MANUALE D'USO E MANUTENZIONE
PORTE SCORREVOLI ELETTRICHE

Cooperativa STEEL Works

Part. I.V.A. e Cod. Fisc : 02152870990 - Cap. Sociale I.V. Euro 10.000,00
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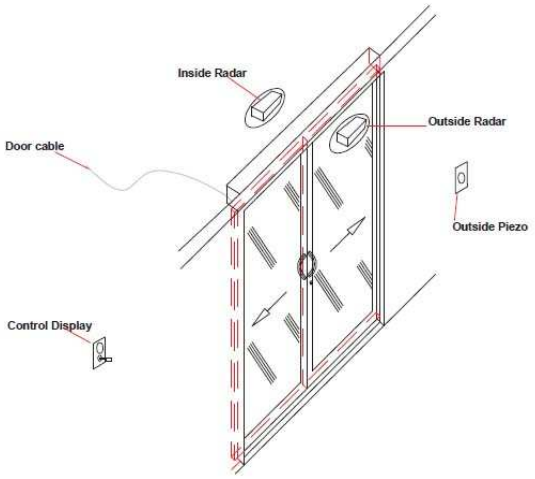
Indice

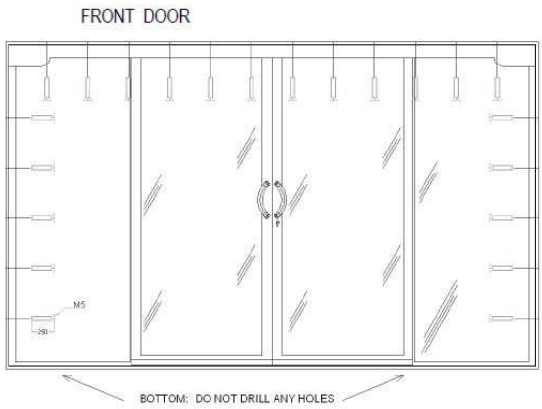
1 - AVVERTENZE DI SICUREZZA

Impiego previsto

Le nostre porte scorrevoli elettriche possono essere installate in ambienti nautici e civili, per agevolare il passaggio di persone o cose anche in luoghi con funzionamento intensivo dell'automatismo. Le ante scorrevoli intelaiate potranno essere realizzate in acciaio inox aisi 316, acciaio inox aisi 304, in alluminio, in ferro, oppure semplicemente in cristallo. Una manutenzione ordinaria da parte del bordo di tutte le componenti meccaniche, con cadenza annuale, è indispensabile per preservare il corretto funzionamento della porta; rimuovendo le cartelle superiori ed inferiori si potrà accedere a tutte quelle parti di scorrimento che dovranno essere lubrificate come le pulegge ed i cuscinetti ed inoltre controllare il serraggio meccanico di tutta la bulloneria. Qualora il bordo non potesse effettuare tale manutenzione periodica la nostra ditta sarà disponibile a fornire un preventivo per l'esecuzione di tale attività.

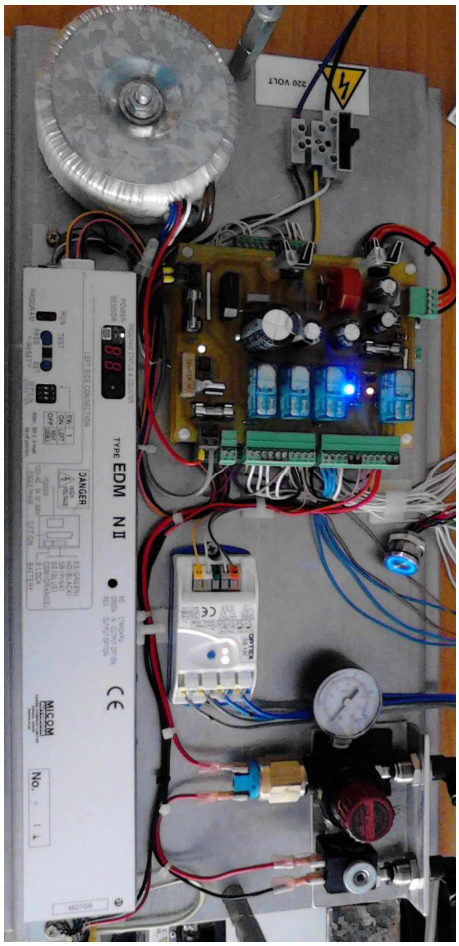
Sicurezza nel montaggio





Il presente manuale di installazione è rivolto esclusivamente a personale professionalmente competente.
L'installazione, i collegamenti elettrici e le regolazioni devono essere effettuati nell'osservanza della Buona Tecnica.
Leggere attentamente le istruzioni prima di iniziare l'installazione del prodotto.
Una errata installazione può essere fonte di pericolo.
Prima di iniziare l'installazione verificare l'integrità del prodotto.
Non installare il prodotto in ambiente e atmosfera esplosivi: presenza di gas o fumi infiammabili costituiscono un grave pericolo per la sicurezza.
Prima di installare la motorizzazione, verificare che la struttura esistente abbia i necessari requisiti di robustezza e stabilità.
I dispositivi di sicurezza (Radar e fotocellule) devono essere installati tenendo in considerazione le normative e le direttive in vigore, i criteri della Buona Tecnica, l'ambiente di installazione, la logica di funzionamento del sistema e le forze sviluppate dalla porta. I dispositivi di sicurezza devono proteggere eventuali zone di schiacciamento, cesoiamento, convogliamento e di pericolo in genere, della porta motorizzata.
Durante gli interventi di installazione, manutenzione e riparazione, togliere l'alimentazione prima di accedere alle parti elettriche e meccaniche.
Il costruttore della porta declina ogni responsabilità qualora vengano installati componenti incompatibili ai fini della sicurezza e del buon funzionamento e modificati i cavi già cablati e studiati già al massimo della loro lunghezza.
Per l'eventuale riparazione o sostituzione dei prodotti dovranno essere utilizzati esclusivamente ricambi originali.

2 - CARATTERISTICHE TECNICHE



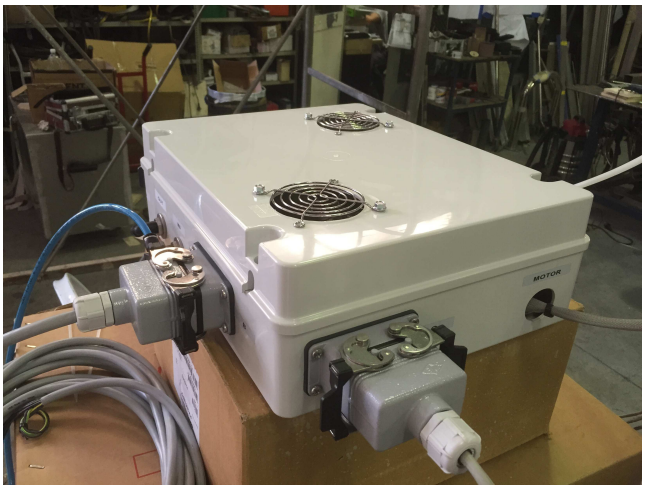
Informazioni tecniche
Alimentazione primaria : 230V - 50 Hz AC
Potenza max con trasformatore toroidale: 324 VA
Consumo : max. 150 W
Alimentazione scheda di controllo : 24 AC
Alimentazione accessori : 12 DC
Motore Brushless comandato da Driver di controllo :
Alimentato 110 V 50Hz / 60 Hz AC

Prestazioni
Peso raccomandato per anta scorrevole: 1 anta 200 Kg - 2 ante 180 Kg + 180 Kg
Velocità apertura/chiusura : Regolabile
Tempo pausa apertura : Regolabile da 0 a 10 secondi
Temperatura esercizio: – 15°C a + 60°C

3 - SPAZI RICHIESTI

Prima di procedere con l'installazione assicurarsi che gli angoli del foro fasciame siano perfettamente a 90° ed inoltre che la parte bassa del foro sia perfettamente dritta altrimenti la porta non potrà essere installata in osservanza della Buona Tecnica.

4 - IDENTIFICAZIONE DELLE PARTI



1. *Telaio porta*
2. *Anta scorrevole*
3. *Centralina*
4. *Pulsanti Piezo*
5. *Display*
6. *Motore EDM30 NII*
7. *Radar*
8. *Blocco elettromagnetico*
9. *Cinghia*

5 - PREDISPOSIZIONI IN OPERA

Per garantire un montaggio corretto serve verificare le predisposizioni in opera, la traversa alta deve essere fissata ad una superficie dritta e con una solidità adeguata al peso delle ante che si andranno ad utilizzare. Se il supporto che si utilizza non risponde a questi parametri si dovrà predisporre un tubolare in ferro, adeguato, in quanto la traversa non è autoportante.
Si consiglia l'uso della livella per evitare il montaggio fuori bolla della traversa. Fissare la traversa alla parete o al supporto tramite tasselli d'acciaio M6 o equivalenti, fare attenzione alla testa della vite di fissaggio in quanto non deve superare 8 mm di spessore.
Devono essere rispettati i punti di fissaggio già presenti nella traversa. Fare attenzione durante la foratura e il fissaggio di non danneggiare il binario di scorrimento.
Una volta fissate tutte le viti, pulire accuratamente la guida bassa, eventuali impurità o sporcizia potrebbero interferire con lo scorrimento.

Prima di collegare elettronicamente la porta verificare manualmente lo scorrimento delle ante verificando che non esistano frizioni o ostacoli.
Una volta collegata la porta aspettare circa 30 o 40 secondi che la stessa effettui un settaggio delle corse delle ante scorrevoli, solo dopo questa fase la porta potrà funzionare in maniera corretta.
Tutte le nostre porte scorrevoli elettriche sono testate nella nostra ditta anche in condizioni di sbandata come da foto allegata, e prima di uscire dall'azienda hanno compiuto un ciclo di aperture consecutive per un tempo di circa 5 ore equivalente alle aperture a bordo di un anno.

6 – FUNZIONI PORTE SCORREVOLI ELETTRICHE

Premendo il pulsante verde alla sinistra del pannello display, si aprirà la porta.

Nelle prime sei posizioni menù i piezo assumeranno la colorazione verde fissa (si entra e si esce sempre).

Con porta chiusa a chiave il motore andrà in frizione, ed una rotazione cromatica dei piezo (rosso-verde-blu) indicherà tale chiusura.

I contatti per il monitoraggio in plancia che possono essere forniti a richiesta sono tre:

1. *Avvenuta chiusura con spade*
2. *Avvenuta chiusura con elettromagnete*
3. *Avvenuto gonfiaggio guarnizione*

Contatto allarme antincendio 1: il dispositivo provvede allo sgonfiaggio della guarnizione, se attiva, disattiverà l'elettromagnete in chiusura, leverà l'alimentazione al motore e la porta sarà manovrabile a mano.

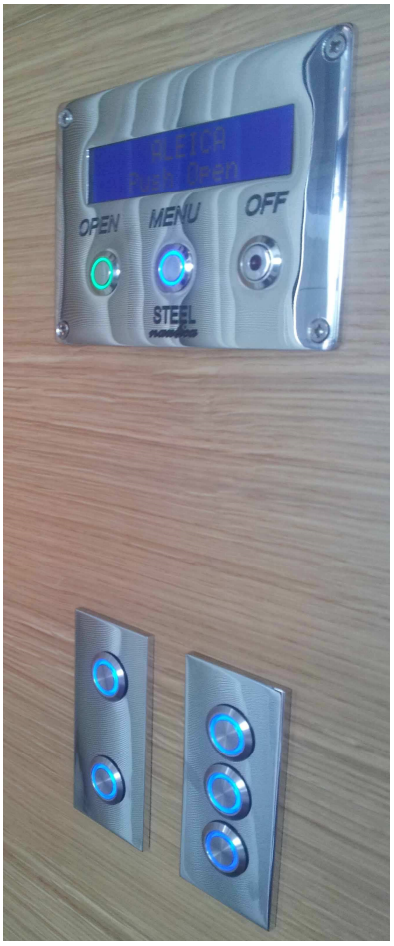
Contatto allarme antincendio 2 (ausiliario, versione con batteria tampone): il dispositivo provvede allo sgonfiaggio della guarnizione se attiva, apre completamente la porta, attiva l'elettromagnete in apertura e leverà l'alimentazione al motore lasciando la porta aperta completamente.

