can be activated on request in the wheelhouse:

- door is key locked*
- door is locked with electromagnets*
- the seal is inflated*

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FIRE ALARM CONTACT 1: the seal, if activated, deflates, the electromagnet is deactivated in closing position, power supply is disconnected and the door operates manually.

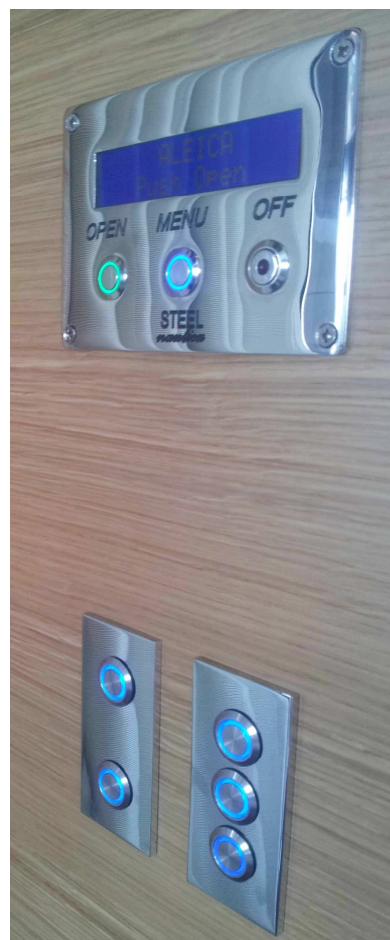
FIRE ALARM CONTACT 2 (auxiliary, with buffer battery) the seal, if activated, deflates, the door opens fully, the electromagnet is activated in opening position, power supply is disconnected and the door remains fully opened.

Electromagnets can be activated in opening and closing positions (in opening position it will work only if FIRE ALARM 2 is activated or by selecting OPEN function).

Thermal protection is activated when the motor temperature increases suddenly, the motor is then blocked and stops all functions for 15 minutes. The door operates only manually. The Piezo will flash red.

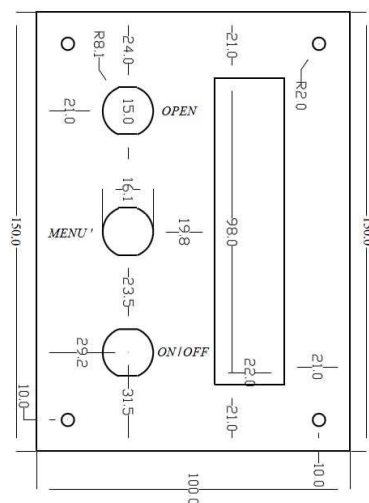
Our supply includes the brushless motor Daihatsu model 30NII with thermal motor mounted (it is absolutely not necessary to modify the cable supplied or shorten or lengthen it). It is advisable for a better and more lasting operation of the engine, to sail or to be anchored in the harbor with the door closed and the inflatable seal inserted. If the door is used in the absence of power (voluntary or accidental), locking the key after manual movement is essential to have a correct cycle at the time of reactivation.

On request it is possible to supply a numerical combination keypad, or a keypad with proximity reader complete with 5 key-holder badges and as many Model LCS-P / EX5-P cards that will allow entry on board only to the owners of such devices.



7 - DISPLAY MENU

Our display is rectangular, its dimensions are mm 100 x mm 150. It can be black, white or in the whole range of RAL colours. It can be anodized aluminum as well as polished or scotch bright stainless steel type 316.



Cooperativa STEEL Works

1) Push Half Open : to select this function press the blu led push button MENU, then press the green led button OPEN, the door will open half way. In this way the requested temperature reached inside the vessel by air conditioning will not be waisted.



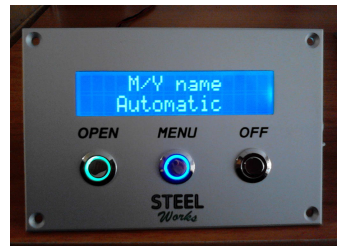
2) Push Open : to select this function press the blu led push button MENU, then press the green led push button OPEN. In this way the sliding panels will open all way, so that users have the most comfortable space to pass through the door.



3) Half Automatic : to select this function press the blu led push button MENU, the door will open half way by means of radar beams located inside the ceiling, both inside and outside the boat. In this way the requested temperature reached inside the vessel by air conditioning will not be waisted.



4) Automatic : to select this function press the blu led push button MENU, the door will open all way by means of radar beams located inside the ceiling, both inside and outside the boat. In this way the sliding panels will open all way, so that users have the most comfortable space to pass through the door.



5) Half Open : to select this function press the blu led push button MENU, the door will open half way and will stay in this position, allowing users to continuously pass through the door without activating the motor.

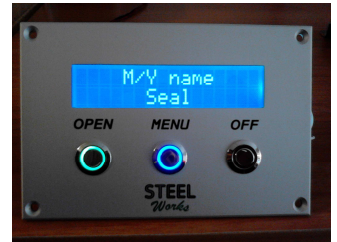


6) Open : to select this function press the blu led push button MENU, the door will open fully and will stay in this position, allowing users to continuously pass through the fully open leaves without activating the motor.



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7) Seal : to select this function press the blu led push button MENU, the seal will inflate by means of a pneumatic 212 V group, totally controlled by the electronic system. The door will become watertight along the perimeter and will be provided with a better sound and heat insulation. Once this function is activated it will be possible to enter and go out by using the blu Piezo push buttons, the door will open after few seconds allowing the seal to deflate properly therefore avoiding it scratches against the sliding panels and then it tears out.



8) Off : to select this function press the red led push button OFF, electric power to the door and to the display menu will shut off. The door panels will then be moved manually.



9) Lock : to select this function press the blu led push button MENU for 3 seconds, the door will close (you can neither enter nor go out). The colour of the Piezo will light red. The unlock press the push button MENU again.



With the occurrence of a fault, to get the contact for technical assistance displayed on the display panel operate the LOCK function and keep the MENU push button pressed until you get the assistance mobile phone number.



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8 – ELECTRIC DIAGRAMS

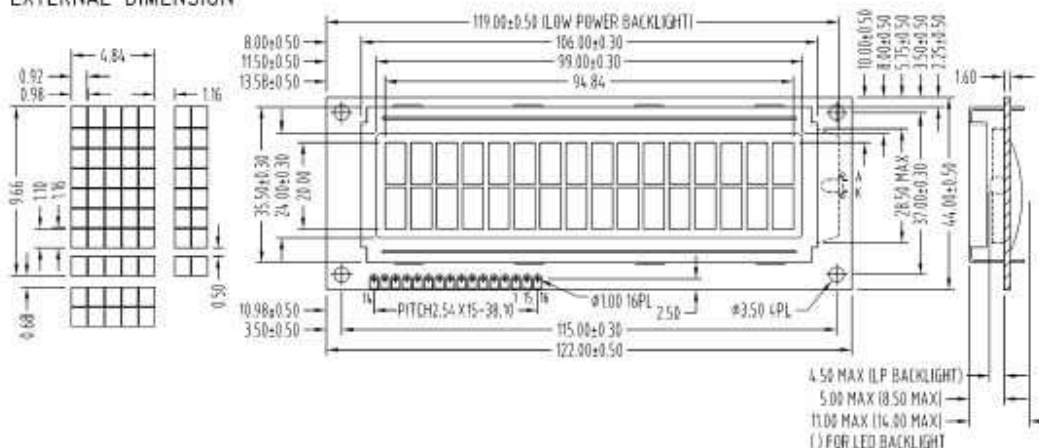
CHARACTER LCD MODULES

162F Series

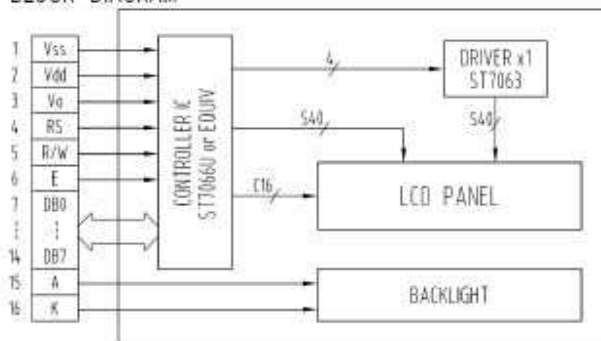
16 Characters x 2 Line, 1/16 Duty, 1/5 Bias

DISPLAY TECH Ltd

EXTERNAL DIMENSION



BLOCK DIAGRAM



INTERFACE PIN CONNECTIONS

PIN NO.	SYMBOL	LEVEL	FUNCTION
1	VSS	0V	Ground
2	VDD	5.0V	Supply voltage for logic
3	V0	---	Input voltage for LCD
4	RS	H/L	H : Data signal, L : Instruction signal
5	R/W	H/L	H : Read mode, L : Write mode
6	E	H,H→L	Chip enable signal
7	DB0		Data bit 0
...	...	H/L	...
14	DB7		Data bit 7
15	A	---	Backlight anode
16	K	---	Backlight cathode

MECHANICAL SPECIFICATIONS

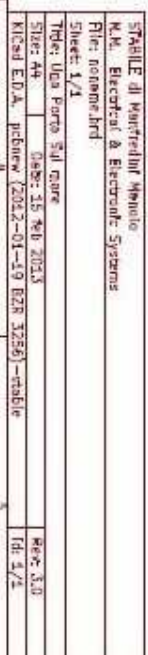
ITEM	NOMINAL DIMENSIONS	UNIT
Module Size (W x H x T)	122 x 44 x 11.0 (14.0 W/LED BACKLIGHT)	mm
Viewing Area (W x H)	99.0 x 24.0	mm
Character Pitch (W x H)	6.00 x 10.34	mm
Character Size (W x H)	4.84 x 9.66	mm
Character Font	5 x 8 DOTS	---
Dot Pitch (W x H)	0.98 x 1.16	mm
Dot Size (W x H)	0.92 x 1.10	mm

LED BACKLIGHT ELECTRICAL CHARACTERISTICS

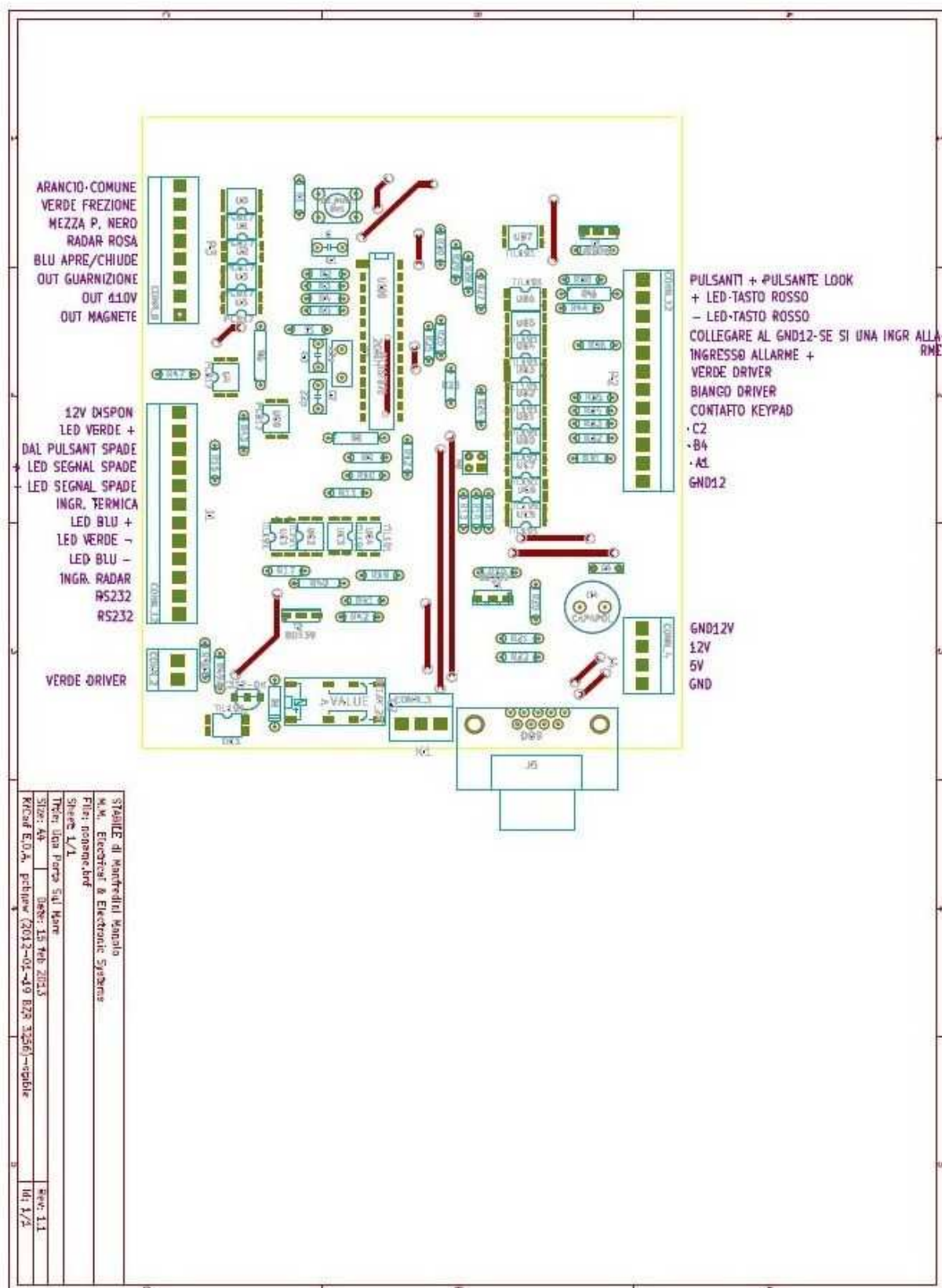
ITEM	VOLTAGE V _f (V)	CURRENT CONSUMPTION I _f (mA)
SIDE LIT TYPE	YELLOW/GREEN : 4.2	110 TYP.
LOW POWER TYPE	WHITE/BLUE/GREEN : 3.2 ; AMBER : 2.1	20 TYP.

