



060

**DISPOSITIVI DI COMANDO
E DI SICUREZZA**

**SAFETY CONTROL
DEVICES**



Pulsanti a palmo

Palm switches

CARATTERISTICHE GENERALI / MAIN FEATURES



Meccanicamente resistente
Strong and hard



Adatto ad alte temperature
Heat resistant



Adatto a basse temperature
Cold resistant



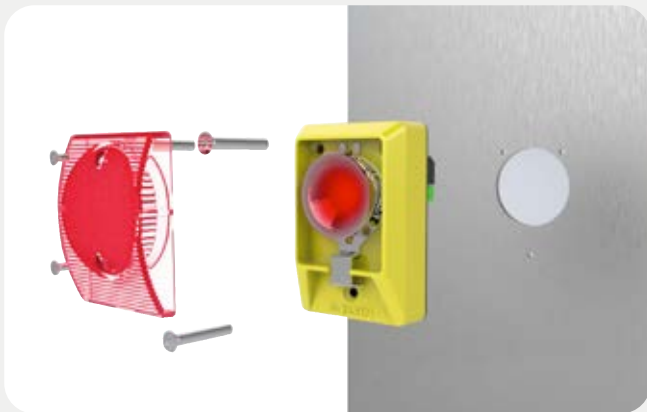
Resistente agli shock
Shock resistant



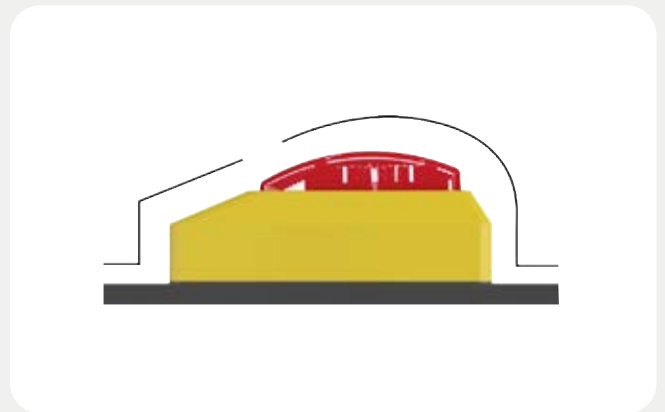
Ampia gamma di utilizzo
Wide range of use

Pulsanti a palmo

Palm switches



Montaggio a parete
Wall mounting



Forma senza soluzione di continuità
Seamless shape



Con contenitore
With enclosure



Ad incasso
Without enclosure



Esecuzione ad aggancio con luce lampeggiante
Illuminated latching model with flashing light



Tasto e custodia luminosi
Mechanical latching



Esecuzione a due colori con possibilità di simboli
Two-colour model with possibility of fitting symbols

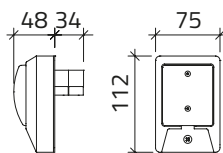
Pulsanti d'arresto a palmo non luminosi

Non-illuminated stop palm switches

Momentanei, tasto bombato
Momentary, dome button

g

cod

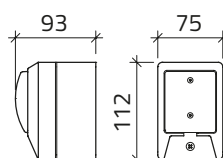
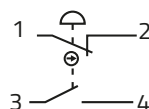


Senza custodia / Without enclosure

● Rosso / Red

284

060APTR

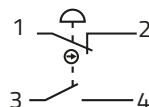


Con custodia / With enclosure

● Rosso / Red

366

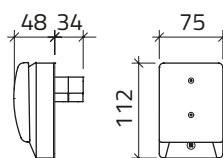
060APTRC



Momentanei, tasto a fungo
Momentary, mushroom button

g

cod

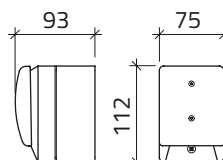
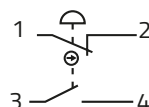


Senza custodia / Without enclosure

● Rosso / Red

284

060APFR

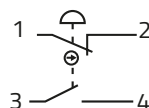


Con custodia / With enclosure

● Rosso / Red

366

060APFRC



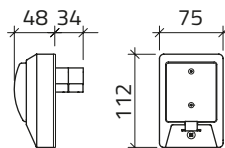
Pulsanti d'emergenza a palmo non luminosi

Non-illuminated emergency stop palm switches

Ad aggancio, tasto bombato
Latching, dome button

g

cod

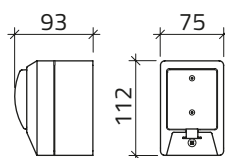
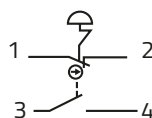


Senza custodia / Without enclosure

● Rosso / Red

305

060APATR

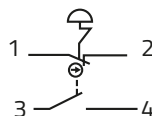


Con custodia / With enclosure

● Rosso / Red

387

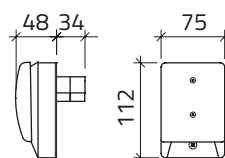
060APATRC



Ad aggancio, tasto a fungo
Latching, mushroom button

g

cod

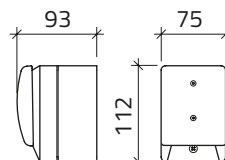
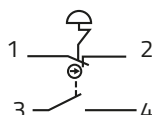


Senza custodia / Without enclosure

● Rosso / Red

305

060APAFR

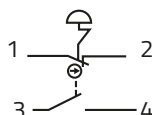


Con custodia / With enclosure

● Rosso / Red

387

060APAFRC



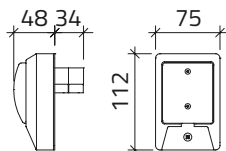
Pulsanti d'arresto a palmo luminosi

Illuminated stop palm switches

Momentanei, tasto bombato
Momentary, dome button

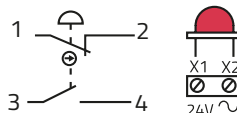
g

cod



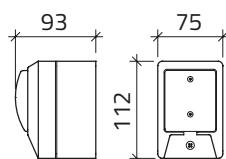
Senza custodia / Without enclosure

● Rosso / Red



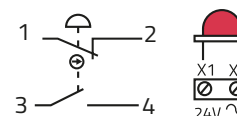
291

060APTLR



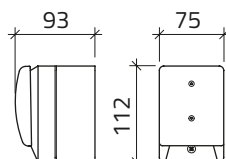
Con custodia / With enclosure

● Rosso / Red



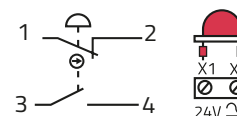
373

060APTLRC



Con custodia luminosa / With illuminated enclosure

● Rosso / Red



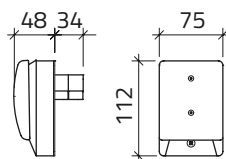
373

060APTLRCL

Momentanei, tasto a fungo
Momentary, mushroom button

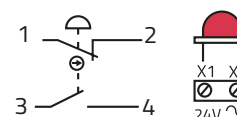
g

cod



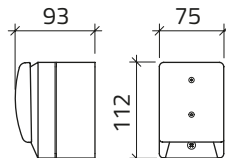
Senza custodia / Without enclosure

● Rosso / Red



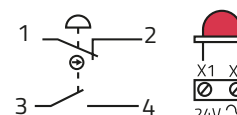
291

060APFLR



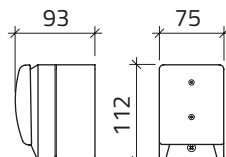
Con custodia / With enclosure

● Rosso / Red



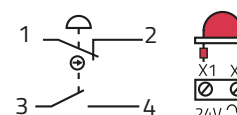
373

060APFLRC



Con custodia luminosa / With illuminated enclosure

● Rosso / Red



373

060APFLRCL



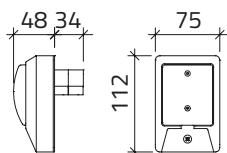
Pulsanti d'emergenza a palmo luminosi

Illuminated emergency stop palm switches

Ad aggancio, tasto bombato
Latching, dome button

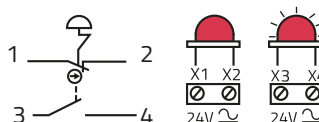
g

cod



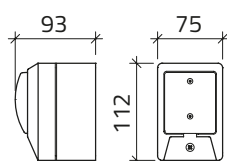
Senza custodia / Without enclosure

● Rosso / Red



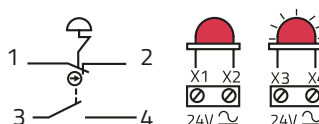
312

060APATLR



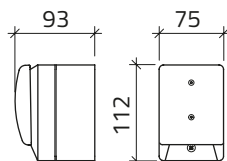
Con custodia / With enclosure

● Rosso / Red



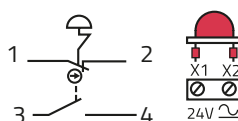
394

060APATLRC



Con custodia luminosa / With illuminated enclosure

● Rosso / Red



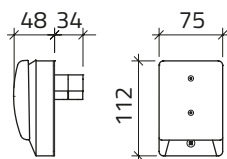
394

060APATLRCL

Ad aggancio, tasto a fungo
Latching, mushroom button

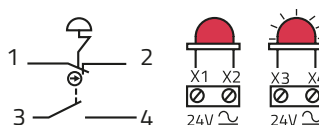
g

cod



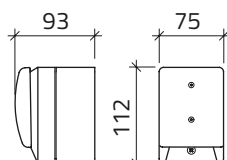
Senza custodia / Without enclosure

● Rosso / Red



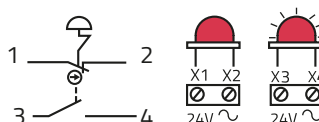
312

060APAF LR



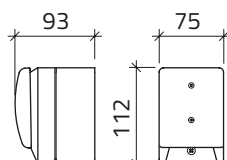
Con custodia / With enclosure

● Rosso / Red



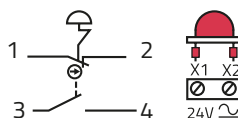
394

060APAF LR C



Con custodia luminosa / With illuminated enclosure

● Rosso / Red



394

060APAF LR CL



Pulsanti a palmo

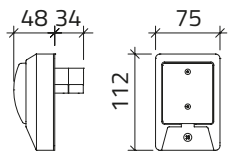
Palm switches

Tasto bombato

Dome button

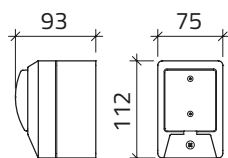
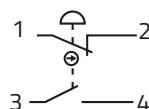
g

cod



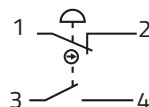
Senza custodia / Without enclosure

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



Con custodia / With enclosure

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

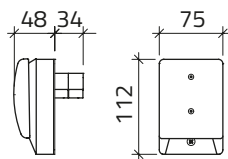


Tasto a fungo

Mushroom button

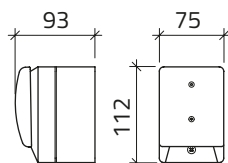
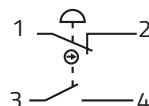
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cod



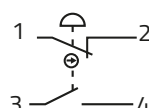
Senza custodia / Without enclosure

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



Con custodia / With enclosure

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



Pulsanti a palmo luminosi

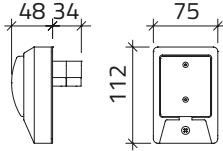
Illuminated palm switches

Tasto bombato

Dome button

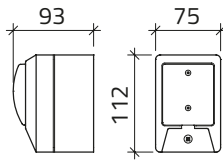
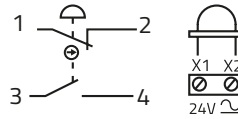
g

cod



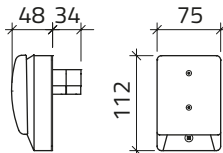
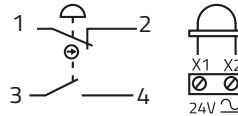
Senza custodia / Without enclosure

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



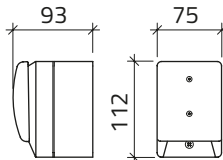
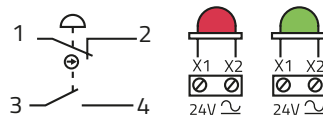
Con custodia / With enclosure