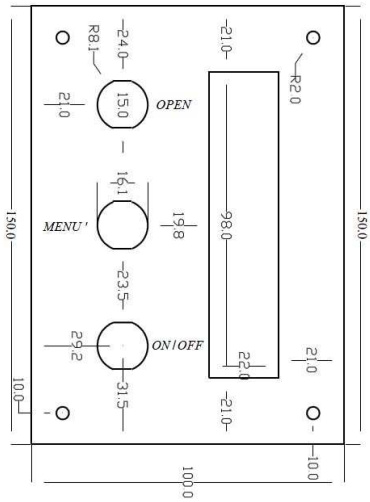
Gli elettromagneti verranno inseriti sia in apertura che in chiusura (quello in apertura funzionerà solo in allarme antincendio 2 inserito e quando sul display verrà selezionata la funzione OPEN).

La termica motore quando entra in funzione per un imprevisto aumento di temperatura del motore, mette in frizione il motore, ferma qualsiasi attività per 15 minuti e rende possibile la manovra della porta manualmente; i piezo segnaleranno l'evento lampeggiando di rosso.

La nostra fornitura comprende il motore brushless Daihatsu modello 30NII con termica motore montata (non bisogna assolutamente modificare il cavo in dotazione né accorciarlo né allungarlo). E' consigliabile per un migliore e più duraturo funzionamento del motore, navigare o stare ancorati in rada con porta chiusa e guarnizione gonfiabile inserita. In caso di utilizzo della porta in assenza di alimentazione (volontaria o accidentale) è fondamentale la chiusura a chiave dopo la movimentazione manuale per avere un ciclo corretto al momento della riattivazione.

Su richiesta è possibile fornire una tastiera a combinazione numerica, oppure una tastiera con lettore di prossimità completo di 5 badges portachiavi e altrettante card Modello LCS-P / EX5-P che permetteranno l'ingresso a bordo solamente ai possessori di tali dispositivi.





7 – DISPLAY MENU

Il nostro display di forma rettangolare delle dimensioni di 100 x 150 mm potrà essere realizzato con diverse finiture quali nero, bianco oppure tutti i colori della gamma RAL inoltre la finitura potrà essere in alluminio anodizzato oppure in acciaio inox aisi 316L finitura lucida oppure scotch bright.

- ***Push Half Open*** *: Inserendo questa funzione interagendo col pulsante a led blu MENU, la nostra porta scorrevole si aprirà solo per metà corsa ma solo dopo aver premuto il bottone con led luminoso colore verde OPEN, permettendo ai condizionatori interni della vostra imbarcazione di lavorare in maniera ottimale senza dissipare la temperatura ottimale creata negli ambienti interni.*

- ***Push Open*** *: Inserendo questa funzione interagendo col pulsante a led blu MENU, la nostra porta scorrevole si aprirà interamente ma solo dopo aver premuto il bottone con led luminoso colore verde OPEN, permettendo ai fruitori della stessa di una comoda uscita sfruttando per intero la corsa delle nostre ante scorrevoli.*

- ***Half Automatic*** *: Inserendo questa funzione interagendo col pulsante a led blu MENU, la nostra porta scorrevole si aprirà interamente grazie ai lettori di prossimità inseriti a soffitto della vostra imbarcazione sia nella parte interna che in quella esterna, permettendo ai condizionatori interni della vostra imbarcazione di lavorare in maniera ottimale senza dissipare la temperatura ottimale creata negli ambienti interni.*

- ***Automatic*** *: Inserendo questa funzione interagendo col pulsante a led blu MENU, la nostra porta scorrevole si aprirà interamente grazie ai lettori di prossimità inseriti a soffitto della vostra imbarcazione sia nella parte interna che in quella esterna, permettendo ai fruitori della stessa di una comoda uscita sfruttando per intero la corsa delle nostre ante scorrevoli.*

- ***Half Open*** *: Inserendo questa funzione interagendo col pulsante a led blu MENU, la nostra porta scorrevole si aprirà per metà corsa e rimarrà bloccata in questa posizione, permettendo ai fruitori della stessa una uscita continuativa senza dover andare a gravare sul motore stesso.*

- ***Open*** *: Inserendo questa funzione interagendo col pulsante a led blu MENU, la nostra porta scorrevole si aprirà interamente e rimarrà bloccata in questa posizione, permettendo ai fruitori della stessa una uscita continuativa sfruttando per intero la corsa delle nostre ante senza dover andare a gravare sul motore stesso.*

- ***Seal*** *: Inserendo questa funzione interagendo col pulsante a led blu MENU, la nostra porta scorrevole farà gonfiare, una guarnizione gonfiabile per mezzo di un gruppo pneumatico a 12 Volt controllato totalmente dal sistema elettronico, rendendo la porta stagna perimetralmente ed un isolamento maggiore sia termico che acustico. Con questa funzione inserita si potrà entrare o uscire interagendo coi pulsanti piezo a luce blu, le nostre movimentazioni dotate di un automatismo permetteranno l'apertura solo dopo alcuni secondi, la guarnizione potrà sgonfiarsi regolarmente preservandola dallo sfregamento con le ante impedendo lacerazioni.*

- ***Off*** *: Inserendo questa funzione interagendo col pulsante a led rosso OFF, alla nostra porta scorrevole ed al nostro display verrà tolta completamente l'alimentazione rendendola praticamente una porta manuale e così dovrà movimentarsi.*

- ***Lock*** *: Inserendo questa funzione interagendo col pulsante a led blu MENU tenendolo premuto per 3 secondi, la porta si chiuderà (non si entra e non si esce). Il colore dei pulsanti piezo sulle porte diventerà rosso fisso acceso. Per sbloccarla basta premere nuovamente il pulsante MENU.*

In caso di guasto oppure di malfunzionamento per visualizzare a display il contatto dell'assistenza tecnica, si deve mettere in funzione LOCK e tenere premuto il pulsante MENU finché non compare il numero di cellulare.

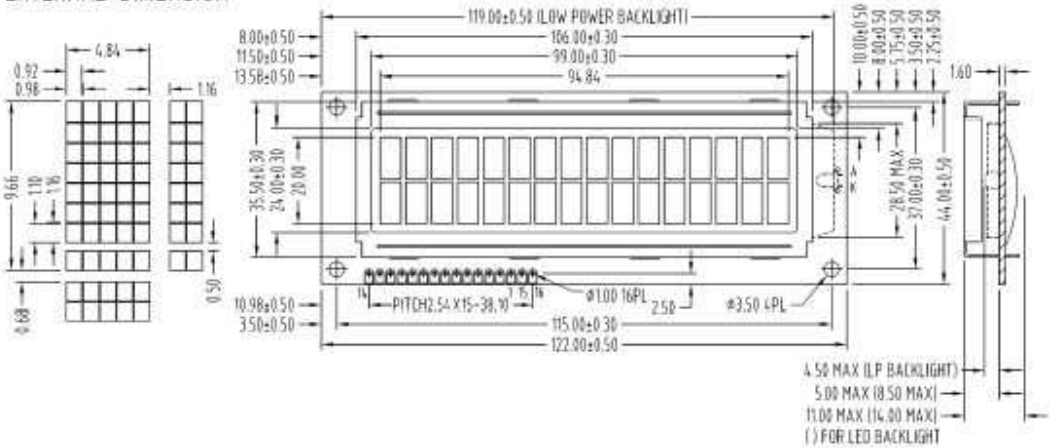
8 – Schemi Elettrici

CHARACTER LCD MODULES

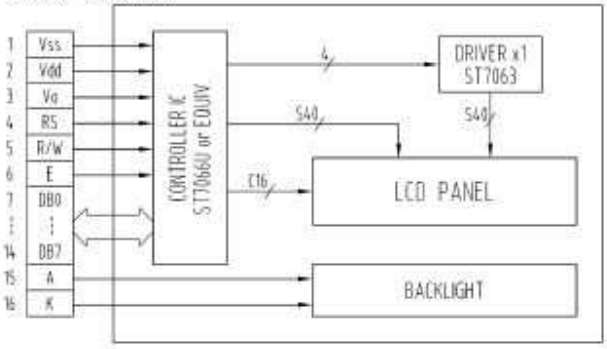
162F Series

16 Characters x 2 Line, 1/16 Duty, 1/5 Bias *DISPLAY TECH Ltd*

EXTERNAL DIMENSION



BLOCK DIAGRAM



INTERFACE PIN CONNECTIONS

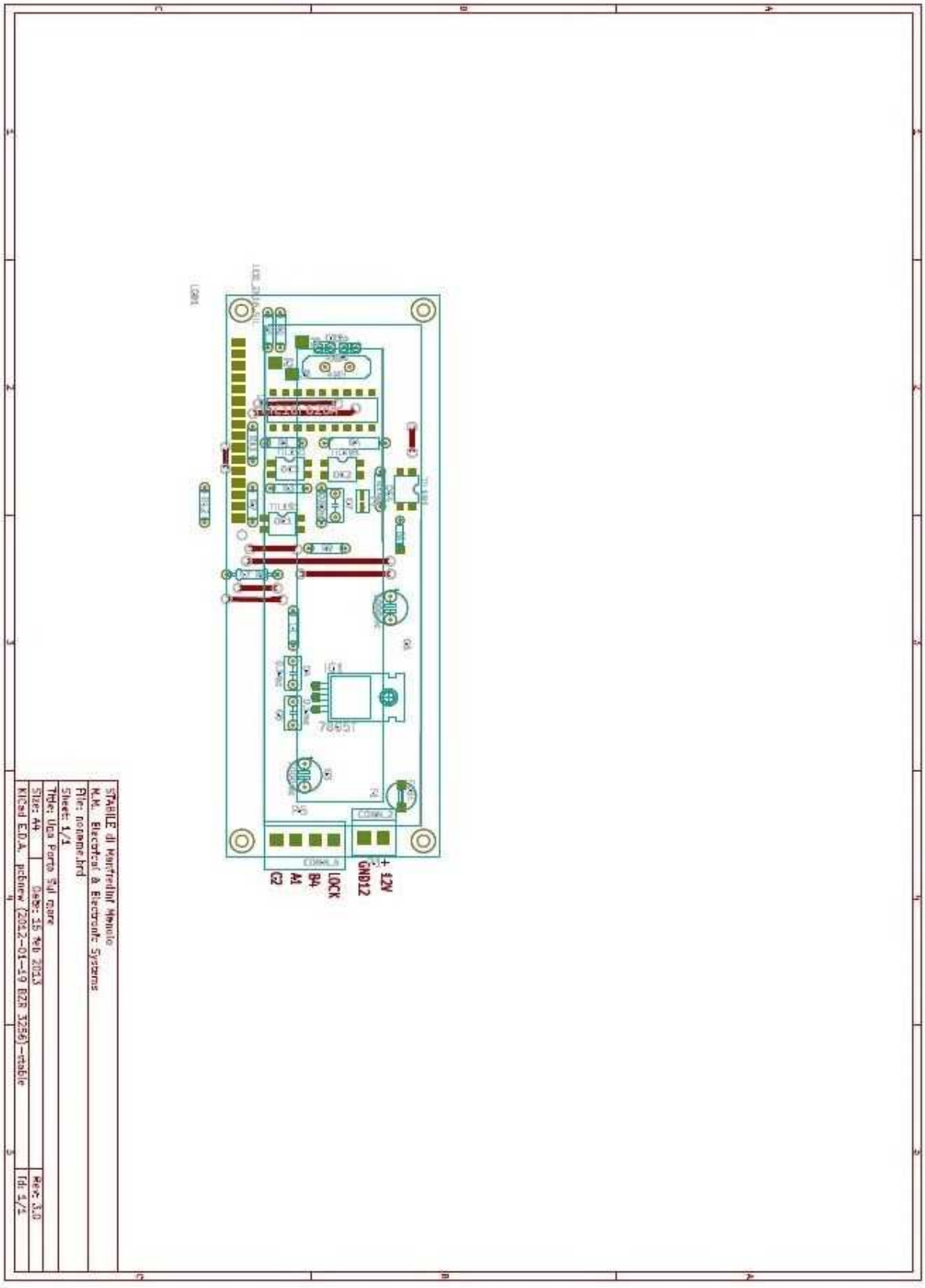
PIN NO.	SYMBOL	LEVEL	FUNCTION
1	Vss	0V	Ground
2	Vdd	5.0V	Supply voltage for logic
3	Vo	---	Input voltage for LCD
4	RS	H/L	H : Data signal, L : Instruction signal
5	R/W	H/L	H : Read mode, L : Write mode
6	E	H,H→L	Chip enable signal
7	DB0	H/L	Data bit 0
⋮	⋮		⋮
14	DB7		Data bit 7
15	A	---	Backlight anode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