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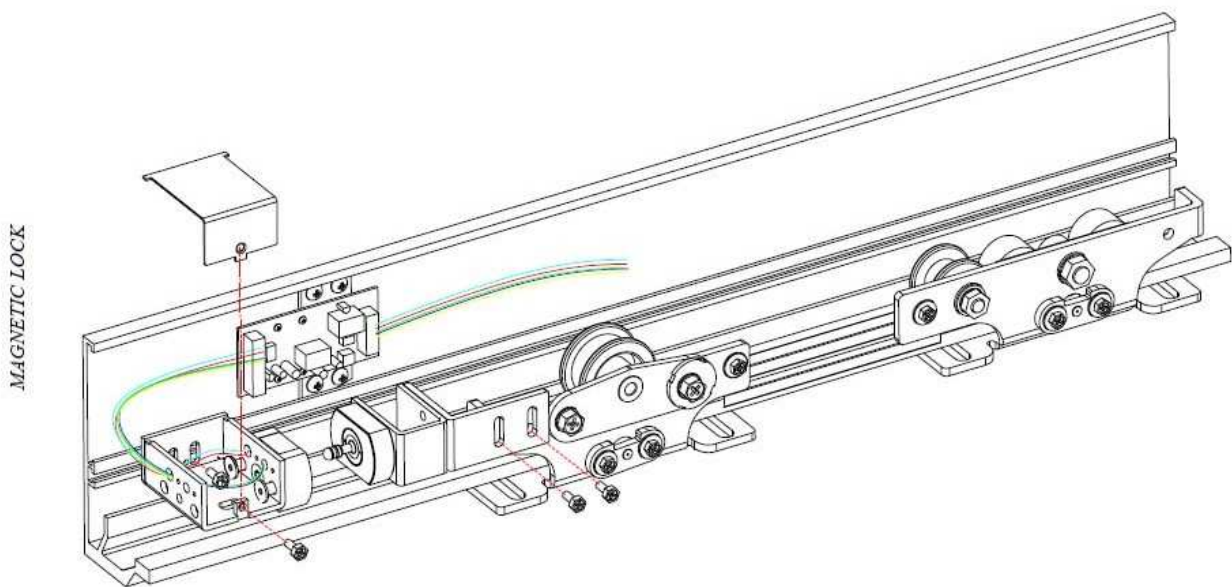
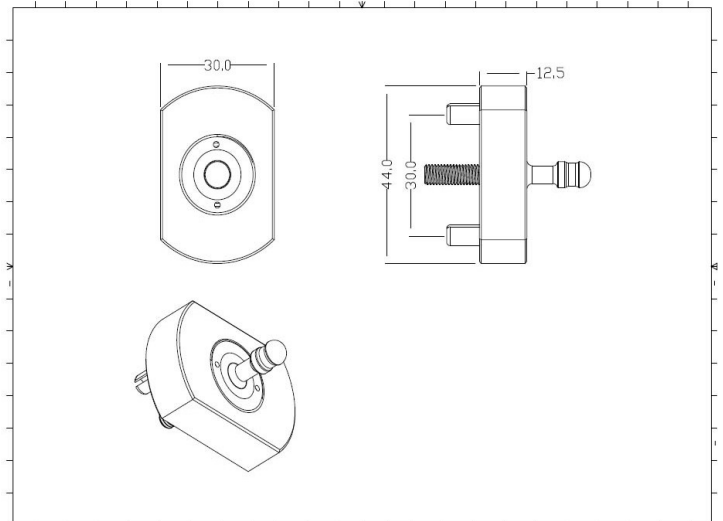
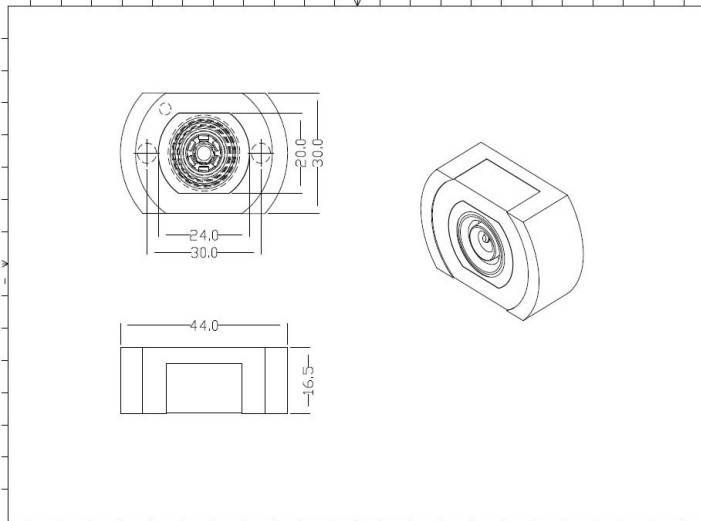
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The electromagnetic lock installed on the door can be activated in opening and closing position, ensuring a longer lasting life of the engine.

If activated in opening position, the leaves will remain open, if activated in closing position, the door will remain close.

The average locking force is 6800N (680kgf)



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9 – ACCESSORIES

PBA series

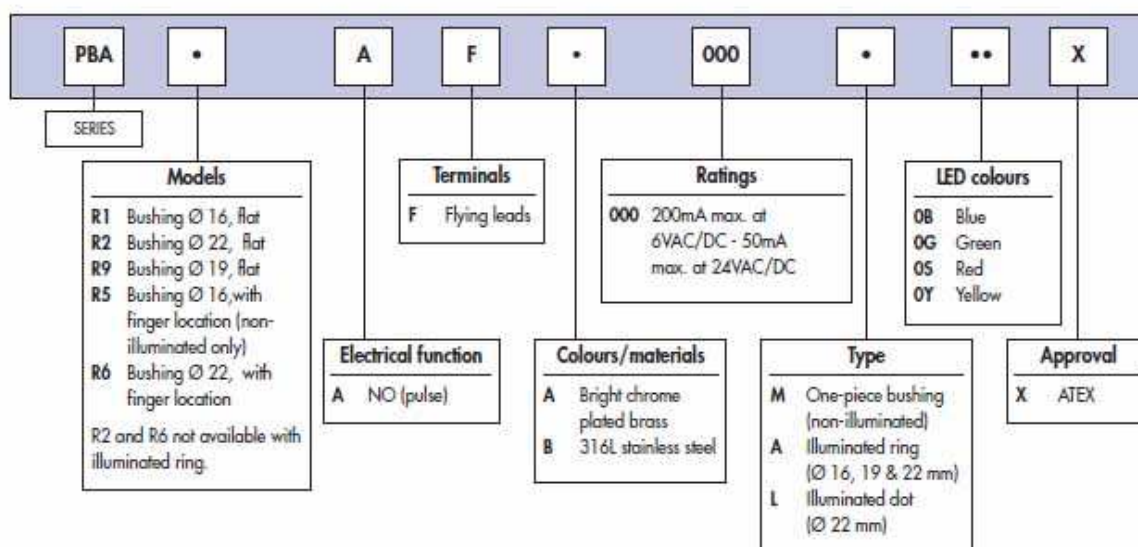
ATEX approved piezo switches

Distinctive features - Specifications - Overview



- ☐ Approved according to the ATEX 94/9/CE directive
- ☐ Sealed to IP66 (mounted on panel)
- ☐ Easy to clean metal surface
- ☐ Long life
- ☐ Illuminated models

ELECTRICAL SPECIFICATIONS	MATERIALS
- Rated voltage : 5V to 24 VAC/DC max. - Rated current : 200mA max. at 6VAC/DC 50mA max. at 24VAC/DC (power limited to 1,2W for user group II) - Contact resistance (ON) : 10Ω max. - Insulation resistance (OFF) : 5MΩ min. - Make impulse time : depending on actuating force and speed - LED : 5VDC, 10mA to 20mA depending on model	- Case : bright chrome plated brass or 316L stainless steel - Terminals : multi-wire leads 0,22 mm², length 300 mm (11.81)
GENERAL SPECIFICATIONS	
- Operating force : 2 to 6N - Torque : 2,5 Nm max. - Life expectancy : 50 million cycles - Operating temperature : -40°C to +55°C - EMC compatibility according to EN 61058-1 - In accordance with EN 60079-0, EN 60079-11, EN 61241-0, EN 61241-11, EN 60079-26 and EN 50303 - Sealing : IP66 per IEC 60529 (switches mounted on panel)	Standard hardware supplied: 1 hex nut U4116 (19 mm ac. flats), U6450 (22 mm ac. flats) or U6440 (25 mm ac. flats), 1 O-Ring and 1 ground connector U5735, U5736 or U5737. Packaging units : - bushing Ø 16 : 40 pieces - illuminated bushing Ø 16 : 20 pieces - bushing Ø 19 : 20 pieces - bushing Ø 22 : 20 pieces Instructions for use : see instruction notice NTPBA006.



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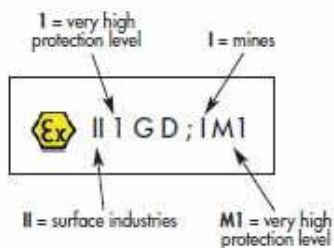


PBA series

ATEX approved piezo switches

Illuminated or non-illuminated

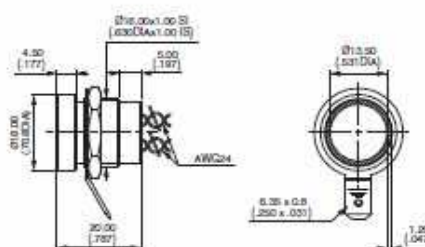
- Highest classifications
- Universal



Dia. 16 (.630) bushing - illuminated ring



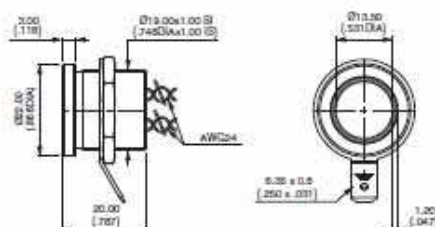
Stainless steel 316L, blue LED
PBAR1AFB000A0BX



Dia. 19 (.748) bushing - illuminated ring



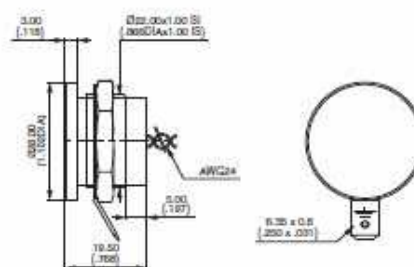
Stainless steel 316L, blue LED
PBAR9AFB000A0BX



Dia. 22 (.866) bushing - non-illuminated



Stainless steel 316L
PBAR2AFB000MX



Cooperativa STEEL Works

PBA series

ATEX approved piezo switches

Certificate



INERIS

(2) **Equipment or Protective Systems Intended for use
in Potentially explosive atmospheres
Directive 94/9/EC**

(1) **PRODUCTION QUALITY ASSURANCE
NOTIFICATION**

- (3) Notification number : INERIS 08ATEXQ408
- (4) Equipment or Components as listed : Electrical Equipment of categories 1 and M1 intended to be used in gaseous dust explosive atmospheres.
- (5) Manufacturer : APEM
55, avenue Edouard Herriot
BP 1
F-82303 CAUSSADE CEDEX
- (6) Place of production : APEM
55, avenue Edouard Herriot
BP 1
F-82303 CAUSSADE CEDEX
- (7) INERIS, notified body N°0080 for Annex IV in accordance with article 9 of the Council Directive 94/9/EC of 23 march 1994, notifies to the applicant that the actual manufacturer has a production quality system which complies to Annex IV of the Directive.
- (8) This notification is based on audit report N°P99823 issued on October 30th, 2008.
Results of periodical re-assessment of the quality system are a part of this notification.
- (9) This notification is valid until October 1st, 2011 and can be withdrawn if the manufacturer no longer satisfies the requirements of annex IV.
- (10) According to Article 10(1) of the Directive 94/9/EC, the CE marking shall be followed by the Identification Number 0080 identifying the notified body involved in the production control stage.

Verneuil-en-Halatte, 2008.21.11




The Director of the Organisation Certified,
By delegation
D. CHARPENTIER
Deputy Manager of Certification

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Folio 1 / 1

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tél + 33(0)3 44 55 66 77 fax + 33(0)3 44 55 66 99 internet www.ineris.fr
Institut national de l'environnement industriel et des risques
établissement public à caractère industriel et commercial - RCS Sarthe B 381 984 921 - Siret 381 984 921 00019 - APE 7438

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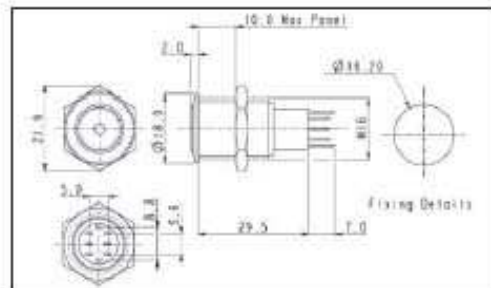
Stainless Steel Illuminated Latching

FRONT PANEL MOUNTING



- Dot Illuminated
- 18mm bezel diameter
- D.P.C.O.
- 3A, 250V ac
- Red, Green, Amber or Blue Illumination
- Separate LED Terminals

MP0045/1E1

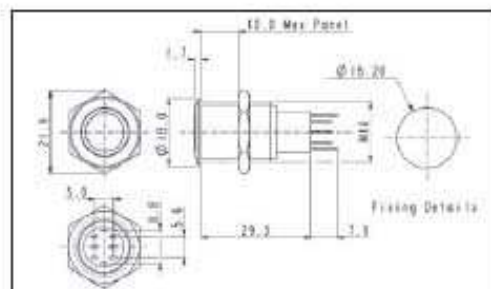


FRONT PANEL MOUNTING

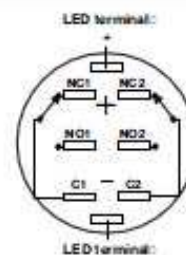


- Ring Illuminated
- 18mm bezel diameter
- D.P.C.O.
- 3A, 250V ac
- Red, Green, Amber or Blue Illumination
- Separate LED Terminals

MP0045/1E2



Contact Layout



Specification	MP0045/1E1/Colour/Voltage	MP0045/1E2/Colour/Voltage
Terminations:	Solder Tags	Solder Tags
Illumination:	Dot	Ring
Switching:	D.P.C.O. Latching Action	D.P.C.O. Latching Action
Max. Switch Rating:	3A, 250Vac	3A, 250Vac
LEDs		
Colours	Red /RD Green /GN Amber /AM Blue /BL	Red /RD Green /GN Amber /AM Blue /BL
Part No.		
Voltage	12Vdc 220Vdc	12Vdc 220Vdc
Part No.	/012 /220	/012 /220
Contact Resistance:	50mΩ max. @ 1A, 2Vdc	50mΩ max. @ 1A, 2Vdc
Insulation Resistance:	>10 ³ MΩ @ 500Vac	>10 ³ MΩ @ 500Vac
Dielectric Strength:	>2.0kVac	>2.0kVac
Operating Temp. Range:	-20°C to +55°C	-20°C to +55°C
Operations		
Mechanical:	200,000 (min)	200,000 (min)
Electrical:	30,000 (min)	30,000 (min)
Rear Nut Fixing Torque:	12Nm	12Nm
Materials		
Mouldings:	Nylon	Nylon
Tags:	Brass, Silver Plated	Brass, Silver Plated
Switch Body & Button:	Stainless Steel (Polished)	Stainless Steel (Polished)
Variants	Prominent Button, details on request	Prominent Button, details on request
	Compliant	Compliant



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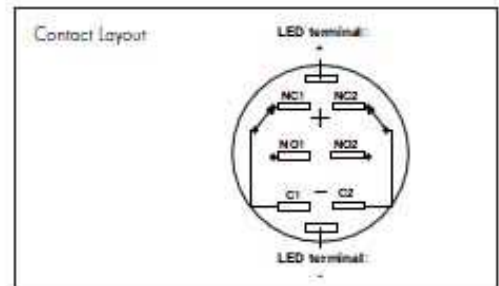
Part. I.V.A. e Cod. Fisc : 02152870990 - Cap. Sociale I.V. Euro 10.000,00
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Technical drawing of a bolt and nut assembly. The drawing includes a side view of the bolt and a top view of the nut. Dimensions are provided in millimeters (mm). The bolt has a total length of 10.0 mm (Max. Pass), a head diameter of $\varnothing 13.0$, and a shank diameter of $\varnothing 18.20$. The nut has a height of 1.0 mm and a diameter of $\varnothing 18.20$. The bolt is shown with a hexagonal head and a threaded shank. The nut is shown with a hexagonal shape and a central hole. The drawing is labeled 'Fixing Details'.

