



060

**DISPOSITIVI DI COMANDO
DI SICUREZZA**

SAFETY CONTROL DEVICES



Pulsanti a palmo

Palm switches

G

Gli azionatori a palmo, per il comando e controllo di circuiti elettrici alimentati sia in CC che in CA, sono progettati per **utilizzi energici o d'urgenza**.

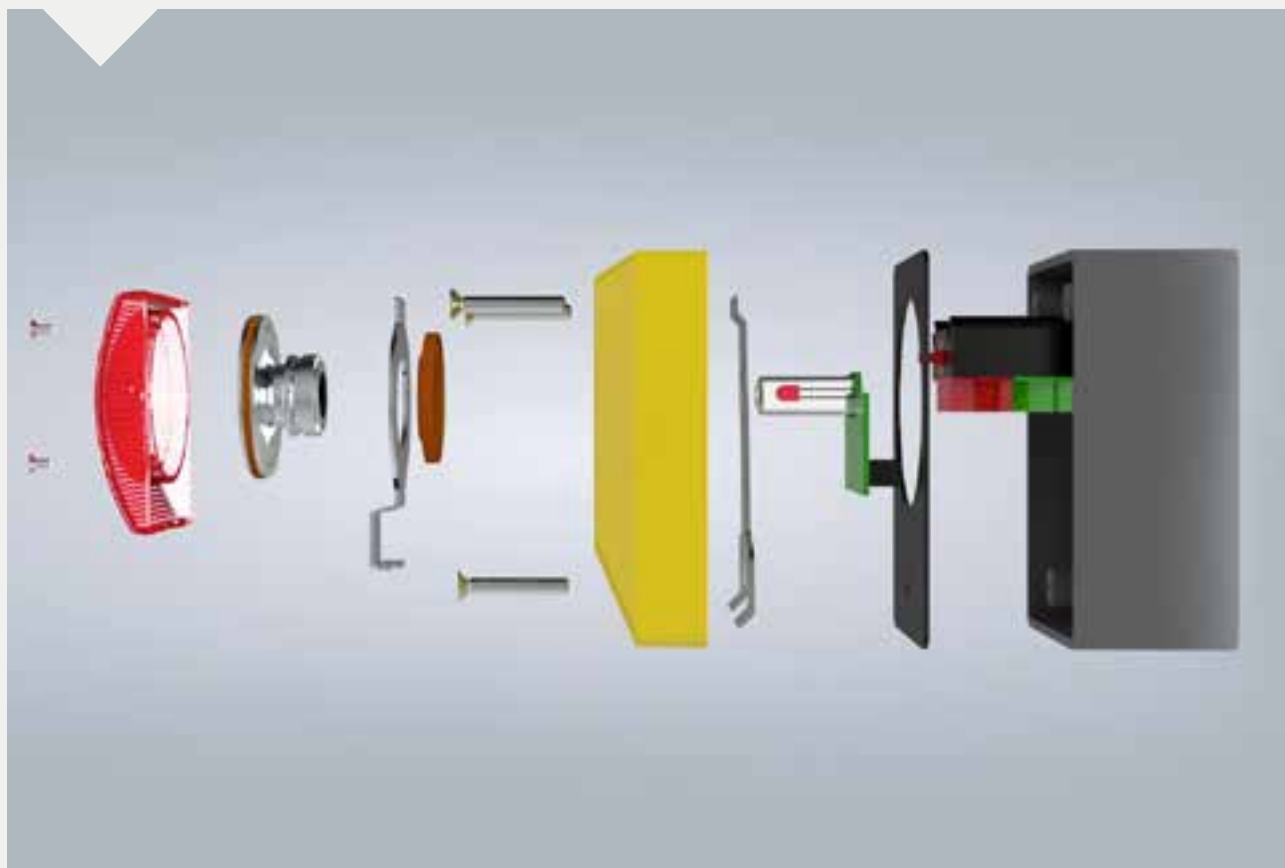
Il **design particolarmente accurato ed ergonomico** ne permette l'utilizzo anche avendo guanti da lavoro oppure con altre parti del corpo quali: gomito, spalla, ginocchio, piede. Inoltre la **linearità senza soluzione di continuità** evita che vi si possano impigliare indumenti, capelli, o elementi estranei. Realizzati in **resina termoplastica antiurto**, con componenti metallici in acciaio inox, possono essere installati in ambienti con atmosfera particolarmente umida o corrosiva e dove sussiste il pericolo di scariche elettrostatiche. Disponibile in due varianti: con tasto bombato o a fungo avvolgente, luminoso o no, con funzionamento momentaneo o ad aggancio. La **versione luminosa** ha svariate esecuzioni: tasto a luce continua, tasto e scatola a luce continua, tasto ad aggancio a luce continua e lampeggiante, tasto trasparente con illuminazione a due colori. Infine la grande superficie dei tasti consente di stampare complesse informazioni.

P

Palm switches for the command and control of both DC and AC circuits are designed for **energetic or emergency use**.

The particularly **careful and ergonomic design** allows them to be pushed even when wearing work gloves or using other parts of the body such as elbow, shoulder, knee and foot. Moreover its **dome shape** prevents clothing, hair or other elements from being caught up. Made from **shockproof thermoplastic resin**, with stainless steel parts, they can be installed in particularly damp or corrosive atmospheric environments where there is the risk of electrostatic discharge.

They are available in two models: with dome or mushroom buttons, normal or illuminated, momentary or latching. The **illuminated models** can have a steady light button, a steady light button and enclosure, latching button with steady and flashing light, clear button with two-colour light. Furthermore the big button surface allows complex symbols to be printed on.



Pulsanti a palmo Palm switches



Meccanicamente resistente
Strong and hard



Adatto ad alte temperature
Heat resistant



Adatto a basse temperature
Cold resistant



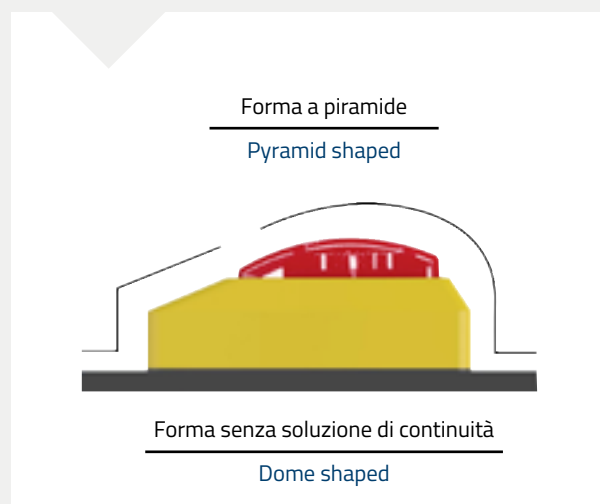
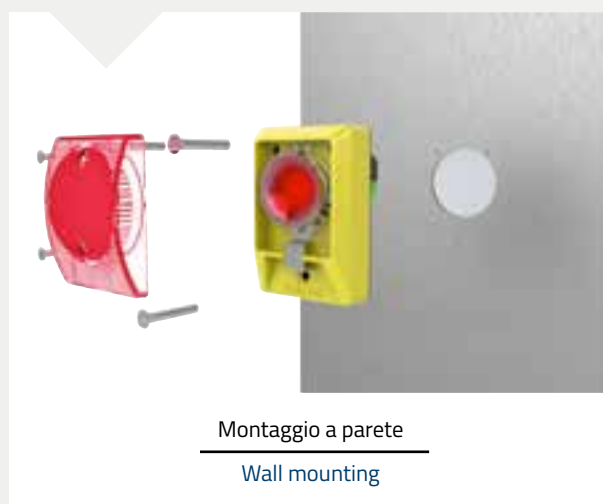
Resistente agli shock
Shock resistant



Ampia gamma di utilizzo
Wide range of use

Pulsanti a palmo

Palm switches



Pulsanti di emergenza a palmo momentanei normali

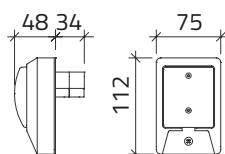
Momentary normal emergency stop palm switches

Pulsanti di emergenza momentanei normali

Normal momentary emergency stop push-buttons

g

cod

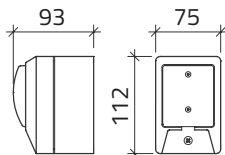
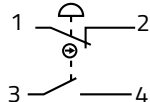


Tasto bombato senza custodia / Dome button without enclosure

● Rosso / Red

284

060APTR

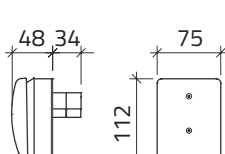
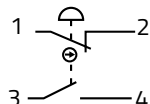


Tasto bombato con custodia / Dome button with enclosure

● Rosso / Red

366

060APTRC

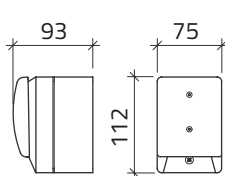
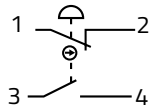


Tasto a fungo senza custodia / Mushroom button without enclosure

● Rosso / Red

284

060APFR

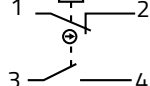


Tasto a fungo con custodia / Mushroom button with enclosure

● Rosso / Red

366

060APFRC



Pulsanti di emergenza a palmo ad aggancio normali

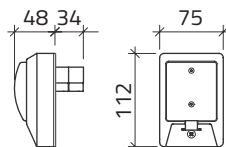
Latching normal emergency stop palm switches

Pulsanti di emergenza ad aggancio

Latching emergency stop push-buttons

g

cod

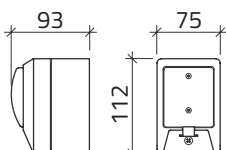
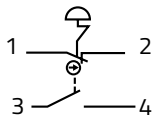


Tasto bombato senza custodia / Dome button without enclosure

● Rosso / Red

305

060APATR

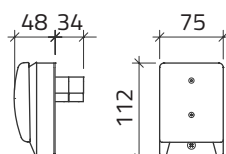
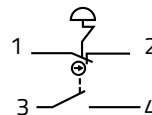


Tasto bombato con custodia / Dome button with enclosure

● Rosso / Red

387

060APATRC

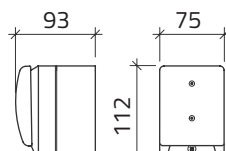
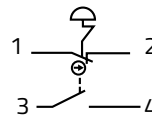


Tasto a fungo senza custodia / Mushroom button without enclosure

● Rosso / Red

305

060APAFR

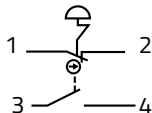


Tasto a fungo con custodia / Mushroom button with enclosure

● Rosso / Red

387

060APAFRC



Pulsanti di emergenza a palmo momentanei luminosi

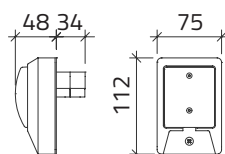
Momentary illuminated emergency stop palm switches

Pulsanti di emergenza a palmo luminosi

Illuminated emergency stop palm switches

g

cod

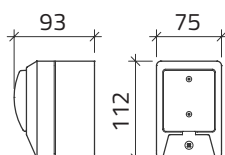
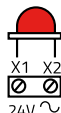
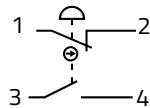


Tasto bombato senza custodia / Dome button without enclosure

● Rosso / Red

291

060APTLR

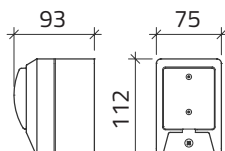
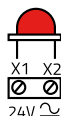
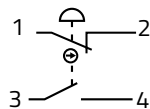


Tasto bombato con custodia / Dome button with enclosure

● Rosso / Red

373

060APTLRC



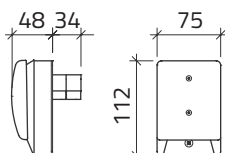
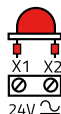
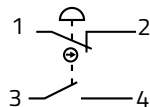
Tasto bombato con custodia luminosa

Dome button with illuminated enclosure

● Rosso / Red

373

060APTLRCL



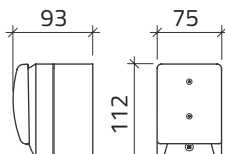
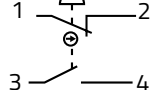
Tasto a fungo senza custodia

Mushroom button without enclosure

● Rosso / Red

291

060APFLR

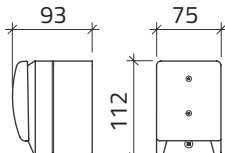
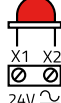
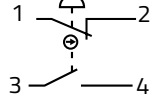


Tasto a fungo con custodia / Mushroom button with enclosure

● Rosso / Red

373

060APFLRC



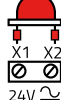
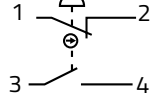
Tasto a fungo con custodia luminosa