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



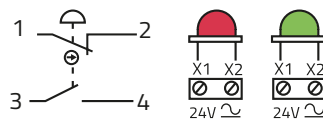
Senza custodia / Without enclosure

| | | | |
|---------------|-----------------|-----|------------------|
| ● Rosso / Red | ● Verde / Green | 291 | 060APTLRV |
|---------------|-----------------|-----|------------------|



Con custodia / With enclosure

| | | | |
|---------------|-----------------|-----|-------------------|
| ● Rosso / Red | ● Verde / Green | 373 | 060APTLRVC |
|---------------|-----------------|-----|-------------------|



Pulsanti a palmo luminosi

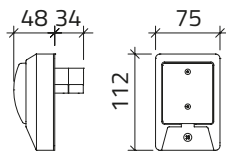
Illuminated palm switches

Tasto a fungo

Mushroom button

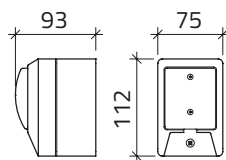
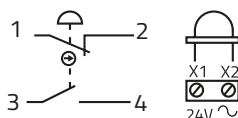
g

cod



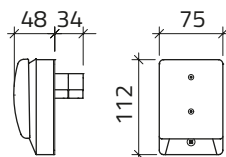
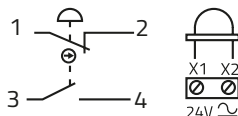
Senza custodia / Without enclosure

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



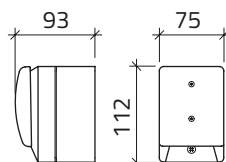
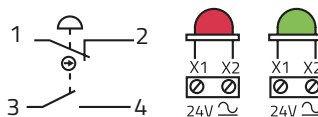
Con custodia / With enclosure

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



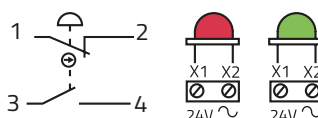
Senza custodia / Without enclosure

| | | | |
|---------------|-----------------|-----|------------------|
| ● Rosso / Red | ● Verde / Green | 291 | 060APFLRV |
|---------------|-----------------|-----|------------------|



Con custodia / With enclosure

| | | | |
|---------------|-----------------|-----|-------------------|
| ● Rosso / Red | ● Verde / Green | 373 | 060APFLRVC |
|---------------|-----------------|-----|-------------------|



Simboli per pulsanti a palmo

Symbols for palm switches

Suffissi per stampa simboli su tasti

Suffixes for printing symbols on buttons

cod

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

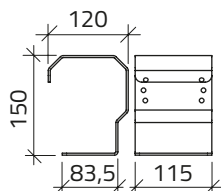
| | |
|---|------|
|  | S019 |
|  | S038 |
| i | S154 |
| SOS | S186 |
|  | S344 |
|  | S348 |
|  | S352 |
|  | S353 |

Accessori pulsanti a palmo

Accessories palm switches

Elemento di protezione per pulsante a palmo

Protective shroud for palm switch



Acciaio / Steel

● Giallo / Yellow

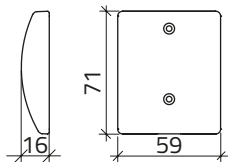
g cod

1130

060SEP

Tasti per pulsanti a palmo non luminosi

Buttons for non-illuminated palm switches



Tasto bombato / Dome button

● Nero / Black

● Rosso / Red

● Verde / Green

● Giallo / Yellow

● Blu / Blue

g cod

25

060TBN

25

060TBR

25

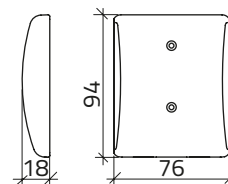
060TBV

25

060TBG

25

060TBBL



Tasto a fungo / Mushroom button

● Nero / Black

● Rosso / Red

● Verde / Green

● Giallo / Yellow

● Blu / Blue

36

060TFN

36

060TFR

36

060TFV

36

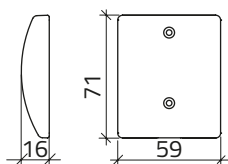
060TFG

36

060TFBL

Tasti per pulsanti a palmo luminosi

Buttons for illuminated palm switches



Tasto bombato / Dome button

● Rosso / Red

● Verde / Green

● Giallo / Yellow

● Blu / Blue

○ Bianco / White

○ Trasparente / Clear

g cod

25

060TBLR

25

060TBLV

25

060TBLG

25

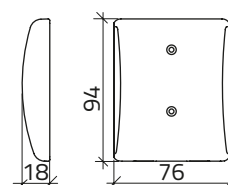
060TBLBL

25

060TBLB

25

060TBLL



Tasto a fungo / Mushroom button

● Rosso / Red

● Verde / Green

● Giallo / Yellow

● Blu / Blue

○ Bianco / White

○ Trasparente / Clear

36

060TFLR

36

060TFLV

36

060TFLG

36

060TFLBL

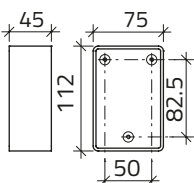
36

060TFLB

36

060TFLI

Custodia per azionare a palmo / Palm switch enclosure



Non luminosa / Non-illuminated

● RAL 7016

g cod

115

060SGR

Luminosa / Illuminated

● Rosso / Red

115

060SRT



Caratteristiche pulsanti a palmo

Palm switches data

Caratteristiche tecniche

| | |
|---------------------------------|--|
| Rispondenza alle norme | EN CEI 60947-1, EN IEC 60947-5-1, UNI EN 13850, UNI EN ISO 12100, EN IEC 60947-5-5, UNI EN CEI 45545-2, EN CEI 61373 |
| Omologazioni | CE (UL-CSA solo elementi di contatto 030FA-030FAA / 030FC-030FCF) |
| Limiti di temperatura | Funzionamento $\geq -30^{\circ}\text{C} \div \leq +120^{\circ}\text{C}$ Stoccaggio $\geq -40^{\circ}\text{C} \div \leq +125^{\circ}\text{C}$ |
| Grado di protezione | IP66-IPX9 (EN IEC 60529) |
| Protezione contro gli impatti | IK08 (EN IEC 62262) |
| Materiale custodia | PA Poliammide V0 |
| Materiale guarnizione | Gomma-sughero |
| Materiale viti custodia | Acciaio inox AISI 304 |
| Coppia di serraggio | Viti custodi $1 \div 2,5 \text{ Nm (8,8} \div 22,1 \text{ Lb-in)}$ Viti terminali $0,8 \div 1,2 \text{ Nm (7,1} \div 10,6 \text{ Lb-in)}$ |
| 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 10 A |
| Categorie nominali di impiego | AC15-DC13 secondo EN IEC 60947-5-1 A600 - P300 secondo UL508 |
| Versioni luminose | Led incluso con alimentazione 24V AC/DC |

| AC | | DC | |
|------|------|------|------|
| Ue V | Ie A | Ue V | Ie A |
| 24 | 10 | 24 | 5 |
| 110 | 6 | 110 | 1,1 |
| 230 | 3 | 230 | 0,55 |

Technical data

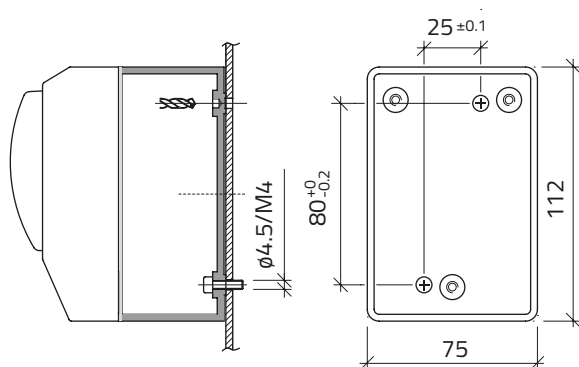
| | |
|---------------------------|---|
| Compliance with Standards | EN CEI 60947-1, EN IEC 60947-5-1, UNI EN 13850, UNI EN ISO 12100, EN IEC 60947-5-5, UNI EN CEI 45545-2, EN CEI 61373 |
| Approvals | CE (UL-CSA only for contact blocks 030FA-030FAA / 030FC-030FCF) |
| Temperature ranges | Working $\geq -30^{\circ}\text{C} \div \leq +120^{\circ}\text{C}$ Storage $\geq -40^{\circ}\text{C} \div \leq +125^{\circ}\text{C}$ |
| Protection degree | IP66-IP69 (EN IEC 60529) |
| Protection against impact | IK08 (EN IEC 62262) |
| Housing material | PA Polyamide V0 |
| Gasket material | Cork-rubber |
| Screws material | Stainless steel AISI 304 |
| Tightening torque | Cover screws $1 \div 2,5 \text{ Nm (8,8} \div 22,1 \text{ Lb-in)}$ Terminal screws $0,8 \div 1,2 \text{ Nm (7,1} \div 10,6 \text{ Lb-in)}$ |
| Mechanical durability | 3 millions operations |
| 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 creeping pads |
| Contacts material | Pads in Ag 1000 / 1000 |
| Rated insulation voltage | 690 V according to EN IEC 60947-1 |
| Rated thermal current | Ith 10 A |
| Electrical ratings | AC15-DC13 according to EN IEC 60947-5-1 A600 - P300 according to UL508 |
| Illuminated models | Led 24V AC/DC included |

| AC | | DC | |
|------|------|------|------|
| Ue V | Ie A | Ue V | Ie A |
| 24 | 10 | 24 | 5 |
| 110 | 6 | 110 | 1,1 |
| 230 | 3 | 230 | 0,55 |

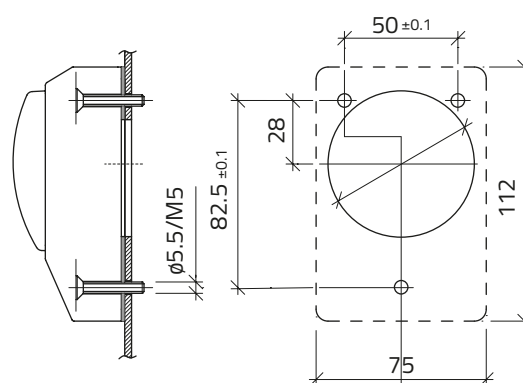
Dima di foratura

Drilling template

Con custodia / With enclosure



A incasso / Wall mount





Pulsantiera mobile

Hand-held push-button control unit

SISTEMA DI CONTROLLO PORTATILE

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.