MP0045/1D1

- 
- MP0045/1D2**

- [illegible]



Cooperativa STEEL Works

1200 series

Momentary pushbutton switches - round plunger

Distinctive features and specifications

UG1006-A



☐ Butt action contacts, double break

☐ NF (EN 61058-1), UL and CSA approved

B

ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
 - silver contacts (A) : 4A 250VAC - 8A 125VAC - 4A 24VDC - 8A 12VDC
 - silver plated copper contacts (C) : 2A 250VAC - 3A 125VAC - 2A 24VDC - 3A 12VDC
- Initial contact resistance : 10 mΩ
- Insulation resistance : 1.000 MΩ min. at 500VDC
- Dielectric strength :
 - 2.000 Vrms 50 Hz min. between terminals
 - 3.000 Vrms 50 Hz min. between terminals and frame
- Electrical life : 10.000 cycles at full load

MATERIALS

- Case : polyamide
- Plunger : polyamide
- Bushing : brass, nickel plated
- Contacts :
 - A : silver
 - C : copper, silver plated

GENERAL SPECIFICATIONS

- Torque : 1,50 Nm (1.10 Ft.lb) max. applied to nut
- Panel thickness : 5 mm (.196) max.
- Total travel :
 - NO : 4,5 (.177) +/- 0,3 (.011)
 - NC : 3,5 (.137) +/- 0,3 (.011)
- Operating temperature : -20°C to +55°C

AGENCY APPROVALS



EN 61058-1

2A 250VAC or 4A 250VAC, T55/125°C
All models



4A 250VAC - 8A 125VAC
All models function 3 (NO)

Models 1233X209 and 1233X209L are standard marked NF.
To order switches marked NF, UL or CSA, complete appropriate box of ordering format.

ABOUT THIS SERIES

Dimensions : first dimensions are in mm while inches are shown as bracketted numbers.



Sealing boots are available to protect the switches against dust and water. They are presented in section H.



Mounting accessories : standard hardware supplied :

- silver contact models : 1 hex nut U166 and 1 knurled nut U411
- copper contact models : 1 hex nut U42 and 1 knurled nut U411

Standard and special hardware are presented in section I.



Packaging unit : 40 pieces, except model 1200.L (50 pieces).

Cooperativa STEEL Works

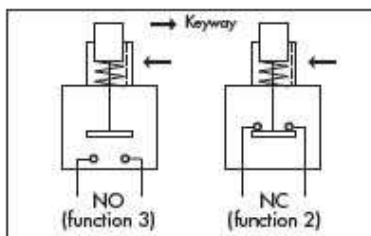
Part. I.V.A. e Cod. Fisc : 02152870990 - Cap. Sociale I.V. Euro 10.000,00
Via Borzoli 54/3 - 16153 Genova Sestri Ponente - Tel. : +39 010 3040483 - Fax : +39 010 8540279
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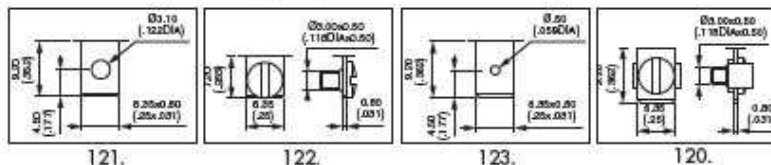
1200 series

Momentary pushbutton switches - round plunger

Solder lug/quick-connect terminals - screw terminals



- Single pole configurations
- Approved models : see following pages
- Panel cut-out : $\varnothing 12,2$ (.480)



MODEL
STRUCTURE

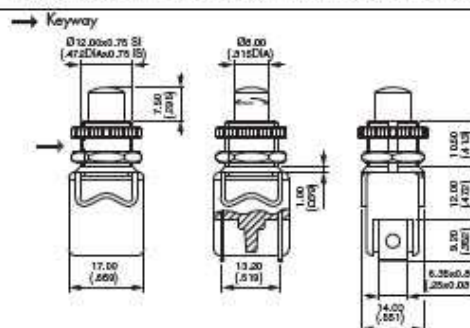


Plunger height : NO model : 7,50 mm, NC model : 5,80 mm

Solder lug/quick-connect terminals



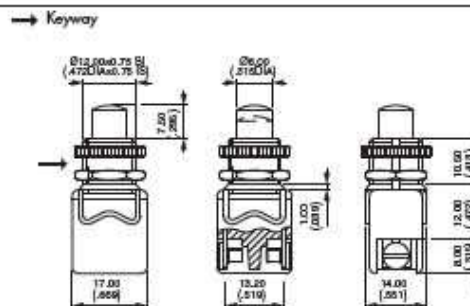
1212 Normally Closed
1213 Normally Open



Screw terminals



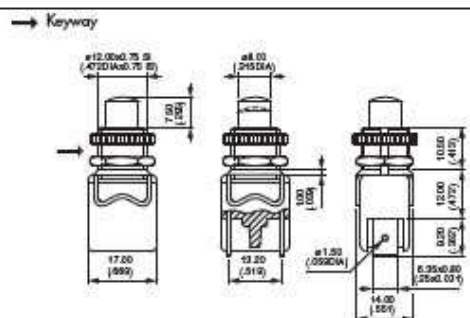
1222 Normally Closed
1223 Normally Open



Normalized quick-connect terminals



1232 Normally Closed
1233 Normally Open



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easy-to-install amplifier

The Optex OS-12C amplifier has screwless wiring terminals, which speeds installation. Pressing the "Teach-In" button automatically sets the proper sensitivity and self-corrects crossed cables. One amplifier operates one or two pairs of sensor heads.

reliable sensor heads

The Optex SH-7MC/SH-10MC sensor heads are recognized by door professionals worldwide for their reliability and resistance to sunlight and other interference. Quick-disconnect plugs make installation and service fast and easy. Cables are available in 2 lengths, 7m (23 feet) or 10m (33 feet).



safety

For maximum safety, the amplifier is fail-safe, which ensures that the doors remain open in case components are damaged in any way. Two LED indicators will blink at the initial setup to alert the installer if the OS-12C is improperly aligned or if sensitivity is insufficient.

multifunctional design

The compact design and standard 15mm beam heads make the OS-12C compatible with any type of automatic door and easy to service or maintain. Optional mounting accessories allow surface or recessed installation. A special edition including a reflector set is optional available. This safety beam is optimal for use with any sliding door, including train doors and automatic gates.

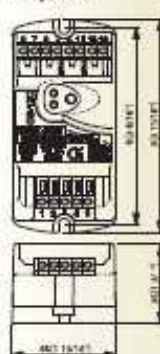
Miniature photo electric Safety Beam

Specifications

Model	OS-12C/OS-12CR
Detection area adjustments	0-10 m (0"-33") (OS-12CR: 0-2 m (0'-6"7"))
Detection method	Point to point near infrared light beam
Power supply	12 - 24V AC/DC
Current draw	135mA max.
Power/Operating indicator	LED on (green/red): Standby LED off (green/red): Detection LED blink (green/red): Insufficient sensitivity
Output contact	Form C relay 50V, 0.3A (resistance load)
Response time	Approx. 0.1s (from the moment of beam cut-off)
Relay Hold time	Approx. 0.5s
Operating temperature	-20°C - +55°C (-4°F - +131°F)
Light resistance	> 100,000 Lux
Outer dimensions	Amplifier: 46 x 93 x 32 mm (w x h x d) Sensorheads ø 15 mm Amplifier 65 g (2.5oz)
Weight	
Note	Sensor heads (SH-7MC or SH-10MC) are necessary for operation and should be ordered separately. Either one or two cables can be used with each amplifier.

Dimensions

Amplifier

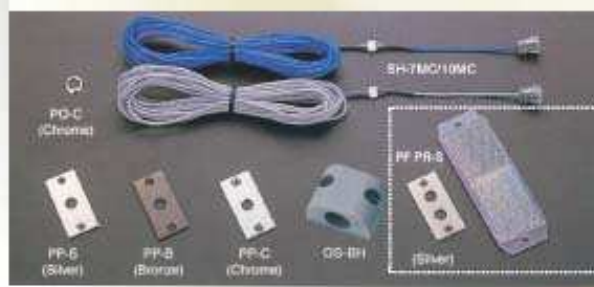
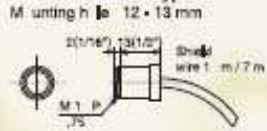


Sens. heads

Push installation type



Plate installation type



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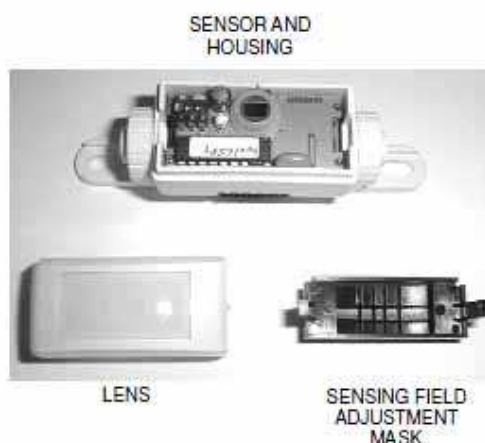
USERS GUIDE FLY and FLY ERT

PRODUCT DESCRIPTION

The Fly (PN: 10FLYBLK, 10FLYBLKERT) is designed for use on request-to-exit applications with maglocks and electric strikes with both automatic and manual doors. The unit is a passive infrared detector that uses digital signature analysis for activation. The Fly is not recommended for activation on pedestrian automatic doors because the passive infrared technology recognizes temperature changes (i.e. body temperature) for detection. As such, the Fly will not recognize motion associated with inanimate objects such as hospital beds, gurneys, shopping carts, etc.

The key advantages of the Fly are fast detection, adjustable sensing fields, and no false detection from inanimate objects. For added relay hold time, the Fly Extended Relay Time (10FLYBLKERT) allows adjustment from 15 to 30 seconds.

COMPONENT ID



OPTIONAL ACCESSORIES:



FCA (Fly Ceiling Adapter)



FSA (Fly Surface Adapter)

SPECIFICATION

DESCRIPTION	SPECIFICATION
Technology	Passive infrared with microprocessor
Mounting Height - Variable	10'-0" max. (Recommended 6'-6" to 8'-0")
Mounting Angles	0 to 180°
Power Supply	12-24 VAC -10/+10% (50/60Hz) 12-24 VDC -10/+30%
Current Consumption	<10 mA (20mA if the relay output is activated)
Contact Rating (Output Relay)	1 A/ 75 VDC or 50 VAC Potential free contact NO/NC
Optical Characteristics	Passive infrared with four elements 15 Fresnel lenses with full independent masking possibilities
Warm-up Time	10 seconds
Response Time	Max 200 microseconds
Relay Hold Time:	
Fly	0.5 or 2 seconds
Fly ERT	15 or 30 seconds
Operating Temperature	-22°F to +140°F (-30°C to +55°C)
Immunity	Immune to electrical and radio frequency interference
Cable	9 feet of four-conductor cable with 5-pin connector
Weight	1.4 oz. (40g)
Dimensions:	
Sensor	4"L (100 mm.) x 1"H (25 mm.) x 1.8"W (45 mm.)
Housing Color	Black

Cooperativa STEEL Works

SAFETY PRECAUTIONS



- Shut off all power going to the header before attempting any wiring procedures.
- Maintain a clean & safe environment when working in public areas.
- Be constantly aware of pedestrian traffic around the door area.
- Always stop pedestrian traffic through the doorway when performing tests that may result in unexpected reactions by the door.
- Always check placement of all wiring before powering up to insure that moving door parts will not catch any wires and cause damage to equipment.
- Ensure compliance with all applicable safety standards (i.e. ANSI A156.10) upon completion of installation.

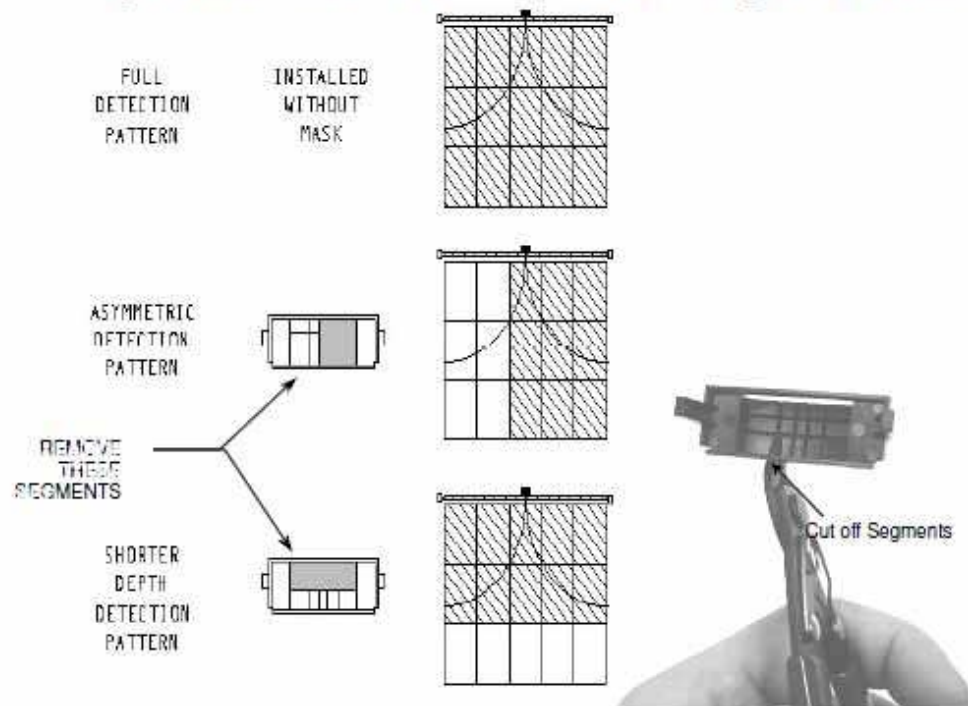
INSTALLATION INSTRUCTIONS

PREPARE THE SENSOR:

- a. **Open the cover.** Insert a small screwdriver on the side of the housing (see picture) and gently pry the cover off.