Mushroom button with illuminated enclosure

● Rosso / Red

373

060APFLRCL



Pulsanti di emergenza a palmo ad aggancio luminosi

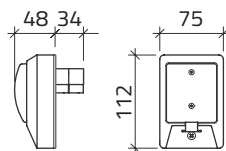
Illuminated latching emergency stop palm switches

Pulsanti di emergenza a palmo ad aggancio luminosi

Illuminated latching emergency stop palm switches

g

cod

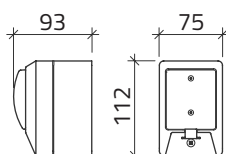
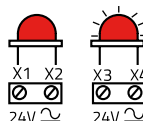
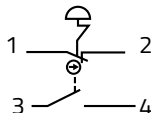


Tasto bombato senza custodia/ Dome button without enclosure

● Rosso / Red

312

060APATLR

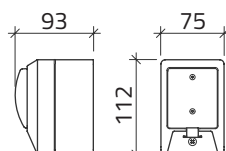
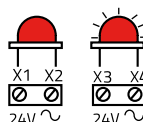
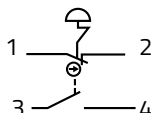


Tasto bombato con custodia / Dome button with enclosure

● Rosso / Red

394

060APATLRC

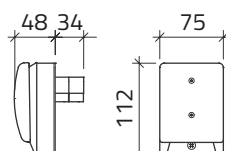
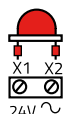
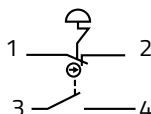


Tasto bombato con custodia luminosa Dome button with illuminated enclosure

● Rosso / Red

394

060APATLRCL

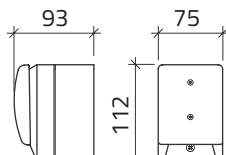
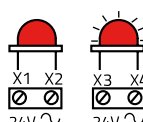
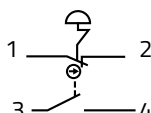


Tasto a fungo senza custodia/ Mushroom button without enclosure

● Rosso / Red

312

060APAFLR

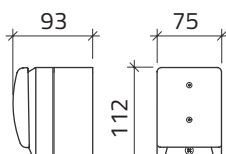
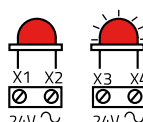
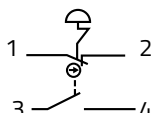


Tasto a fungo con custodia/ Mushroom button with enclosure

● Rosso / Red

394

060APAFLRC

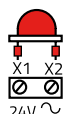
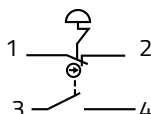


Tasto a fungo con custodia luminosa Mushroom button with illuminated enclosure

● Rosso / Red

394

060APAFLRCL



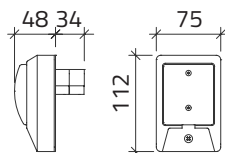
Pulsanti a palmo normali

Normal palm switches

Pulsanti normali Normal push-buttons

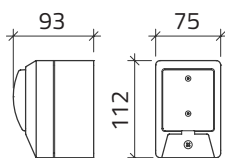
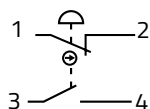
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cod



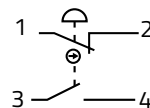
Tasto bombato senza custodia / Dome button without enclosure

● Nero / Black	284	060APTN
● Verde / Green	284	060APTV
● Giallo / Yellow	284	060APTG
● Blu / Blue	284	060APTBL



Tasto bombato con custodia / Dome button with enclosure

● Nero / Black	366	060APTNC
● Verde / Green	366	060APTVC
● Giallo / Yellow	366	060APTGC
● Blu / Blue	366	060APTBLC

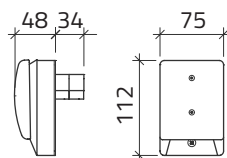


Pulsanti a palmo normali

Normal palm switches

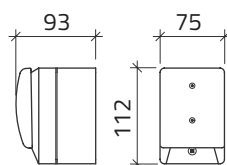
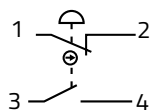
Pulsanti normali

Normal push-buttons



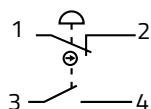
Tasto a fungo senza custodia / Mushroom button without enclosure

g	cod
● Nero / Black	284
● Verde / Green	284
● Giallo / Yellow	284
● Blu / Blue	284
	060APFN
	060APFV
	060APFG
	060APFBL



Tasto a fungo con custodia / Mushroom button with enclosure

● Nero / Black	366	060APFNC
● Verde / Green	366	060APFVC
● Giallo / Yellow	366	060APFGC
● Blu / Blue	366	060APFBLC

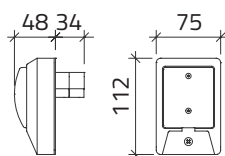


Pulsanti a palmo luminosi Illuminated palm switches

Pulsanti a palmo luminosi Illuminated palm switches

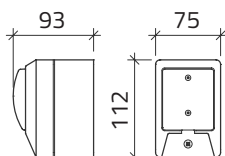
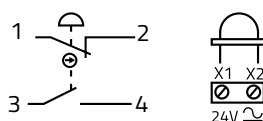
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cod



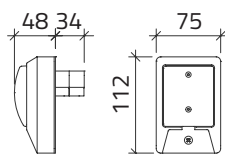
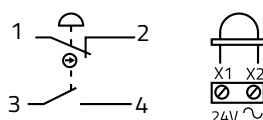
Tasto bombato senza custodia / Dome button without enclosure

● Verde / Green	291	060APTLV
● Giallo / Yellow	291	060APTLG
● Blu / Blue	291	060APTLBL
○ Bianco / White	291	060APTLB



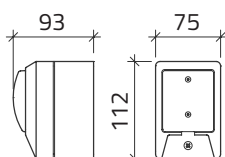
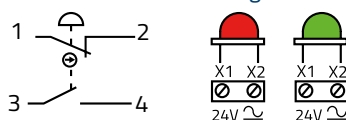
Tasto bombato con custodia / Dome button with enclosure

● Verde / Green	373	060APTLVC
● Giallo / Yellow	373	060APTLGC
● Blu / Blue	373	060APTLBLC
○ Bianco / White	373	060APTLBC



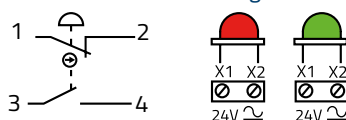
Tasto bombato senza custodia / Dome button without enclosure

● Rosso-verde / Red-green	291	060APTLRV
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Tasto bombato con custodia / Dome button with enclosure

● Rosso-verde / Red-green	373	060APTLRVC
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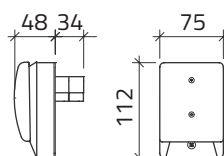


Pulsanti a palmo luminosi

Illuminated palm switches

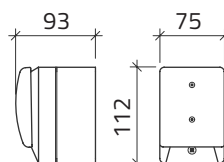
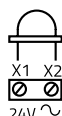
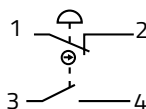
Pulsanti a palmo luminosi

Illuminated palm switches



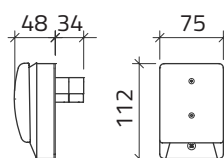
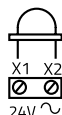
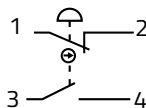
Tasto a fungo senza custodia / Mushroom button without enclosure

● Verde / Green	291	060APFLV
● Giallo / Yellow	291	060APFLG
● Blu / Blue	291	060APFLBL
○ Bianco / White	291	060APFLB



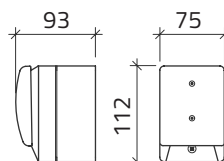
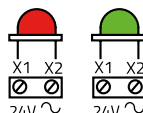
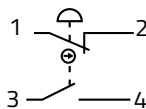
Tasto a fungo con custodia / Mushroom button with enclosure

● Verde / Green	373	060APFLVC
● Giallo / Yellow	373	060APFLGC
● Blu / Blue	373	060APFLBLC
○ Bianco / White	373	060APFLBC



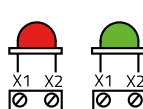
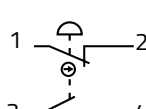
Tasto a fungo senza custodia / Mushroom button without enclosure

● Rosso-verde / Red-green	291	060APFLRV
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Tasto a fungo con custodia / Mushroom button with enclosure

● Rosso-verde / Red-green	373	060APFLRVC
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Suffissi per stampa simboli su tasti

Suffixes for printing symbols on buttons

Far seguire al codice del prodotto il suffisso del simbolo desiderato
Item code is to be followed by the suffix of the required symbol



S48



S148



S55



S152

Suffissi per stampa simboli su tasti

Suffixes for printing symbols on buttons

Far seguire al codice del prodotto il suffisso del simbolo desiderato
Item code is to be followed by the suffix of the required symbol



S153



S144



S154



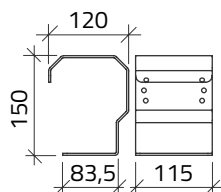
S159

Accessori

Accessories

Elemento di protezione per pulsante a palmo

Protective shroud for palm switch

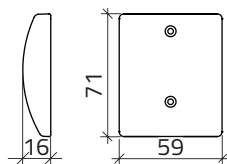


Acciaio / Steel

g
1,130cod
060SEP

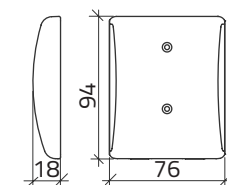
Tasti per pulsanti a palmo normale

Buttons for normal palm switches



Tasto bombato / Dome button

● Nero / Black	25	060TBN
● Rosso / Red	25	060TBR
● Verde / Green	25	060TBV
● Giallo / Yellow	25	060TBG
● Blu / Blue	25	060TBL

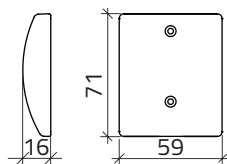


Tasto a fungo / Mushroom button

● Nero / Black	36	060TFN
● Rosso / Red	36	060TFR
● Verde / Green	36	060TFV
● Giallo / Yellow	36	060TFG
● Blu / Blue	36	060TFBL

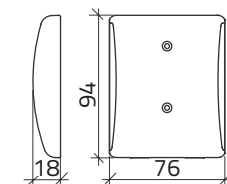
Tasti per pulsante a palmo luminosi

Buttons for illuminated palm switches



Tasto bombato / Dome button

● Rosso / Red	25	060TBLR
● Verde / Green	25	060TBLV
● Giallo / Yellow	25	060TBLG
● Blu / Blue	25	060TBLBL
○ Bianco / White	25	060TBLB
○ Trasparente / Clear	25	060TBLI

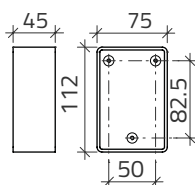


Tasto a fungo / Mushroom button

● Rosso / Red	36	060TFLR
● Verde / Green	36	060TFLV
● Giallo / Yellow	36	060TFLG
● Blu / Blue	36	060TFLBL
○ Bianco / White	36	060TFLB
○ Trasparente / Clear	36	060TFLI

Custodia per azionatore a palmo

Palm switch enclosures



Custodia non luminosa / Not illuminated enclosure

● Grigio / Grey	115	060SGR
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Custodia luminosa / Illuminated enclosure

● Rosso / Red	115	060SRT
---------------	-----	--------

Pulsanti a palmo

Palm switches

Caratteristiche tecniche

Rispondenza alle norme	EN-IEC60947-1, EN-IEC60947-5-1 UNI EN 13850,UNI EN ISO 12100 EN-IEC60947-5-5 UNI CEI EN 45545/2, CEI EN 61373																														
Omologazioni	CE, (UL, CSA solo elementi di contatto 030FA-030FAA / 030FC-030FCF)																														
Limiti di temperatura	Funzionamento $\geq -30^{\circ}\text{C} \leq +120^{\circ}\text{C}$ Stoccaggio $\geq -40^{\circ}\text{C} \leq +125^{\circ}\text{C}$																														
Grado di protezione	IP66-IP69K (EN-IEC60529-DIN40050)																														
Protezione contro gli impatti	IK08 (EN-IEC62262)																														
Materiale custodia	PA Poliammide V0																														
Materiale guarnizione	Gomma-sughero																														
Materiale viti custodia	Acciaio inox AISI 304																														
Coppia di serraggio	Viti custodia 1 ÷ 2,5 Nm (8,8 ÷ 22,1 Lb-in) Viti terminali 0,8 ÷ 1,2 Nm (7,1 ÷ 10,6 Lb-in)																														
Durata meccanica	3 milioni di manovre																														
Elementi di contatto	NO-NC inclusi apertura positiva del contatto NC secondo EN, IEC 60947-5-1																														
Funzionamento contatti	Azionamento lento con autopulitura e strisciamento delle pastiglie																														
Materiale contatti	Pastiglie in Ag 1000 / 1000																														
Tensione nominale di isolamento	690 V secondo : EN-IEC 60947-1																														
Corrente nominale termica	Ith 10A																														
Categorie nominali di impiego	AC15-DC13 secondo EN-IEC60947-5-1 A600 - P300 secondo UL508																														
	<table><tr><td></td><td>AC</td><td></td></tr><tr><td>Ue V</td><td></td><td>Ie A</td></tr><tr><td>24</td><td></td><td>10</td></tr><tr><td>110</td><td></td><td>6</td></tr><tr><td>230</td><td></td><td>3</td></tr><tr><td></td><td>DC</td><td></td></tr><tr><td>Ue V</td><td></td><td>Ie A</td></tr><tr><td>24</td><td></td><td>5</td></tr><tr><td>110</td><td></td><td>1,1</td></tr><tr><td>230</td><td></td><td>0,55</td></tr></table>		AC		Ue V		Ie A	24		10	110		6	230		3		DC		Ue V		Ie A	24		5	110		1,1	230		0,55
	AC																														
Ue V		Ie A																													
24		10																													
110		6																													
230		3																													
	DC																														
Ue V		Ie A																													
24		5																													
110		1,1																													
230		0,55																													
Versioni luminose	Led incluso con alimentazione 24AC-DC																														