PORTABLE CONTROL SYSTEM

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 anodised aluminum 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 left side of the grip can house a three-position enabling push-button



La pulsantiera è dotata di un pratico cinghietto 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 slacciamenti
The power cable can be easily fitted thanks to 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 o per supporto a parete
The upper side of the control unit is provided with openings to fit the shoulder belt



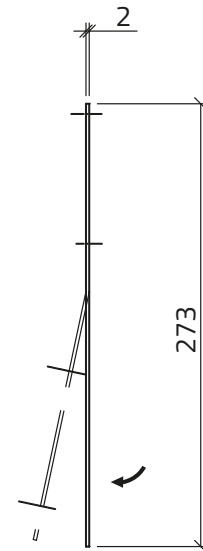
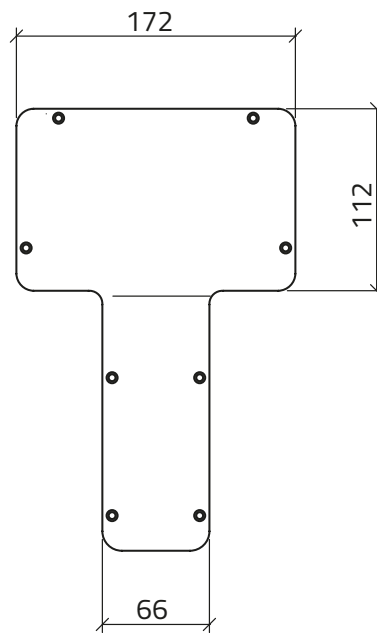
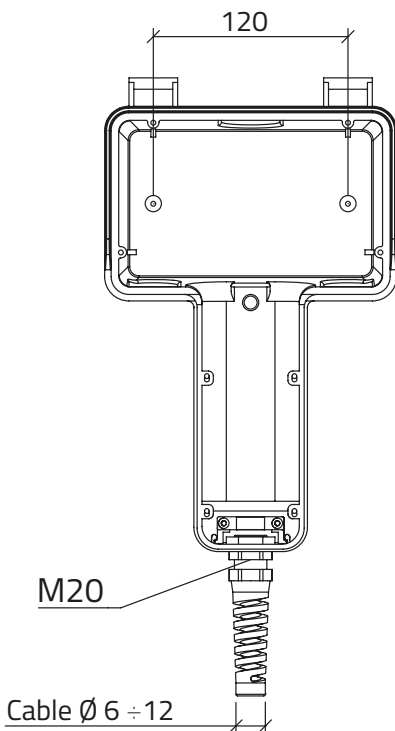
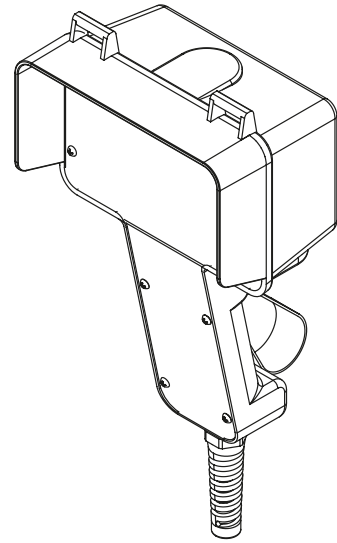
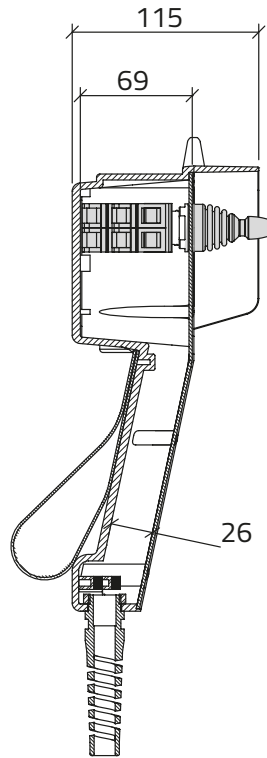
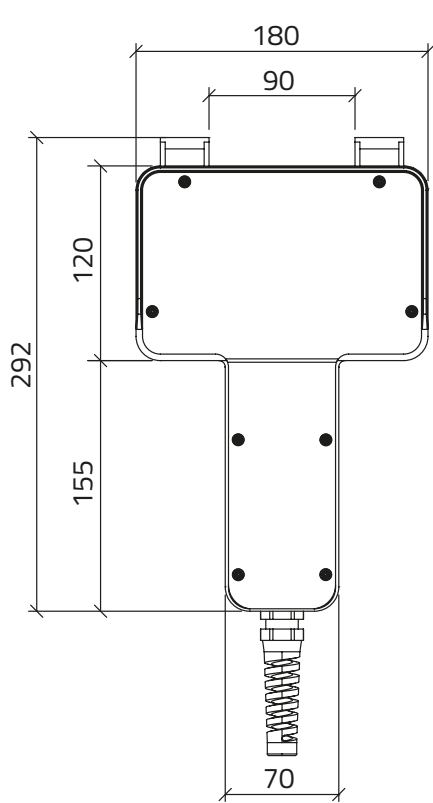
Pratici accessori completano la gamma: supporto a parete con gancio avvolgicavo e piastra magnetica
Useful accessories, like wall bracket, cable bracket and magnetic mounting plate complete the range



Tutta la struttura del contenitore è studiata per realizzare organizzate configurazioni di layout con diversi componenti elettronici
The whole enclosure structure is so designed to get layout configurations with different electromechanical components

Pulsantiera mobile

Hand-held push-button control unit



BENDING AFTER
MECHANICAL PROCESSING

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 aluminum undrilled plate

● Giallo / Yellow

g

cod

680

060PMG



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

● RAL 7016

680

060PMGR

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

Accessori

Accessories



Staffa supporto a parete

Wall bracket

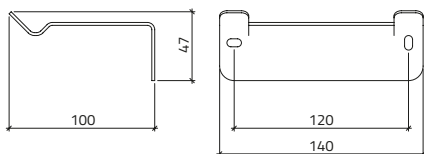
Acciaio / Steel

g

cod

465

060SFP



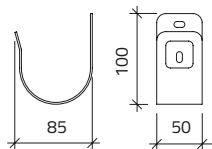
Gancio avvolgicavo

Cable bracket

Acciaio / Steel

165

060SFC



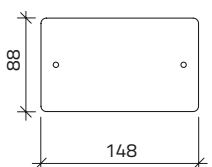
Staffa fissaggio magnetica

Magnetic mounting plate

Acciaio / Steel

200

060PFM



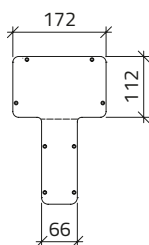
Pulsantiera mobile

Hand-held push-button control unit

Accessori Accessories

g

cod

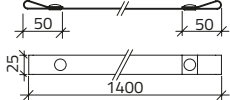


Piastra non forata (ricambio) Undrilled plate (spare part)

Alluminio anodizzato / Anodised aluminum

160

060PPM

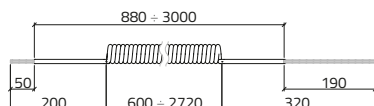


Cinghia tracolla Shoulder belt

25 × 1400 mm

90

060CT25



Cavo spiralato Spiral cable

12 × 0,5 mm²

700

010CSN12X05-3

Caratteristiche pulsantiera mobile

Hand-held push-button control unit data

Caratteristiche tecniche

| | |
|-----------------------------------|--|
| Certificazioni | CE, EAC |
| Rispondenza alle norme | EN IEC 60529, EN IEC 60947-1, EN IEC 60947-5-1 |
| Temperature di operatività | -25° ÷ +65 °C |
| Grado di protezione | IPX4 (EN IEC 60529) |
| Protezione contro gli impatti | IK07 (EN IEC 62262) |
| Materiale custodia | Polimero termoplastico ad alto impatto |
| Processo di fabbricazione | Stampaggio ad iniezione |
| Materiale guarnizione | Schioma EPDM + adesivo |
| Materiale viti custodia | Acciaio inossidabile AISI 304 |
| Piastra frontale | Alluminio anodizzato Spessore 2 mm |
| Coppia di serraggio | 1 ÷ 2,5 Nm (8.8 ÷ 22.1 Lb-in) |
| Entrata cavo | M20 × 1,5 |
| Categoria di sovratensione | Classe I (EN IEC 61140) |
| Maniglia con fori sinistro/destro | Per 016P3Pxxx pulsanti di abilitazione a 3 posizioni |
| Periodo di garanzia | 18 mesi |

Technical data

| | |
|------------------------------|--|
| Certifications | CE, EAC |
| Compliance with Standards | EN IEC 60529, EN IEC 60947-1, EN IEC 60947-5-1 |
| Operating temperature range | -25° ÷ +65 °C |
| Degree of protection | IPX4 (EN IEC 60529) |
| Impact protection | IK07 (EN IEC 62262) |
| Enclosure material | High impact grade thermoplastic polymer |
| Manufacturing process | Injection moulding |
| Gasket material | EPDM Foam + adhesive |
| Enclosure screw material | Stainless steel AISI 304 |
| Front plate | Anodised aluminum Thickness 2 mm |
| Tightening torque | 1 ÷ 2,5 Nm (8.8 ÷ 22.1 Lb-in) |
| Cable entry | M20 × 1,5 |
| Overvoltage category | Class I (EN IEC 61140) |
| Left/right handle with holes | For 016P3Pxxx position enabling safety switch |
| Warranty period | 18 mesi |





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)

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.

Dispositivi di comando a due mani

Two-hand control devices

SISTEMA MODULARE PER PULSANTIERE

Il sistema modulare per pulsantiere 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

I dispositivi di comando a due mani sono disponibili in due diverse colorazioni, grigio e arancione.

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. Applicazioni ad alta visibilità sono infine proposte per ambienti più gravosi con dispositivi di colore arancione.

DIMENSIONE 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 × 90 × 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

L'estrema modularità del sistema permette di configurare anche soluzioni a braccio di sostegno dove è possibile applicare diversi componenti specifici. La forma pericolare 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.

COLOUR

Two-hand control devices are available in two different colours: grey and orange.

The range of colours available, in shades of grey and satin aluminum, enhances the aesthetic integration with existing equipment; the use of neutral shades reduces the chromatic impact that could distract machine operators during work. High-visibility applications are also available for more demanding environments, with devices in orange colour.

DIMENSIONS AND SHAPE

The new two-hand control device designed to be installed in small areas, has dimensions of 380 × 90 × 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

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.