- b. **Adjust the sensing field** to the specific application. To adjust the field, remove segments of the lens with a diagonal cutter or a similar tool. It is not necessary to use the masking lens (installing the sensor without the mask will give the maximum detection size.) **It is necessary to cut at least one segment to allow detection.**



Cooperativa STEEL Works

INSTALLATION INSTRUCTIONS (CON'T)

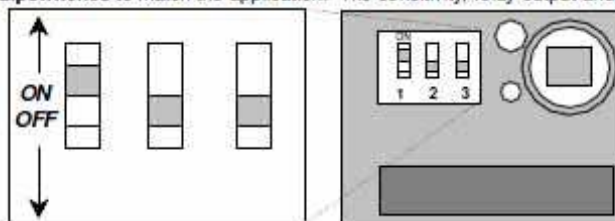
- c. **Reinstall the mask** (if needed.) The mask can only be installed one way. Place the mask inside the cover so that the legs of the mask slide into the clips. Gently work the mask's legs into the cover until it clicks. Then the mask will be completely inside the cover (see picture.)



- d. If the masking lens needs to be removed from the cover, pry up with a screwdriver on the small legs of the lens.



- e. **Adjust the dipswitches** to match the application. The sensitivity, relay output and hold time can all be adjusted.

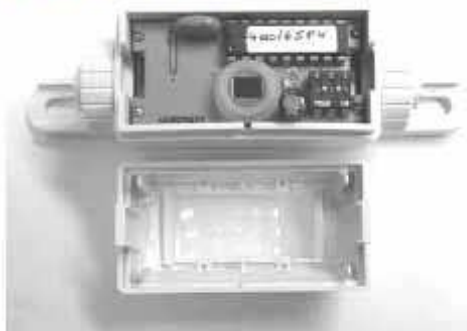


DIP SWITCH	SETTING	ADJUSTMENTS	FACTORY SETTING
1	SENSITIVITY	ON: HIGH OFF: LOW	HIGH
2	RELAY OUTPUT	ON: PASSIVE OUTPUT* OFF: ACTIVE OUTPUT**	ACTIVE
3	HOLD TIME (FLY)	ON: 2 sec OFF: 0.5 sec	2 sec
	HOLD TIME (FLY ERT)	ON: 30 sec OFF: 15 sec	15 sec

* Passive output: relay contact open during detection and closed during non-detection.

** Active output: relay contact closed during detection and open during non-detection.

- f. **Replace the cover.** The cover is keyed and may only be installed one way. Match the small tab in the center of the cover to the slot in the housing (see arrow.) Gently push the cover on until it snaps. It is easiest to insert both legs of the cover at once and then push the two pieces together.

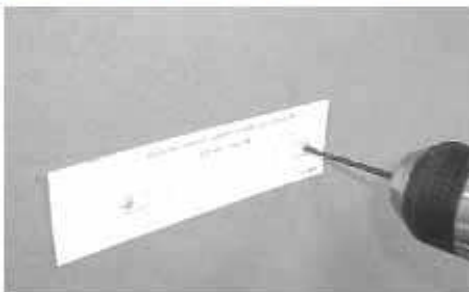


Cooperativa STEEL Works

MECHANICAL INSTALLATION

MOUNTING THE FLY

- The sensor must be firmly fastened in order to avoid any vibrations.
- Make sure there are no objects in the sensing field that could move.
- Attach the template to the door.
- Drill and pass the cable through the template.
- Place the sensor on the template and attach with the two screws provided.



ELECTRICAL INSTALLATION & POWER ON

WIRING THE SENSOR

Connect the cable of the sensor to the unit as shown below. The connector is removable for ease of wiring. Note: The input power is not polarity sensitive.

PIN	FUNCTION
1	12-24 V (POWER)
2	12-24 V (POWER)
3	RELAY COM
4	RELAY NO
5	RELAY NC

USING THE SENSOR

LED SIGNAL - The LED will flash for a few seconds when the unit is started up. The LED will also light up when the sensor detects motion.

TROUBLESHOOTING

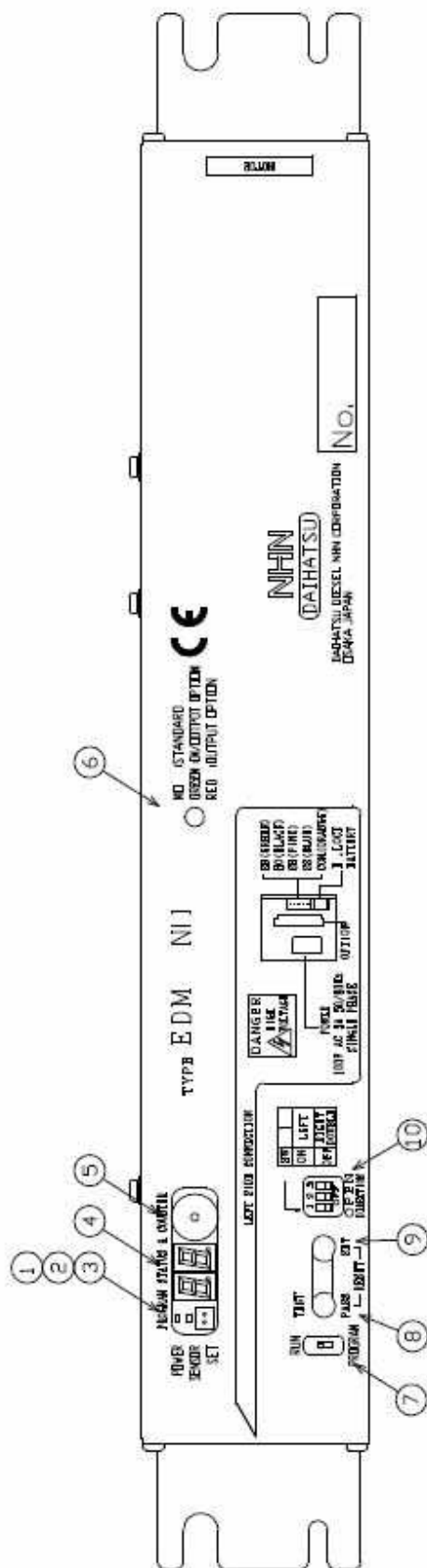
SYMPTOM	PROBABLE CAUSE	CORRECTIVE ACTION
The door will not unlock The LED does not light up	The sensor power is off	- Check the power supply - Check the supplied voltage
The door does not open if a detection occurs but the LED lights up	The relay output is not correct The wiring is not correct	- Wire the second relay output and change the #2 dip switch position - Check the wiring - Change the sensor
The size of the sensing field does not meet requirements	The cut out of the masking lens is not correct	Cut a new lens to meet the required sensing field size

COMPANY CONTACT

If after troubleshooting a problem, a satisfactory solution cannot be achieved, please call B.E.A., Inc. for further assistance during Eastern Standard Time at 1-800-523-2462 from 7am - 5pm.
For after-hours, call East Coast: 1-866-836-1863 or 1-800-407-4545 / Mid-West: 1-888-308-8843 / West Coast: 1-909-596-3011. DO NOT leave any problem unresolved. If you must wait for the following workday to call B.E.A., leave the door inoperable until satisfactory repairs can be made.
NEVER sacrifice the safe operation of the automatic door or gate for an incomplete solution.

Cooperativa STEEL Works

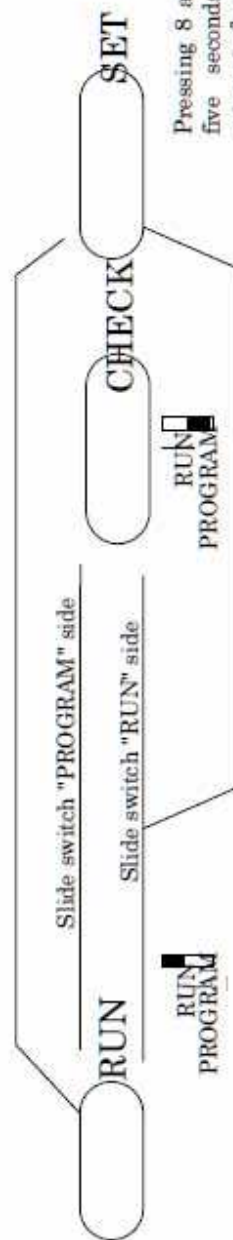
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4: Counter and Program status indicator 5: Buzzer 6: Optional board indicator

7: Run/Program switch 8: Test and Pass button 9: Set and Check button 10: Open direction switch (SW 1)

Attention: SW2 and SW3 of 10 must be off position (Only factory test use)



Pressing 8 and 9 simultaneously for five seconds, all program data return to factory setting.

Cooperativa STEEL Works

DAIHATSU

**DAIHATSU
AUTOMATIC DOOR**

Control box operation manual

Model: EDM NII

DAIHATSU DIESEL NHN CORP.

Osaka Japan

LIST No.3775

Cooperativa STEEL Works

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	Electric shock hazard Fire hazard
---	--------------------------------------

- The device must be installed correctly according to the installation and wiring instructions.
- Do not attempt to modify, repair, or alter any parts within the control box.
- Mains power must be OFF for installation and maintenance.
- Control box accepts 100VAC only. (Do not connect 200VAC directly)

	Crush hazard
---	--------------

- Do not switch off power supply whilst door(s) is in motion.
Failure to comply could result in death or serious injury.
- Ensure door travel area is clear before switching power switch ON.
Failure to comply may cause incorrect operation.
- Take special care for finger entrapment when used as manual slide door with mains power off.
Failure to comply may cause a finger trap hazard.
- Operation speeds should comply to relevant standards
- Do not obstruct door movement.
This could result stalling door operation, due to Overload protection feature.
To re-start, power Off / On is necessary.
- Switching mains power 'Off/On' (re-start)
Wait 30 seconds before power On, after power Off.

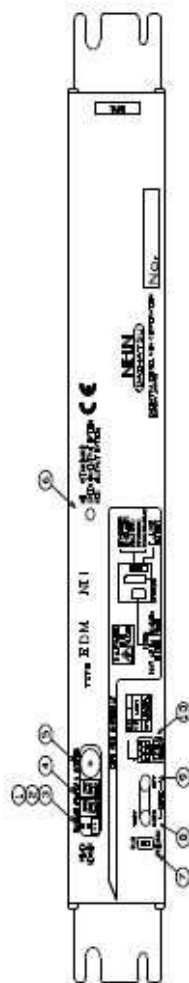
Cooperativa STEEL Works

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Cooperativa STEEL Works

1 Identifying Control Box Features and Modes



1.1 Main Control Box NII Series: For EDM18NII & EDM30NII Models.

①	Green LED (Light Emitted Diode) 1. Power indicator 2. When in 'program mode' – Green LED flashes	⑥	LED Indicator of Extension Board (If included) Green: Input-Output board / Red: Output board
②	Red LED (Light Emitted Diode) 1. Sensor indicator / activation 2. Program setting. Application ON/OFF indicator	⑦	Run / Program Switch Change into Program mode from Run Mode. *A additional operation required
③	2P connector Factory test use only.	⑧	Test Button / Pass Button - When switched to: Run mode: Activation Signal for Test open cycle Program mode: Changes current setting code or value
④	LED DISPLAY (LED 1 & 2) – When switched to: Run mode: Displays Cycle Counter (Stepped in 10,000 Cycles) Program mode: Displays Setting code and Value * During start up: Displays optional extension board number, if included * In case of Error: Displays Error code	⑨	SET button – When switched to: Program mode: Change or accept setting value Run mode: Press and hold for 5 sec. Full Cycle counter will appear
⑤	Buzzer IF Buzzer setting is ON will beep to indicate: Error, Emergency open or close mode, Battery operation mode. (ref. d0 setting code)	⑨	DIP switch Switch1: Setting for open direction (Do not adjust Switch 2 & 3) Switch2&3: Must be in OFF position (Factory test use only)

Cooperativa STEEL Works

1.2 Switching: Operation mode and Initialization.

Run mode

In this mode the door moves normally.

Check mode

In this mode you can confirm the current settings of parameter. However you can not change settings.

Program mode

In this mode you can confirm and change current settings and values. Reset to factory default settings is also available.

Reset Operation (Factory Default Reset)

If you change some settings by mistake and the door does not move correctly, it is easy to recover to factory default settings by reset operation.

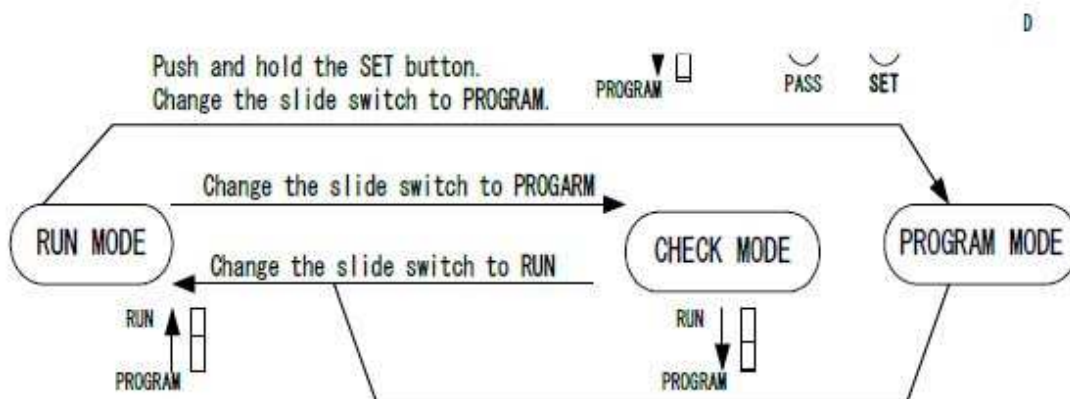
If you execute reset operation, default factory settings will be reloaded Except for special setting code "C", which is included within the basic code group.

At the same time, door stroke data (teaching) is cleared from the memory. Therefore it will be necessary for the control to relearn the door stroke. A self learning (teaching) operation will automatically commence after the run mode is selected again. Re-adjustment of settings may be necessary after reset operation.

If the door weight or door stroke is changed, reset is also required.

How to execute Reset Operation (Factory Default Reset).

Holding both PASS and SET buttons while in Program mode. A beep sound will indicate reset is successful. (Hold for approx 5 seconds)



Cooperativa STEEL Works

2 Requirements

- All components have been installed correctly in accordance with the installation manual and all using wirings have been connected referring to with standard wiring drawings. (except main cover and activator on the main cover)
- The door should be easily moved open and closed by a hand without abnormal sounds.
- Confirm that wires and cables shall not touch moving components such as belt or hanger roller assembly.
- Run / Program mode selecting switch should be set in 'Run' position to execute the teaching operation.

3 Executing Self learning cycle (TEACHING)

- Self learning cycle is executed after installation by turning on the main power switch for the first time. The door close (*1) to the full closed position, then open automatically (*2) at slow speed. When the door has reached to the full open position, the first stage of the teaching cycle will complete and the door will start to close at normal speed.
- Activate the sensor and check that the door will open smoothly. At this moment, the breaking position is located at the center of doorway. After a few cycles, the operator will optimize the braking point taking into consideration the operating speed, braking force and door weight.
- Such teaching data as the door stroke and braking position will be stored within the control unit, even if the main power is off.
- Once the main power is turned on the stored data will be reloaded when the door reaches the fully closed or open end position.