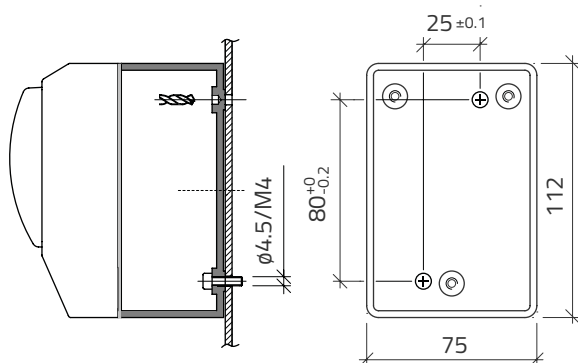
Technical data

Compliance with Standards	EN-IEC60947-1, EN-IEC60947-5-1 UNI EN 13850,UNI EN ISO 12100 EN-IEC60947-5-5 UNI CEI EN 45545/2, CEI EN 61373																														
Approvals	CE, (UL, CSA only for contacts blocks 030FA-030FAA / 030FC-030FCF)																														
Temperature ranges	Working ≥ -30°C ÷ ≤ +120°C Storage ≥ -40°C ÷ ≤ +125°C																														
Protection degree	IP66-IP69K (EN-IEC60529-DIN40050)																														
Protection against impact	IK08 (EN-IEC62262)																														
Housing material	PA Polyamide V0																														
Gasket material	Cork-rubber																														
Screws material	Stainless steel AISI 304																														
Tightening torque	Cover screws 1 ÷ 2,5 Nm (8,8 ÷ 22,1 Lb-in) Terminal screws 0,8 ÷ 1,2 Nm (7,1 ÷ 10,6 Lb-in)																														
Mechanical durability	3 millions operation																														
Contacts blocks	NO-NC included positive opening on NC contact according to EN, IEC 60947-5-1																														
Contact actuation	Slow action with self cleaning by pads creeping																														
Contacts material	Pads in Ag 1000 / 1000																														
Rated insulation voltage	690 V according to : EN-IEC60947-1																														
Rated thermal current	Ith 10A																														
Electrical ratings	AC15-DC13 according to EN-IEC60947-5-1 A600 - P300 according to UL508																														
	<table><tr><td></td><td>AC</td><td>Ie A</td></tr><tr><td>Ue V</td><td></td><td></td></tr><tr><td>24</td><td></td><td>10</td></tr><tr><td>110</td><td></td><td>6</td></tr><tr><td>230</td><td></td><td>3</td></tr><tr><td></td><td>DC</td><td>Ie A</td></tr><tr><td>Ue V</td><td></td><td></td></tr><tr><td>24</td><td></td><td>5</td></tr><tr><td>110</td><td></td><td>1,1</td></tr><tr><td>230</td><td></td><td>0,55</td></tr></table>		AC	Ie A	Ue V			24		10	110		6	230		3		DC	Ie A	Ue V			24		5	110		1,1	230		0,55
	AC	Ie A																													
Ue V																															
24		10																													
110		6																													
230		3																													
	DC	Ie A																													
Ue V																															
24		5																													
110		1,1																													
230		0,55																													
Illuminated models	Led 24AC-DC included																														

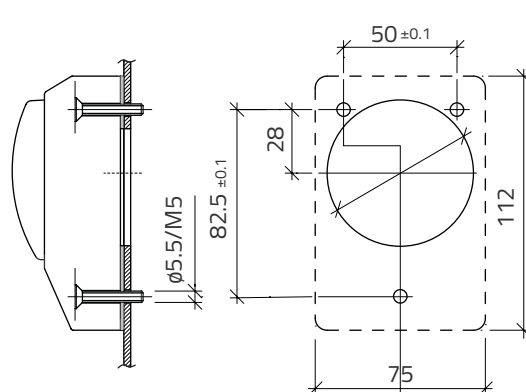
Dima di foratura

Drilling template

Con custodia
With case



A incasso
Wall mount





Pulsantiera mobile

Hand-held push-button control unit

■ PULSANTIERA MOBILE

La pulsantiera mobile è stata progettata per rispondere alle necessità di avere la portabilità di alcuni comandi elettrici manuali, garantendo l'interfaccia uomo macchina, anche in situazioni dove occorre posizionarsi in zone specifiche.

La forma particolare è stata appositamente progettata per un ottimo connubio tra ergonomia, facilità di impugnatura e spazio a disposizione per i comandi manuali elettromeccanici. Dotata di piastra frontale in alluminio anodizzato, facilmente lavorabile, la pulsantiera si rende adattabile a innumerevoli configurazioni e consente il contenimento di piccoli display, touch screen e altri dispositivi ausiliari di comando e controllo. La piastra è trattenuta da viti in acciaio inox, garantendo a tutta la pulsantiera un elevato grado di resistenza sia alla corrosione sia alla tenuta ai liquidi (IP66). Il corpo della pulsantiera è realizzato in materiale plastico antiurto particolarmente resistente in caso di caduta accidentale (IK07). Essa è inoltre dotata di aletta perimetrale disegnata per coprire e proteggere gli operatori di comando da azionamenti involontari a seguito di cadute dell'apparecchiatura. L'articolo è disponibile in due colorazioni: giallo RAL 1003 oppure grigio RAL 7016. Un'ampia gamma di accessori dedicati completano l'apparecchiatura, quali staffa magnetica, staffa per fissaggio a muro, staffa raccolta cavo e cinghia a tracolla.

■ MODULAR SYSTEM FOR PUSH-BUTTON

The hand-held push-button control unit has been designed to have some manual electrical commands within operator's reach, thus granting a man-machine interface, even when it is required to work in particular positions.

Its special shape is the result of a perfect combination design of ergonomics, easy grip and available space for the manual electromechanical commands.

Provided with a front easy-to-drill anodized aluminium plate, the enclosure is suitable for multiple configurations and can house small display panels, touch screens and other auxiliary command and control devices.

The plate is fastened using stainless steel screws, thus granting high resistance to both corrosion and liquid entrance (IP66).

The enclosure of the control unit is made of high impact resistant plastic (IK07) and is provided with a shaped border around its perimeter, which has been designed to protect the operators from their accidental operation in case of control unit drop.

It is available in two colours: yellow RAL 1003 or dark grey RAL 7016.

A wide range of accessories, like magnetic mounting plate, wall-mounting bracket, cable bracket and shoulder belt, are available to complete the control unit.



Pulsantiera mobile Hand-held push-button control unit



La pulsantiera è dotata di agevoli superfici per l'installazione di operatori.
The control unit has wide surfaces where the operators can be easily housed.



L'impugnatura può accogliere nei lati destro o sinistro un pulsante di abilitazione a tre posizioni.

The right or the left side of the grip can house a three-position enabling push-button.



La pulsantiera è dotata di un pratico cinghiolo che garantisce un sicuro utilizzo.

The control unit is equipped with a useful strap assuring a safe operation.



L'introduzione del cavo di alimentazione è favorito da un pratico pressacavo che protegge eventuali torsioni, mentre un robusto serracavo evita sfilacciamenti.

The power cable can be easily fitted thanks to a spiral cable gland, which protects from a possible twisting, and a strong wire clamp avoids cable fraying.

Pulsantiera mobile Hand-held push-button control unit



La parte superiore della pulsantiera adotta ancoraggi per l'accessorio a tracolla.

The upper side of the control unit is provided with openings to fit the shoulder belt.



Pratici accessori completano la gamma: supporto a parete con gancio avvolgicavo e piastra magnetica.

Useful accessories, like wall-mounting bracket, cable bracket and magnetic mounting plate complete the range.

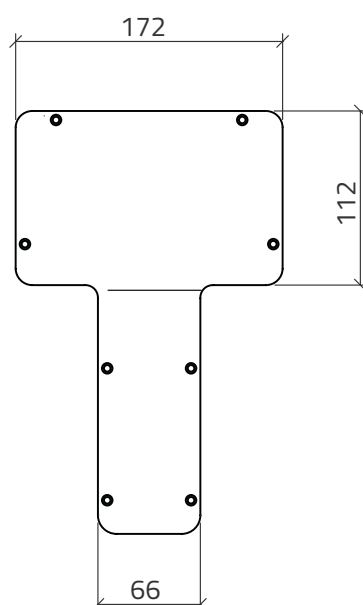
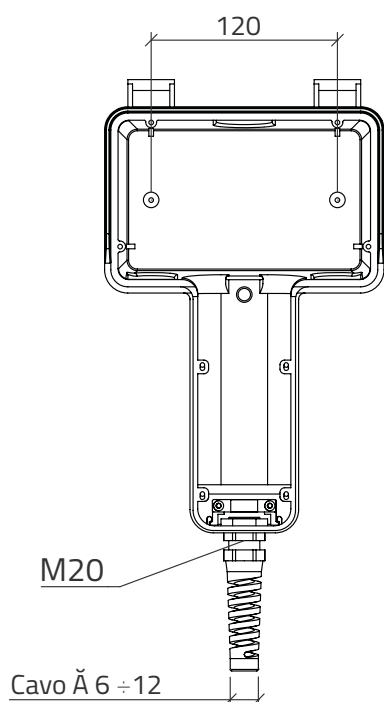
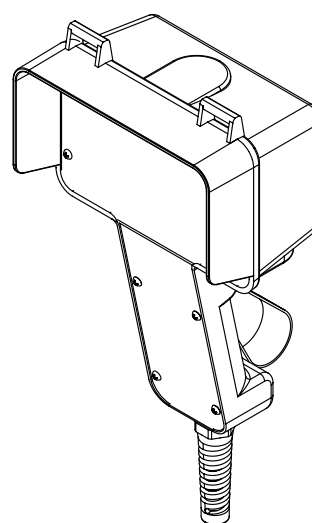
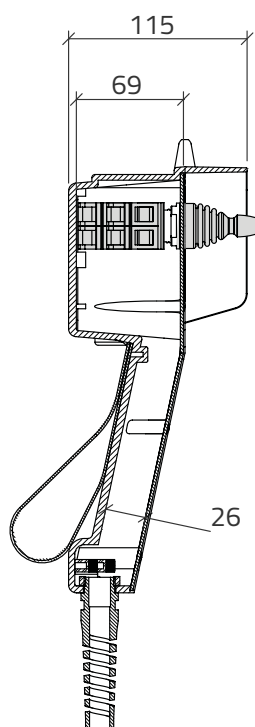
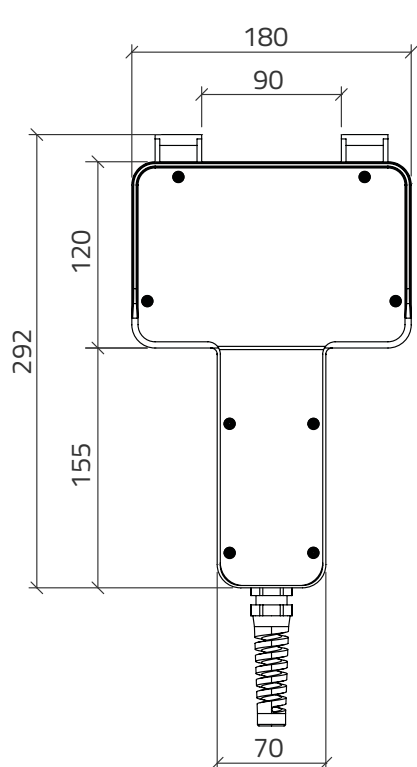


Tutta la struttura del contenitore è studiata per realizzare organizzate configurazioni di layout con diversi componenti elettromeccanici.

The whole enclosure structure is so designed to get layout configurations with different electromechanical components.