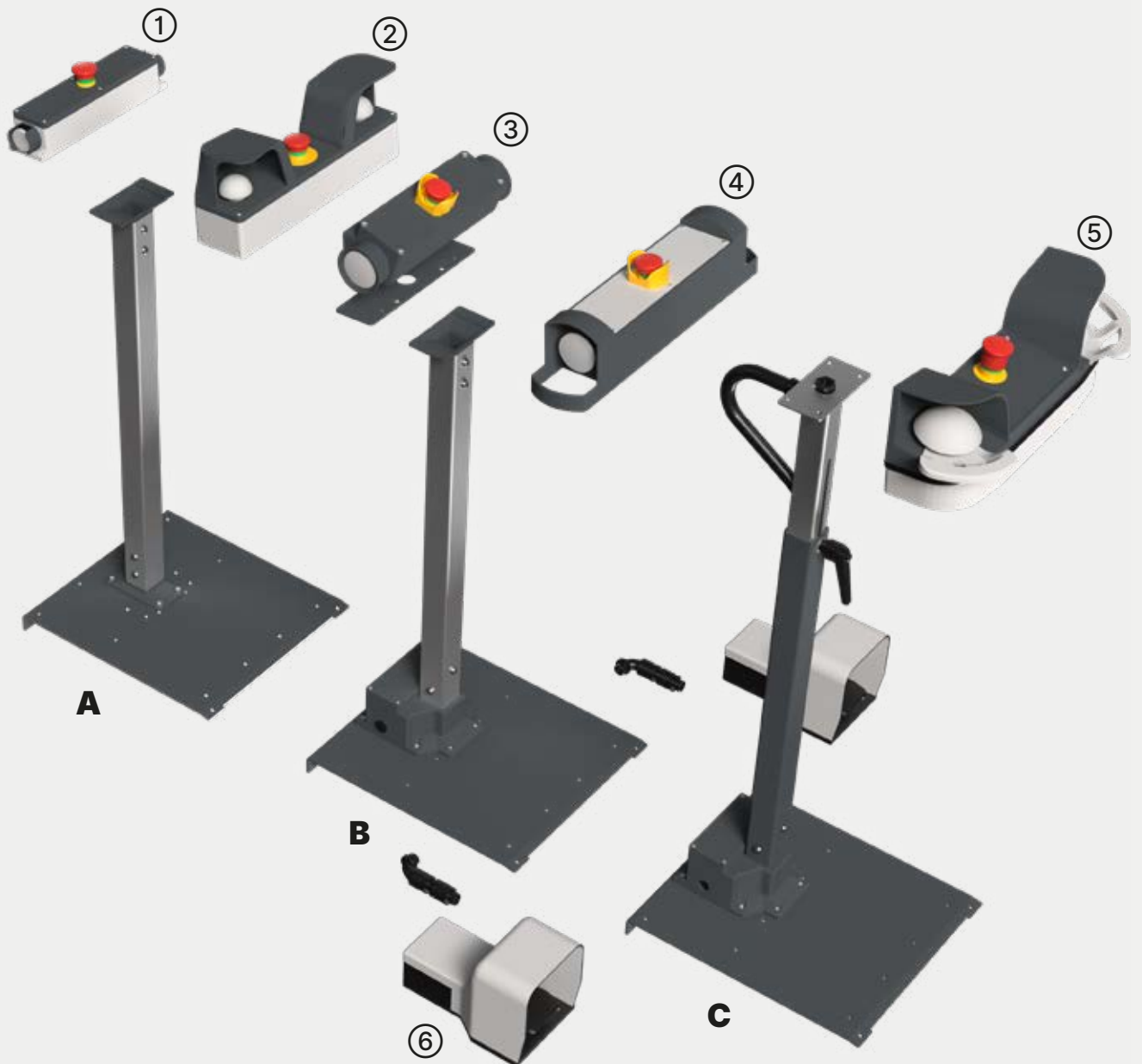
CONNECTION KIT

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



Dispositivi di comando a due mani

Two-hand control devices

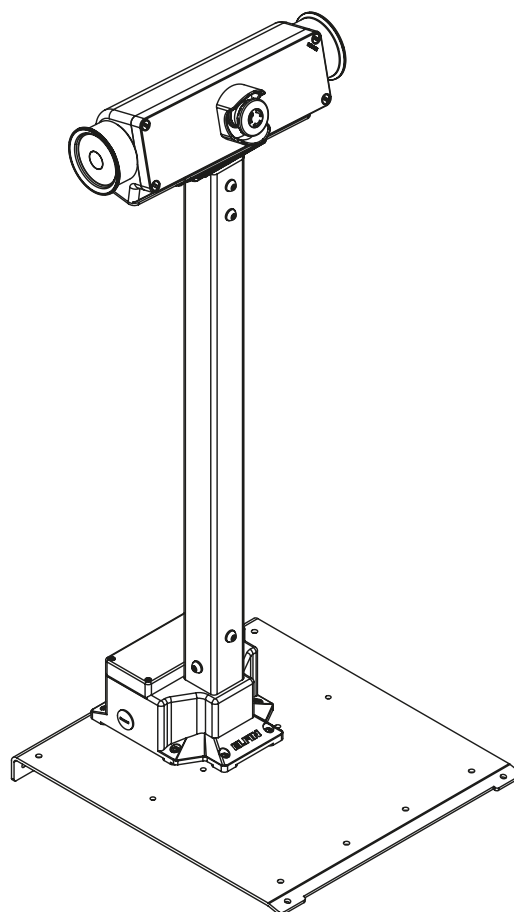
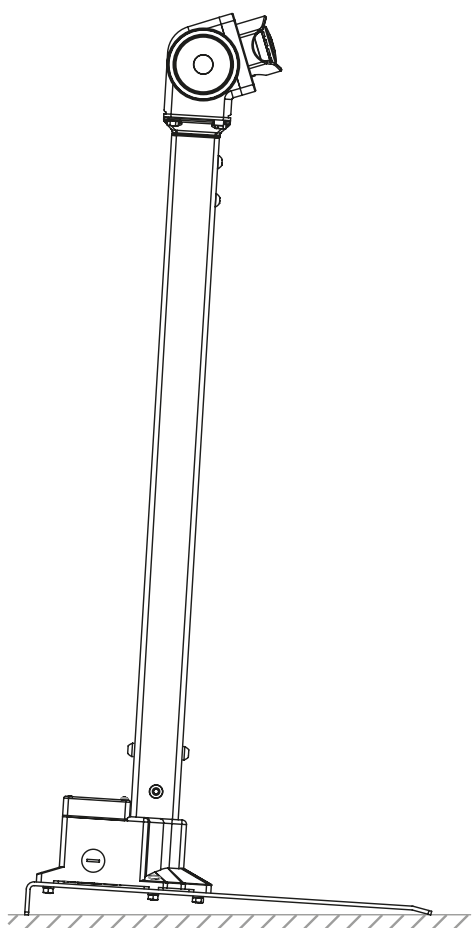
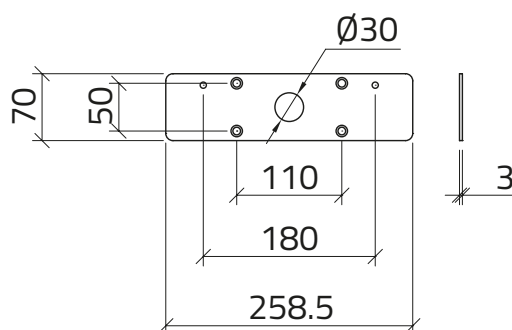
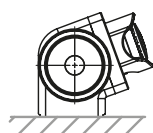
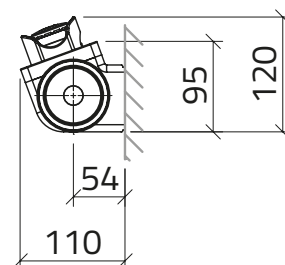
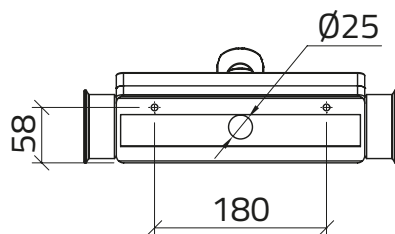
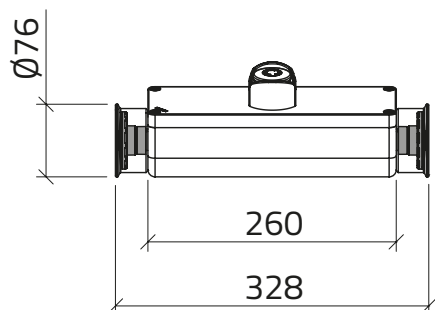


Legenda / Legend

- A** → ①②③④⑥
- B** → ②③④⑥
- C** → ④⑤⑥

Pulsantiere a due mani

Two-hand control panels



Pulsantiera a due mani

Two-hand control panels

Pulsantiera a due mani inclinata in alluminio

Sloped aluminum two-hand control panel



● RAL 7016

● RAL 2011

g

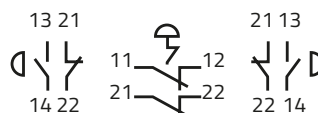
cod

1461

060CL2MA

1461

060CL2MAA



Accessori

Accessories



Piastra accoppiamento pulsantiera inclinata

Coupling plate for sloped panel

● RAL 7016

g

cod

450

060PAP



Stativo componibile ortogonale

Orthogonal modular stand

● RAL 7016

7040

060SCO



Stativo componibile ortogonale con base di derivazione

Orthogonal modular stand with junction base

● RAL 7016

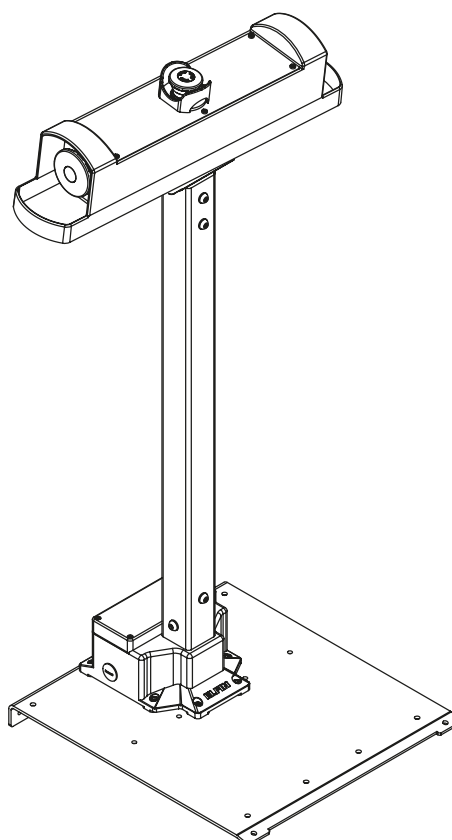
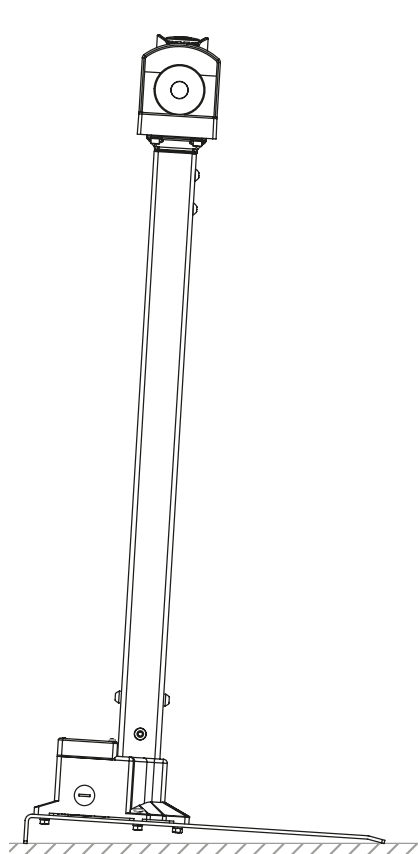
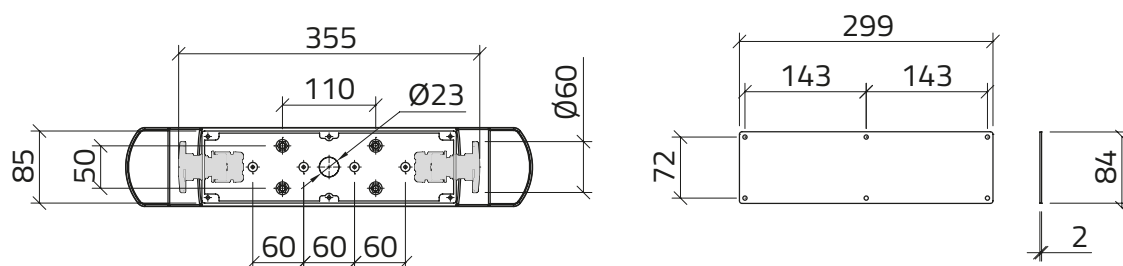
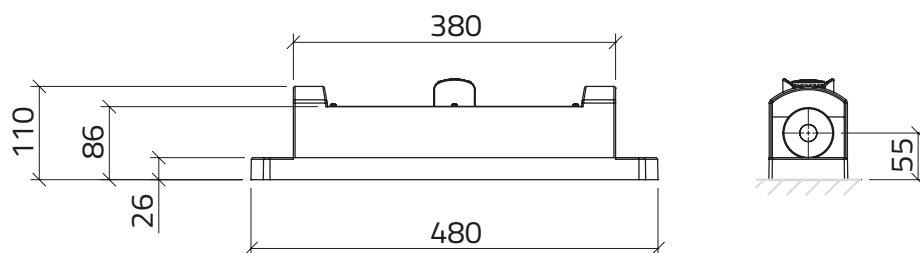
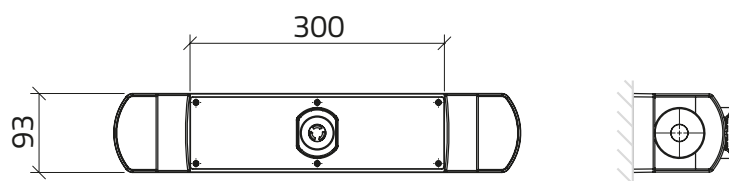
7500