(*1) If the door does not close, check Red LED (sensor indicator) is ON. If Red LED is ON, this means there is an activation signal being received. Once reaching the full open position, after the sensor signal is off and the hold open time is complete, the door will close and return to full closed position.

(*2) If teaching stroke setting (Basic Setting Code 'b') is changed from factory default setting. The teaching function will not be automatic. It is required to be activated by a sensor or test button, after door has reached full closed, in order to begin the teaching cycle. Then the door will open at normal speed as programmed by teaching stroke. On Activation of sensor switch before full closed, door will open at slow speed.

Cooperativa STEEL Works

4 Control Box settings 1 (Hardware settings by switches)

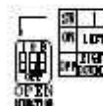
4.1 Setting for open direction

Door open direction is set by a DIP Switch on the Control Box (CB).

DIP Switch 1 is for determination of open direction. As shown.

DIP Switch 2 and 3 shall be in OFF position.

SW	1	2	3
ON(Up)	LEFT		
OFF(Down)	RIGHT DOUBLE	Shall be in off position	



*To confirm change of opening direction – Mains Power OFF / ON is necessary.

Cooperativa STEEL Works

5 Control Box settings 2 (Software settings for internal parameter)

For standard doors it is possible to operate with default settings. A standard door is a single leaf door that weights approx 45kg to 90kg. However attention must be paid to the DIP Switch setting for open direction.

Heavier door(s) that exceed standard door limits in weight and size, will require adjustment of parameters in order to optimize door operation.

5.1 Basic Settings

According to door operation requirements, door parameters can be changed as follows:

5.1.1 Hold Open time

Basic setting code (LED1) '0'

Hold open time is adjusted in 16 steps from '0 to F', by basic setting code '0'.

Value	0	1	2	3	4	5	6	7	8	9	A	b	C	d	E	F
time(sec)	0	1	2	3	4	5	6	7	8	9	10	20	30	40	50	60

5.1.2 Opening/Closing Speed

Basic setting code (LED1) '1&5'

Opening speed is adjusted in 16 steps from '0 to F' by basic setting code '1'.

Closing speed is adjusted in 16 steps from '0 to F' by basic setting code '5'.

5.1.3 Opening/Closing Cushion (Low) Speed

Basic setting code (LED1) '2&6'

Opening cushion (low) speed is adjusted in 16 steps from '0 to F' by basic setting code '2'.

Closing cushion (low) speed is adjusted in 16 steps from '0 to F' by basic setting code '6'.

5.1.4 Opening/Closing Break Force

Basic setting code (LED1) '3&7'

Opening break force is adjusted in 10 steps from '0 to 9' by basic setting code '3'.

Closing break force is adjusted in 10 steps from '0 to 9' by basic setting code '7'.

*As default break force is set for light weight doors and/or single leaf door, check and confirm that the break force is correct for your door(s).

5.1.5 Opening/Closing Force (Torque)

Basic setting code (LED1) '4&8'

Opening force is adjusted in 10 steps from '0 to 9' by basic setting code '4'.

Closing force is adjusted in 10 steps from '0 to 9' by basic setting code '8'.

*If using narrow and/or light weight door(s). To prevent jumping when the doors start to move, set Open/Close Force (torque) value lower. Normal doors require setting minimum '3' and above.

5.1.6 Pressing Force

Basic setting code (LED1) '9'

Pressing force is adjusted in 5 steps from '0 to 4' by basic setting code '9'.

If you select 0, pressing function is disabled. (No pressing force)

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5.1.7 Partial Open (Half Open)

Basic setting code (LED1) 'A'

Partial open is defined by a percentage of the full open width as shown in the chart below.

Partial open operation is related to setting 'd/7' of the applied setting group 1(d codes).

Value	0	1	2	3	4	5	6	7	8	9
Width (%)	12.5	25	37.5	50	62.5	75	87.5	93	95	98
								Fix mode only		

If you set 'd/7' OFF (AUTO) (Default Setting), upon the door being held open by heavy traffic, the partial open position will change to full open position automatically.

If you set 'd/7' ON (FIX), the partial open setting will not to change to full open.

If you select partial open width to setting 7, 8 or 9, automatic full open function is disabled, to prevent a finger trap hazard.

5.1.8 Teaching Stroke

Basic setting code (LED1) 'b'

Changing Teaching Stroke from default setting: Please note there is no need to change from the default factory setting.

It is possible to set the teaching length value from 1 to 9. This corresponds to the length of travel, which will be at full speed.

If you set at '1' or higher, the door will open at normal speed, performing the teaching stroke. Note that the teaching stroke MUST not exceed more than 70% of total door stroke.

If you set at '0' (default), the door will move a low speed until the teaching stroke is complete. (Generally the teaching stroke is only required once during set up or after adjustment).

Value	0	1	2	3	4	5	6	7	8	9
Teaching Stroke(cm)	0 ALL SLOW	30	60	90	120	150	180	210	300	400

5.1.9 Other Function Use

Basic setting code (LED1) 'C'

Set 'C/0' as default for general purpose. Input signals are SS, SB, HO, and ES.

Set 'C/3' if you want to use EMS operation with battery system.

Set 'C/7' if you want to use the PS instead of ES function which is located on CPU board without extension board.

Set 'C/8' if you want to use the RS instead of ES function which is located on CPU board without extension board.

5.2 Applied Settings

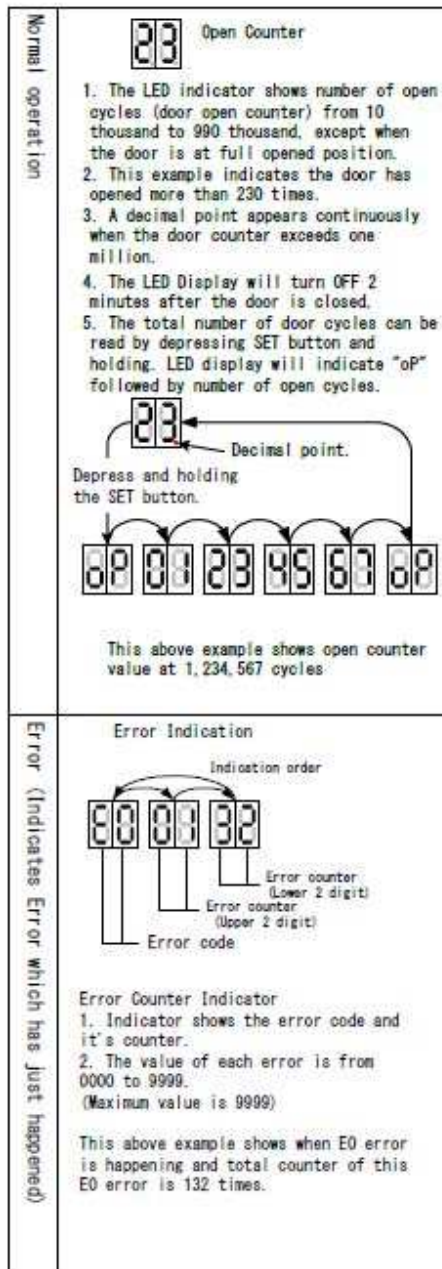
Changing applied setting might be helpful for some special operation applications

To use applied settings, NII-G (I/O Board – Input/ Output) or NII-R (Output Board) type control box may be required in some cases.

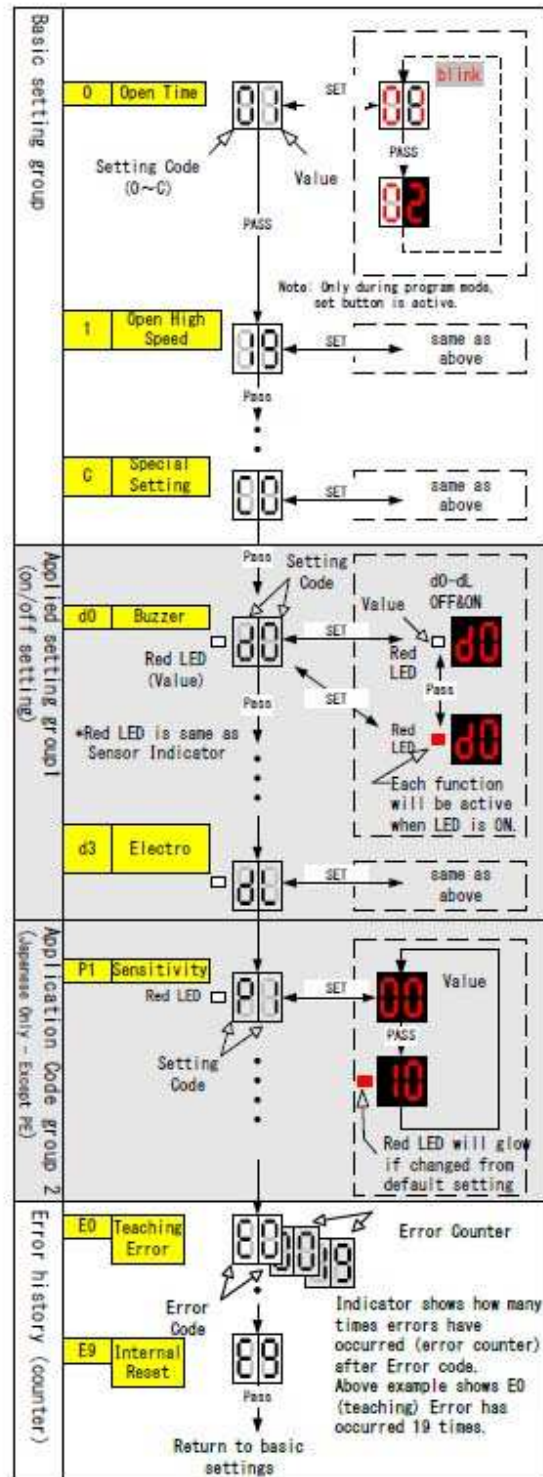
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5.3 LED display – How to operate, read and change settings

RUN Mode



Check mode, Program mode



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5.4 Parameter List

5.4.1 Basic settings Code table

Code	Parameter names	LED Indicator		Setting Range		
		LED1 Code	LED2 Value	min	max	
0	Hold Open Time	0	1	0	F*	
1	Open High Speed	1	9	0	F*	
2	Open Low Speed	2	5	0	F*	
3	Open Break Force	3	4	0	9	
4	Open Force	4	4	0	9	
5	Close High Speed	5	5	0	F*	
6	Close Low Speed	6	4	0	F*	
7	Close Break Force	7	4	0	9	
8	Close Force	8	4	0	9	
9	Pressing Force	9	1	0	4	
A	Partial open width	A	3	0	9	
B	Teaching stroke	b	0	0	9	
C	Special settings	C	0	0:Standard 3:EMS 7:PS 8:RS	Select only to the number shown left.	

Default
Setting

*Note: The value follow in sequence from 0 to F. (0,1,2,3,4,5,6,7,8,9,A,B,C,D,E,F)

5.4.2 Application Code setting group 1 (d codes) table

This group contains setting parameters, which are either ON or OFF.

CODE INDICATION		Parameter name	DESCRIPTION	LED 4 (RED)	
LED 1	LED 2			ON	OFF*
d	0	BUZZER	Set ON when you need buzzer sound, in case of error, battery operation or PS operation.	ON	OFF
d	1	CLOSE BRAKING POSITION	Set ON (150mm) if you need a wider cushion / low speed travel range before fully closed.	150mm	70mm
d	2*	18 / 30 MODE (AUTO)	Setting Automatically when the motor for EDM30NII is connected.	30	18
d	3	ELECTROMAGNETIC LOCK	Setting ON Automatically if an Electromagnetic Lock is detected. Set to OFF when the Electromagnetic Lock is NOT connected.	YES	NO
d	4	BATTERY SYSTEM (Emergency system)	Set on with Battery Close system (BC) or Set on when you need to CLOSE by Panic Signal (PS).	BC	BO

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d	5	OPEN PRESSING	Set ON if you do not need pressing force at full open.	NO	YES
d	6*	CLOSE PRESSING (Vibration detected)	Set ON if the motor generates vibration at closed position. Closing press will be cut off only when vibration detected. Set OFF. Always closing press at full close.	YES & NO	YES
d	7	HALF OPEN mode (Partial open)	Set ON if you NOT wish partial open to go to full open automatically.	FIX	AUTO
d	9	SB FUNCTION ON CLOSE END	Set on if you need to open by SB signal when the door fully closed.	YES	NO
d	A	SELF CLOSING DEVICE (Mechanical open device)	Set ON if mechanical self closing device is fitted (Japan Only)	YES	NO
d	B	SAFETY FUNCTION (When obstruction)	Set OFF in case of an obstacle during the closing travel, the door stops and RETURNS to full open. Set ON if you do not want the door to RETURN. Just STOP	STOP	RETURN
d	C	RS FUNCTION DURING OPENING (Special Ratchet Function)	Set ON for RS signal to release door at hold open. RS is not accepted during the open travel for safety reason. Set OFF (yes) if you allow RS signal during opening travel.	YES	NO
d	D	INTER-LOCK	Dual door connection and control (Japan Only)	YES	NO
d	F	AS FUNCTION (Side Screen Safety)	DOOR: AS signal only accepted during opening cycle On AS activation, door moves slowly. FIX: AS signal only accepted in Door Closed or Full open position. Door will not move. While door is moving AS signal ignored For AS signal, optional control box NII-G is required.	DOOR	FIX
d	H	DOOR PRESS WHEN ES	Set OFF in case breakout / panic door is in use with ES signal. (Stop after break out) Set ON if door press function is required with ES signal. (continue to full open after break out)	ON	OFF
d	J	LOW SPEED WHEN POWER ON	Set ON if the speed during the teaching cycle is too fast.	PROGR AMED	MAX
d	L	TORQUE WHEN POWER ON	Set ON if the door force during the teaching cycle is too strong.	PROGR AMED	MAX
					Default Settings

Warning: Adjustment of parameter should only be carried out an authorized representative. Parameters should not be changed unless the person performing the change understands the operation of the product. Otherwise the door may not operate correctly after adjustment.

All parameter are OFF (factory default settings).

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5.4.3 Application code setting group 2 (P codes) table

Note: Setting P1 to Pd & PF are for Japanese domestic use and not required to be employed out side of Japan. The full range of P codes are available, however only **PE** code is only NECESSARY to be utilized when required.

We recommend NOT changing these parameters unless advised to do so. They are for special use, except in the case of PE code, which changes Normal Open Contacts to Normal Close Contacts.

CODE INDICATION		Description
CODE	SETTING	
P1	00~60	Error detection threshold during high speed opening cycle
P2	00~60	Error detection threshold during low speed opening cycle
P3	00~50	Low speed travel range during opening cycle.
P4	0.3~2.5	Start opening error detection time
P5	00~50	Error detection threshold during high speed closing cycle
P6	00~10	Error detection threshold during low speed closing cycle
P7	00~50	Low speed travel range during closing cycle.
P8	0.3~2.5	Start closing error detection time
Pb	0.0~1.0	Door opening delay time
PC	02~30	Activation signal delay time
Pd	00~50	Error detection threshold by obstacle size during closing cycle
PE	00~0F	NO, NC SELECTION (SEE CHART BELOW)
PF	00~09	Before closing warning signal time

If you change from default setting the parameter of P code, the RED LED is turned to ON.