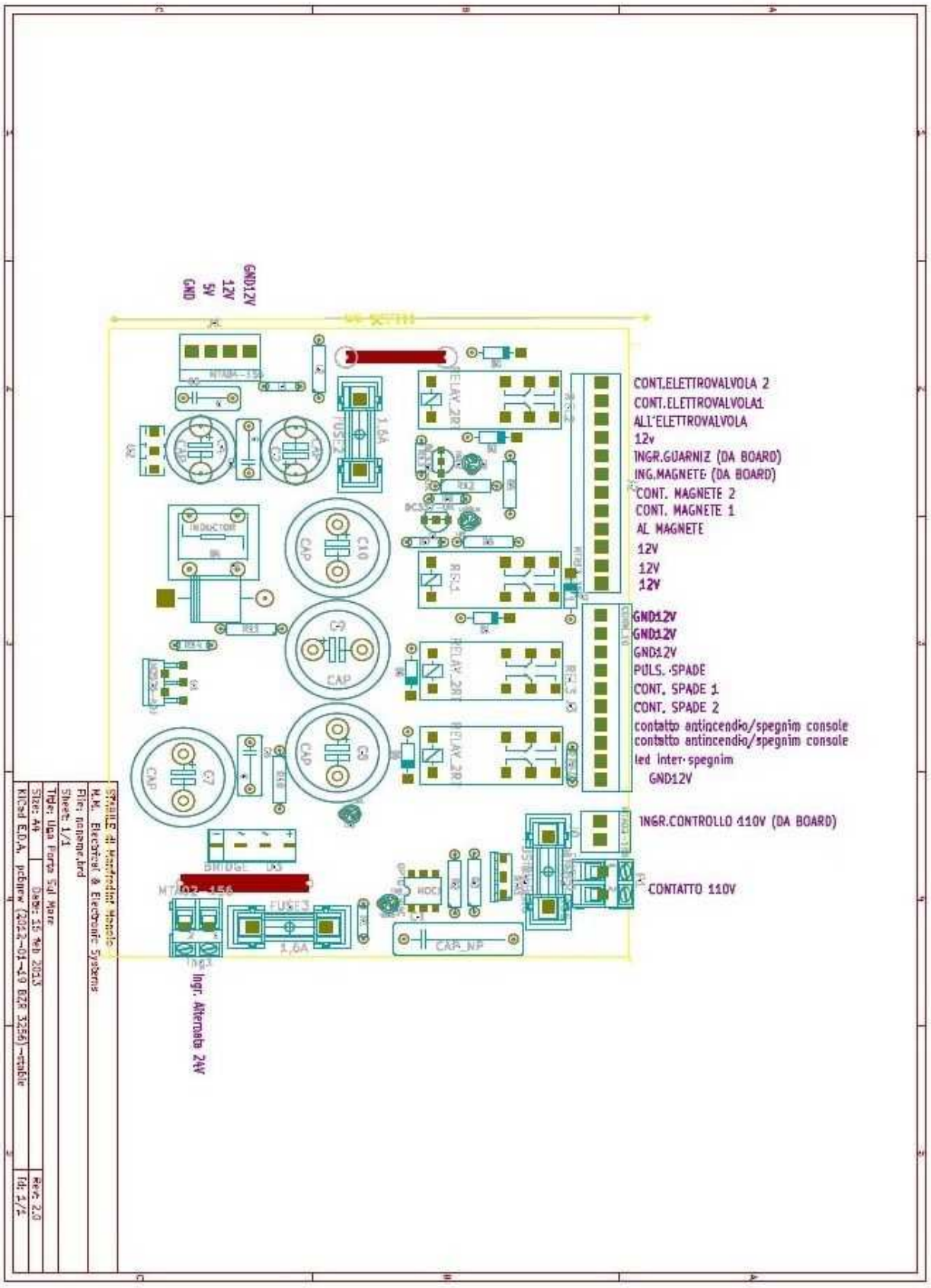
MECHANICAL SPECIFICATIONS

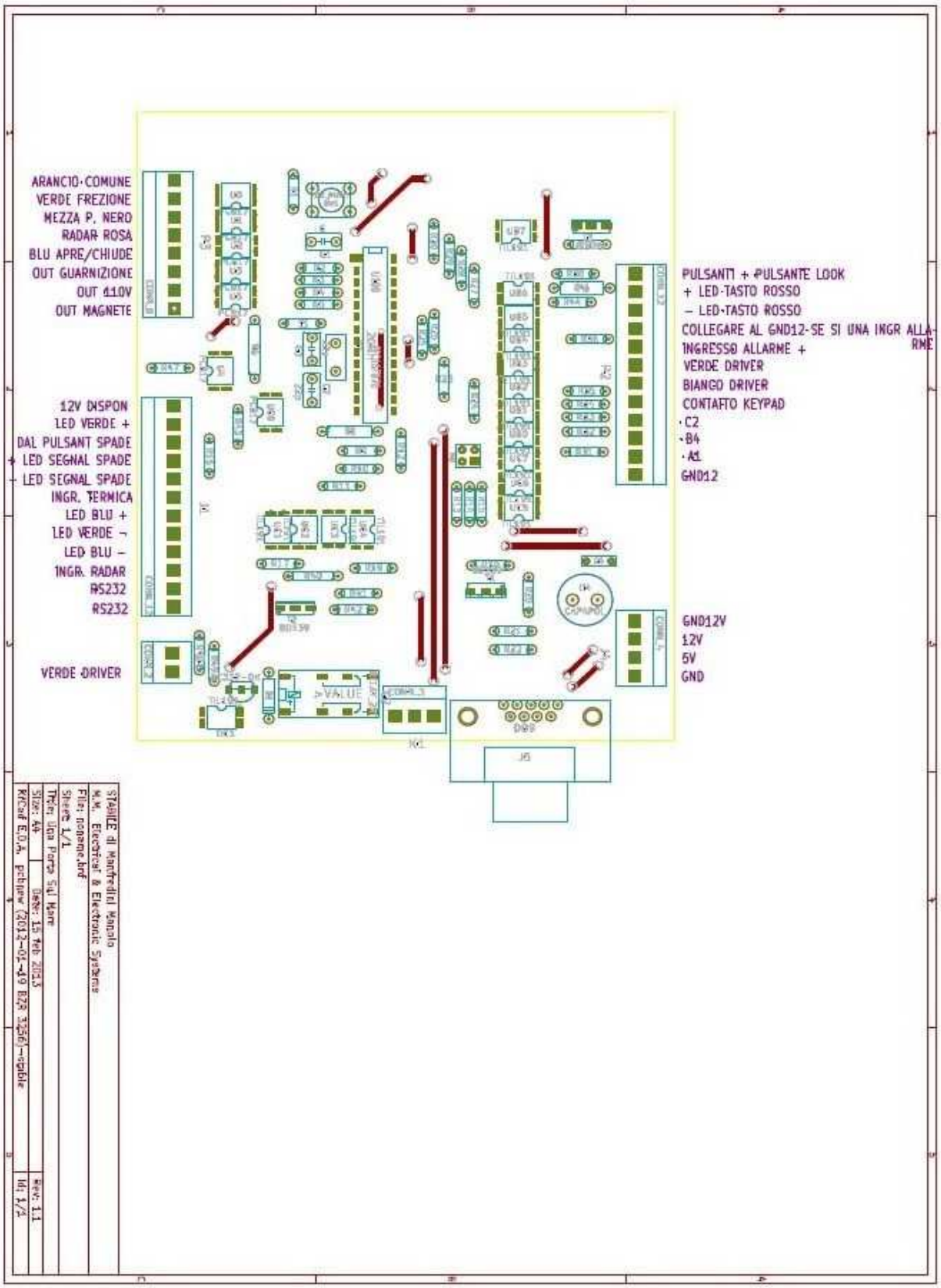
ITEM	NOMINAL DIMENSIONS	UNIT
Module Size (W x H x T)	122 x 44 x 11.0 (14.0 W/LED BACKLIGHT)	mm
Viewing Area (W x H)	99.0 x 24.0	mm
Character Pitch (W x H)	6.00 x 10.34	mm
Character Size (W x H)	4.84 x 9.66	mm
Character Font	5 x 8 DOTS	---
Dot Pitch (W x H)	0.98 x 1.16	mm
Dot Size (W x H)	0.92 x 1.10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

LED BACKLIGHT ELECTRICAL CHARACTERISTICS

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


STABILE di Monteriolo Manuela
M.M. Electrical & Electronic Systems
File: noname.brd
Sheet: 1/1
Title: Uga Porta Sul mare
Size: A4
Date: 15 Feb 2023
Rev: 3.0
Kicad E.D.A. pcbnew (2022-01-19 BZR 3256)-stable
Id: 1/1
+12V
GNDI2
LOCK
A1
B4
C2


GND12V
12V
5V
GND
CONT.ELETTROVALVOLA 2
CONT.ELETTROVALVOLA1
ALL'ELETTROVALVOLA
12v
INGR.GUARNIZ (DA BOARD)
ING.MAGNETE (DA BOARD)
CONT. MAGNETE 2
CONT. MAGNETE 1
AL MAGNETE
12V
12V
12V
GND12V
GND12V
GND12V
PULS. SPADE
CONT. SPADE 1
CONT. SPADE 2
contatto antincendio/spegnim console
contatto antincendio/spegnim console
led inter. spegnim
GND12V
INGR.CONTROLLO 110V (DA BOARD)
CONTATTO 110V
Ingr. Alternata 24V
M.M. Electrical & Electronic Systems
File: noname.brd
Sheet: 1/1
Title: Liga Forza Sul Mare
Size: A4
Date: 15 Feb 2013
KiCad E.D.A. pcbnew (2012-04-09 BZR 3256)-stable
Rev: 2.0
Id: 1/1