060SCDO



Pulsantiere a due mani

Two-hand control panels



Pulsantiera a due mani

Two-hand control panels

Pulsantiera a due mani console in alluminio

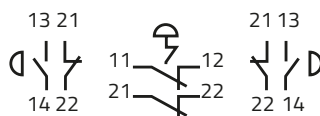
Aluminum console two-hand control panel



- RAL 7016
- RAL 2011

g cod

2050 060C2MA
2050 060C2MAA



Pulsantiera a due mani console da completare

Console two-hand control panel to be completed



- RAL 7016
- RAL 2011

g cod

1730 060C2MGRP
1730 060C2MAP



Accessori

Accessories



Piastra di ricambio per pulsantiera console

Spare plate for console control panel

Alluminio / Aluminum

g cod

150 060PC



Stativo componibile ortogonale

Orthogonal modular stand

- RAL 7016

7040 060SCO



Stativo componibile ortogonale con base di derivazione

Orthogonal modular stand with junction base

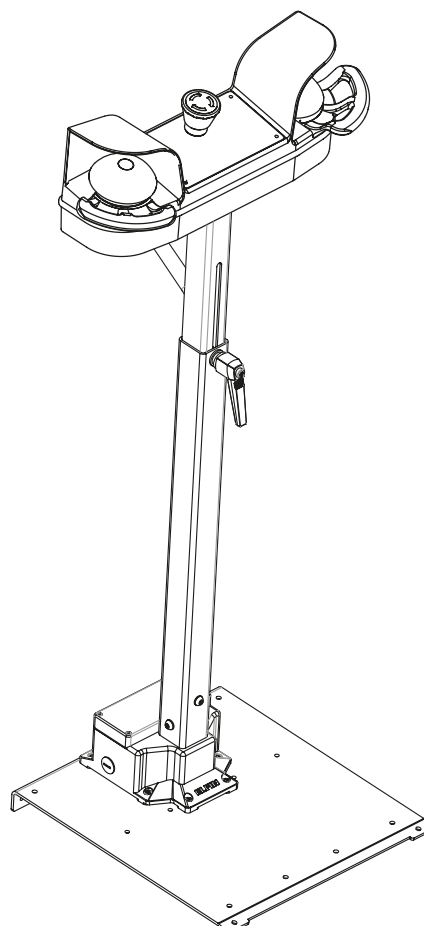
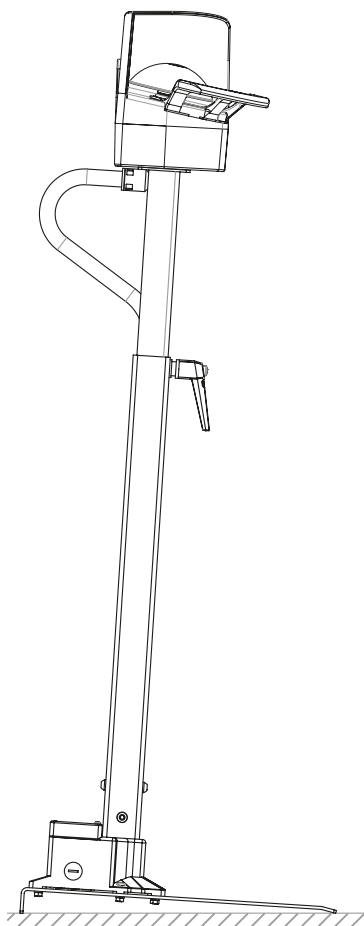
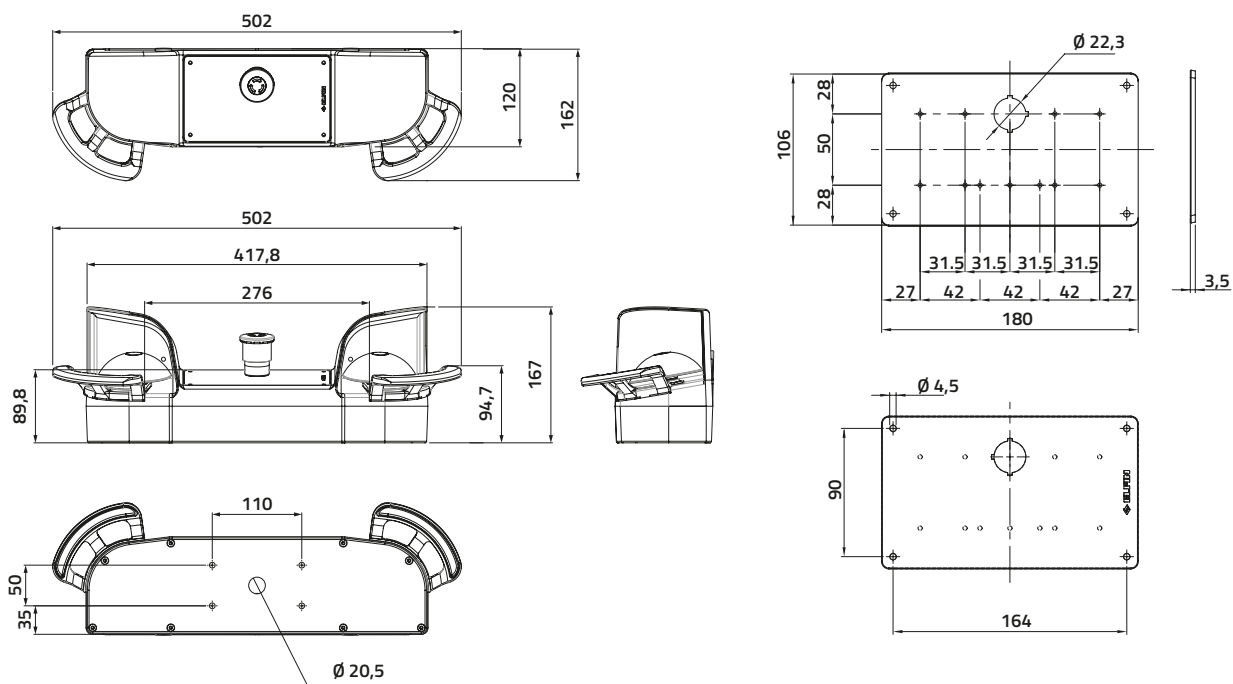
- RAL 7016

7500 060SCDO



Pulsantiera a due mani

Two-hand control panels



Pulsantiera a due mani

Two-hand control panels

Pulsantiera a due mani protetta in alluminio

Protected aluminum two-hand control panel

g

cod



Per personalizzazioni con altri operatori ed elementi di contatto, vedi famiglia prodotto 020
For customisation with other operators or contact blocks, see family product 020

● RAL 7016

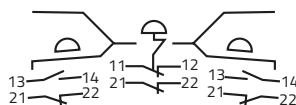
2980

060P2MEAGR

● RAL 2011

2980

060P2MEAA



Accessori

Accessories

g

cod



Stativo telescopico

Telescopic stand

● RAL 7016

11040

060STP2M

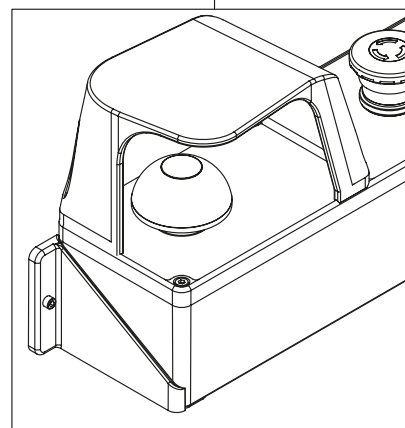
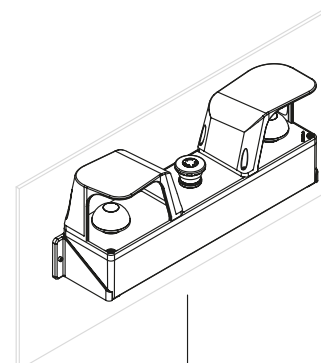
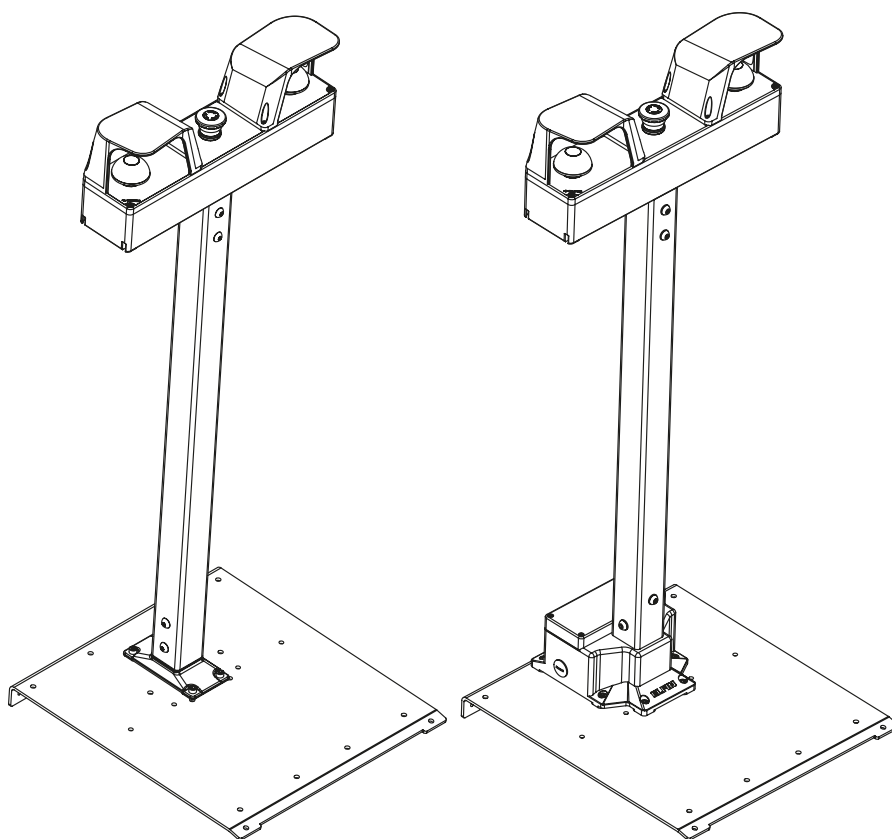
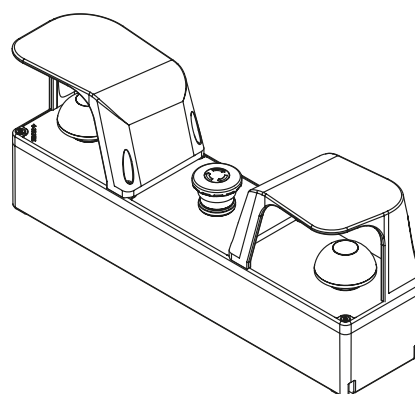
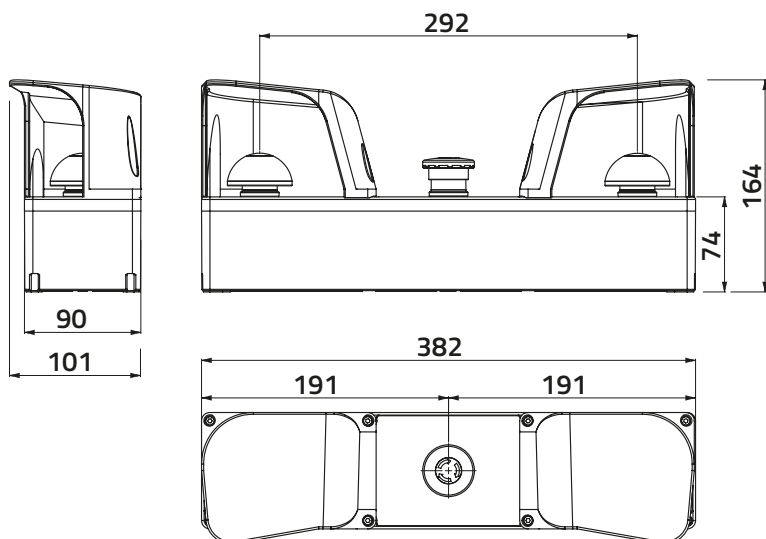
● RAL 2011