Pulsantiera mobile

Hand-held push-button control unit



PIEGATURA DOPO
LAVORAZIONE MECCANICA

Pulsantiera mobile

Hand-held push-button control unit

Scatola pulsantiera in resina termoplastica Push-button enclosure made of thermoplastic resin



Completa di piastra in alluminio, senza forature.
Provided with aluminium undrilled plate.

● Giallo / Yellow

g

cod

680

060PMG



Completa di piastra in alluminio, senza forature.
Provided with aluminium undrilled plate.

● Grigio / Grey

680

060PMGR

Per richieste speciali contattare la nostra organizzazione commerciale.
For special requirements get in touch with our commercial department.



Pulsantiera mobile

Hand-held push-button control unit



Staffa fissaggio parete / Wall-mounting bracket

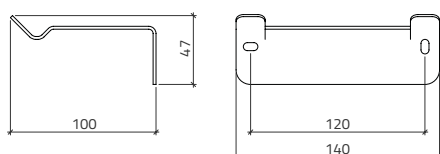
Acciaio / Steel

g

cod

465

060SFP



Staffa fissaggio cavo / Cable bracket

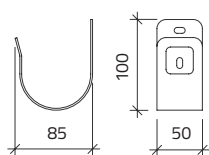
Acciaio / Steel

g

cod

165

060SFC



Staffa fissaggio magnetica / Magnetic mounting plate

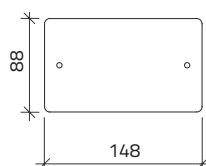
Acciaio / Steel

g

cod

200

060PFM



Piastra non forata (ricambio) / Undrilled plate (spare part)

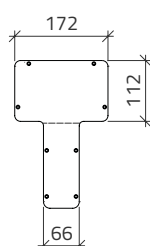
Alluminio anodizzato / Anodised aluminium

g

cod

160

060PPM



Pulsantiera mobile

Hand-held push-button control unit



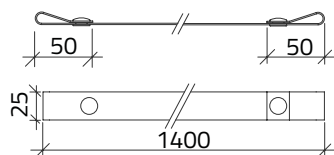
Cinghia tracolla / Shoulder belt
25x1400 mm

g

cod

90

010CT25



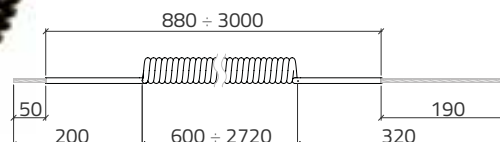
g

cod

Cavo Spiralo / Spiral cable
12x0,5 mm²

700

010CSN12X05-3



Caratteristiche tecniche

Certificazioni	CE
Rispondenza alle norme	IEC-EN60529
Rispondenza alle norme	IEC-ENC60947-1, IEC-EN60947-5-1
Temperature di operatività	-25° ÷ +65°C
Grado di protezione	IP66 - IP69K (IEC-EN60529 - DIN40050)
Protezione contro gli impatti	IK07 (IEC-EN62262)
Resistenza agli urti	50g (durata:11ms) EN-IEC 60068-2-27
Materiale custodia	Polimero termoplastico ad alto impatto
Processo di fabbricazione	Stampaggio ad iniezione
Materiale guarnizione	Schiuma EPDM + adesivo
Materiale viti custodia	Acciaio inossidabile AISI 304
Piastra frontale	Alluminio anodizzato - Spessore 2mm
Coppia di serraggio	1 ÷ 2,5Nm (8.8÷22.1 Lb-in)
Entrata cavo	M20x1,5
Categoria di sovratensione	Classe I (IEC-EN61140)
Maniglia con fori sinistro/destro	Per Q16P3Pxxx pulsanti di abilitazione a 3 posizioni
Periodo di garanzia	18 mesi

Technical data

Approvals	CE
Compliance with standards	IEC-EN60529
Compliance with standards	IEC-ENC60947-1, IEC-EN60947-5-1
Operating temperatures	-25° ÷ +65°C
Protection degree	IP66 - IP69K (IEC-EN60529 - DIN40050)
Protection against impact	IK07 (IEC-EN62262)
Shock resistance	50g duration=11ms (EN-IEC 60068-2-27)
Housing material	High impact grade thermoplastic polymer
Manufacturing process	Injection moulding
Gasket material	EPDM Foam + adhesive
Screw material	Stainless steel AISI 304
Front plate	Anodized aluminium - Thickness 2mm
Tightening torque	1 ÷ 2,5Nm (8.8÷22.1 Lb-in)
Cable entry	M20x1,5
Overvoltage category	Class I (IEC-EN61140)
Handle with left / right knockouts	For Q16P3Pxxx 3 position enabling safety switch
Warranty period	18 months



Dispositivi di comando a due mani

Two-hand control devices

DEFINIZIONE DI COMANDO A DUE MANI (UNI EN ISO 12100)

3.28.4

Comando a due mani: comando ad azione mantenuta che richiede almeno l'azionamento simultaneo dei due comandi manuali (attuatori) per avviare e mantenere il funzionamento della macchina o degli elementi di quest'ultima, assicurando così protezione alla persona che li aziona.

CLASSIFICAZIONE DEI COMANDI A DUE MANI (CEI EN 60204.1 PUNTO 9.2.6.2)

9.2.6.2

Comandi a due mani: esistono tre tipi di comandi a due mani, la cui selezione dipende dalla valutazione dei rischi. Essi devono avere le caratteristiche seguenti:

TIPO 1: questo tipo richiede:

- la fornitura di due dispositivi di comando dell'attivazione che necessitano l'uso contemporaneo delle due mani;
- l'attivazione continua durante le situazioni pericolose;
- l'interruzione dell'attivazione della macchina al rilascio di uno qualsiasi dei dispositivi di comando dell'attivazione, se le condizioni rimangono pericolose.

TIPO 2: comando di tipo 1 che richiede il rilascio di entrambi i dispositivi di comando dell'attivazione, prima che il funzionamento della macchina possa ripartire.

TIPO 3: comando di tipo 2 che richiede un'attivazione contemporanea dei dispositivi di comando dell'attivazione come segue:

- deve essere necessario fare funzionare i dispositivi di comando dell'attivazione entro un determinato tempo limite minore o uguale a 0,5 s (Appendice B);
- quando viene superato il tempo limite, entrambi i dispositivi di comando dell'attivazione devono essere rilasciati prima che possa essere iniziata una nuova operazione.

DEFINITION OF TWO HAND CONTROL (UNI EN ISO 12100)

3.28.4

Two hand control: maintained action control which requires at least the simultaneous activation of the two manual controls (actuators) to start up and continue running the machine and its elements, thus ensuring that operators are protected.

CLASSIFICATION OF TWO HAND CONTROLS (CEI EN 60204.1 ITEM 9.2.6.2)

9.2.6.2

Two hand controls: there are three types of two hand control, the selection of which depends on risk assessment. They must have the following features:

TYPE 1: this type must have:

- the supply of two activation control devices which require the simultaneous use of both hands;
- constant activation during dangerous situations;
- machine cut-off when any activation control is released, if conditions continue to be dangerous.

TYPE 2: type 1 control which requires the release of both activation control devices for the machine to start running again.

TYPE 3: type 2 control which requires the simultaneous activation of the activation control devices as follows:

- it must be possible to engage the activation control devices within a set time equal to or less than 0.5 seconds (Appendix B);
- when the time limit is up, both activation control devices must be released before a new operation can begin.



Pulsantiera a due mani

Two-hand control device

■ SISTEMA MODULARE PER PULSANTIERE

Il sistema modulare per pulsantiera di comando, che la New Elfin ha realizzato pensando alle esigenze del mercato e del tuo lavoro trova impiego nel settore dell'automazione industriale, è dotato di una serie di componenti che permettono di configurare svariate strutture ottimizzate per essere integrate con le macchine utensili con cui dovranno interagire come presse, piegatrici, saldatrici laser ecc.

■ COLORAZIONE

La scelta delle colorazioni in toni di grigio e dell'alluminio satinato permettono l'armonizzazione estetica con gli apparati di destinazione; la colorazione in toni neutri evita un eccessivo impatto cromatico che può andare anche a discapito della concentrazione degli operatori alle macchine.

■ DIMENSIONI E FORMA

Nel progettare il nuovo comando a due mani è stata valutata la necessità di installazione in spazi ridotti e quindi ne è nato un prodotto con dimensioni 380 x 90 x 90 mm e con un notevole volume interno. La forma ergonomica del nuovo comando a due mani conferisce un notevole comfort durante l'utilizzo; la dimensione della sezione di appoggio del palmo permette una contrapposizione tra il pollice e le altre dita facilitando l'azionamento dei pulsanti.

■ SISTEMA MODULARE PER PULSANTIERE

L'estrema modularità del sistema permette di configurare anche soluzioni a braccio di sostegno dove è possibile applicare diversi componenti specifici. La forma particolare dei giunti garantisce solidità e rigidità alla struttura.

■ KIT DI RUOTE

Il kit di ruote risolve razionalmente il problema della mobilità senza compromettere la solidità di appoggio della base.

■ KIT DI CONNESSIONE

Il kit di connessione risolve efficacemente tutti i problemi di cablaggio tra i numerosi possibili componenti.

■ MODULAR SYSTEM FOR P/B PANELS

The modular system for push-button panels, specifically designed by New Elfin to meet specific market and working needs is provided with several components allowing the user to configure multiple structures to be integrated in machine, tools, like presses, folding machines, laser welding machines, etc.

■ COLORATION

The range of colours available, from grey to satin aluminium, enhance the aesthetic integration with existing equipment, while the use of neutral shades reduces the chromatic impact that could distract machine operators during work.

■ DIMENSIONS AND SHAPE

The new two-hand control, device designed to be installed in small areas, has dimensions of 380 x 90 x 90 mm and very large internal volume. Its ergonomic shape enhances comfort during use, while the size of the palm resting area enables operators to easily grasp the buttons between the thumb and fingers.

■ MODULAR SYSTEM FOR P/B PANELS

The versatility and modularity of the system can also be fitted with a support arm, which can be used to hold a wide range of specific components. The truncated conical shape of the joints confers solidity and rigidity to the frame.

■ CASTOR KIT

The castor kit offers a rational solution to the problem of mobility without affecting the overall stability of the base.

■ CONNECTION KIT

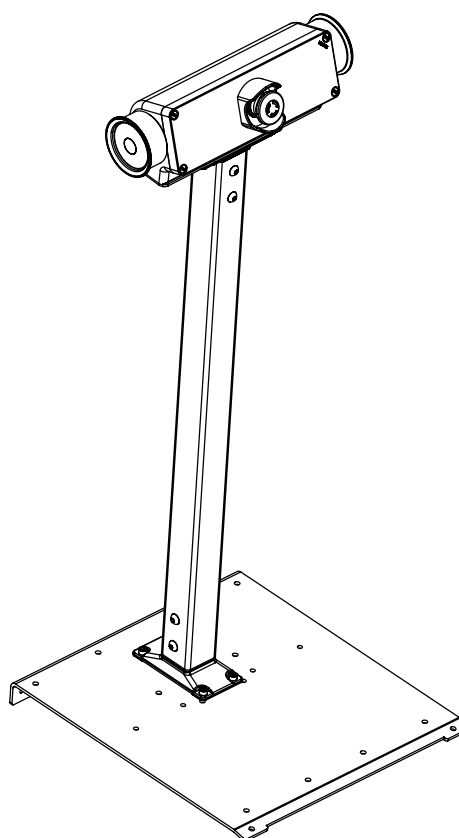
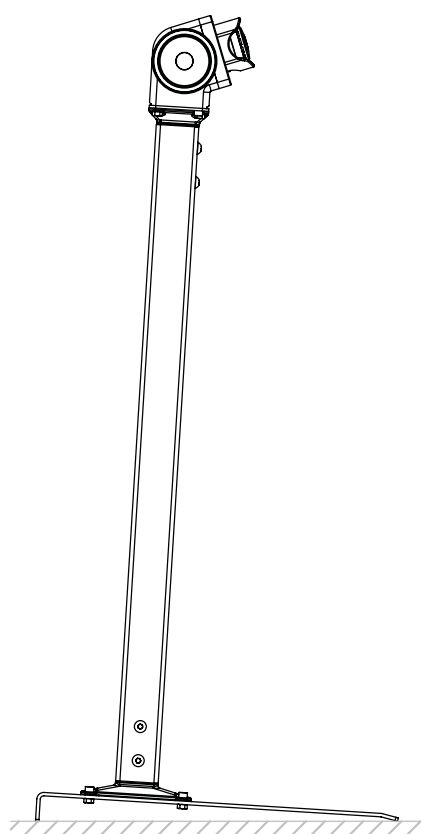
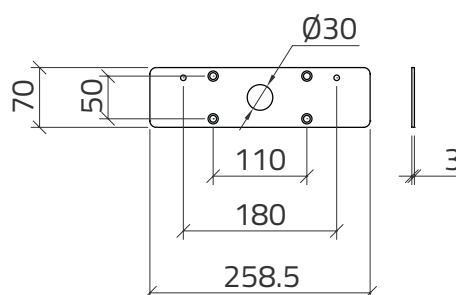
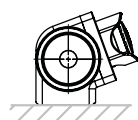
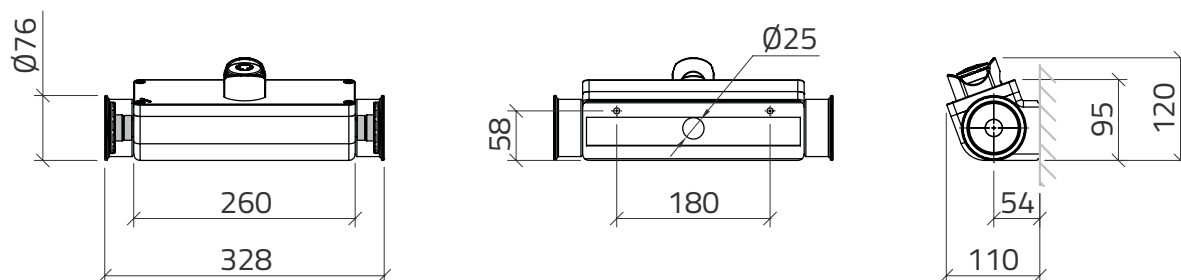
The connection kit allows to easily wire up all the components installed on the base.