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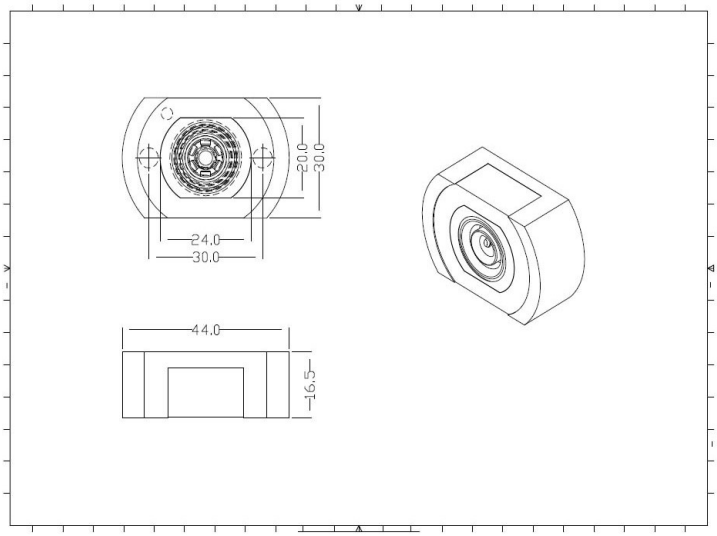
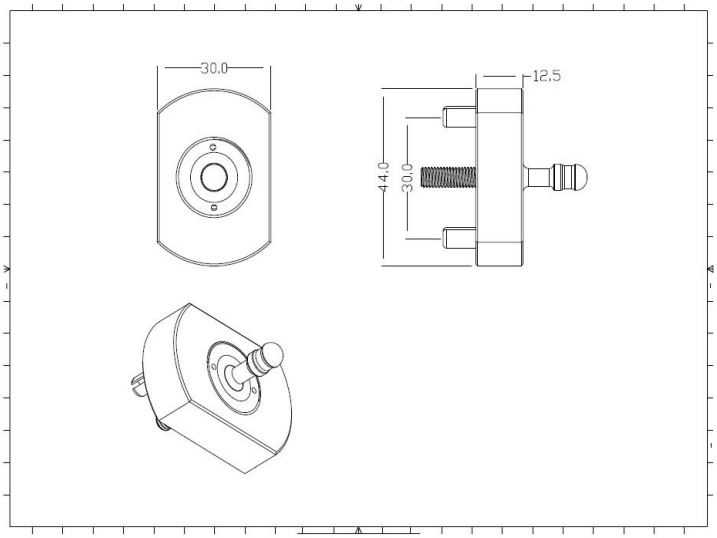
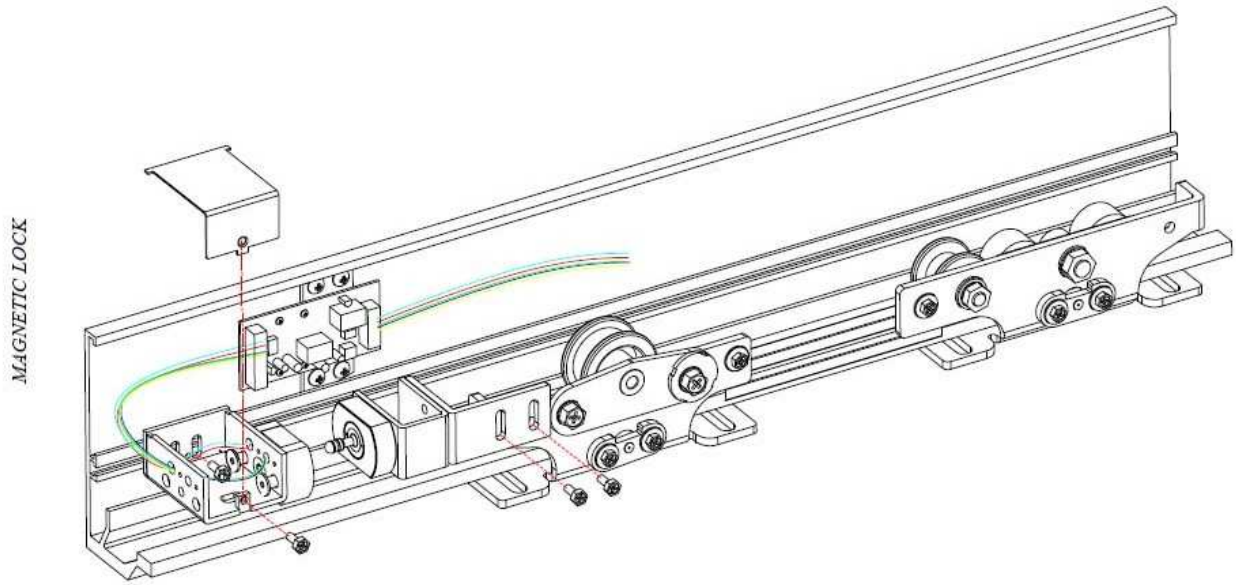
Il magnete elettromeccanico montato sulle nostre porte è stato inserito per mettere in sicurezza i meccanismi di chiusura e di apertura ed inoltre permetterà di allungare la vita del motore.

Quando la porta sarà chiusa oppure aperta tale posizione sarà mantenuta dalla messa in funzione di tale meccanismo e non graverà più sul motore.

La forza di bloccaggio in media è di 6800 N (680 kgf)







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9 – Accessori

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

- 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

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)

MATERIALS

- Case : bright chrome plated brass or 316L stainless steel
- Terminals : multi-wire leads 0,22 mm², length 300 mm (11.81)

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.

PBA	•	A	F	•	000	•	••	X

SERIES

Models
- **R1** Bushing Ø 16, flat
- **R2** Bushing Ø 22, flat
- **R9** Bushing Ø 19, flat
- **R5** Bushing Ø 16,with finger location (non-illuminated only)
- **R6** Bushing Ø 22, with finger location

R2 and R6 not available with illuminated ring.

Terminals
- **F** Flying leads

Ratings
- **000** 200mA max. at 6VAC/DC - 50mA max. at 24VAC/DC

LED colours
- **0B** Blue
- **0G** Green
- **0S** Red
- **0Y** Yellow

Electrical function
- **A** NO (pulse)

Colours/materials
- **A** Bright chrome plated brass
- **B** 316L stainless steel

Type
- **M** One-piece bushing (non-illuminated)
- **A** Illuminated ring (Ø 16, 19 & 22 mm)
- **L** Illuminated dot (Ø 22 mm)

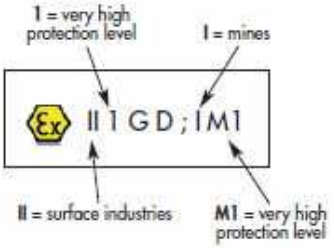
Approval
- **X** ATEX

PBA series

ATEX approved piezo switches

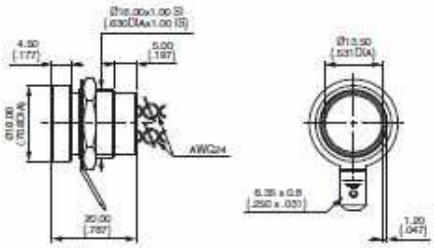
Illuminated or non-illuminated

- **Highest classifications**
- **Universal**



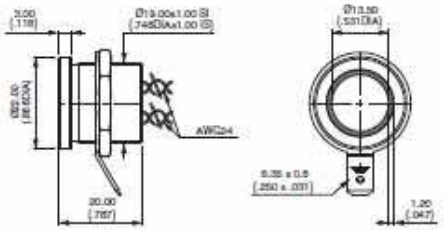
Dia. 16 (.630) bushing - illuminated ring

Stainless steel 316L, blue LED
PBAR1AFB000A0BX



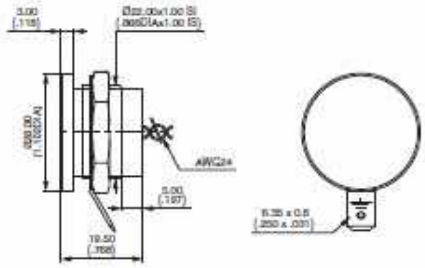
Dia. 19 (.748) bushing - illuminated ring

Stainless steel 316L, blue LED
PBAR9AFB000A0BX



Dia. 22 (866) bushing - non-illuminated

Stainless steel 316L
PBAR2AFB000MX



Cooperativa STEEL Works

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 4691904 - Fax : +39 010 8540279
http://www.coopsteelworks.it - E-mail : coopsteelworks@gmail.com

PBA series

ATEX approved piezo switches

Certificate

(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

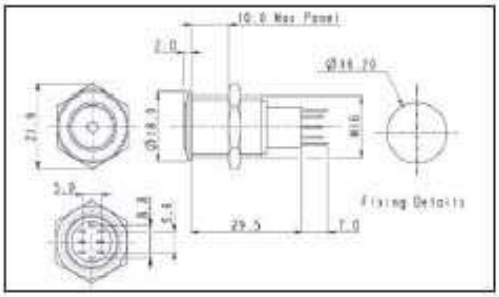
The Director of the Organisation Certified,
By delegation
D. CHARPENTIER
Deputy Manager of Certification

Parc Technologique Alata BP 2 F-60550 Verneuil-en-Halatte
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

Stainless Steel Illuminated Latching

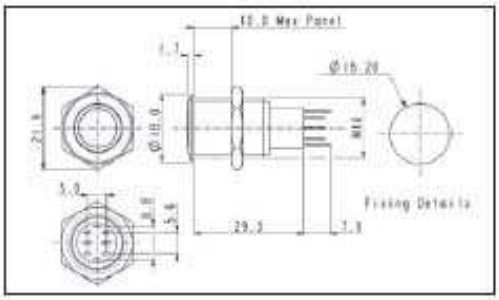
FRONT PANEL MOUNTING

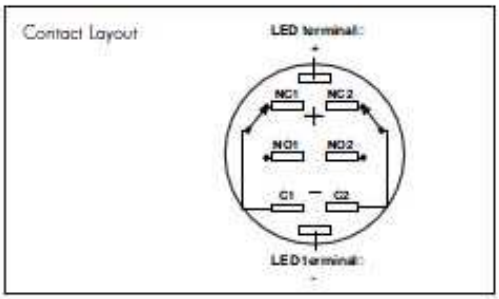
- Dot Illuminated
- 18mm bezel diameter
- D.P.C.O.
- 3A, 250V ac
- Red, Green, Amber or Blue Illumination
- Separate LED Terminals



FRONT PANEL MOUNTING

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





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 Green Amber Blue	Red Green Amber Blue
Part No.	/RD /GN /AM /BL	/RD /GN /AM /BL
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
RoHS	Compliant	Complaint

Cooperativa STEEL Works

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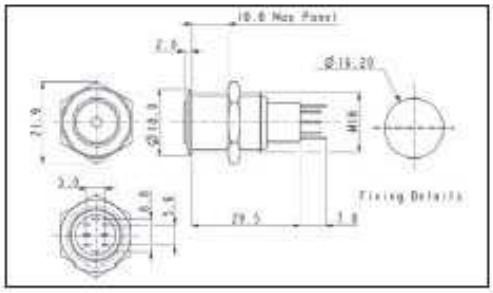
http://www.coopsteelworks.it - E-mail : coopsteelworks@gmail.com

Stainless Steel Illuminated Momentary

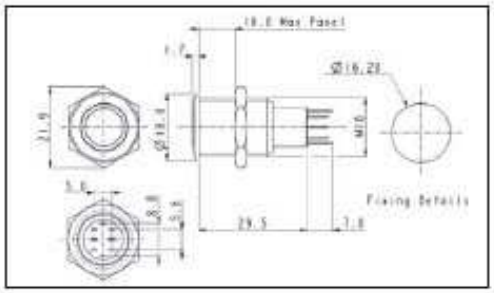
FRONT PANEL MOUNTING

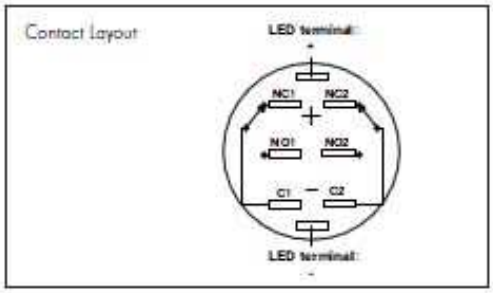
- Dot Illuminated
- 18mm bezel diameter
- D.P.C.O.
- 3A, 250V ac
- Red, Green, Amber or Blue Illumination
- Separate LED Terminals



FRONT PANEL MOUNTING

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





Specification	MP0045/1D1/Colour/Voltage	MP0045/1D2/Colour/Voltage
Terminations:	Solder Tags	Solder Tags
Illumination:	Dot	Ring
Switching:	D.P.C.O. Momentary Action	D.P.C.O. Momentary Action
Max. Switch Rating:	3A, 250Vac	3A, 250Vac
LEDs		
Colours Part No.	Red /RD; Green /GN; Amber /AM; Blue /BL	Red /RD; Green /GN; Amber /AM; Blue /BL
Voltage Part No.	12Vdc /012; 220Vdc /220	12Vdc /012; 220Vdc /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: Electrical:	200,000 (min) 30,000 (min)	200,000 (min) 30,000 (min)
Rear Nut Fixing Torque:	12Nm	12Nm
Materials Mouldings: Tags: Switch Body & Button:	Nylon Brass, Silver Plated Stainless Steel (Polished)	Nylon Brass, Silver Plated Stainless Steel (Polished)
Variants	Prominent Button, details on request	Prominent Button, details on request
RoHS	Compliant	Complaint

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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

NF 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

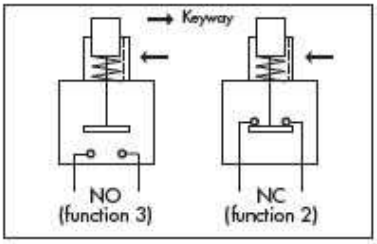
Standard and special hardware are presented in section I.