PE Code: NO or NC SELECTION CHART (Blank columns - NO contact)

CODE	SETTING	AS	SB	PS	ES
PE	00				
PE	01				NC
PE	02			NC	
PE	03			NC	NC
PE	04		NC		
PE	05		NC		NC
PE	06		NC	NC	
PE	07		NC	NC	NC

CODE	SETTING	AS	SB	PS	ES
PE	08	NC			
PE	09	NC			NC
PE	0A	NC		NC	
PE	0b	NC		NC	NC
PE	0C	NC	NC		
PE	0D	NC	NC		NC
PE	0E	NC	NC	NC	
PE	0F	NC	NC	NC	NC

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5.4.4 Error code (E codes)

Code indication	Error Name (Buzzer sound pattern)	Troubleshoot (Possible Causes, Description, Remedy)
E0	Failed teaching (— — — long sound only and no short sound)	Door travel distance during teaching cycle is too short. (less than 150mm) Door speed and/or braking force do not match the door weight (Increase braking force or reduce operating speed) Obstructed during teaching cycle. Teaching stroke setting (Basic code setting "b") is wrong. Wire connection problem or hardware problem. (Change the controller and/or motor) Note: Operational stop after x5 times continuous E0 errors occur. To recover, confirm the door is not locked. Switch mains power OFF and ON. Re-teach will be performed.
E1	Open error (· — · — · — 1 short sound between long sounds)	Obstruction during the opening cycle. Door is physically locked.
E2	Close error (· · — · · — · · 2 short sound between long sounds)	Obstruction during the closing cycle.
E3	INTER-LOCK (· · · — · · · — 3)	Inter Lock system failure
E4	LOOSE BELT (· · · — · · · — 4)	Obstruction during teaching cycle just after Power on. Door is physically locked. Loose belt.
E5	BROKEN BELT (· · · — · — 5)	Broken belt
E6	Electro Magnetic Lock (· · · — · — 6)	Wrong setting on control box – Check: Lock or no Lock Lock pin dose not move properly Check wiring of lock cables
E7	No. of Times Battery and emergency operation (· · · — · — 7)	Not error - Battery operation or PS signal is activated.
E8	Times of power on	Not error - Number of power on
E9	Internal reset times	Not error - Number of internal software reset (Usually almost equal to values in E8)
EA	Internal interference	Error from inside the control box such as interference from heavy noise.

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Code indication	Error Name (Buzzer sound pattern)	Troubleshoot (Possible Causes, Description, Remedy)
Eb	Wrong setting of DIP switch	DIP switch 3 is in wrong position. (No counter of error history)
EC	Over load	Door resistance is increased from initial installation. - Confirm and clear / reduce the door resistance. (should be easy to push by hand) In case this error occurs, the hold open timer changes internally to 30 seconds. Display will only show this error only when the EC error is currently occurring. (No counter of Error history)

Error counter will appear after error codes displayed. See section 5-3.

6 Extended functions

Optional functions are available with NII-R type controller which includes an extension board named OUT board, or with NII-G type controller which includes another extension board named I/O board.

Each board has a unique board address setting (by DIP switch), which means you can select each signal function.

6.1 Description of signal of OUT board

Board address	Signal name	symbol (Common side)	Description
0 Default	Opening	OPN (CO)	Output during opening motion
	Closing	CLS (CC)	Output during closing motion
	Stop	STP (CS)	Output if door stopped (excluding full open/closing)
	Half-Opening	HOP (CH)	Output during half-opening motion
1	Warning	WA (CW)	Output before starting to close
	ERROR	ERR (CER)	Output when an error occurs (until restored)
	Open End	OE (COE)	Output at a fully open condition (same as OA on the I/O board)
	Close End	CE (CCE)	Output at a fully closed condition (same as CA on the I/O board)
2	Safety Beam	SBO (CSB)	Output while photocell is being detected
	UnLock	UL (CUL)	Output showing that an electric lock is unlocked

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6.2 Description of signals of I/O board

Board Address	Signal name	Symbol	Description
4	Opening brake	LOB	Limit switch to designate the position to retard opening
	Closing brake	LCB	Limit switch to designate the position to retard closing
	Half-opening brake	LHO	Limit switch to designate the position to retard half-opening
	Closing stop	LCS	Limit switch to designate the position to stop closing
	LS mode	SPC	Enable Limit switch mode operation
	Emergency Open	EO	Open for 15 seconds at a low speed
	Open A (Output)	OA	Make relay contact at full open position. OE SIGNAL RELAY A
	Open B (Output)	OB	Break relay contact at full open position. OE SIGNAL RELAY B
	Close A (Output)	CA	Make relay contact at full closed position. CE SIGNAL RELAY B
	Close B (Output)	CB	Break relay contact at full closed position. CE SIGNAL RELAY B
5	Push Button for Opening	PBO	Open and hold open until the other push button is depressed
	Push Button for Closing	PBC	Close
	Push Button for Stop	PBS	Stop and stay until the other push button is depressed.
	Push Button for Half opening	PBH	Partial open and stay at the designated position.
	InterLock	IL	Enable opening in the interlock mode.
	Priority	PR	Designate the priority door in the interlock mode.
	Open A (Output)	OA	Make relay contact at full open position. OE SIGNAL RELAY A
	Open B (Output)	OB	Break relay contact at full open position. OE SIGNAL RELAY B
	Close A (Output)	CA	Make relay contact at full closed position. CE SIGNAL RELAY B
	Close B (Output)	CB	Break relay contact at full closed position. CE SIGNAL RELAY B
6	Panic Switch	PS	Emergency operation / Panic Open or Close
	Ratchet Switch	RS	Hold-open/Close switchable
	Half-open Ratchet switch	HRS	Partial open and hold open until next signal.
	Outer Sensor Enable	OSE	Enable the outer sensor in the security mode.
	Ratchet Switch 1	RS1	Open/Close/Stop in the middle of opening switchable
	Open A (Output)	OA	Make relay contact at full open position. OE SIGNAL RELAY A
	Open B (Output)	OB	Break relay contact at full open position. OE SIGNAL RELAY B
	Close A (Output)	CA	Make relay contact at full closed position. CE SIGNAL RELAY B
	Close B (Output)	CB	Break relay contact at full closed position. CE SIGNAL RELAY B
7 (Default)	Panic Switch	PS	Emergency operation / Panic Open or Close
	Ratchet Switch	RS	Partial open and hold open until next activation signal.
	Half-open Switch	HS	Partial open
	Emergency stop Switch	ES	Emergency Stop
	Anzen Switch	AS	Side Safety Screen
	Ratchet Switch 1	RS1	Open/Close/Stop in the middle of opening switchable
	Open A (Output)	OA	Make relay contact at full open position. OE SIGNAL RELAY A
	Open B (Output)	OB	Break relay contact at full open position. OE SIGNAL RELAY B
	Close A (Output)	CA	Make relay contact at full closed position. CE SIGNAL RELAY B
	Close B (Output)	CB	Break relay contact at full closed position. CE SIGNAL RELAY B

Refer to the standard wiring diagrams for further information.

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6.3 Signal layout on the extension boards.

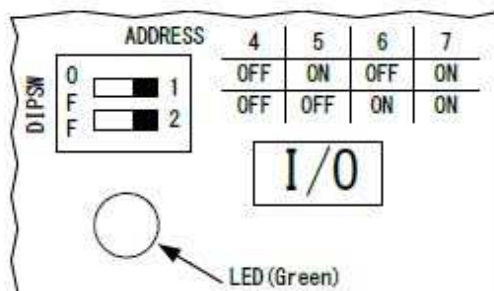
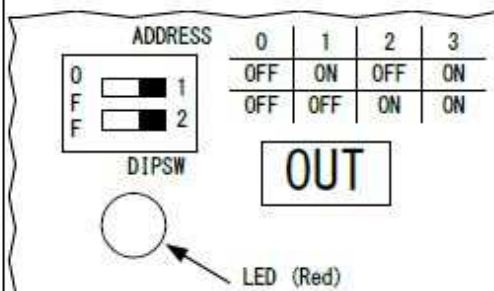
Output board [OUT]				Input Output board [I/O]				Board address
0	1	2	3	4	5	6	7	
OPN	WA	SBO		LOB	PBO	PS	PS	
CLS	ERR	UL		LCB	PBC	RS	RS	
STP	OE	-		LHO	PBS	HRS	HS	
HOP	CE	-		LCS	PBH	OSE	ES	
				SPC	IL	NT	AS	
				EO	PR	RS1	RS1	
				OE	OE	OE	OE	
				CE	CE	CE	CE	

6.4 Corresponding table between Board address and DIP switch

Board address	Output board [OUT]				Input Output board [I/O]			
	0	1	2	3	4	5	6	7
DIP switch1	OFF	ON	OFF	ON	OFF	ON	OFF	ON
DIP switch2	OFF	OFF	ON	ON	OFF	OFF	ON	ON
	Default							Default

Note: Above chart is printed on the each extension board, such as shown below.

DIP Switch is on the expansion board. (To change the setting, remove lid)



7 Adjustment of sensor

Refer to a sensor instruction manual for wiring and adjusting sensor.

8 Checking Operation

Confirm the following:

Item	Description
Opening/closing speed	Adjust open speed according to traffic. Slow closing speed for safety.
Low speed traveling zone	Reduce the opening/closing low speed range to prevent the door from hitting the doorstop with force.
Open timer	Adjust the time according to traffic.
Sensor(s)	Adjust the detection range and sensitivity according to traffic and each sensor's features.

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Prodotto	Scorrevoli	
		
Modello	18NII - 24NII	30NII
Motoriduttore	Motore forgiato DC senza spazzole con Hypoid riduttore	
Forza in apertura/chiusura (max)	Alta velocità: 216N (22kgf) Bassa velocità: 176N (18kgf) 10 regolazioni	Alta velocità: 392N (40kgf) Bassa velocità: 274N (28kgf) 10 regolazioni
Velocità apertura/chiusura	1m/s-7,5m/s 16 regolazioni	0,5m/s-6,4 m/s 16 regolazioni
Pressione chiusura regolazioni Pressione elettrica basso volt.	Forza Pressione 49N (5kgf) 5 regolazioni	Pressione Forza 68,6N (7kgf) 5 5 regolazioni
Sistema di controllo	EDM NII (microprocessore digitale)	
Alimentazione elettrica	AC100V±10V 50-60HZ, 1,2 amp	AC100V±10V 50-60HZ, 1,8 amp
Consumo	150W	300W
Temperatura	Temperatura ambiente: -20°C +50°C (non condensa o ghiaccio) Umidità: 30% 85%RH	
Programmazione	Attraverso la prima apertura e chiusura, il sistema di controllo imposta automaticamente l'apertura dell'anta.	
Frenatura/bassa velocità di accostamento	Settaggio automatico Bassa velocità, 16 regolazioni	
Temporizzazione in apertura	1/60 sec. max, 16 regolazioni	
Segnale input	Sensore / Cellula / Mezzacorsa Sw / Stop Sw / Panico Sw / Rip-flop	
Mezza corsa/salva energia	Funzione mezza corsa, 10 regolazioni dal 13% al 98% di corsa anta.	
Input/Output estensione	Opzionale	
Regolazione Coppia	10 regolazioni	
Ostacolo	Durante l'apertura: l'anta si ferma per sicurezza e a bassa velocità continua la corsa fino a completa apertura. Durante la chiusura: ad alta velocità la porta si riapre e poi lentamente torna a richiudersi, se incontra ostacolo si ferma.	
Antipanico	Antipanico a batteria (si apre e rimane aperta).	
Magnete	Magnete di porta aperta e di porta chiusa automatico.	
Antincendio	Sistema antincendio a batteria. In mancanza di tensione la porta si chiude.	
Rumorosità	60 Db (18-24 NII)	63 Db (30 NII)
	Misura a 1 mt. di distanza dal meccanismo.	
Domotica	Compatibile con i principali sistemi domotici.	

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10 – EXTERNAL KEYPAD WITH CODES

LCS-P / EX5-P

Teclado con proximidad Red/Autónomo
Tastiera network e standalone con prossimità



- Gamma de teclados con lector de proximidad integrado y tapas frontales intercambiables
- 99 Códigos o llavero o llavero +códigos
- Versiones en superficie y empotradas
- Teclas policarbonatos o metálicas retroiluminadas
- Conexión sencilla con contacto Phoenix
- 2 Leds libres de tensión
- Interior/Exterior
- IP65
- Entregado con 5 llaveros
- 12V CC/CA

LCS-P: Lector Teclado Wiegand (26 a 40 Bits) con lector de proximidad integrado.