Pulsantiera a due mani Two-hand control device



Dispositivi di comando a due mani

Two-hand control devices



Dispositivi di comando a due mani

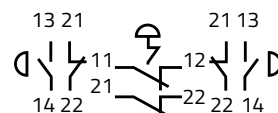
Two-hand control devices

Pulsantiera a due mani inclinata in alluminio

Sloped aluminium two-hand control panel



- RAL 7016
- RAL 2011



g

1461
1461

cod

060CL2MA
060CL2MAA

Accessori

Accessories



Piastra accoppiamento pulsantiera inclinata

Coupling plate for sloped panel

g

450

cod

060PAP



Stativo componibile ortogonale

Orthogonal modular stand

7040

060SCO

Stativo componibile ortogonale con base di derivazione

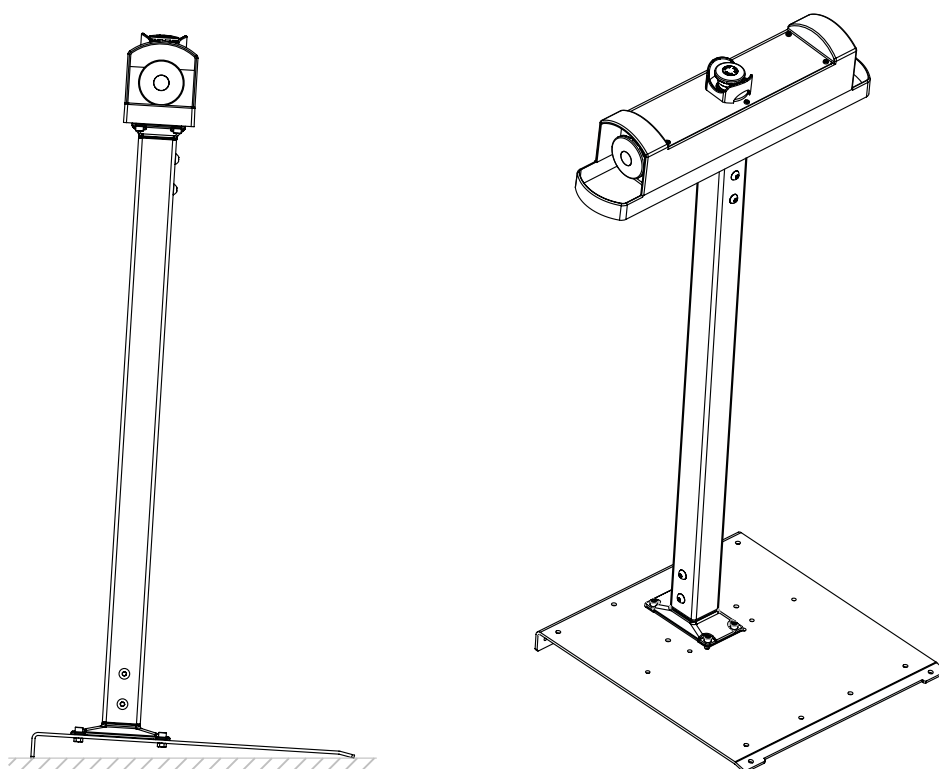
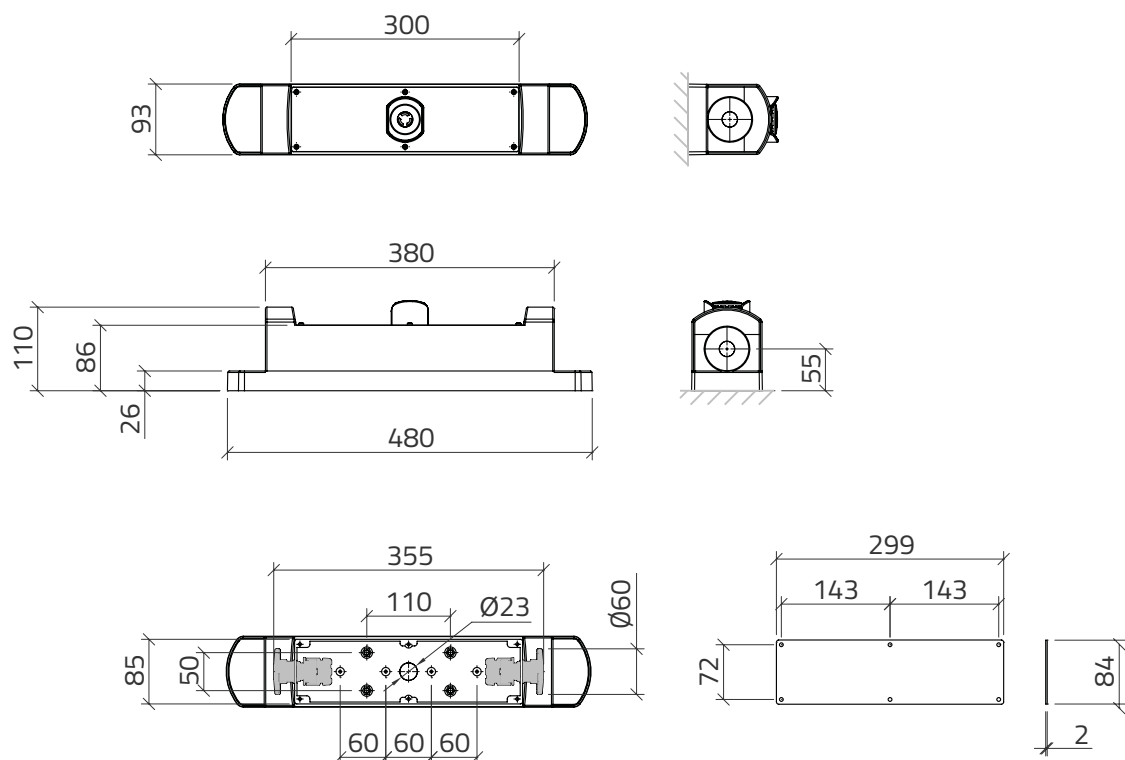
Orthogonal modular stand with derivation base

7500

060SCDO

Dispositivi di comando a due mani

Two-hand control devices



Dispositivi di comando a due mani

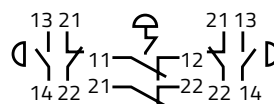
Two-hand control devices

Pulsantiera a due mani console in alluminio

Aluminium console two-hand control panel



- RAL 7016
- RAL 2011



g

2050
2050

cod

060C2MA
060C2MAA

Pulsantiera a due mani console da completare

Console two-hand control panel to be completed



Pulsantiera con pulsanti
Control panel with push-buttons

- RAL 7016
- RAL 2011



g

1730
1730

cod

060C2MGRP
060C2MAP

Accessori

Accessories

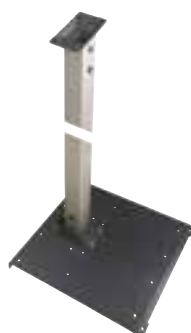


Piastra di ricambio / Spare plate

g

150

cod

060PC

Stativo componibile ortogonale
Orthogonal modular stand

7040

060SCO

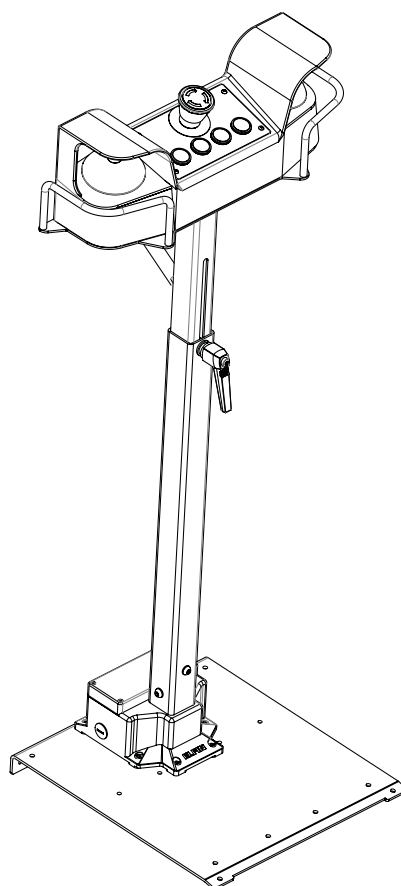
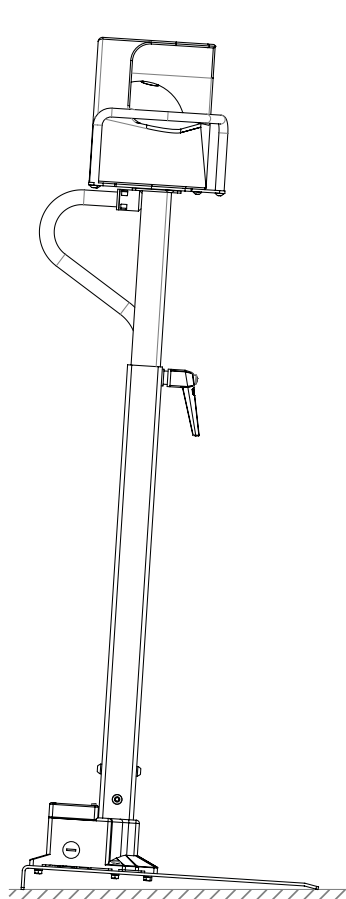
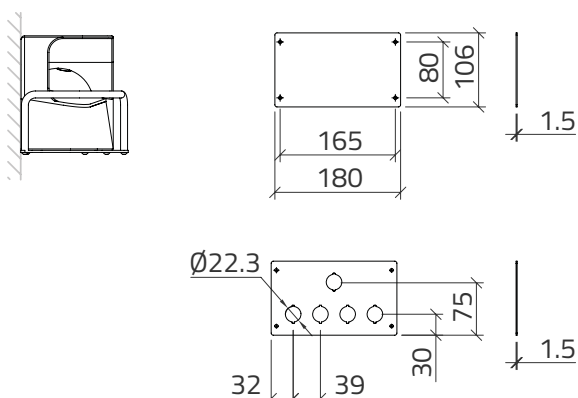
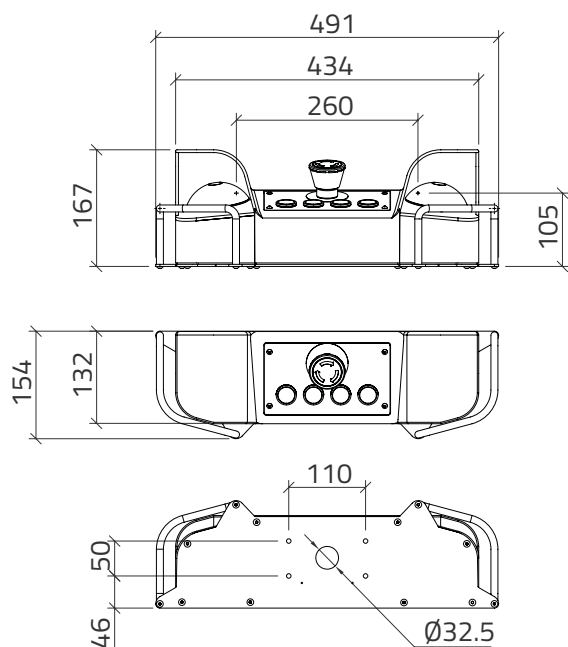
Stativo componibile ortogonale con base di derivazione
Orthogonal modular stand with derivation base