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

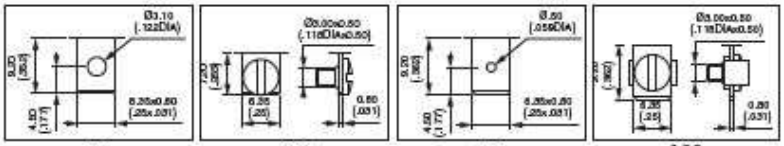
1200 series

Momentary pushbutton switches - round plunger

Solder lug/quick-connect terminals - screw terminals



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



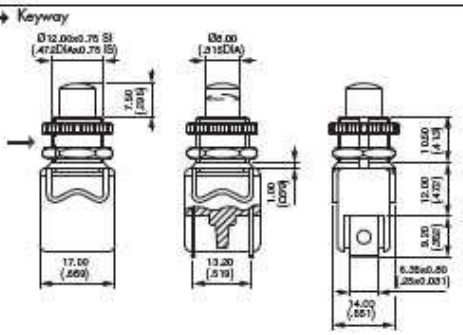
MODEL STRUCTURE

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

B

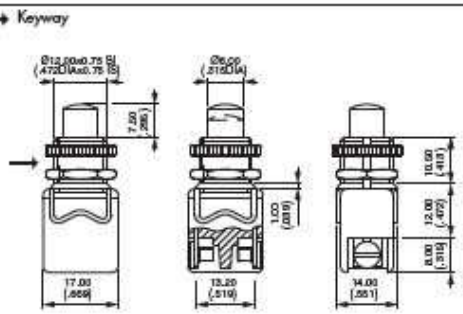
Solder lug/quick-connect terminals

1212		Normally Closed
1213		Normally Open



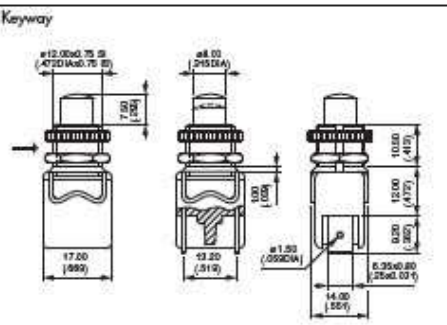
Screw terminals

1222		Normally Closed
1223		Normally Open



Normalized quick-connect terminals

1232		Normally Closed
1233		Normally Open



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asy-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.

eliable sensor heads

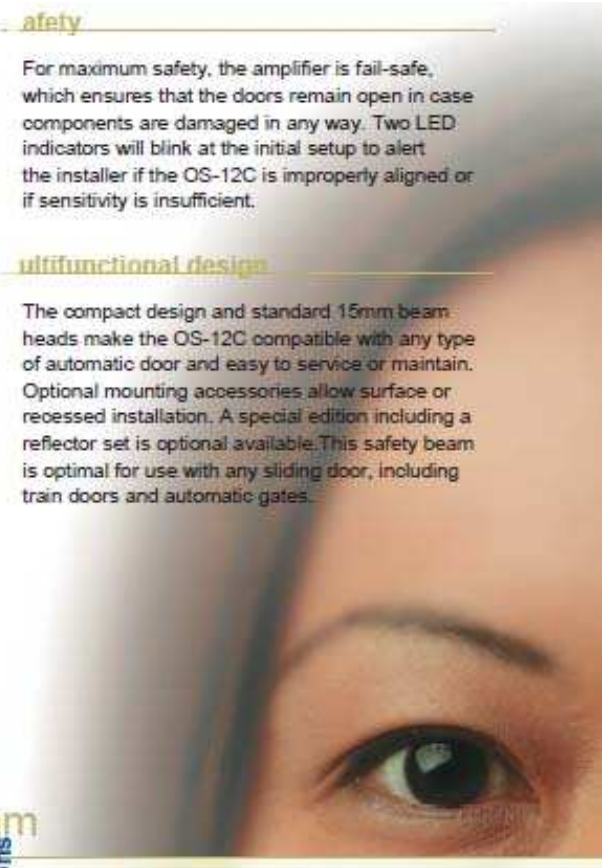
The Optex SH-7MC/SH-10MC sensor heads are recognized by door professionals worldwide for their reliability and resistance to sunlight and other interference. Quick-disconnect plugs make installation and service fast and easy. Cables are available in 2 lengths, 7m (23 feet) or 10m (33 feet).

afety

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.

ultifunctional 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.

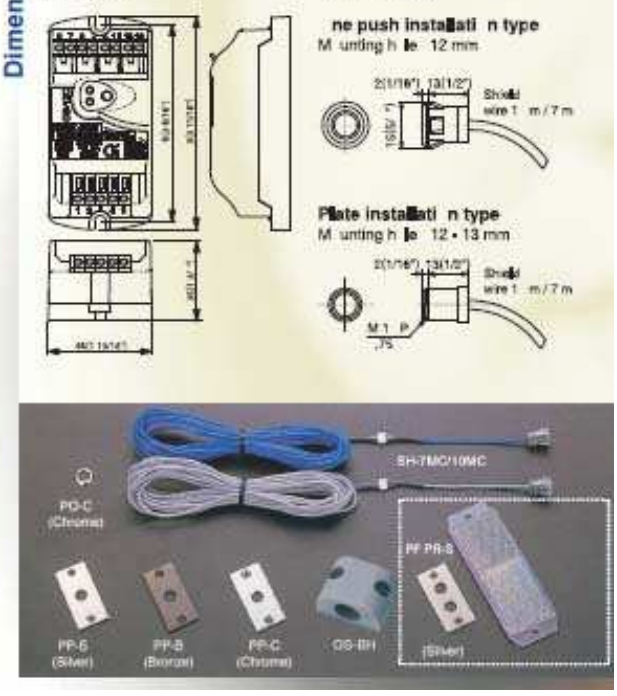


Miniature photo electric Safety Beam

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
Weight	Amplifier 65 g (2.5oz)
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



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OPTEX

Beam Switch OS-12C / OS-12C (HT0.1)

English

Single / Double Beams

59118I3 AUG 2006

CE

MANUFACTURER' S STATEMENT

When using the apparatus, please read this manual thoroughly to operate correctly. In this manual, a variety of illustrations and expressions are shown to prevent you and other people from undergoing any injury or damage of property during the use of the apparatus.
The meanings of the expressions are as follows. Please learn the following first and then read the contents of this manual.

⚠Warning	Indicates that the disregard of the warning may result in serious injury or death.
⚠Caution	Indicates that the disregard of the caution may result in injury or physical damages.

⚠Warning Danger of electric shock.
Be sure to turn off the power supply when carrying out electrical works.
Do not wash, disassemble, rebuild or repair the sensor by yourself.

⚠Warning Danger of getting caught between the door. (Please explain to the building owner/operator)
Even when someone stops on the threshold, the door closes unless the light beam is cut off (The beam switch outputs the signal only when the light beam is cut off). The beam switch is not designed as an apparatus to prevent accidents. It should be used strictly for the purpose of an auxiliary apparatus for safety.

Note
1. When the equipment is in failure, the door is held open. (This is the function to secure the safety of traffic.)
2. Only use the sensor as specified in the supplied instructions.
3. Be sure to install the sensor in accordance with the local laws and standards of your country.
4. Before leaving the jobsite, be sure that this sensor is operating properly and instruct the building owner/operator on proper operation of this sensor.

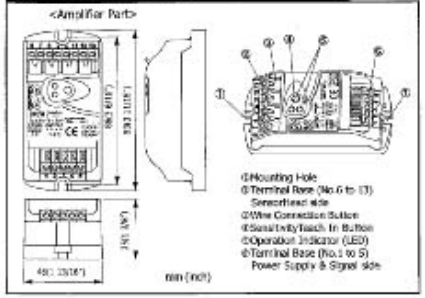
SPECIFICATIONS

Model	OS-12C / OS-12C (HT0.1)
Installation Distance	Less than 10m (32' 10")
Detection Method	Point to Point Near Infrared Light Beam
Power Supply	12 to 24V AC / 12 to 30V DC
Current Drain	160mA MAX
Operation Indicator	BEAM1 / BEAM2 Stand-by : GREEN ON / RED ON Detection Active : GREEN OFF / RED OFF Insufficient sensitivity : GREEN BLINK / RED BLINK
Output Contact	N.O. / N.C. 30V 0.3A (Resistance Load)
Response Time	Approx. 0.1 sec (from the moment of beam cut-off)
Relay Hold Time	Approx. 0.5 sec / OS-12C, 0.1 sec / OS-12C (HT0.1) (from the moment of beam input)
Operating Temperature	-20°C to +55°C (-4°F to +131°F)
Weight	Amplifier: 65g (2.3oz)
Component	1 Amplifier, 2 Mounting screws, 1 Manual (Optional sensor head is necessary for operation.)

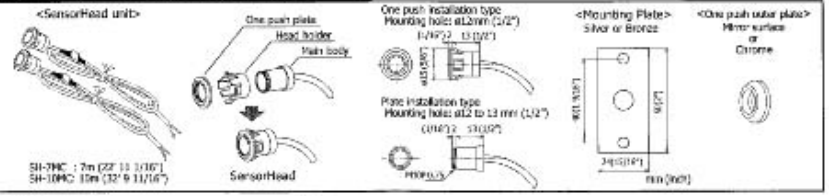
Note 1) It is possible to use OS-12C as an amplifier for 1 or 2 beam use by attaching a separately sold SensorHead.
Note 2) The specifications herein are subject to change without prior notice due to improvements.

OUTER DIMENSIONS

<Amplifier Part>



SEPARATELY SOLD OPTIONAL ITEMS

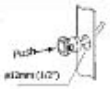


INSTALLATION

1 Mounting the SensorHeads (Option)

① One push installation type

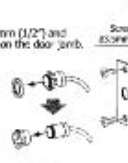
Drill a mounting hole ø12mm (1/2") on the door jamb.
Put the sensor heads into the mounting hole.



② Plate installation type

Drill a mounting hole ø12 to 13 mm (1/2") and two screw hole ø3.5 mm (1/8") on the door jamb.

Remove one push plate and head holder from sensor head. Affix the main body to the plate.
Screw the plate to the door jamb.



◆On drilling the mounting holes◆

1. Be sure to drill holes so that the SensorHeads faces each other.
2. After drilling the holes, remove the flashes around the holes. Otherwise, the apparatus may not operate properly as the SensorHead rides on the flashes causing tilts.

◆On setting of one push plate◆

Be sure to push the SensorHeads in securely. If the SensorHeads are not secured, it may cause an unnecessary activation signal.

◆Installation Site Environment◆

Do not place any swaying object which cuts off the beam path. Otherwise the door may be held open.

◆Distance between the SensorHeads◆

Be sure to set the distance to less than 10m (32' 10"). If the distance is more than 10m (32' 10"), the door may be held open.

2 Installing the amplifier

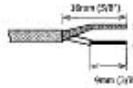
Use the provided screws (2 places).
*The size of the hole is ø3.5 mm (1/8")

INSTALLATION (CONTINUED)

3 Wiring SensorHeads

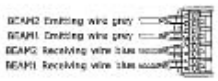
◆Cutting the wires◆

When cutting the wires, prepare the tip of the wires as follows:



⚠Warning Danger of electric shock.
Before starting the procedure, be sure to turn off the power supply.