- Gamma di Tastiere con lettore di prossimità integrato e custodie intercambiabili
- 99 PIN Codice o Tessera o Tessera+Codice
- Montaggio da appoggio o da incasso
- Tasti in Policarbonato o metallo
- Connessione facilitata tramite morsetti Phoenix Contact
- 2 led programmabili
- Montaggio da interno e da esterno
- IP65
- Fornito con 5 tessere
- 12V DC/CC

LCS-P: Protocollo Wiegand (26 to 40 bits), tastiera con prossimità integrato

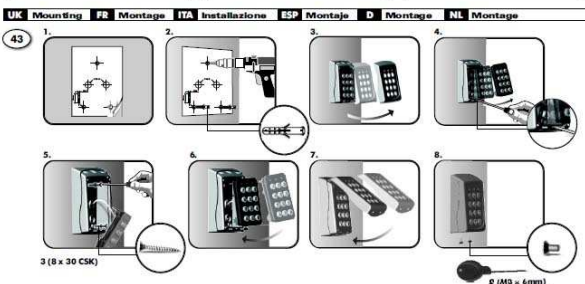
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EX5

UK Features	FR Caractéristiques	ITA Caratteristiche
- Operates on 12/24V AC/DC - Backlit keys (metal / plastic) 99 User codes (D to 8 digit) 30 sec. delay after 8 codes incorrect 2 line tension LEDs (Red & Green) 2 relays (R1: 10A/24V DC, 120V AC; R2: 2A/24V AC/DC) - Relay in latch (00) or pulse mode (01 to 99 sec) 2 pushbuttons to operate relays - Power switching regulator for longer product life - EEPROM prevents data loss during power failure - Peripherals connected via bi-directional COOD bus - Current Consumption Standby: 30 mA - Maximum: 130 mA - Outproof and waterproof (IP65)	- Fonctionne sur 12/24V AC/DC - Touche rétro-éclairée (métal / plastique) 99 codes Utilisateur (D à 8 digit) 30 sec. de verrouillage après 8 codes incorrects 2 LED de tension (rouge et vert) 2 relais (R1: 10A/24V DC, 120V CA; R2: 2A/24V AC/DC) - Relais en mode marche/arrêt (00) ou impulsions (01 à 99 sec) 2 boutons poussoirs pour actionner les relais - Régulateur de tension d'alimentation pour prolonger la durée de vie du produit - Mémoire EEPROM sauvegarde les données - Peripherals connectés via le bus COOD bi-directionnel - Consommation au repos: 30 mA - Maximum: 130 mA - Résistant aux poussières et à l'eau (IP65)	- Fonctionamento a 12/24V c.a./c.c. - Tasti retroilluminati (metallo / plastica) 99 codici utente (da 0 a 8 cifre) 30 secondi di blocco dopo 8 codici errati 2 LED di tensione (rosso e verde) 2 relè (R1: 10A/24V c.c., 120V c.a.; R2: 2A/24V c.a./c.c.) - Relè in modalità blocco (00) o a impulsi (da 01 a 99 s) 2 pulsanti per l'azionamento dei relè - Régulateur a commutazione di potenza per una maggior durata del prodotto - EEPROM per evitare la perdita dei dati - Periferiche collegate mediante bus bidirezionale COOD - Consumo di corrente Standby: 30 mA - Maximum: 130 mA - A tenuta di polvere e stagna (IP65)

ESP Características	D Merkmale	NL Eigenschappen
- Fonctionne sur 12/24V AC/DC - Tastes rétroilluminées (métal / plastique) 99 códigos de Usuario (D a 8 dígitos) 30 segundos de bloqueo de 8 códigos no válidos 2 LEDs sin tensión (Rojo y Verde) 2 relés (R1: 10A/24V CC, 120V CA; R2: 2A/24V AC/CC) - Relé en modo de conmutación o de impulsos (01 a 99s) 2 pulsadores para accionar los relés - Régulador de conmutación de la alimentación para una vida del producto más larga - La EEPROM evita la pérdida de datos - Periféricos conectados a través de un bus COOD bi-direccional - Consumo de corriente en Reposo: 30 mA - Maximum: 130 mA - A prueba de polvo y resistente al agua (IP65)	- Seit bei 12/24V AC/DC - Tasten mit Hintergrundbeleuchtung (Metall / Plastik) 99 Benutzercodes (D bis 8 Ziffern) 30 Sek. Verriegelung nach 8 ungültigen Codes 2 LEDs (Rot und Grün) 2 Relais (R1: 10A/24V DC, 120V AC; R2: 2A/24V AC/DC) - Relais in Latch- (00) oder Impulsmodus (01 bis 99 sec) 2 Drücktasten zur Fertigung der Relais - Schaltregulator für eine längere Produktlebensdauer - EEPROM zur Vermeidung von Datenverlust bei Stromausfall - Randgeräte angeschlossen über bidirektionalen COOD-Bus - Stromaufnahme Minimum: 30mA - Maximum: 130 mA - Staub- und Wasserschutz (IP65)	- Voeding 12/24V AC/DC - Verlichte toetsen (metaal of plastic) 99 gebruikerscodes (0 tot 8 tekens) 30 seconden geblokkeerd na 8 onjuiste pogingen 2 LEDs (Rood & Groen) 2 relais (R1/R2: 10A/24V DC, 120V AC/DC) - Relais met hand (00) of pulss mode (01 tot 99 sec) 2 drukknoppen voor relaisuitrusting - Geschakelde voeding voor een langere levensduur - EEPROM voorkomt data verlies gedurende spanningval - Randapparatuur kan aangesloten worden op de bi-directionele COOD bus - Stroomopname in rust: 30mA - Maximum: 130mA - Stof- en waterdicht (IP65)

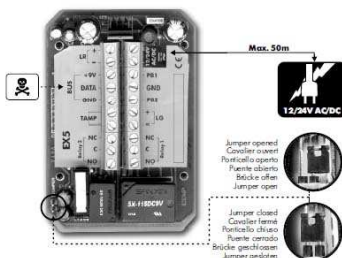


ENTRIX 1 EX5

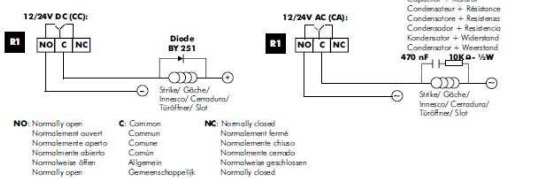
UK Wiring	FR Câblage	ITA Cablaggio	ESP Cableado	D Verdrahtung	NL Aansluiting
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EX5

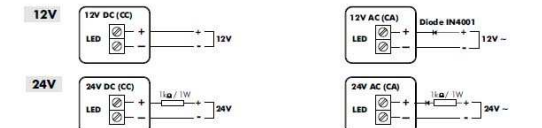
Do not apply any voltage to the COOD BUS.
N'appliquez aucune tension au bus COOD.
Non applicare alcuna tensione al bus COOD.
No aplicar ninguna tensión al bus COOD.
Keine Spannung auf den COOD-Bus auführen.
Gat geen spanninggebruik aan op de COOD bus.



UK Connecting strike to relays	FR Connexion d'une gâche aux relais
ITA Collegamento innescio al relè	ESP Conexión de una cerradura al relé
D Türöffner mit Relais verbinden	NL Aansluiten sloten op de relais



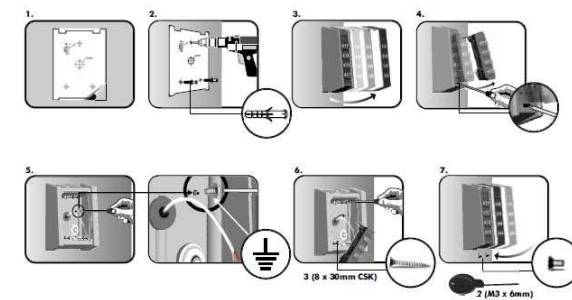
UK Connecting voltage free LEDs	FR Connexion des Leds libres de tension
ITA LEDs collegamento senza tensione	ESP Conexión de los LEDs libres de tensión
D Anschluss spannungsfreier LEDs	NL Aansluiten van de LED's



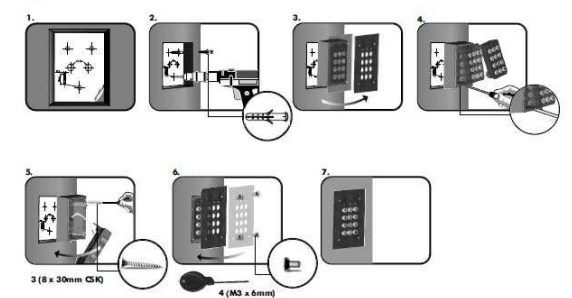
ENTRIX 3 EX5

UK Mounting	FR Montage	ITA Installazione	ESP Montaje	D Montage	NL Montage
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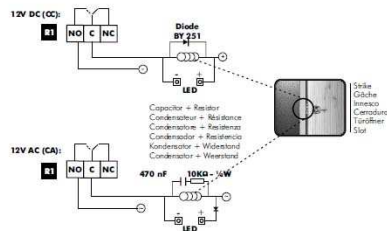


102

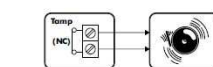


ENTRIX 2 EX5

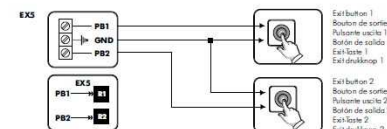
UK Connecting LEDs for relay status	FR Connexion des Leds pour indiquer l'état du relais
ITA LEDs collegamento stato relè	ESP Conexión de los LEDs para indicar el estado de los relés
D Anschluss LEDs für Relaisstatus	NL Aansluiten LED's voor relaisstatus



UK Tamper switch	FR Switch d'au/toprotection
ITA Interruttore antimanomissione	ESP Interruptor antisabotaje
D Schalter zur Sicherung gegen unerlaubte Eingriffe	NL Seibotage schakelaar



UK Exit button	FR Bouton de sortie	ITA Pulsante uscita
ESP Botón de salida	D Exit-Taste	NL Exit drukknop

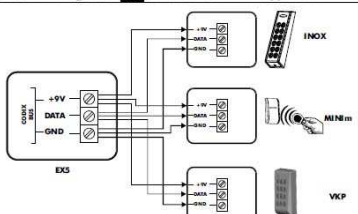


ENTRIX 4 EX5

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UK Connecting CDDX peripherals	FR Connexion des périphériques CDDX
ITA Collegamento periferiche CDDX	ES Conexión de los periféricos CDDX
D Anschluss von CDDX Randgeräten	NL Aansluiten CDDX randapparatuur

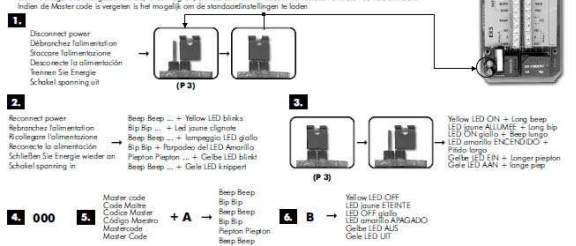


UK Cable distance	FR Distance du câble	ITA Lunghezza cavo
ES Distancia del cable	D Kabelabstand	NL Kabellengte

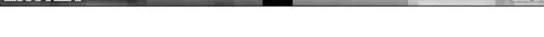


UK Redefining Master code	FR Redéfinition du code Maître	ITA Ridefinizione del codice Master
ES Redefinición del código Maestro	D Mastercode neu definieren	NL Opnieuw definiëren Master Code

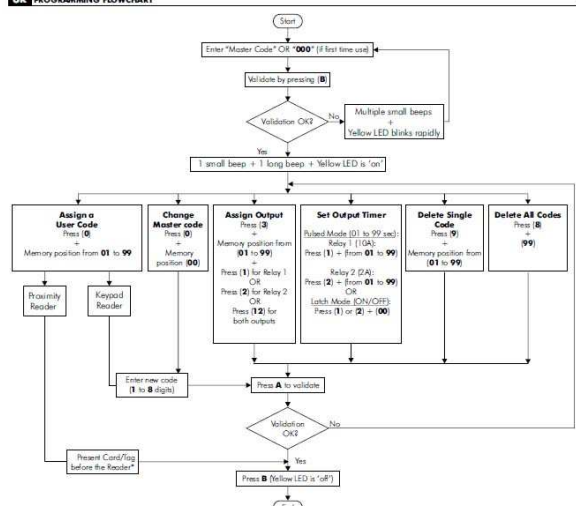
It is possible to redefine and restore the default setting if the Master code is forgotten.
Si le code Maître est oublié, il est possible de reconstituer les réglages par défaut et de les modifier.
Se il codice Master fosse dimenticato, è possibile ristabilire i valori di default e ridefinirlo.
Si se olvidó el código Maestro, es posible restaurar los ajustes por defecto y redefinirlo.
Wenn Vorlagescode vergessen wurde, ist es möglich, Standardabnahmen wieder herzustellen und sie neu zu definieren.
Indien de Mastercode is vergeeten is het mogelijk om de standaardinstellingen te herstellen.



UK Cable distance	FR Distance du câble	ITA Lunghezza cavo
ES Distancia del cable	D Kabelabstand	NL Kabellengte



UK PROGRAMMING FLOWCHART

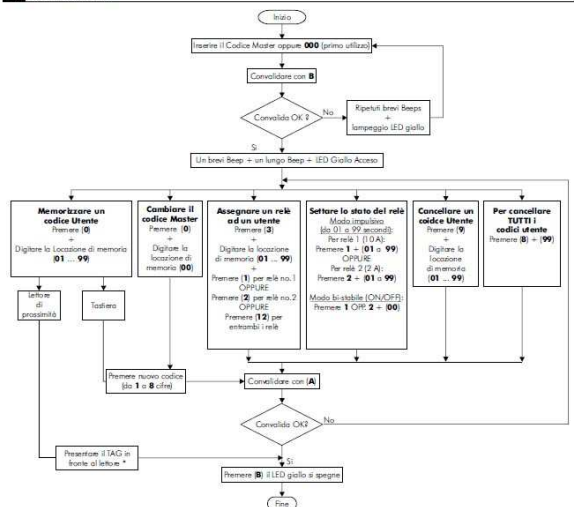


Notes
Memory Position for User Code is always 2 digits
* no need to validate with A
Assign Examples
Ex 1: To assign User Code "12345" at Memory Position "5" and Relay 1 (IOA) in Latch Mode assuming Master Code = 000
Press 000B - 0 - 05 - 12345 - A - 3 - 05 - 1 - A - 1 - 00 - A - B
Ex 2: To assign User Code "6789" at Memory Position "6" and Relay 2 (IQA) that activates for 5 seconds assuming Master Code = 000
Press 000B - 0 - 06 - 6789 - A - 3 - 06 - 2 - A - 2 - 05 - A - B
See: Assign a User Code above
See: Assign Output above
See: Set Output Timer above

Warranty: XPR warrants its products to be free from defects in material and workmanship for 24 months from the date of shipment. The product is to be installed in accordance with XPR's instructions and the unit should not be modified or tampered with. XPR does not assume any responsibility for damages arising from misuse of the product. XPR's sole responsibility is limited to the repair or replacement when the product is sent to XPR's facility.

As per the European Directive's 2002 / 95 / EC & 2002 / 96 / EC
This product is in compliance with the restriction of hazardous substance - RoHS under (Directive 2002 / 95 / EC) and this product should not be disposed in the municipal waste stream but should be handed over to any designated collection facilities appointed by the government or the local authorities to enable recovery & recycling as per WEEE (Directive 2002/96/EC), w.e.d 1st July 2006

ITA PROGRAMMAZIONE



Notes:
da 01 a 99: scegliere la posizione di memoria in cui memorizzare il codice (digitare sempre le due cifre della locazione di memoria)
* non è necessario convalidare con (A)
Esempio 1: Se si desidera memorizzare un codice utente 12345 la posizione di memoria (5) e assegnare il relé 1 che è nel modo bi-stabile
Premere codice Master 000B - 0 - 05 - 12345 - A - 3 - 05 - 1 - A - 1 - 00 - A - B
Esempio 2: Se si desidera memorizzare un codice utente 6789 la posizione di memoria (6) e assegnarlo al relé 2 che attiva per 5 secondi
Premere codice Master 000B - 0 - 06 - 6789 - A - 3 - 06 - 2 - A - 2 - 05 - A - B
Memorizzare un codice utente
Assegnare un relé ad un utente
Settare lo stato del relé

Garanzia: XPR garantisce che i suoi prodotti sono esenti da difetti dei materiali o di fabbricazione per 24 mesi dalla data di consegna. Il prodotto deve essere installato secondo le istruzioni fornite da XPR e l'unità non deve essere modificata o manomessa. XPR non si assume di carico responsabilità per danni derivanti da un utilizzo errato del prodotto. La responsabilità di XPR si limita al risarcimento alla sostituzione del prodotto, previo invio di quest'ultimo allo stabilimento XPR.