11040

060STP2MA

Pulsantiera a due mani

Two-hand control panels



Pulsantiera a due mani

Two-hand control panels

Pulsantiera a due mani protetta in termoplastico

Protected thermoplastic two-hand control panel

g

cod



Involucro Techno linea 90

Techno line 90 enclosure

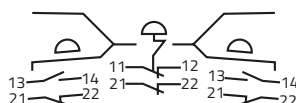
- RAL 7016
- RAL 2011

1195

060PT2MAGR

1195

060PT2MAA



Componenti brevettati / Patented components

g

cod



Staffe di fissaggio inclinato a 90° - Techno linea 90

90° sloped-fixing brackets - Techno line 90

55

080TSF090

Progettazione secondo criteri UL-CSA
Designed according to UL-CSA criteria

59

080TUSF090



Accessori / Accessories

g

cod



Stativo componibile ortogonale

Orthogonal modular stand

- RAL 7016

7040

060SCO



Stativo componibile ortogonale con base di derivazione

Orthogonal modular stand with junction base

- RAL 7016

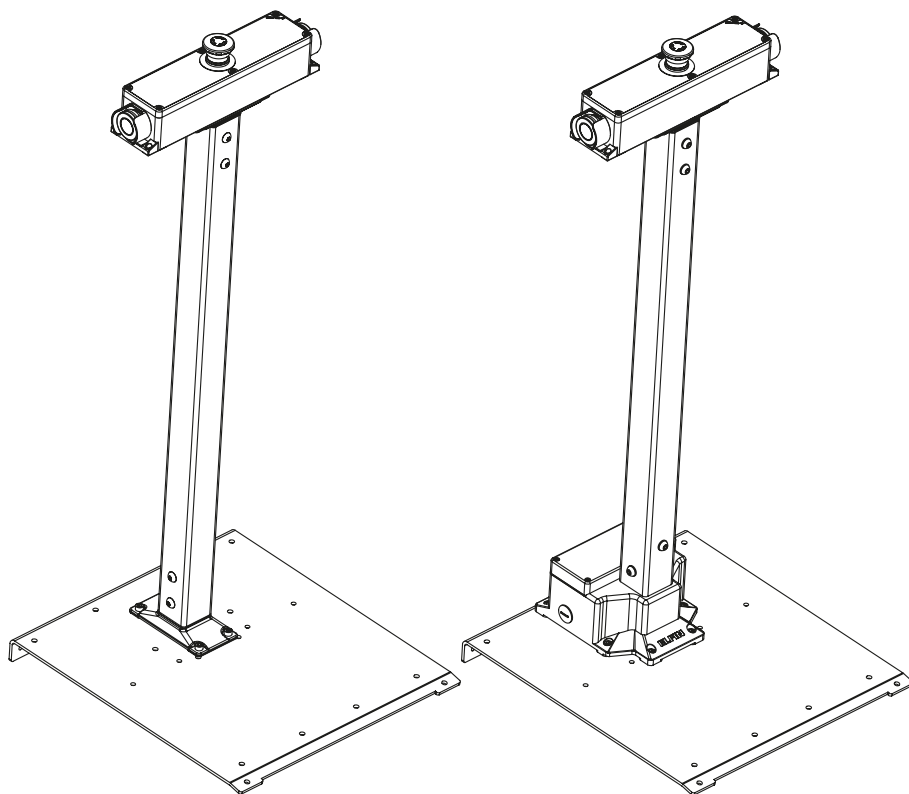
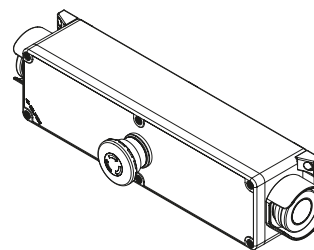
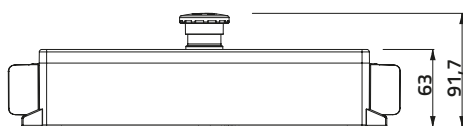
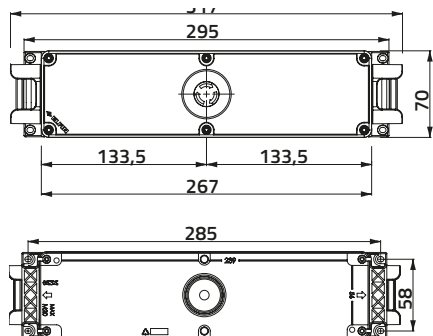
7500

060SCDO



Pulsantiera a due mani

Two-hand control panels



Pulsantiera a due mani

Two-hand control panels

Pulsantiera a due mani in termoplastico

Thermoplastic two-hand control panel

g

cod



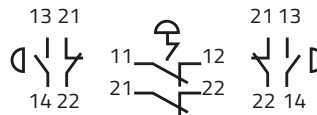
Involucro linea Techno 70

Techno line 70 enclosure

● RAL 7016

2050

060CT2MAGR



Accessori

Accessories

g

cod



Stativo componibile ortogonale

Orthogonal modular stand

● RAL 7016

7040

060SCO



Stativo componibile ortogonale con base di derivazione

Orthogonal modular stand with junction base

● RAL 7016

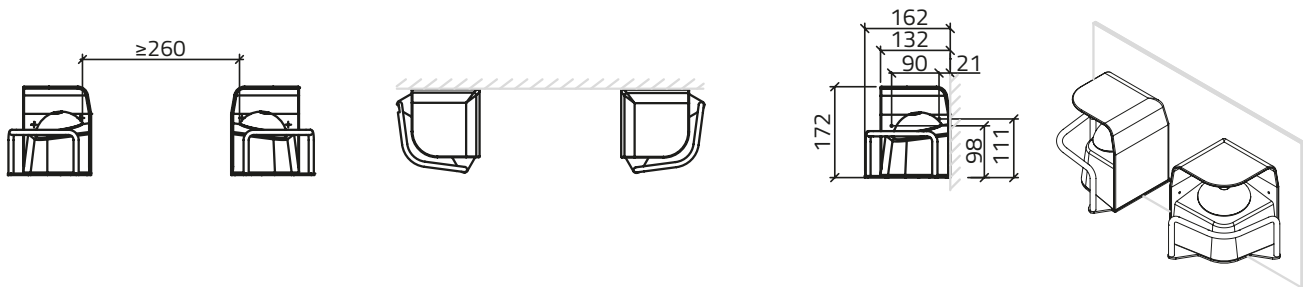
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060SCDO

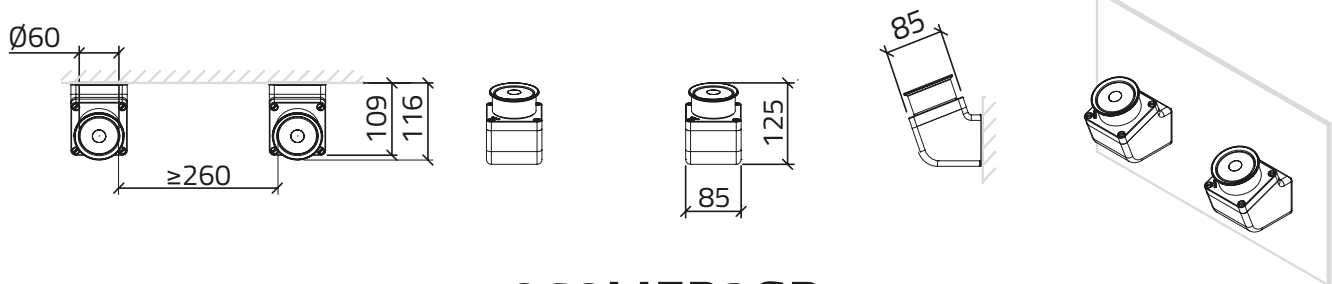
Moduli singoli per comando a due mani

Single modules for two-hand control panel

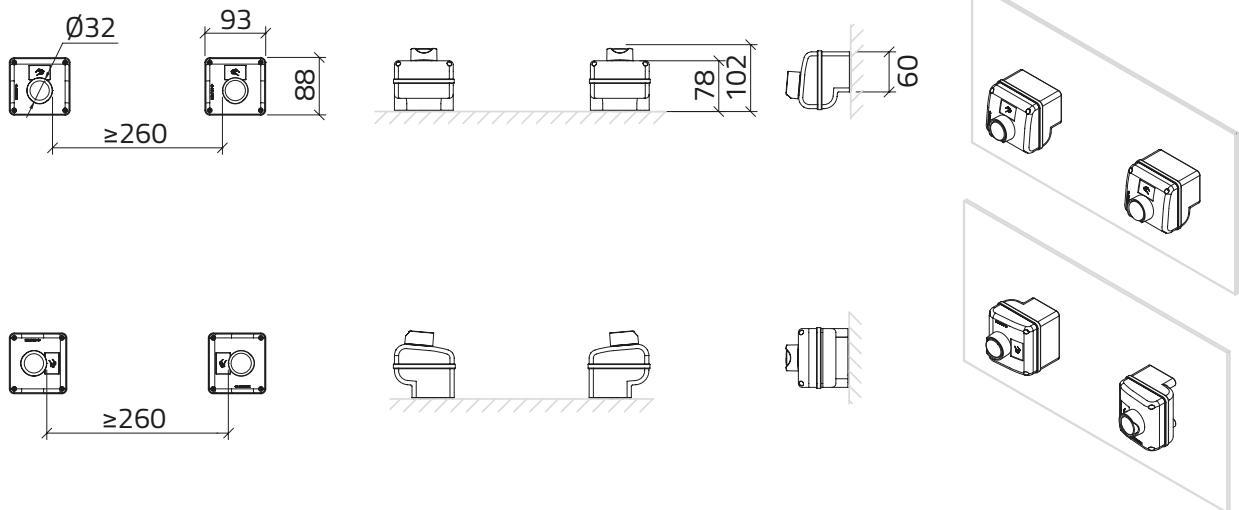
060MPP2GR



060MLP2GR



060MEP2GR



060MTP2GR



Moduli singoli per comando a due mani

Single modules for two-hand control panel

Moduli singoli in alluminio

Single aluminum modules

g

cod



Moduli protetti per comando a due mani - 2 unità

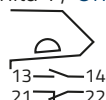
Protected modules for two-hand control - 2 units

● Grigio / Grey

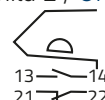
3200

060MPP2GR

Unità 1 / Unit 1



Unità 2 / Unit 2



Moduli inclinati per comando a due mani - 2 unità

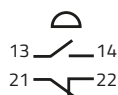
Sloped modules for two-hand control - 2 units

● Grigio / Grey

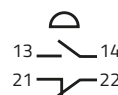
1300

060MLP2GR

Unità 1 / Unit 1



Unità 2 / Unit 2



Moduli singoli in termoplastico

Single thermoplastic model

g

cod



Moduli Ergo per comando a due mani - 2 unità

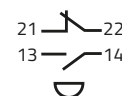
Modules Ergo for two-hand control - 2 units

● Grigio / Grey

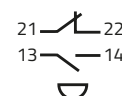
400

060MEP2GR

Unità 1 / Unit 1



Unità 2 / Unit 2



Moduli Techno linea 70 per comando a due mani - 2 unità

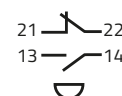
Modules Techno line 70 for two-hand control - 2 units

● Grigio / Grey

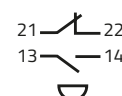
345

060MTP2GR

Unità 1 / Unit 1



Unità 2 / Unit 2



Stativi componibili per pulsantiera a due mani

Modular stands for two-hand control panel

Stativi componibili per comando a due mani
Modular stands for two-hand control panel

g

cod

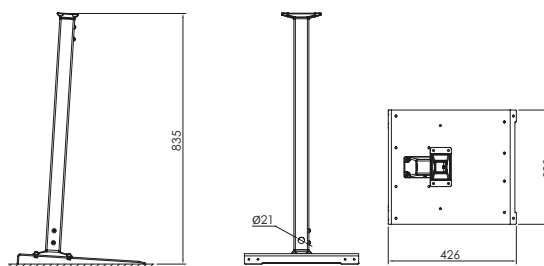


Stativo componibile ortogonale Orthogonal modular stand

● RAL 7016

7040

060SCO



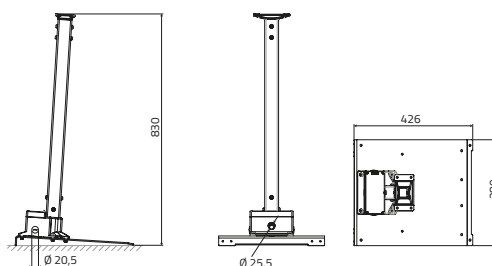
Stativo componibile ortogonale con base di derivazione Orthogonal modular stand with junction base

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

● RAL 7016

7500

060SCDO

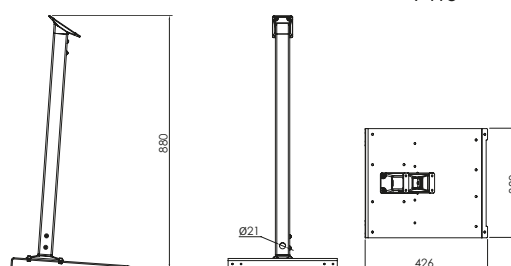


Stativo componibile inclinato Sloped modular stand

● RAL 7016

7110

060SCI

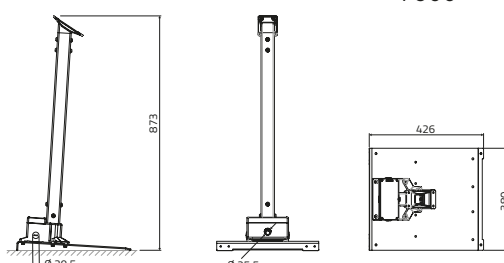


Stativo componibile inclinato con base di derivazione Sloped modular stand with junction base