7500

060SCDO

Dispositivi di comando a due mani

Two-hand control devices



Dispositivi di comando a due mani

Two-hand control devices

Pulsantiera a due mani protetta in alluminio

Aluminium two-hand control panel protected



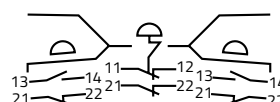
● RAL 7016

4650

060P2MA

● RAL 2011

4650

060P2MAA

Pulsantiera a due mani protetta da completare

Two-hand control panel protected to be completed



Pulsantiera con pulsanti
Control panel with push-buttons

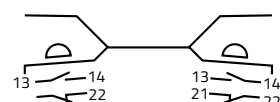
● RAL 7016

4454

060P2MGRP

● RAL 2011

4454

060P2MAP

Accessori

Accessories



Piastra di ricambio non forata, grigia
Grey spare plate undrilled

200

060PP2MNGR

Piastra di ricambio non forata, arancio
Orange spare plate undrilled

200

060PP2MNA

Viti chiusura ermetica / Sealing screws

25

060VCE

Stativo telescopico
Telescopic Stand

● RAL 7016

11040

060STP2M

● RAL 2011

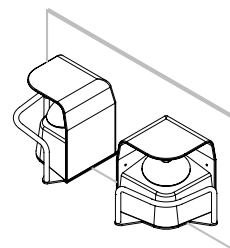
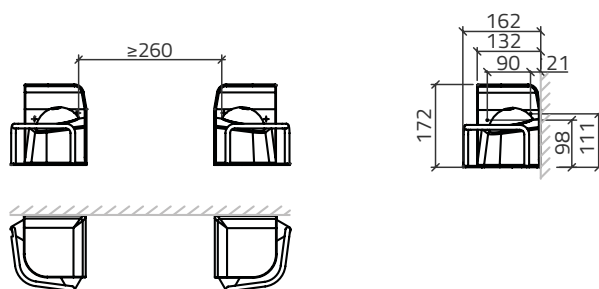
11040

060STP2MA

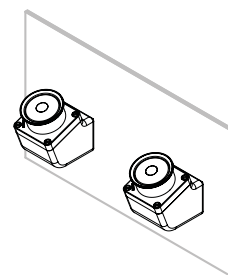
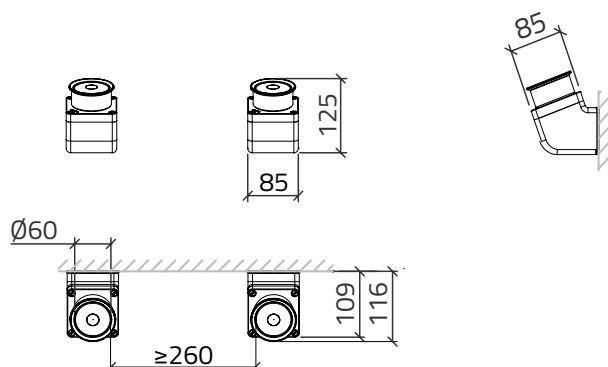
Dispositivi di comando a due mani

Two-hand control devices

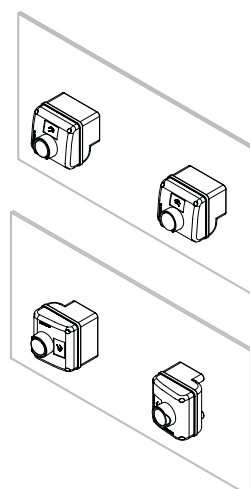
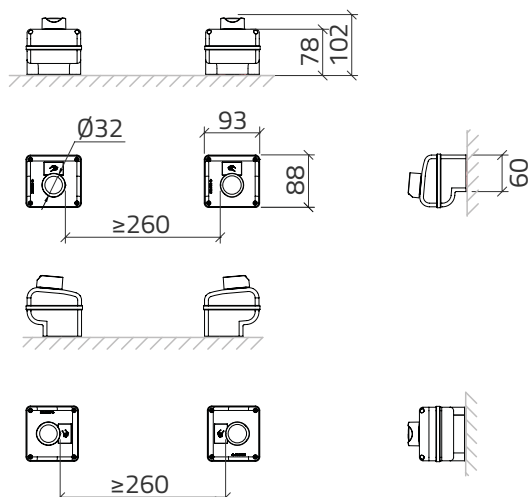
060MPP2GR



060MLP2GR



060MEP2GR



Dispositivi di comando a due mani

Two-hand control devices

Moduli singoli in alluminio

Single aluminium modules



Moduli singoli protetti per comando a due mani

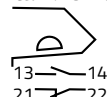
Protected single modules for two-hand control

● Grigio / Gray

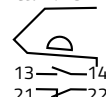
3200

060MPP2GR

Unità 1/ Unit 1



Unità 2/ Unit 2



Moduli singoli inclinati per comando a due mani

Sloped single modules for two-hand control

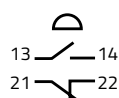
Involucro inclinato in alluminio - 2 unità
Sloped aluminium enclosures - 2 units

● Grigio / Gray

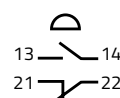
1300

060MLP2GR

Unità 1/ Unit 1



Unità 2/ Unit 2



Moduli singoli in termoplastico

Single thermoplastic modules



Moduli singoli per comando a due mani

Single modules for two-hand control

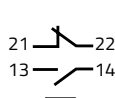
Involucro ergonomico in termoplastico - 2 unità
Ergonomic thermoplastic enclosures - 2 units

● Grigio / Gray

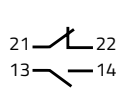
400

060MEP2GR

Unità 1/ Unit 1



Unità 2/ Unit 2



Dispositivi di comando a due mani

Two-hand control devices

Stativi componibili per comando bimanuale

Modular stands for two-hand control panel

g

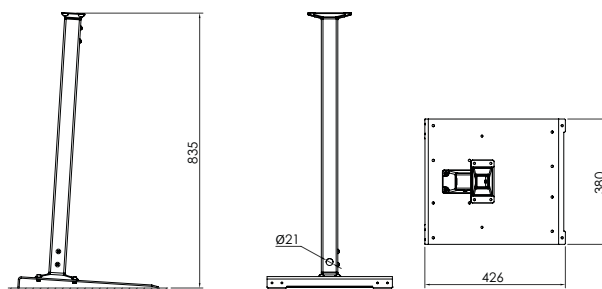
cod

Per articoli 060CL2M_, 060C2M_
For item code 060CL2M_, 060C2M_

Stativo componibile ortogonale
Orthogonal modular stand

7039

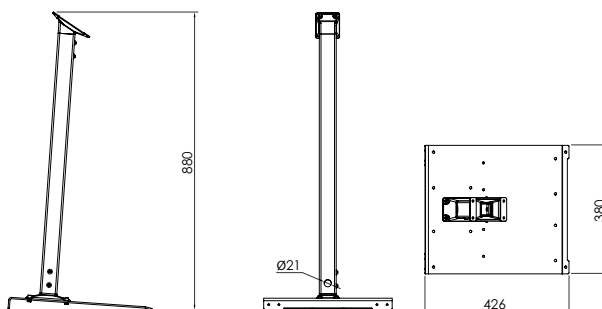
060SCO



Stativo componibile inclinato
Sloped modular stand

7110

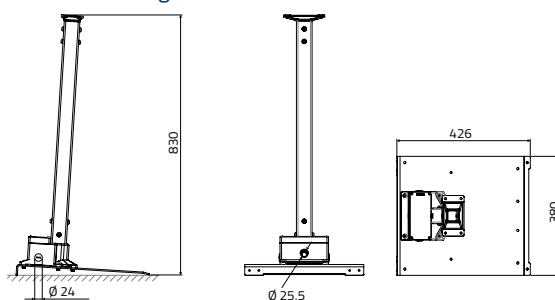
060SCI



Stativo componibile ortogonale con base di derivazione
Orthogonal modular stand with derivation base

7500

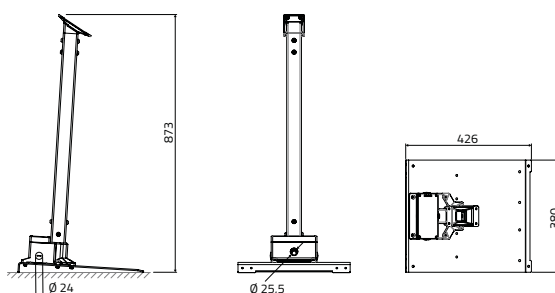
060SCDO



Stativo componibile inclinato con base di derivazione
Sloped modular stand with derivation base

7500

060SCDI



Dispositivi di comando a due mani

Two-hand control devices

Stativi telescopici per comando bimanuale

Telescopic stands for two-hand control panel

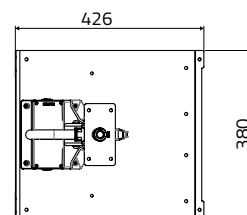
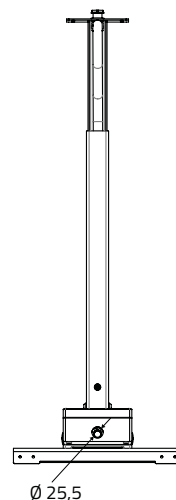
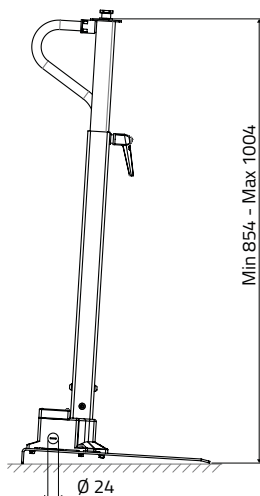


Per articoli 060P2M_
For item code 060P2M_

- RAL 7016
- RAL 2011

11040
11040

060STP2M
060STP2MA



Ruote

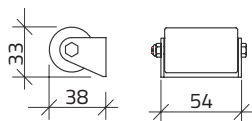
Wheels



Kit di ruote per piastra base colonna
Castor kit for column base plate

200

060KR



Dispositivi di comando a due mani

Two-hand control devices

Piastre Plates

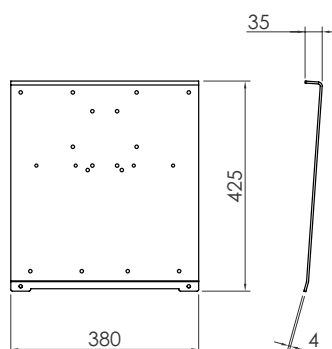
g

cod

Piastra base stativo / Column base plate

5650

060BS



Giunti Joints

g

cod

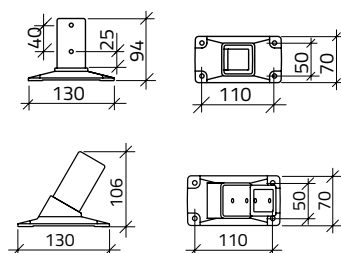
Ortagonale / Orthogonal
Inclinato / Oblique

327

060GCO

410

060GCI



Colonne Columns

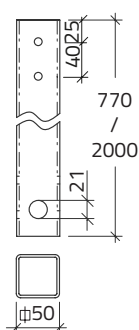
g

cod

Lunghezza / Length mm 770

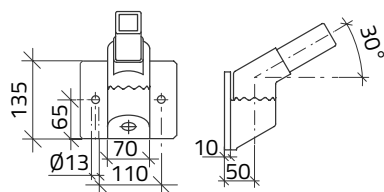
1185

060C8

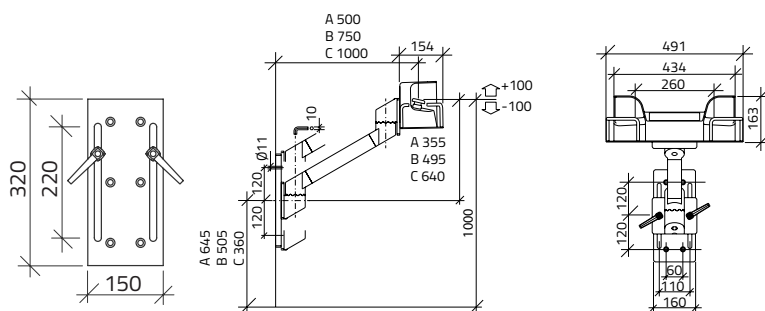


Dispositivi di comando a due mani

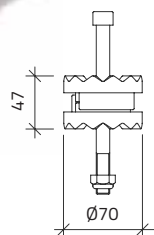
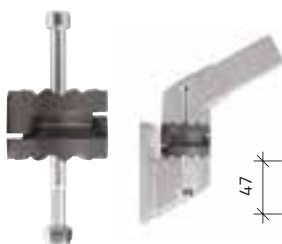
Two-hand control devices