In conformità alle direttive europee 2002 / 95 / CE e 2002 / 96 / CE
Questo prodotto è in conformità con la restrizione d'utilizzo delle sostanze pericolose - RoHS (Direttiva 2002 / 95 / CE) e questo prodotto non deve essere gettato nella raccolta rifiuti indifferenziata ma deve essere portato alle apposite raccolte rifiuti realizzate dal governo o dalle autorità municipali per permettere il recupero e il riciclo dei materiali come da normativa WEEE (Direttiva 2002/96/CE), w.e.d 1st July 2006

ENTRIX	8	EX5
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11 – GLAZING INSTALLATION



Primer Black



Primer Black è un primer di aderenza nero, formulato per ottenere l'adesione ottimale dei poliuretani/polimeri su vetro, ceramica e vernici non porose, superfici metalliche e non.



Informazioni Tecniche

Forma:	liquido
Colore:	nero
Odore:	di solvente
VOC:	645 g/l
Punto di infiammabilità:	<21° C
Temperatura di accensione:	310° C
Autoaccensione:	prodotto non autoinfiammabile
Solubilità in acqua:	non solubile
Tensione di vapore a 20° C:	101mbar
Confezione:	bottiglietta da 30ml - cod. 83661

Istruzioni per l'uso

1. Pulire la superficie con Acrysol - lasciare asciugare.
 2. Agitare con cura il flacone prima dell'uso.
 3. Stenderlo con un pennello pulito sempre nella stessa direzione.
 4. Può essere data una seconda mano, sempre nello stesso senso dopo almeno 3/5 minuti dalla prima.
 5. Attendere la completa asciugatura prima di applicare il collante:
 - con i poliuretani (NCU2 CUF): 3/5 minuti
 - con i polimeri (KSF/KSF212): devono trascorrere almeno 30 minuti.
- N.B.:** dopo 4 ore dall'applicazione PRB non è più efficace.

In questo caso, prima di applicare la colla, bisogna ripulire la superficie con Acrysol e quindi ristendere PRB.

ATTENZIONE: PRB non va mai messo sui residui di vecchia colla.



Screenfix 212



UPDATED: 19.09.12



Screenfix 212 is an isocyanate free, high tech windscreen adhesive providing one hour drive away for vehicles with twin airbags.

Part N°:
34808 (KSF 212) - 290ml cartridge
83404 (KSF 212S) - 400ml foil sausage pack

Features

- Fast cure
- Single component
- Cleans up easily
- Excellent adhesion
- No slump
- Meets FMVSS212
- Supplied with cleansing wipe

Benefits

- 1 hour drive away with twin airbags
- No special tools required
- Saves time
- No glass primer required
- No mess or waste
- Peace of mind, no comebacks
- Reduce inventory & less cost

Applications

Specifically developed for the automotive and coach work industries, Screenfix 212 is the ideal product to use for the bonding of direct glazed glass in vehicles. Screenfix 212 is suitable for all bonded front, rear and side glass in vehicles. Screenfix 212, due to its very fast cure time is ideal for glass replacement where the vehicle is required back on the road quickly, i.e. roadside breakage's or PSV vehicles where downtime can be costly in £100's per hour. Screenfix 212 is also a very good general adhesive and will bond metal, glass, wood, most plastics, fiberglass, rubber, ceramics, concrete, brick and polystyrene to themselves and one another.

Instructions

1. When using the Short Method remove existing sealant until a flat bead of approximately 4 mm high remains.
2. Use the KENT Screenprep Wipe to clean and prepare the ceramic layer of the windscreen - ensuring the product dries fully.
3. Using a KENT Hand Caulking Gun or Kent Air Gun, apply KENT Screenfix 212 to the pinchweld on top of the existing sealant in a triangular bead 9 -11 mm high.
4. Insert the new screen within 10 minutes.
5. Remove any excess KENT Screenfix 212 with a dry cloth prior to use - do not use solvents.
6. When applying Screenfix 212 direct to painted metal as per Long Method, always use MS Prep as directed. Apply a triangular bead of up to 17 mm high as necessary.



Screenfix 212



Technical Information

Part N° & packaging:	34808 290ml cartridge 83404 400ml foil pack 83720 20L drum	Skin forming time:	approx. 15 min (20°C/50%RH)
Stock Code:	KSF 212 / KSF 212S	Shore A hardness:	57 DIN 53505
Shelf Life:	18 months cartridge, 12 months sausage	Cure Time:	3-4mm in 24 hours (20°C/50%RH)
Drive away Time:	60 minutes with 2 airbags	Shrinkage:	<3% DIN 52451
TUV approved and crash tested to:	FMVSS212	Specific Gravity:	1.5g/ml
Hazard info:	Non Hazardous	Application Temp:	+5°C to +35°C
VOC:	0g/L	Temp resistance:	-40°C to +90°C
Customs Tariff Code:	3214 10 10	Green strength:	600 Pa
Basic Material:	MS polymer	Tensile Strength 100%:	2.3 MPa DIN 53504/ISO 37
Cure method:	moisture	Tensile Strength at break:	2.7 MPa DIN 53504/ISO 37
UV Weather resistance:	Very good	Shear Strength:	2.1 MPa DIN 53283/ASTM D1002
		Tear Resistance:	15 N/mm (DIN 53515/ISO34)
		E-Modulus (10%):	4.2 MPa DIN 53504/ISO 37
		Elongation at Break:	180% DIN 53504/ISO 37
		Electrical vol. resistivity:	>10 ¹¹ Ohms cm DIN 53482

Associated Products

MS Prep, Screenprep Wipes, Release Agent (SRA), Acrysol, windscreen tools, Re sealant Wet & Dry (RWD), New All Purpose Foam Cleaner, Glass Kleen (SGK, SGKII), Viewmaster Kit, Screenfix Improved, Screenfix +, Screenfix 212 Premium, Waterproof Tape (SB2)

Market Segments



Secondary



Health & Safety Information

This product is not subject to identification regulations under EC Directives and the Ordinance on Hazardous Materials.

Safety data sheet available for professional user on request.

In order to provide you with the most appropriate Personal Protective Equipment when using our products, KENT advises that you follow the guidelines on the packaging of the product before use. The guidelines are there for your protection and KENT provides a range of Personal Protection Equipment such as clothing, eye glasses, goggles, face shields and breathing apparatus, complying with the latest European legislation. If you require further advice then please phone our freephone number and we will be pleased to help you. Telephone: 0800 136925

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Assembly Adhesive Fast

Sigilla/incolla, monocomponente, a rapida essiccazione basato sulla tecnologia dei polimeri MS con un tempo di lavorazione più ristretto. Ideale per riparazioni su piccole aree.

- *Senza solventi né isocianati
- *Eccellente adesione
- *A rapida essiccazione
- *Monocomponente
- *Tempo di lavorazione: 15 minuti
- *Eccellente resistenza ai raggi UV e all'invecchiamento
- *Protezione duratura dall'acqua dolce e salata
- *Disponibile nei colori: nero, bianco, marrone e grigio

[Cliccate qui per visionare la scheda tecnica.](#)

Description	Part nr.	
Assembly Adhesive Fast Black, Sacchetto 600 ml	84530	MSDS
Assembly Adhesive Fast Black, Cartuccia 290 ml	84522	MSDS
Assembly Adhesive Fast Grey, Cartuccia 290 ml	84523	MSDS
Assembly Adhesive Fast Grey, Sacchetto 600 ml	84533	MSDS
Assembly Adhesive Fast White, Sacchetto 600 ml	84531	MSDS
Assembly Adhesive Fast White, Cartuccia 290 ml	84521	MSDS



Marine

Sigillanti e Adesivi



Assembly Adhesive Fast

KENT ASSEMBLY ADHESIVE FAST è un sigilla/incolla, monocomponente, a rapida essiccazione basato sulla tecnologia dei polimeri MS.



È stato concepito in modo specifico per l'incollaggio e la sigillatura su yacht e nel settore marino in genere.

Caratteristiche

- Senza solventi né isocianati
- Eccellente resistenza ai raggi UV e all'invecchiamento. Protezione duratura dall'acqua dolce e salata.
- Monocomponente
- Lungo tempo di lavorazione
- Eccellente adesione
- A rapida essiccazione
- Può essere verniciato bagnato su bagnato

Vantaggi

- Non è tossico, sicuro da usare
- Prodotti di alta qualità specifici per il settore nautico
- Non è necessario nessun utensile particolare
- Ideale per assemblare componenti di grandi dimensioni
- Non è necessario l'uso del primer
- Risparmio di tempo. Aumenta la produttività
- Risparmio di tempo.

Marine

Sigillanti e Adesivi



Assembly Adhesive Fast

Applicazioni

- Incollaggio e sigillatura in genere per applicazioni nel settore nautico dove è richiesta una maggiore adesione ed elasticità del sigillante come l'incollaggio di corrimano, rivestimenti di ponti, incollaggio e sigillatura generale di arredi, connessioni di ponti/scafi.
- KENT Assembly Adhesive Fast è compatibile con la maggior parte dei sistemi di verniciatura industriali, sia a base di resine epossidiche che a dispersione.
- KENT Assembly Adhesive Fast non necessita dell'uso del primer e aderisce perfettamente su superfici in alluminio, acciaio inox, acciaio galvanizzato, zinco, rame, ottone, la maggior parte della superficie metalliche - anche galvanizzate, vetro, PVC, poliestere (GRP), legno verniciato e laccato, ecc... purché perfettamente pulite, asciutte e accuratamente sgrassate.
- Nel caso in cui sia richiesta una maggiore adesione, a causa di una elevata sollecitazione termica o fisica, soprattutto in condizioni di elevata umidità, utilizzare il primer KENT Primer C. Su legno non trattato o su altre superfici porose utilizzare il KENT Primer O.
- Per ulteriori informazioni su Kent Primer C e Kent Primer O, consultare la rispettiva scheda tecnica. Nota: si raccomanda di effettuare il test di adesione su polietilene, polipropilene e PTFE (Teflon).

Istruzioni per l'uso

KENT Assembly Adhesive Fast è facilmente estraibile utilizzando una pistola manuale standard come Kent KCG (Hand Caulking Gun) o una pistola ad aria come KAG (Kent Air Caulking Gun).

Nelle applicazioni di sigillatura, KENT Assembly Adhesive Fast dovrebbe essere lavorato e steso entro 10 minuti; nelle applicazioni di incollaggio le superfici devono essere assemblate entro 15 minuti.

Per ottenere risultati ottimali, si consiglia di applicare uno spessore di circa 2 mm.

Compatibilità con le vernici: Kent Assembly Adhesive Fast è compatibile con la maggior parte delle vernici e laccate utilizzate nel settore industriale. Protegge inoltre dalla corrosione se utilizzato come rivestimento di finitura/sigillatura prima dell'applicazione dell' vernice.

KENT Assembly Adhesive Fast specifici può essere verniciato dopo 10 minuti dall'applicazione.

Marine

Sigillanti e Adesivi



Assembly Adhesive Fast

Informazioni Tecniche

Materiale di base:	polimero modificato MS
Consistenza:	pasta ad alta viscosità
Fuori polvere:	10 minuti
Durezza Shore A:	55
Tenuta iniziale:	molto buona
Resistenza alla rottura:	3.0 Mpa (DIN53504)
Allungamento alla rottura:	225%
Densità relativa:	1.4 g/ml
Tempo di lavorazione:	15 minuti
Temperatura di applicazione:	da +5°C a +35°C
Tempo di essiccazione:	3mm in 24 ore a 20°C / 50%RH
Restringimento:	<3%
Resistenza ai raggi UV e alle intemperie:	eccellente
Estrusione del prodotto:	120 PSI 100%
VOC:	0 g/l
Classificazione pericolosità:	non pericoloso
Conservazione:	18 mesi in luogo fresco ed asciutto
Confezione:	cartuccia da 290 ml.: 84521 AAFW (bianco), 84522 AAFBL (grigio), 84523 AAFG (grigio)
(nero),	sacchetto da 600 ml.: 84530 AAFB-S (nero), 84531 AAFWS (bianco)

Al fine di indicare la più appropriata attrezzatura protettiva per l'uso sicuro dei nostri prodotti, KENT consiglia di leggere e attenersi alle istruzioni indicate sulla confezione del prodotto, prima di utilizzarlo. Le istruzioni sono fornite per la vostra sicurezza e KENT ha a vostra disposizione una vasta gamma di attrezzature per la vostra protezione quali abbigliamento, occhiali, elmetti di protezione, visore e respiratori, il tutto in conformità con le più recenti normative europee. Per ulteriori informazioni, vi preghiamo di contattare il nostro numero verde 800 011 780 e saremo lieti di potervi consigliare.

Cooperativa STEEL Works

Part. I.V.A. e Cod. Fisc.: 02152870990 - Cap. Sociale I.V. Euro 10.000,00
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<http://www.coopsteelworks.it> - E-mail: coopsteelworks@gmail.com

NOTE

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11 – REFERENCES



BENETTI



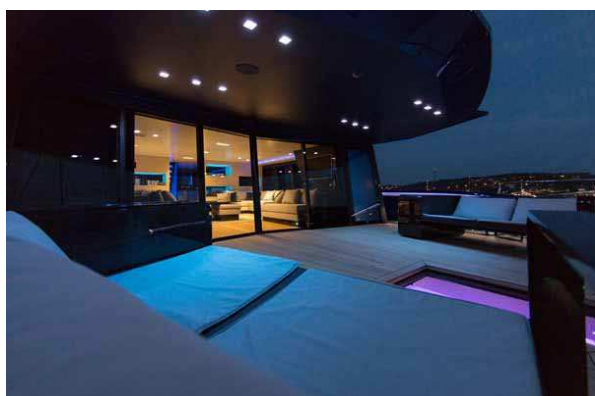
T. MARIOTTI



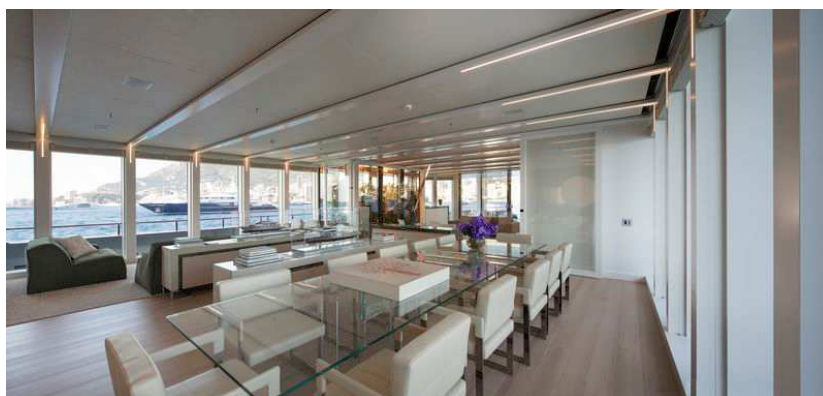
HEESEN SHIPYARD



CODECASA



WALLY EUROPE



VIAREGGIO SUPER YACHTS

Cooperativa STEEL Works

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PERINI NAVI



OTAM



COUACH YACHT



FERRETTI GROUP RIVA



HATTERAS



TRINITY

Cooperativa STEEL Works

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