● RAL 7016

7500

060SCDI



Stativi componibili per pulsantiera a due mani

Modular stands for two-hand control panel

Stativi telescopici per comando a due mani

Telescopic stands for two-hand control panel

g

cod



Indicato per articoli 060P2M_ / Suitable for items code 060P2M_

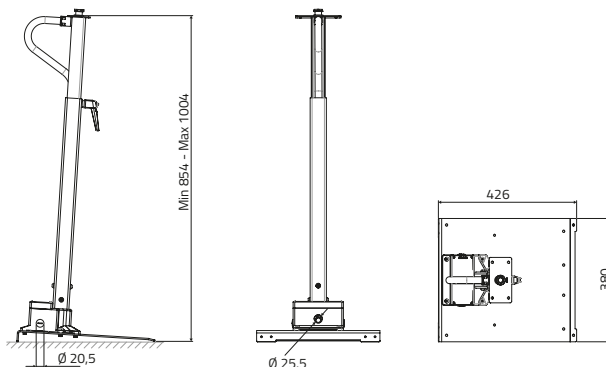
● RAL 7016

11040

060STP2M

● RAL 2011

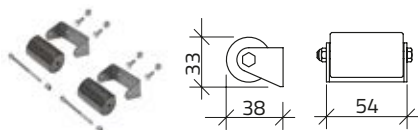
11040

060STP2MA

Accessori / Accessories

g

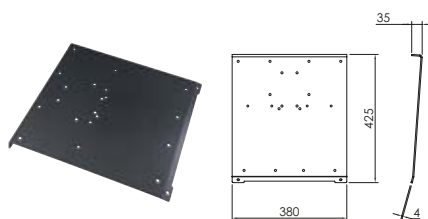
cod



Kit di ruote per piastra base colonna

Castor kit for column base plate

200

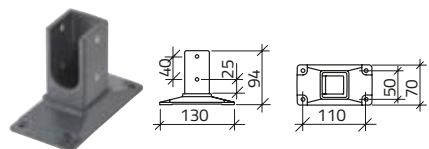
060KR

Piastra base per stativo componibile

Base plate for modular stand

● RAL 7016

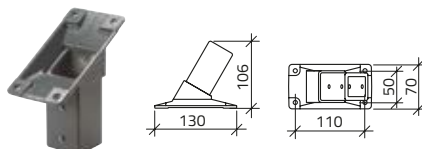
5650

060BS

Giunto ortogonale / Orthogonal joint

● RAL 7016

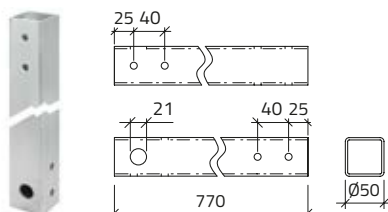
327

060GCO

Giunto inclinato / Sloped joint

● RAL 7016

410

060GCI

Colonna altezza 770 mm

Column height 770 mm

7110

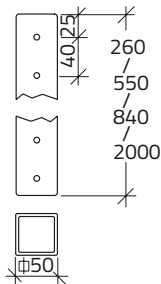
060C8

Accessori Accessories

Accessori Accessories

g

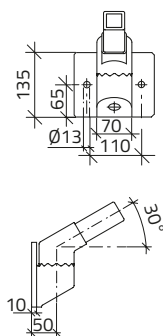
cod



Profili di alluminio 50 × 50 / Aluminum profile 50 × 50

| | | |
|----------------------------|------|-----------------|
| Lunghezza / Length 260 mm | 360 | 060B2 |
| Lunghezza / Length 550 mm | 780 | 060B5 |
| Lunghezza / Length 840 mm | 1160 | 060B8 |
| Lunghezza / Length 2000 mm | 2790 | 060C2000 |

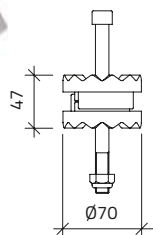
senza fori / undrilled



Supporto per braccio / Arm support

1800

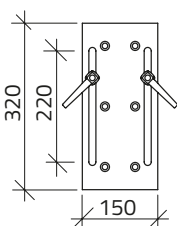
060SB



Snodo per braccio / Articulated joint for arm

530

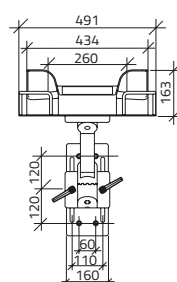
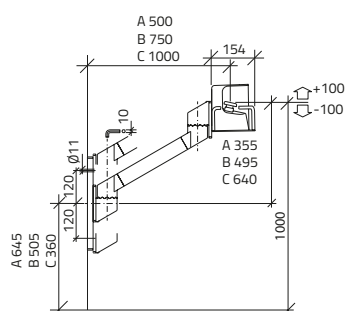
060SRBO



Piastra di regolazione / Adjustment plate

2420

060PRBO



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 III C.
- **Conformità alla Direttiva Macchine:** Categoria 4, PL e secondo EN ISO 13849-1
- **Uscite di sicurezza:** Relè di sicurezza a guida forzata 2 uscite NO, 1 uscita NC di segnalazione e 1 uscita PNP per PLC
- **Contemporaneità:** Le uscite di sicurezza vengono abilitate solo se i due pulsanti vengono azionati entro 0,5 s
- **Diagnostica:** Indicazioni LED per alimentazione, stato dei canali di sicurezza e stato delle uscite
- **Compatto:** 1 modulo DIN, L x A x P: 22,5 x 114,5 x 99 mm
- **Approvazioni:** CE, TÜV, cULus

FUNZIONI PRINCIPALI

- Monitoraggio del funzionamento sicuro delle console di comando a due mani di Tipo III C secondo EN ISO 13851
- Controllo della contemporaneità di azionamento dei due pulsanti con finestra temporale massima di 0,5 s
- Controllo di 2 uscite di sicurezza NO mediante relè elettromeccanici a contatti guidati
- Diagnostica del circuito di sicurezza tramite LED di alimentazione, stato ingressi e stato uscite
- 1 uscita NC per segnalazione remota dello stato del dispositivo
- 1 uscita utilizzabile per interfacciamento con PLC e sistemi di supervisione

COMPATIBILITÀ

- **Direttiva Macchine 2006/42/CE**
EN ISO 13849-1: Sicurezza del macchinario - Parti dei sistemi di comando legate alla sicurezza
- **EN ISO 13851:** Sicurezza del macchinario - Dispositivi di comando a due mani - Principi di progettazione e scelta
- **EN 60204-1:** Sicurezza del macchinario - Equipaggiamento elettrico delle macchine
- **EN 60947-5-1:** Apparecchiature a bassa tensione - Dispositivi di comando e circuiti di controllo

MAIN FEATURES

- **Two-hand control:** 060MCP2M monitors the safe operation of Type III C two-hand control consoles
- **Machinery Directive compliance:** Cat. 4, PL e in accordance with EN ISO 13849-1
- **Safety outputs:** Forcibly guided safety relay with 2 NO outputs, 1 NC signalling output and 1 PNP PLC output
- **Simultaneity monitoring:** Safety outputs are enabled only when both push-buttons are actuated within 0,5 s
- **Diagnostic:** LED indicators for power supply, safety channels status and safety outputs status
- **Compact:** 1-DIN module, W x H x D: 22,5 x 114,5 x 99 mm
- **Approval:** CE, TÜV, cULus

MAIN FEATURES

- Monitoring of the safe operation of Type III C two-hand control consoles according to EN ISO 13851
- Monitoring of simultaneous actuation of the two push-buttons within a maximum time window of 0.5 s
- Control of 2 NO safety outputs by means of electromechanical forcibly guided relays
- Diagnostic indication of the safety circuit through power supply, input status and output status LEDs
- 1 NC signalling output for remote status indication
- 1 output for interfacing with PLCs and supervisory systems

COMPATIBILITY AND CONFORMITY

- **Machinery Directive 2006/42/EC**
EN ISO 13849-1: Safety of machinery - Safety-related parts of control systems
- **EN ISO 13851:** Safety of machinery - Two-hand control devices - Principles for design and selection
- **EN 60204-1:** Safety of machinery - Electrical equipment of machines
- **EN 60947-5-1:** Low-voltage switchgear and controlgear - Control circuit devices and switching elements

Modulo di contemporaneità

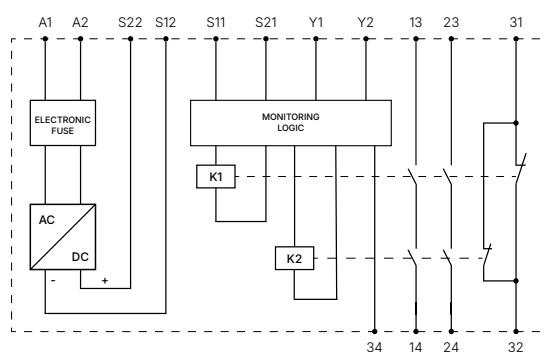
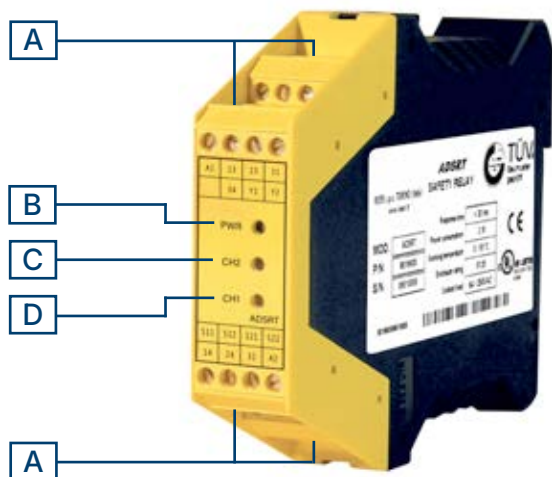
Simultaneous action controller

MODULO DI CONTEMPORANEITÀ

Il modulo di contemporaneità 060MCP2M è progettato per dispositivi di comando a due mani di Tipo III C conforme alle norme EN 574 ed EN ISO 13851. Grazie ai contatti a guida forzata e alle elevate prestazioni di sicurezza, il modulo raggiunge la Categoria 4 e il Livello di Prestazione PL e secondo EN ISO 13849-1. L'unità è dotata di due uscite di sicurezza NO, un'uscita di segnalazione NC e un'uscita PNP per il collegamento a PLC o sistemi di diagnostica.