**Supporto per braccio / Arm support****g**

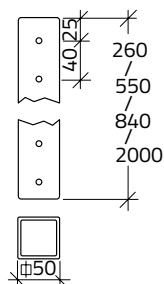
1800

cod**060SB****Piastra di regolazione/ Adjustment plate****g**

2420

cod**060PRB0****Snodo per braccio
Articulated joint for arm****g**

530

cod**060SRB0****Bracci / Arms**

Lunghezza / Length mm 260	360	060B2
Lunghezza / Length mm 550	780	060B5
Lunghezza / Length mm 840	1160	060B8
Lunghezza / Length mm 2000		
senza fori / undrilled	2790	060C2000

Pulpito di emergenza

Emergency stand



Pulpito pulsante di emergenza

Emergency push-button stand

Lunghezza / Length mm 710
Lunghezza / Length mm 830

g

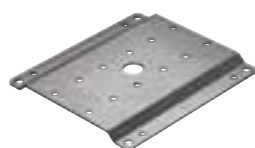
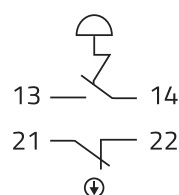
cod

1535

060PES7

1815

060PES8



Piastra / Plate

Piastra base colonna / Column base plate

g

cod

836

060PAC



Piastre / Plates

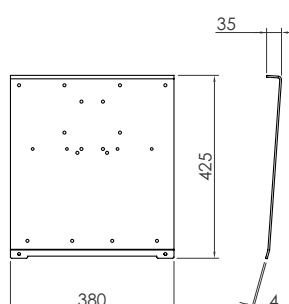
Piastra base colonna / Column base plate

g

cod

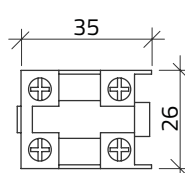
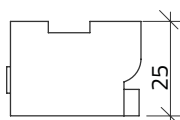
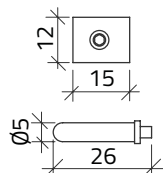
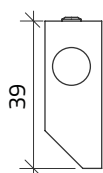
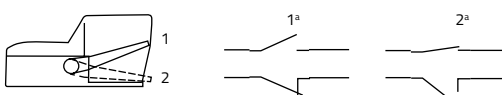
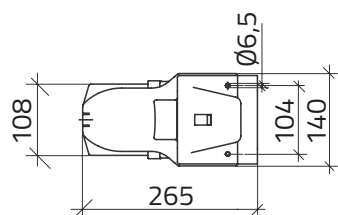
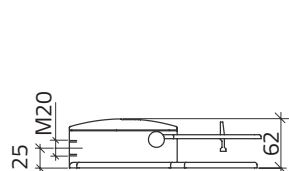
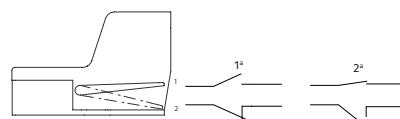
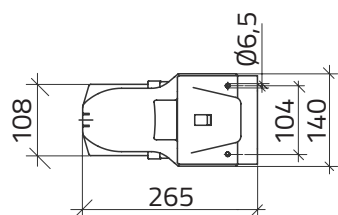
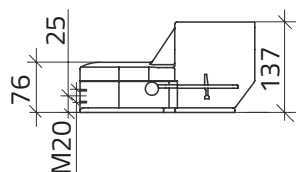
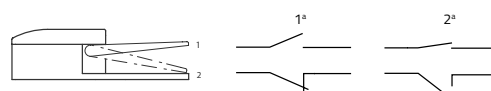
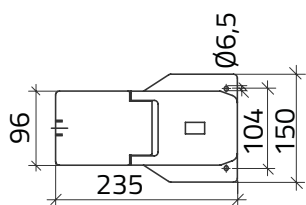
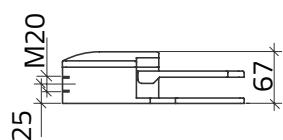
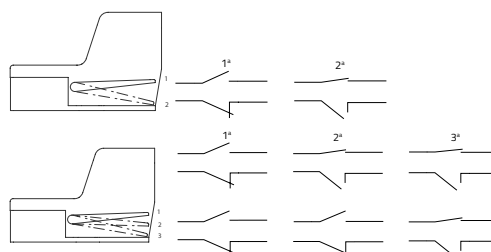
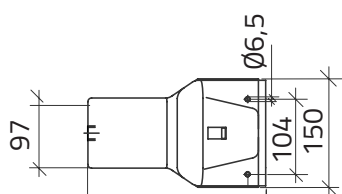
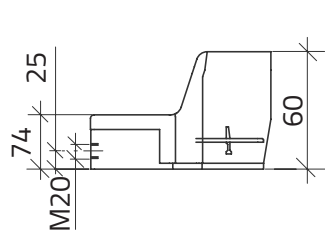
5650

060BS



Interruttori a pedale

Foot switches



Interruttori a pedale

Foot switches

Interruttori a pedale in termoplastico

Thermoplastic foot switches



2 posizioni (1 microinterruttore) con leva di sicurezza
2 positions (1 microswitch) with safety lever

● Grigio / Grey

g

cod

900

060PPLT11

3 posizioni (2 micro interruttori)
3 positions (2 microswitches)

1000

060PP3PT22



Senza coperchio / Without cover

2 posizioni (1 microinterruttore)
2 positions (1 microswitch)

● Rosso / Red

632

060PT11

g

cod

Interruttori a pedale in alluminio

Aluminium foot switches



2 posizioni (1 microinterruttore) con leva di sicurezza
2 positions (1 microswitch) with safety lever

1700

060PPLA11



Senza coperchio / Without cover

2 posizioni (1 microinterruttore) con leva di sicurezza
2 positions (1 microswitch) with safety lever

1232

060PA11

g

cod

Kit di connessione interruttori a pedale

Foot switch connection kit



-

060KCP

g

cod

Accessori per comando a pedale

Foot switch accessories



Kit 2° micro / Kit for 2nd microswitch

74

060KM11

Ricambio micro / Spare microswitch

22

060M11

Modulo di contemporaneità

Simultaneous action controller

CARATTERISTICHE PRINCIPALI

- **Controllo a due mani:** 060MCP2M monitora il funzionamento sicuro delle console di controllo a due mani di tipo IIIC.
- **Conformità alla Direttiva Macchine:** Categoria 4, PL e secondo EN ISO 13849-1
- **Uscite di sicurezza:** Relè di sicurezza a guida forzata elettro meccanici con uscite ausiliarie 2NA + 1NC
- **Cablaggio flessibile:** Il modulo è dotato di morsetti a vite rimovibili per un facile cablaggio e manutenzione del prodotto; le morsettiere sono codificate in modo da evitare errori di collegamento
- **Diagnostica:** Indicazioni a LED per alimentazione, stato degli ingressi di sicurezza e stato delle uscite di sicurezza
- **Compatto:** 1 modulo DIN, L x A x P: 17,5 x 110,8 x 121,1mm
- **Approvazioni:** TÜV. CE, cULus

FUNZIONI PRINCIPALI

- Monitoraggio del funzionamento sicuro delle console di comando a due mani (Tipo IIIC secondo EN ISO 13851), utilizzato in applicazioni che richiedono all'operatore di supervisionare in sicurezza il funzionamento della macchina
- Funzionamento a doppio canale di sicurezza delle console di comando a due mani
- Controllo di 2 uscite di sicurezza NA con relè di sicurezza elettromeccanici
- Diagnostica del circuito di sicurezza tramite indicazioni a LED per alimentazione, stato degli ingressi di sicurezza e stato delle uscite di sicurezza
- 1 uscita ausiliaria NC utilizzabile per l'indicazione remota di stato

COMPATIBILITÀ E CONFORMITÀ

- **Direttiva bassa tensione 2014/35/UE**
EN 60947-5-1.
Apparecchiature e quadri di comando in bassa tensione - Dispositivi ed elementi di commutazione circuito di controllo
- **Direttiva EMC 2014/30/UE**
EN 60947-5-1.
Apparecchiature e quadri di comando in bassa tensione - Dispositivi ed elementi di commutazione circuito di controllo
- **Direttiva macchine 2006/42/CE. Esame di tipo CE certificato**
TÜV Cert. no. 44 205 15058307
EN ISO 13849-1
Sicurezza delle macchine - parti dei sistemi di controllo legate alla sicurezza- Principi generali di progettazione.
EN 60204-1
Sicurezza delle macchine - Equipaggiamento elettrico delle macchine - Requisiti generali Comando a due mani di tipo III
EN ISO 13851.
Sicurezza delle macchine - Dispositivi di comando a due mani Principi per la progettazione e la selezione.
EN 61326-3-1.
Apparecchiature elettriche per misurazione, controllo e uso in laboratorio. Requisiti EMC. Requisiti di immunità per i sistemi di sicurezza e per le apparecchiature destinate a svolgere funzioni di sicurezza (sicurezza funzionale)

MAIN FEATURES

- **Two-hand control:** 060MCP2M monitors the safe operation of Type IIIC two-hand control consoles
- **Machinery Directive compliance:** Cat. 4, PL e in accordance with EN ISO 13849-1
- **Safety outputs:** Electromechanical forcibly guided safety relays with 2NO+1NC aux outputs
- **Flexible wiring:** The module is equipped with detachable screw terminals for easy wiring and product maintenance; the terminal blocks are coded so to avoid wiring mistakes
- **Diagnostic:** LED indications for power supply, state of the safety inputs and state of the safety outputs
- **Compact:** 1-DIN, W x H x D: 17,5 x 110,8 x 121,1mm
- **Approval:** by TÜV. CE, cULus

MAIN FUNCTIONS

- Monitoring of the safe operation of two-hand control consoles (Type IIIC as per EN ISO 13851), used in applications requiring the operator to supervise safely the operation of the machinery
- Double safety channels operation of two-hand control consoles
- Control of 2 NO safety outputs with electromechanical safety relays
- Diagnostic of the safety circuit through on-board LED indications for power supply, status of safety channels and status of safety outputs
- 1 NC auxiliary output that can be used for external status indication

COMPATIBILITY AND CONFORMITY

- **Low Voltage Directive 2014/35/EU**
EN 60947-5-1.
Low-voltage switchgear and controlgear - Control circuit devices and switching elements.
- **EMC Directive 2014/30/EU**
EN 60947-5-1.
Low-voltage switchgear and controlgear - Control circuit devices and switching elements.
- **Machinery Directive 2006/42/EC EC type examined by TÜV**
Cert. no. 44 205 15058307
EN ISO 13849-1
Safety of machinery - safety related parts of control systems General principles for design
EN 60204-1 Safety of machinery - Electrical equipment of machines - General requirements. Two-hand control type III
EN ISO 13851 Safety of machinery - Two-hand control devices - Principles for design and selection
EN 61326-3-1
Electrical equipment for measurement, control and laboratory use. EMC requirements. Immunity requirements for safety-related systems and for equipment intended to perform safety-related functions (functional safety)

Modulo di contemporaneità

Simultaneous action controller



Elemento	Componente	Funzione
A	Morsettiere rimovibili	Alimentazione, segnale di feedback, ingressi e uscite di sicurezza
B	LED	Stato dell'alimentazione
C	LED	Stato degli ingressi di sicurezza
D	LED	Stato delle uscite di sicurezza

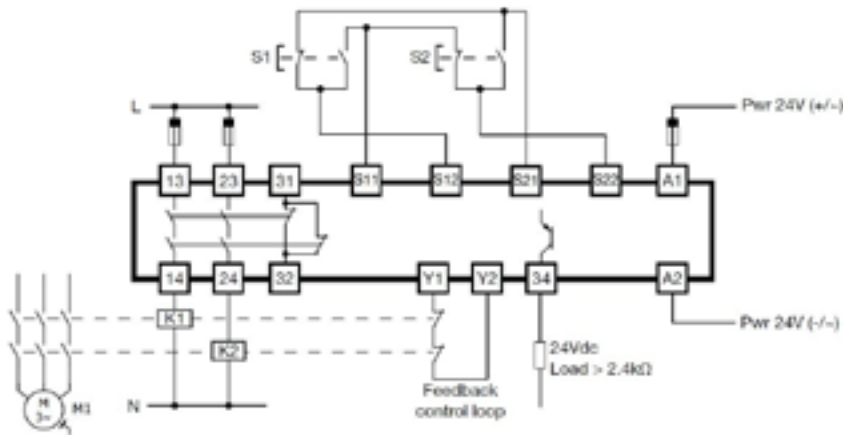
Element	Component	Function
A	Pluggable terminal blocks	Power supply, feedback signal safety inputs and outputs
B	LED	Power supply status
C	LED	Safety inputs status
D	LED	Safety outputs status

Schema di collegamento

Terminale	Funzione
A1	alimentazione 24 Vdc (+)/Vac(-)
A2	alimentazione 24 Vdc (-)/Vac(-)
S11-S12	ingresso canale 1 NA
S21-S22	ingresso canale 2 NA input
Y1-Y2	ingresso di feedback NC
10-14	uscita sicura NA
23-24	uscita sicura NA
31-32	uscita ausiliaria NC
34	uscita ausiliaria PNP

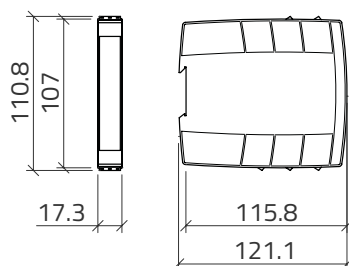
Connection diagram

Terminal	Function
A1	power supply 24 Vdc (+)/Vac(-)
A2	power supply 24 Vdc (-)/Vac(-)
S11-S12	channel 1 NO input
S21-S22	channel 2 NO input
Y1-Y2	NC feedback input
10-14	NO safety output
23-24	NO safety output
31-32	NC auxiliary output
34	PNP auxiliary output



Modulo di contemporaneità

Simultaneous action controller



Modulo di contemporaneità / Simultaneous action controller

Modulo / Controller

239

060MCP2M

Il modulo di sicurezza 060MCP2M è progettato per applicazioni fino alla Categoria 4, Livello di prestazione PLe in conformità con la Direttiva macchine EN ISO 13849-1 per monitorare e controllare in sicurezza il funzionamento delle console di controllo a due mani (Tipo III C secondo UNI EN ISO 13851). Il dispositivo abilita le uscite di controllo di sicurezza solo se i due pulsanti della console sono attivati dall'operatore contemporaneamente o con un intervallo massimo di 500 ms l'uno dall'altro.