⚠Caution Risk of breaking the apparatus.
When cutting the wires, be sure to prepare the tip of the wires as shown on the left. If the covers of the shielding wires are picked off too long, the adjacent tips can easily contact each other causing breakdown of the apparatus.



Insert the wires to Terminal Block 6-13 as shown on the left.

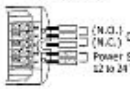
◆Prohibition of extending wires◆

Do not extend the wires. Otherwise, the apparatus may be influenced by noises causing malfunction.

Insert the wire as you press the Wire Connection Button. Then, release the finger. Be sure to insert both the shield and the conductor.

4 Connecting power supply wires and output signal wires

Insert the wires to Terminal Block 1-5 as shown below.



⚠Caution Risk of breaking down the apparatus.
Be sure to connect the power supply wires to terminal 1 and 2. If wired wrongly, the apparatus may break down.

◆Stated connection capacity◆
·Solid(Rigid)ø0.4-ø1.2mm (AWG26-16)
·Stranded(Flexible)0.3mm²-0.75mm² (AWG22-20)
(Strand diameter shall be more than 0.18mm)

◆Warning about wiring◆
Do not connect more than 2 wires to one terminal.

Press the Wire Connection Button of the power supply signal side and insert the wires. Be sure that all the wires are securely connected.

ADJUSTMENT & CHECKING

1 Sensitivity Adjustment

① Press Sensitivity Teach In Button for more than one second. When the green and red LED blinking becomes green and red (no blinking), the setting is completed. The proper sensitivity is adjusted automatically.

② Check the auto-set adjustment with the table below.

LED	State
Green/Red ON	The sensitivity has been set correctly. The adjustment is completed. (When using two beams)
Green ON	The sensitivity has been set correctly. The adjustment is completed. (When using one beam)
Green/Red Blink alternately	The sensitivity is insufficient. Check the followings.

Checking Item
If there is no person or object in the detection area.
If the lens surface is clean.
If the wire connections are done properly.
If the emitting/receiving SensorHeads are mounted straight. (They should not be tilted.)

◆Sensitivity Adjustment◆
Set the sensitivity in the environment same as the actual regular use. Also, be sure that there is no swaying object in the area.

◆When changing the number of Sensor Head◆
Be sure to press the Teach In Button. All SensorHeads can be adjusted at once. The apparatus does not operate properly if Teach In Button is not pressed.

◆Re-setup of sensitivity◆
For the maintenance, press Sensitivity Teach In Button to readjust. The sensitivity is set automatically.

2 Checking the operation

Check the operation of the apparatus according to the following chart.

Entry motion (Image)					
Operation Indicator	OFF	ON (Green/Red)	OFF	ON (Green/Red)	
Status	Power OFF *Failure of the apparatus	Stand-by status No person or object exists between the SensorHeads	While a person or object is passing in the beam path	After the traffic has passed, the status becomes stand-by.	
Output N.O.	CLOSE	OPEN	CLOSE	OPEN	
Output N.C.	OPEN	CLOSE	OPEN	CLOSE	

Inform the following items to the building owner/operator

1. When turning the power on, always walk-test the sensor to ensure proper operation.
2. Always keep the Lens surface clean. If dirty, wipe the lens with a damp cloth (Do not use any cleaner or solvent).
3. Do not wash the sensor with water.
4. Do not disassemble, rebuild or repair the sensor yourself; otherwise electric shock may occur.
5. Contact your installer or the sales engineer if you want to change the settings.
6. Do not place an object that moves or emits light in the detection area. (Ex. Plant, Illuminaldh etc.)
7. Do not paint the Lens surface.

TROUBLESHOOTING

Trouble	Possible Cause	Solution
Does not operate	Irregular supply voltage	Adjust to the stated voltage.
	Wire cut or bad connection	Check the wiring.
	Inappropriate installation distance or condition	Check the installation distance and condition.
	Inappropriate installation distance or condition	Check the installation distance and condition.
Operates by itself (Ghosting)	Something worrying between the SensorHeads cutting off the beam.	Remove the obstruction.
	Dirty lens.	Remove the dirt.

Contact your installer or the sales engineer if:
- you need to change the settings or replace the sensor.
- the trouble still persists after checking and remedying as described above.

FCC STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) The device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
Warning:
This equipment has been tested and found to comply with the limits for a Class B device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- consult the dealer or an experienced radio / TV technician for help.

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BEA
We open up New Horizons
A HALMA GROUP COMPANY

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

SENSOR AND HOUSING

LENS

SENSING FIELD ADJUSTMENT MASK

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 Fly ERT	 0.5 or 2 seconds 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

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 4691904 - Fax : +39 010 8540279
http://www.coopsteelworks.it - E-mail : coopsteelworks@gmail.com

SAFETY PRECAUTIONS

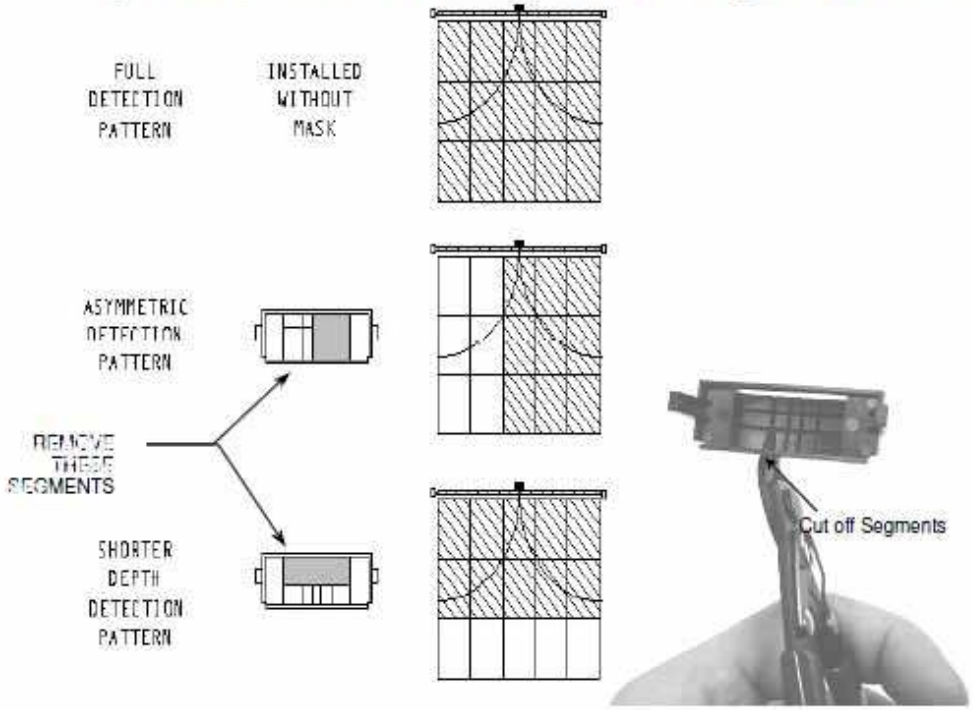
- Shut off all power going to the header before attempting any wiring procedures.
- Maintain a clean & safe environment when working in public areas.
- Be constantly aware of pedestrian traffic around the door area.
- Always stop pedestrian traffic through the doorway when performing tests that may result 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.**

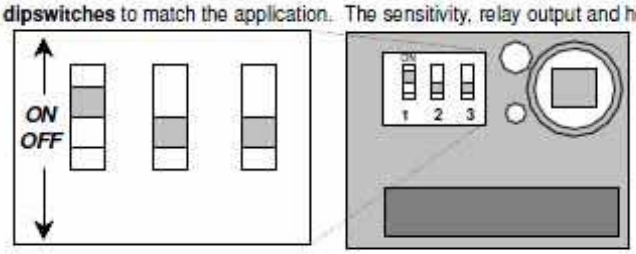


INSTALLATION INSTRUCTIONS (CON'T)

c. **Reinstall the mask** (if needed.) The mask can only by 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.

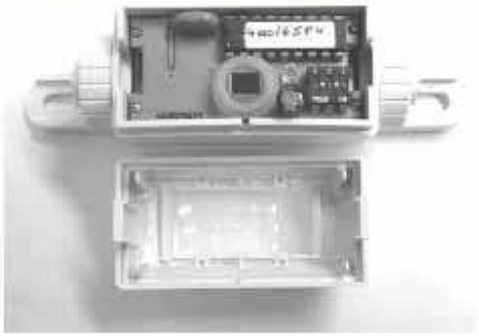
e. **Adjust the dipswitches** to match the application. The sensitivity, relay output and hold time can all be adjusted.



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.

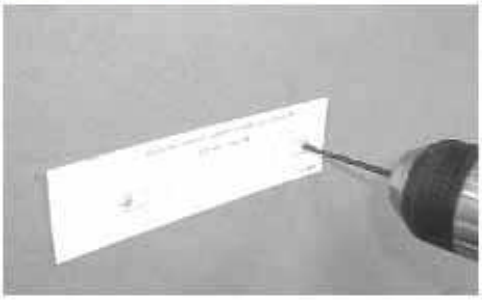
f. **Replace the cover.** The cover is keyed and may only be installed one way. Match the small tab in the center of the cover to the slot in the housing (see arrow.) Gently push the cover on until it snaps. It is easiest to insert both legs of the cover at once and then push the two pieces together.



MECHANICAL INSTALLATION

MOUNTING THE FLY

a. The sensor must be firmly fastened in order to avoid any vibrations.
b. Make sure there are no objects in the sensing field that could move.
c. Attach the template to the door.
d. Drill and pass the cable through the template.
e. 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.

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.

DAIHATSU

DAIHATSU
AUTOMATIC DOOR

Control box operation manual

Model: EDM NII

DAIHATSU DIESEL NHN CORP.

Osaka Japan

LIST No.3775

⚠	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.

Contents

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. *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)	⑩	DIP switch Switch1: Setting for open direction (Do not adjust Switch 2 & 3) Switch2&3: Must be in OFF position (Factory test use only)

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.

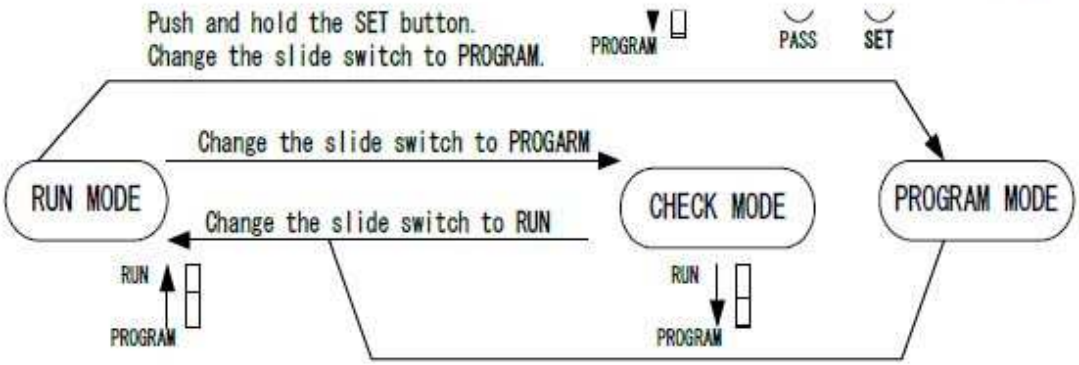
  At the same time, door stroke data (teaching) is cleared from the memory. Therefore it will be necessary for the control to relearn the door stroke. A self learning (teaching) operation will automatically commence after the run mode is selected again. Re-adjustment of settings may be necessary after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

D



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, breaking 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.

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.

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)

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 stoke 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.