The 060MCP2M safety module is designed in Category 4, Performance Level e in accordance with the Machine Directive EN ISO 13849-1 to monitor and control safely the operation of two-hand control consoles (Type III C according to UNI EN ISO 13851). The device enables the safety control outputs only if the two buttons of the console are activated by the operator simultaneously or with a max interval of 500 ms from each other.

Caratteristiche tecniche

Materiale	PA-GF, autoestinguente: UL 94 V-0
Montaggio	Montaggio su guida DIN (secondo EN 50022)
Alimentazione	24VCC $\pm$ 10%; 24VCA -15%/+10%, 50-60 Hz, Classe 2 Categoria di sovratensione III Protezione da corto circuito a mezzo PTC Tensione nominale di isolamento 4 kV
Numero di canali di ingresso	2
Ingressi	S11-S12 e S21-S22
Resistenza linea circuito ingressi	Max. 30 k Ω (eq. 2500m 1,5mm ² Cu)
Corrente di ingresso	Tipica 30 mA
Numero di uscite sicure NA	2
Numero di uscite ausiliarie NC	1
Numero di uscite ausiliarie	PNP 1; PNP, 24 VCC, carico resistivo esterno min 2.4 k Ω
Tipo di uscita	NA e NC Contatti liberi da tensione, relè con contatti a guida forzata
Corrente Max	Per ciascuna uscita @ 60°C (140°F) temperatura di funzionamento: CA 1: 250V / 6A / 2000 VA - CA 15: 230V / 3A CC 1: 24V / 6A - CC 13: 24V / 2.5A / 0.1 Hz UL508, pilot duty: B300 / R300
Corrente Max quadratica	Spazio tra i moduli $\geq$ 100mm: 72A2 @40°C (104°F) temperatura ambiente Moduli montati affiancati: 26A2 @25°C (77°F) temperatura ambiente Fare riferimento alle curve di declassamento nel manuale di istruzioni
Durata meccanica	> 107 operazioni
Durata elettrica	AC1 (360 commutazioni/h) ~ 105 operazioni
ISO 13849-1 Categoria di sicurezza	Cat. 4
ISO 13849-1	Livello di prestazione PL e
MTTFD [a]	422,1
PFHD [1/h]	1,35 E-10
DCavg	99%
β	5,00 E-02
β D	2,00 E-02
Grado di protezione	IP40 sul frontale della custodia, IP20 sui terminali. Il dispositivo deve essere installato in un quadro elettrico con almeno un grado di protezione pari a IP54
Grado di inquinamento	2
Temperatura di funzionamento	-25 $\pm$ +60°C (-13 $\pm$ 140°F), UL: +40°C (104°F)
Temperatura di immagazzinamento	-30 $\pm$ +70°C (-22 $\pm$ 158°F)
Umidità ambiente	R.H. $\leq$ 95% in assenza di condensa

Technical data

Material	PA-GF, self-extinguishing: UL 94 V-0
Assembly	DIN rail mounting (according to EN 50022)
Power supply	24Vdc $\pm$ 10%; 24Vac -15%/+10%, 50-60 Hz, Class 2 Overvoltage category III Short circuit protection internal PTC Rated insulation voltage 4 kV
Number of safety channels	2
Safety inputs	S11-S12 e S21-S22
Loop resistance	Max. 30 k Ω (eq. 2500m 1,5mm ² Cu)
Input current	Typical 30 mA
NO safety outputs	2
NC auxiliary output	1
PNP auxiliary output	1; PNP collector, 24 Vdc, min external resistive load 2.4 k Ω
NO and NC outputs type	Voltage free contact output, relays with forcibly guided contacts
Max current rating	single output @ 60°C (140°F) operating temperature: AC 1: 250V / 6A / 2000 VA - AC 15: 230V / 3A DC 1: 24V / 6A - DC 13: 24V / 2.5A / 0.1 Hz UL508, pilot duty: B300 / R300
Max quadratic current	Spacing between modules $\geq$ 100mm: 72A2 @40°C (104°F) ambient temperature Modules mounted stacked: 26A2 @25°C (77°F) ambient temperature Please refer to the derating curves in installation manual
Mechanical life	> 107 operations
Electrical life	AC1 (360 s/h) ~ 105 operations
ISO 13849-1 Safety Category	Cat. 4
ISO 13849-1	Livello di prestazione PL e
MTTFD [a]	422,1
PFHD [1/h]	1,35 E-10
DCavg	99%
β	5,00 E-02
β D	2,00 E-02
Protection grade	IP40 on frontal part of the housing, IP20 on the terminals. The device has to be installed in a cabinet with protection degree of IP54.
Pollution degree	2
Operating temperature	-25 $\pm$ +60°C (-13 $\pm$ 140°F), UL: +40°C (104°F)
Storage temperature	-30 $\pm$ +70°C (-22 $\pm$ 158°F)
Ambient humidity range	R.H. $\leq$ 95% non condensing



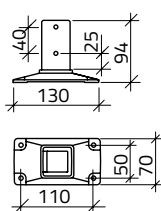
Esempi di realizzazione Mounting examples



Sistema di sospensione modulare per automazione

Modular suspension system for enclosures

Giunti / Joints



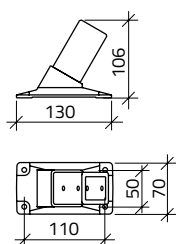
Ortagonale / Orthogonal

g

327

cod

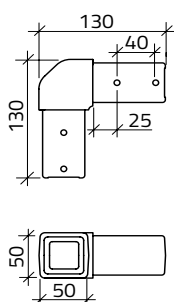
060GCO



Inclinato / Oblique

410

060GCI



Angolare 90° / Angle 90°

651

060GCA

Sistema di sospensione modulare per automazione

Modular suspension system for enclosures

Giunti / Joints

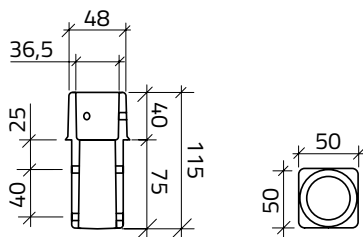
g

cod

Girevole assiale / Swivel, axial

324

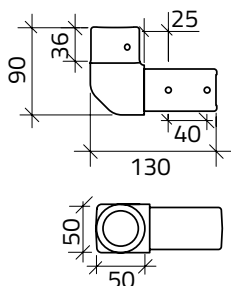
060GRD



Girevole 90° / Swivel 90°

521

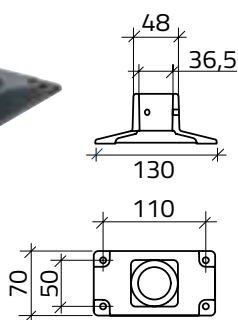
060GRA



Girevole / Swivel

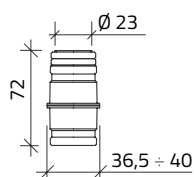
243

060GRO

Bussola girevole interno foro Ø 23
Swivel bushing, bore Ø 23

310

060GSR



Pulsantiera mobile

Hand-held push-button control unit



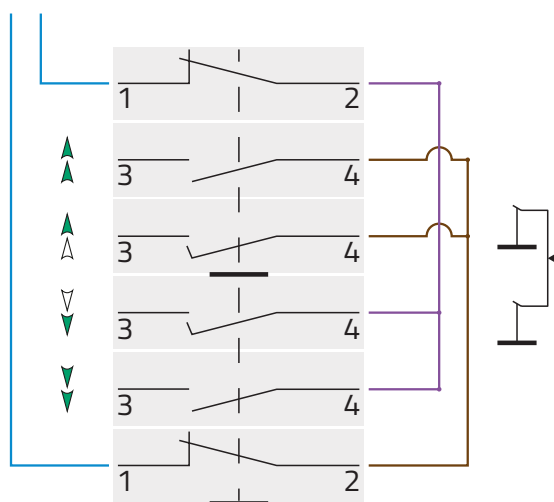
Fornibili operatori ad una o due velocità

Operators available at one or two speed



Manicotto antitorsione e serracavo antistrappo

Anti-torsion sleeve and tear-proof cable clamp



Coppia di operatori interbloccati meccanicamente ed elettricamente a due velocità

Couple of mechanically and electrically interlocked operators at two speeds

Pulsantiere pensili

Pendant push-button stations

Con operatore / With operator

g

cod

2 operatori + emergenza 1NC / 2 operators + emergency 1NC



Pulsanti a 1 velocità / 1 speed push-buttons

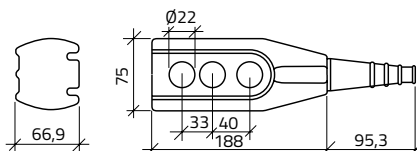
390

060PM2S1

Pulsanti a 2 velocità / 2 speed push-buttons

390

060PM2S2



4 operatori + emergenza 1NC / 4 operators + emergency 1NC



Pulsanti a 1 velocità / 1 speed push-buttons

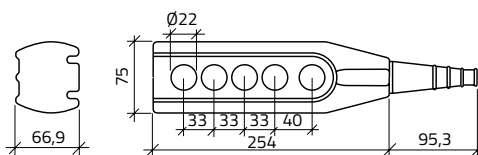
550

060PM4S1

Pulsanti a 2 velocità / 2 speed push-buttons

550

060PM4S2



6 operatori + emergenza 1NC / 6 operators + emergency 1NC



Pulsanti a 1 velocità / 1 speed push-buttons

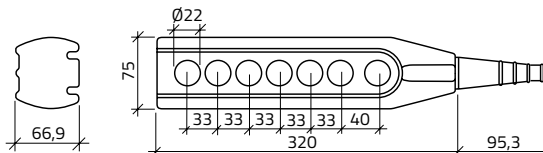
960

060PM6S1

Pulsanti a 2 velocità / 2 speed push-buttons

960

060PM6S2



8 operatori + emergenza 1NC / 8 operators + emergency 1NC



Pulsanti a 1 velocità / 1 speed push-buttons

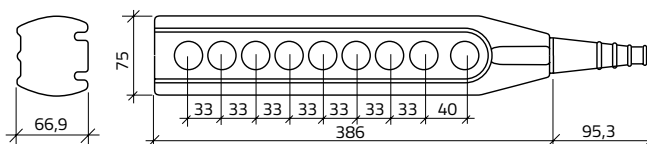
1070

060PM8S1

Pulsanti a 2 velocità / 2 speed push-buttons

1070

060PM8S2



Caratteristiche tecniche

Technical data

Involucro

Body

ABS

ABS

Grado

Degree

di protezione

of protection

IP65

IP65

Temperatura di esercizio

Operating temperature

-5°C +125°C

-5°C +125°C

Caratteristiche pulsanti

Durata meccanica

5 x 10⁵ cicli di manovra

Durata elettrica

1 x 10⁵ cicli di manovra

Tensione nominale Ue

250v AC

Corrente nominale Ia

4 A

Potenze nominali di impiego in AC 15 secondo IEC947-5-1

1000 VA

Tensione di isolamento UI

300V Uimp 2,5 Kv

Push-button performance

Mechanical durability

5 x 10⁵ operations

Electrical durability

1 x 10⁵ operations

Rating operating voltage Ue

250v AC

Rating operating current Ia

4 A

Rated switching power according to IEC947-5-1

1000 VA

Insulation Voltage UI

300V Uimp 2,5 Kv