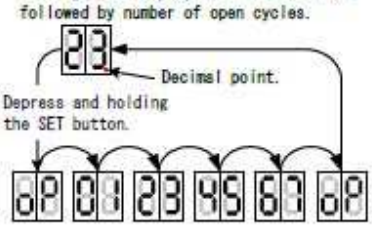
5.3 LED display – How to operate, read and change settings

RUN Mode

Normal operation

Open Counter

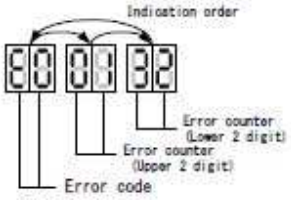
1. The LED indicator shows number of open cycles (door open counter) from 10 thousand to 990 thousand, except when the door is at full opened position.
2. This example indicates the door has opened more than 230 times.
3. A decimal point appears continuously when the door counter exceeds one million.
4. The LED Display will turn OFF 2 minutes after the door is closed.
5. The total number of door cycles can be read by depressing SET button and holding. LED display will indicate "oP" followed by number of open cycles.



This above example shows open counter value at 1,234,567 cycles

Error (Indicates Error which has just happened)

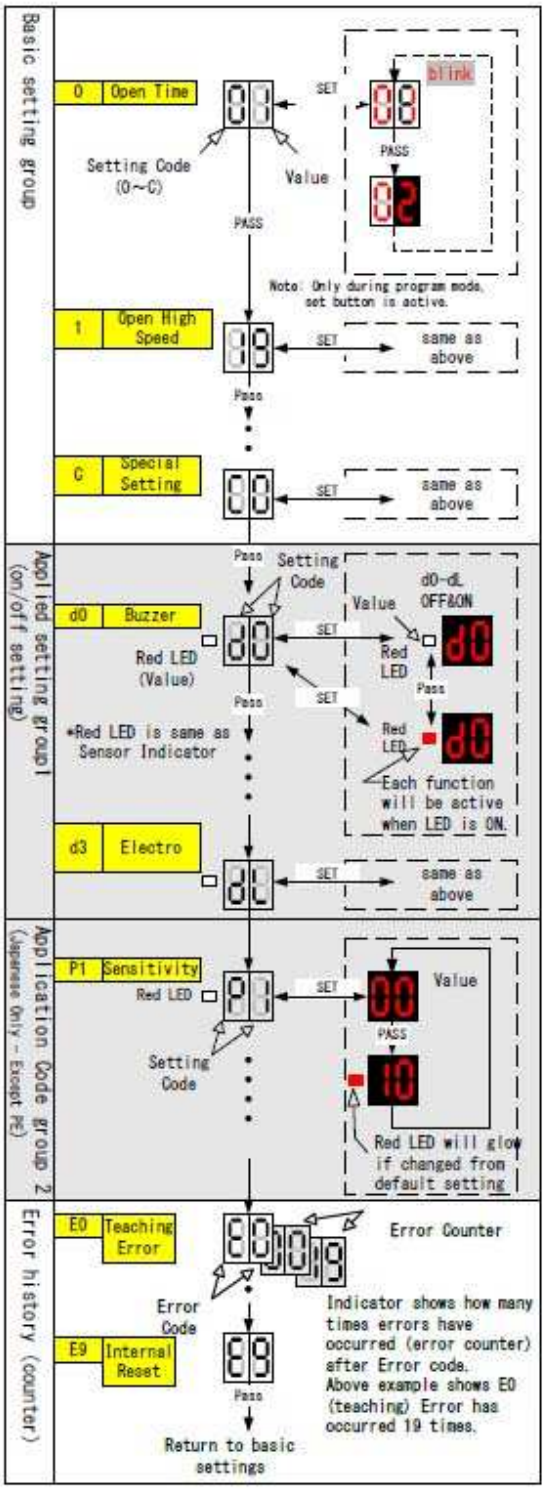
Error Indication



Error Counter Indicator
1. Indicator shows the error code and it's counter.
2. The value of each error is from 0000 to 9999. (Maximum value is 9999)

This above example shows when E0 error is happening and total counter of this E0 error is 132 times.

Check mode, Program mode



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

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.	PROGRAMED	MAX
d	L	TORQUE WHEN POWER ON	Set ON if the door force during the teaching cycle is too strong.	PROGRAMED	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).

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

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 breaking 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.

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 oush 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	Safty Beam	SBO (CSB)	Output while photocell is being detected
	UnLock	UL (CUL)	Output showing that an electric lock is unlocked

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 oparation
	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 Closeing.	PBC	Close
	Push Button for Stop.	PBS	Stop and stay until the other push button is depressed.
	Push Button for Half opeining.	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.

6.3 Signal layout on the extension boards.

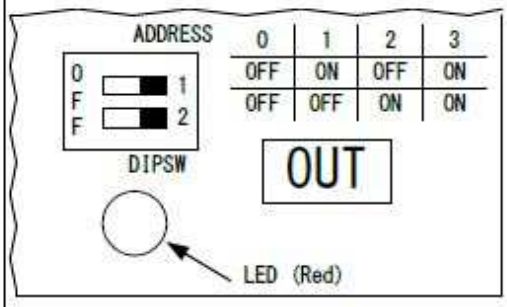
Output board [OUT]				Input Output board [I/O]				
0	1	2	3	4	5	6	7	Board address
OPN	WA	SBO		LOB	PBO	PS	PS	
CLS	ERR	UL		LCB	PBC	RS	RS	
STP	OE	-		LHO	PBS	HRS	HS	
HOP	CE	-		LCS	PBH	OSE	ES	
				SPC	IL	NT	AS	
				EO	PR	RS1	RS1	
				OE	OE	OE	OE	
				CE	CE	CE	CE	

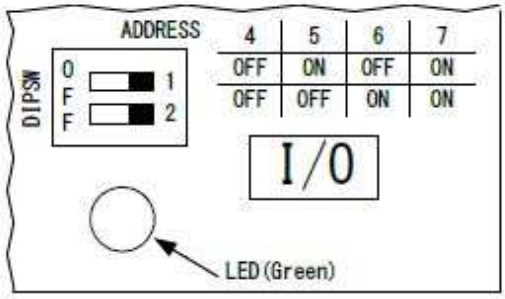
6.4 Corresponding table between Board address and DIP switch

	Output board [OUT]				Input Output board [I/O]			
Board address	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.

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	EDW 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 rincontra 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.	

10 – TASTIERA ESTERNA CON CODICI

LCS-P / EX5-P

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

- Gama 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

EX5

UK Features

: Operates on 12/24V AC/DC
: Backlit keys (metal / plastic)
: 99 User codes (0 to 8 digits)
: 30 sec lockout after 8 invalid codes
: 2 free tension LEDs (Red & Green)
: 2 relays (R1: 10A/24V DC /120V AC; R2: 2A/24V AC/DC)
: Relay in latch (00) or pulsed 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 CODIX bus
: Current Consumption: Standby: 30 mA Maximum: 130 mA
: Dustproof and waterproof (IP65)

FR Caractéristiques

: Fonctionne sur 12/24V CC/CA
: Touches rétro-éclairées (métal / plastique)
: 99 codes Utilisateurs (0 à 8 digits)
: 30 sec. de verrouillage après 8 codes incorrects
: 2 Led libres de tension (rouge et verte)
: 2 relais (R1: 10A/24V CC 120V CA ; R2: 2A/24V CC/CA)
: Relais en mode marche/arrêt (00) ou impulsionnel (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
: Périphériques raccordés via le circuit bus CODIX bi-directionnel
: Consommation au repos: 30 mA Maximum: 130 mA
: Résistant aux poussières et à l'eau (IP65)

ITA Caratteristiche

: Funzionamento a 12/24V c.a./c.c.
: Tasti retroilluminati (metallo / plastica)
: 99 codici utente (da 0 a 8 cifre)
: 30 s di blocco dopo 8 codici errati
: 2 LED di assenza 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
: Regolatore a commutazione di potenza per una maggior durata del prodotto
: EEPROM per evitare la perdita dei dati
: Periferiche collegate mediante bus bidirezionale CODIX
: Consumo di corrente Standby: 30 mA Massimo: 130 mA
: A tenuta di polvere e stagno (IP65)

ESP Caracteristicas

: Funciona con 12/24V CA/CC
: teclas retroiluminadas (metal / plástico)
: 99 códigos de Usuario (0 a 8 dígitos)
: Bloqueo de 30 s después de 8 códigos no válidos
: 2 LED sin tensión (Rojo y Verde)
: 2 relés (R1: 10A/24V CC; 120V CA; R2: 2A/24V CA/CC)
: Relé en modo de conmutación o de impulso (01 a 99s)
: 2 pulsadores para accionar los relés
: Regulador 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 CODIX bidireccional
: Consumo de corriente en Reposo: 30 mA Máximo: 130 mA
: A prueba de polvo y resistente al agua (IP65)

D Merkmale

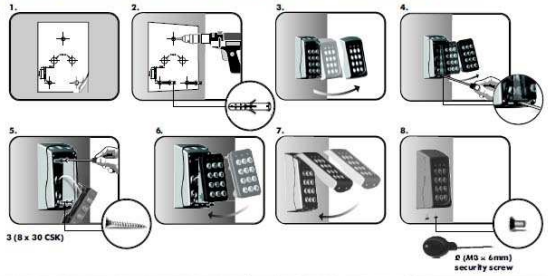
: Betrieb bei 12/24V AC/DC
: Tasten mit Hintergrundbeleuchtung (Metall / Plastik)
: 99 Benutzercodes (0 bis 8 Ziffern)
: 30 Sek Verriegelung nach 8 ungültigen Codes
: 2 freie Potentialfreie-LEDs (Rot und Grün)
: 2 Relais (R1: 10A/24V DC 120V AC; R2: 2A/24V AC/DC)
: Relais in Latch- (00) oder Impulsmodus (01 to 99 sec)
: 2 Drucktasten zur Betätigung der Relais
: Schaltregulator für eine längere Produktlebensdauer
: EEPROM zur Vermeidung von Datenverlust bei Stromausfall
: Kondgeräte angeschlossen über bidirektionalen CODIX-Bus
: Stromaufnahme Minimum: 30mA Maximum: 130 mA
: Staub- und Wassergeschützt (IP65)

NL Eigenschappen

: Voeding 12/24V AC/DC
: Verlichte toetsen (metaal of plastic)
: 99 gebruikercodes (0 tot 8 karakters)
: 30 seconden geblokkeerd na 8 onjuiste pogingen
: 2 LEDs (Rood & Groen)
: 2 relais (R1/R2/R3/R4: 2A/24V AC/DC
: Relais met houd (00) of puls mode (01 tot 99 sec)
: 2 drukknoppen voor relaisturing
: Geschakelde voeding voor een langere levensduur
: EEPROM voorkomt data verlies gedurende spanningsuitval
: Randapparatuur kan aangesloten worden op de bi-directionele CODIX bus
: Stroomopname in rust: 30mA Maximaal: 130 mA
: Stof- en waterdicht (IP65)

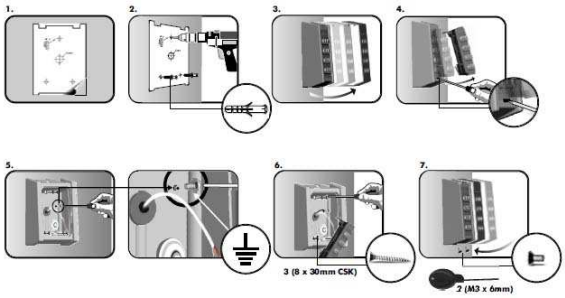
UK Mounting FR Montage ITA Installazione ESP Montaje D Montage NL Montage

43



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

52/ 72



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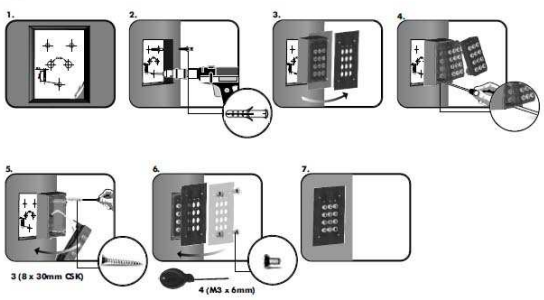
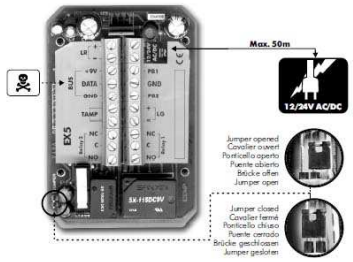


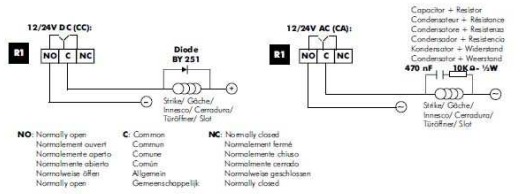
UK Wiring FR Câblage ITA Cablaggio ESP Cableado D Verdrahtung NL Aansluiting

EX5

Do not apply any voltage to the CODIX BUS.
N'appliquer aucune tension au bus CODIX.
Non applicare alcuna tensione al bus CODIX.
No aplique ninguna tensión al bus CODIX.
Keine Spannung auf den CODIX Bus aufführen.
Sluit geen spanningsbron aan op de CODIX bus.



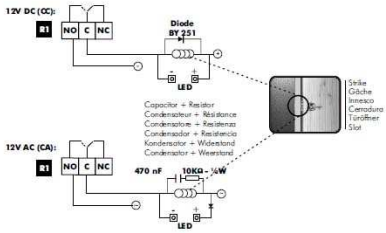
UK Connecting strike to relays FR Connexion d'une gâche aux relais
ITA Collegamento innesco al relè ESP Conexión de una cerradura al relé
D Türöffner mit Relais verbinden NL Aansluiten sloten op de relais



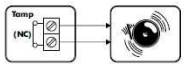
NO: Normally open (Normalement ouvert / Normalmente aperto / Normalmente abierto / Normalweise öffen / Normally open)
C: Common (Commun / Comune / Común / Allgemein / Gemeenschappelijk)
NC: Normally closed (Normalement fermé / Normalmente chiuso / Normalmente cerrado / Normalweise geschlossen / Normally closed)

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

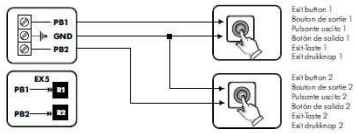
UK Connecting LEDs for relay status FR Connexion des Leds pour indiquer l'état du relais
ITA LEDs collegamento stato relè ESP Conexión de los LEDs para indicar el estados de los relés
D Anschluß LEDs für Relaisstatus NL Aansluiten LED's voor relaisstatus



UK Tamper switch FR Switch d'autoprotection
ITA Interruttore antimanomissione ESP Interruptor antisabotaje
D Schalter zur Sicherung gegen unerlaubte Eingriffe NL Sabotage schakelaar



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



Cooperativa STEEL Works

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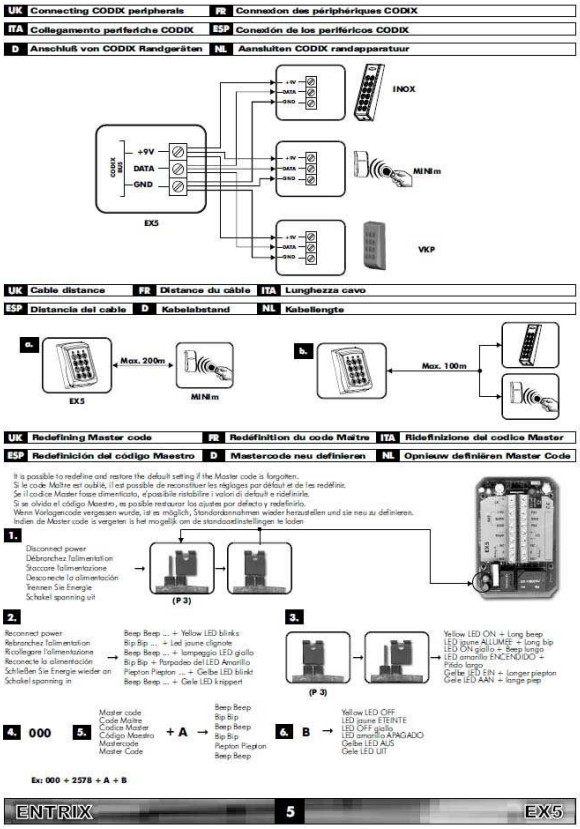
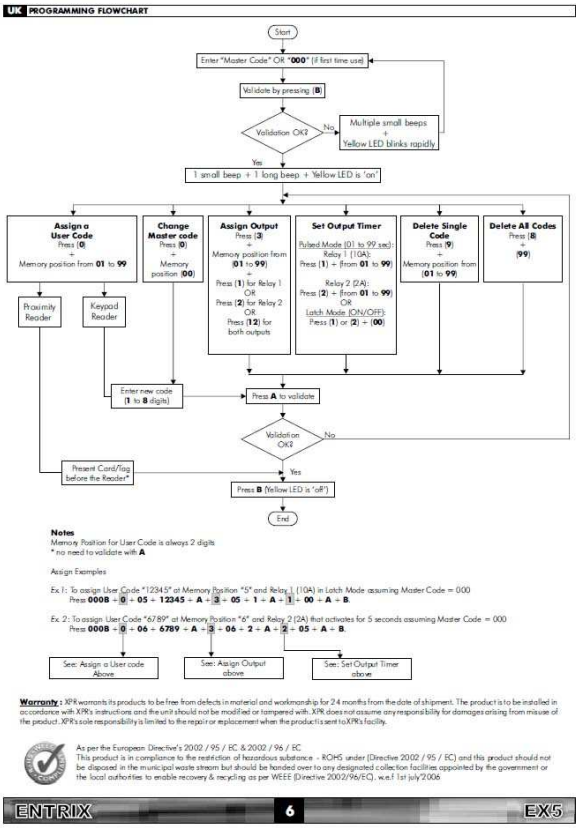
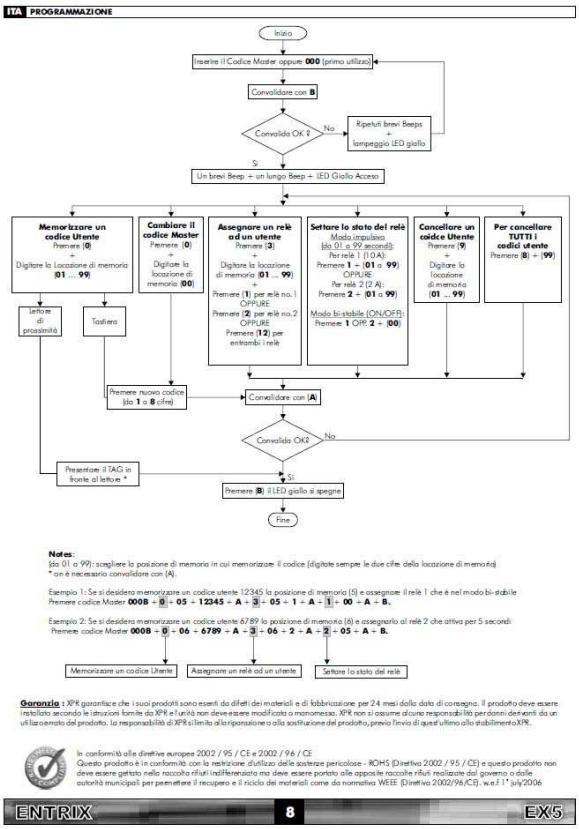
http://www.coopsteelworks.it - E-mail : coopsteelworks@gmail.com







Cooperativa STEEL Works

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11 - APPLICAZIONE DEI CRISTALLI

Primer e Rivestimenti

Primer Black

KENT

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.

Windscreen Products

Screenfix 212

KENT

UPDATED: 19.09.12

CRASH TESTED FMVSS 212

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 costed 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.

Windscreen Products

Screenfix 212

KENT

Technical Information

Part N° & packaging:	
34808	290ml cartridge
83404	400ml foil pack
83720	20L drum
Stock Code:	KSF 212 / KSF 212S
Shelf Life: 18 months cartridge, 12 months sausage	
Drive away Time:	60 minutes with 2 airbags
TÜV approved and crash tested to FMVSS212	
Hazard info:	Non Hazardous
VOC:	0g/L
Customs Tarif Code:	3214 10 10
Basic Material:	MS polymer
Cure method:	moisture
UV Weather resistance:	Very good

Skin forming time:	approx. 15 min (20ºC/50%RH)
Shore A hardness:	57 DIN 53505
Cure Time:	3-4mm in 24 hours (20ºC/50%RH)
Shrinkage:	<3% DIN 52451
Specific Gravity:	1.5g/ml
Application Temp:	+5ºC to +35ºC
Temp resistance:	-40ºC to +90ºC
Green strength:	600 Pa
Tensile Strength 100%:	2.3 MPa DIN 53504/ISO 37
Tensile Strength at break:	2.7 MPa DIN 53504/ISO 37
Shear Strength:	2.1 MPa DIN 53283/ASTM D1002
Tear Resistance:	15 N/mm (DIN 53515/1S034)
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 (5B2)

Market Segments Primary 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

KENT

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

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	Vantaggi
• Senza solventi né isocianati	- Non è tossico, sicuro da usare
• Eccellente resistenza ai raggi UV e all'invecchiamento. Protezione duratura dall'acqua dolce e salata.	- Prodotti di alta qualità specifici per il settore nautico
• Monocomponente	- Non è necessario nessun utensile particolare
• Lungo tempo di lavorazione	- Ideale per assemblare componenti di grandi dimensioni
• Eccellente adesione	- Non è necessario l'uso del primer
• A rapida essiccazione	- Risparmio di tempo. Aumenta la produttività
• Può essere verniciato bagnato su bagnato	- Risparmio di tempo.

Marine

Sigillanti e Adesivi

Assembly Adhesive Fast

KENT

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 alchiliche 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 delle superfici 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 un 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 estrudibile 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 lacche utilizzate nel settore industriale. Protegge inoltre dalla corrosione se utilizzato come rivestimento di finitura/sigillatura prima dell'applicazione della vernice.

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

Marine

Sigillanti e Adesivi

Assembly Adhesive Fast

KENT

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 +5ºC a +35ºC
Tempo di essiccazione:	3mm in 24 ore a 20ºC / 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: (nero),	**cartuccia da 290 ml.:** 84521 AAFW (bianco), 84522 AAFBL 84523 AAFG (grigio) **sacchetto da 600 ml.:** 84530 AAFB-S (nero), 84531 AAFWS (bianco)

Al fine di indicarvi la più appropriata attrezzatura prototiva per l'utilizzo 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 e lenti di protezione, visiere 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.

NOTE

Cooperativa STEEL Works

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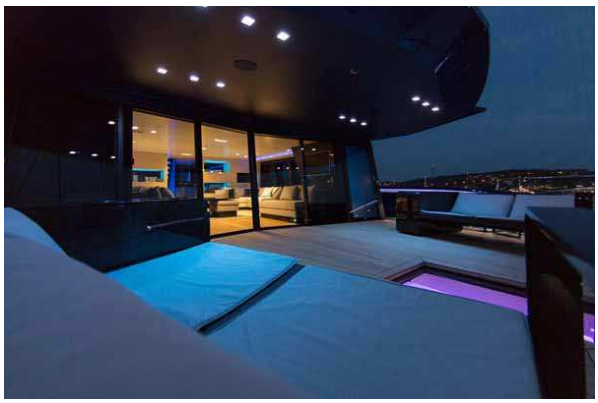
11 – REFERENZE

BENETTI

T. MARIOTTI

HEESEN SHIPYARD

CODECASA



WALLY EUROPE

VIAREGGIO SUPER YACHTS

PERINI NAVI

OTAM

COUACH YACHT

FERRETTI GROUP RIVA

HATTERAS

TRINITY

Cooperativa STEEL Works

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