SIMULTANEOUS ACTION CONTROLLER

The 060MCP2M safety module is designed for Type III C two-hand control devices according to EN 574 and EN ISO 13851. Thanks to its forcibly guided contacts and high safety performance, the module achieves Category 4 and Performance Level e according to EN ISO 13849-1. The unit features two NO safety outputs, one NC signalling output and one PNP output for PLC and diagnostic system interfacing.



| Elemento | Componente | Funzione |
|----------|------------|------------------------------|
| A | Morsetti | Alimentazione e collegamenti |
| B | LED PWR | Stato dell'alimentazione |
| C | LED CH2 | Stato ingresso canale 2 |
| D | LED CH1 | Stato ingresso canale 1 |

| Element | Component | Function |
|---------|-----------|------------------------------|
| A | Terminals | Power supply and connections |
| B | PWR LED | Power supply status |
| C | CH2 LED | Channel 2 input status |
| D | CH1 LED | Channel 1 input status |

SCHEMA DI COLLEGAMENTO

| Terminale | Funzione |
|-----------|------------------------------|
| A1 | Alimentazione 24 VAC/DC |
| A2 | Alimentazione 24 VAC/DC |
| S11 | Ingresso pulsante S1 |
| S12 | Comune / riferimento |
| S21 | Ingresso pulsante S2 |
| S22 | Comune / riferimento |
| Y1-Y2 | Circuito di feedback / reset |
| 13-14 | Uscita sicura NO |
| 23-24 | Uscita sicura NO |
| 31-32 | Uscita di segnalazione NC |
| 34 | Uscita PNP PLC |

CONNECTION DIAGRAM

| Terminal | Function |
|----------|--------------------------|
| A1 | 24 VAC/DC supply |
| ZA2 | 24 VAC/DC supply |
| S11 | S1 push-button input |
| S12 | Common / reference |
| S21 | S2 push-button input |
| S22 | Common / reference |
| Y1-Y2 | Feedback / reset circuit |
| 13-14 | NO safety output |
| 23-24 | NO safety output |
| 31-32 | NC signalling output |
| 34 | PNP PLC output |



Modulo di contemporaneità

Simultaneous action controller

Modulo di contemporaneità

Simultaneous action controller

g

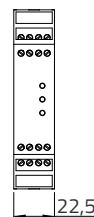
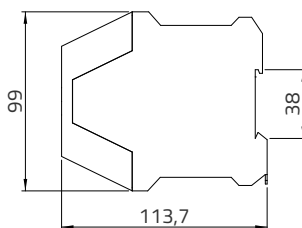
cod



Modulo / Controller

239

060MCP2M



Caratteristiche tecniche

| | |
|--------------------------------------|---|
| Certificazioni | CE, TÜV, UL-CSA, RoHS |
| Rispondenza alle norme | EN ISO 13849-1, EN ISO 13851 |
| Ingressi | 3 o 4 contatti |
| Uscite a relè | Contatti guidati |
| Uscite di sicurezza | 2 NO (6 A a 250 VCA) |
| Uscita di segnalazione | 1 NC |
| Durata meccanica | 10 ⁷ operazioni |
| Durata elettrica | 10 ⁵ operazioni (2 A - 24 VDC) |
| Uscita PLC | 1 PNP, tensione: > 18 VDC carico est: Rext ≥ 2,4 kΩ |
| Livello di sicurezza (SIL / PL) | PL e - Cat. 4 - Tipo III C |
| Temperatura di funzionamento (°C) | -25°C +55°C |
| Tempo di risposta (ms) | ≤ 30 |
| Segnalazioni | LED indicazione per stato e diagnostica di: Alimentazione, canale 1 e canale 2 |
| Collegamenti | Morsetti |
| MTTF _d (ISO 13849-1) | 36,45 anni |
| PFH _d [1/h] | 7,77 × 10 ⁻⁸ |
| Dispositivi di sicurezza collegabili | Dispositivi di sicurezza per comandi a 2 mani |
| Simultaneità (s) | ≤ 0,5 |
| Classe prodotto | C |
| Alimentazione (Vcc) | 24 ± 20% |
| Dimensioni AxLxD (mm) | 99 × 22,5 × 114 |
| Grado di protezione | IP20 terminali - IP40 custodia |
| Umidità relativa | 95% |
| Peso | 180 g |
| Montaggio | Su barra omega DIN 33 mm secondo la norma EN 500022-35 |

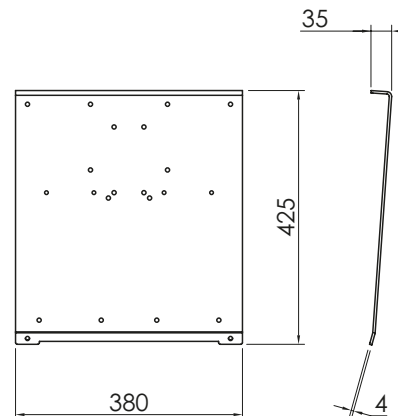
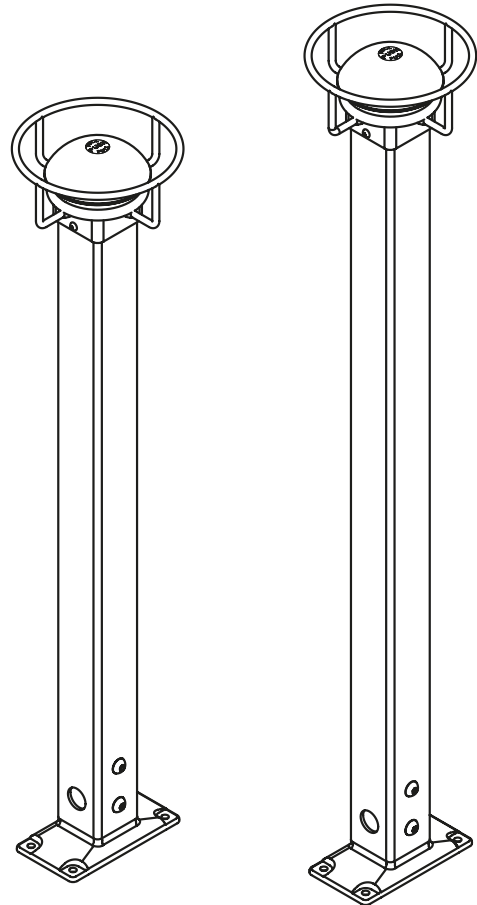
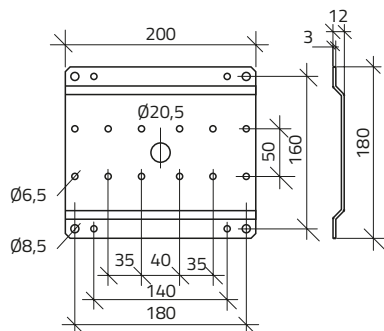
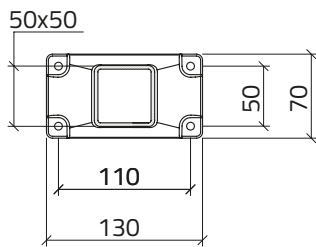
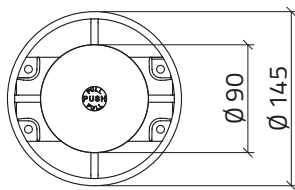
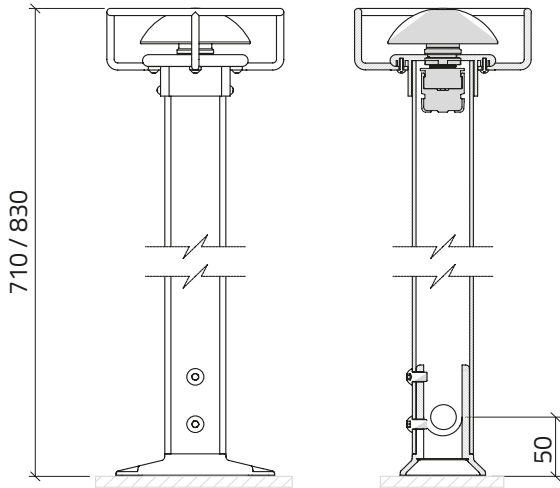
Technical data

| | |
|---------------------------------|--|
| Certifications | CE, TÜV, UL-CSA, RoHS |
| Compliance with standards | EN ISO 12849-1, EN ISO 13851 |
| Inputs | 3 or 4 contacts |
| Relay outputs | Guided contacts |
| Safety outputs | 2 NO (6 A to 250 VCA) |
| Signalling output | 1 NC |
| Mechanical life | 10 ⁷ operations |
| Electrical life | 10 ⁵ operations (2 A - 24 VDC) |
| PLC output | 1 PNP, voltage: > 18 VDC External load: Rext ≥ 2,4 kΩ |
| Safety level (SIL / PL) | PL e - Cat. 4 - Type III C |
| Operating temperature (°C) | -25 °C +55 °C |
| Response time (ms) | ≤ 30 |
| Indicators | Status and diagnostic LEDs for: Power supply, channel 1 and channel 2 |
| Connections | Terminals |
| MTTF _d (ISO 13849-1) | 36,45 years |
| PFH _d [1/h] | 7,77 × 10 ⁻⁸ |
| Connectable safety devices | Safety devices for two-hand controls |
| Simultaneity (s) | ≤ 0,5 |
| Product class | C |
| Supply voltage (Vdc) | 24 ± 20% |
| Dimensions H×W×D (mm) | 99 × 22,5 × 114 |
| Protection degree | IP20 terminals - IP40 housing |
| Relative humidity | 95% |
| Weight | 180 g |
| Mounting | On 35 mm DIN rail according to EN 500022-35 standard |



Pulpito di emergenza

Emergency stand



Pulpito di emergenza

Emergency stand

Moduli singoli in alluminio

Single aluminum modules



Pulpito pulsante di emergenza

Emergency stop push-button stand

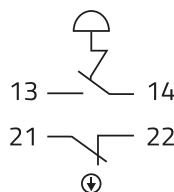
Lunghezza 710 mm / Length 710 mm
Lunghezza 830 mm / Length 830 mm

g

cod

1535
1815

060PES7
060PES8



Piastre / Plates



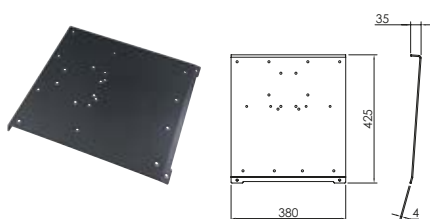
Piastra base colonna / Column base plate

g

cod

836

060PAC



Piastra base per stativo componibile

Base plate for modular stand

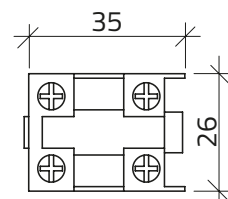
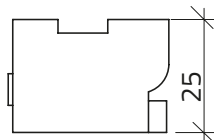
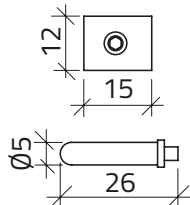
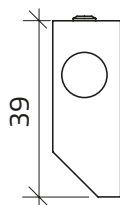
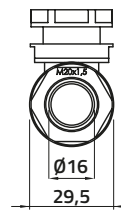
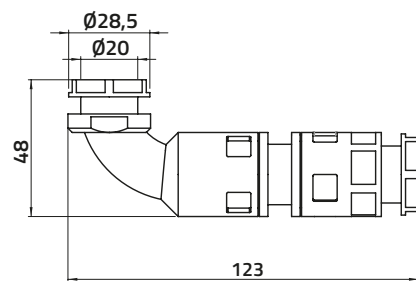
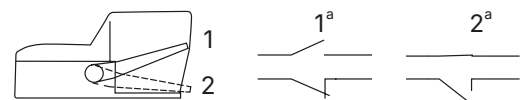
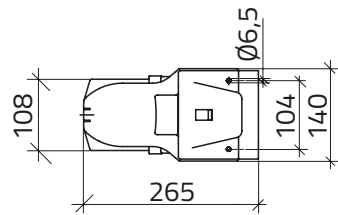
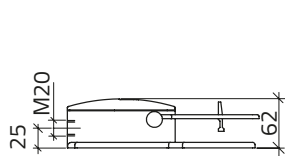
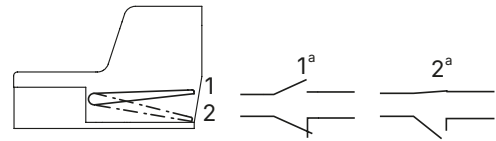
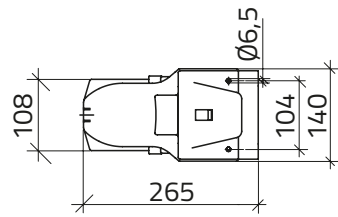
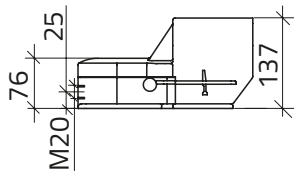
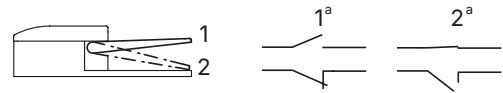
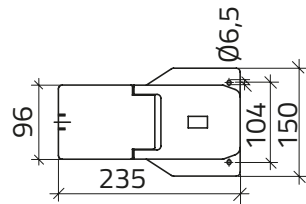
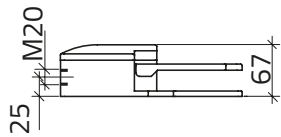
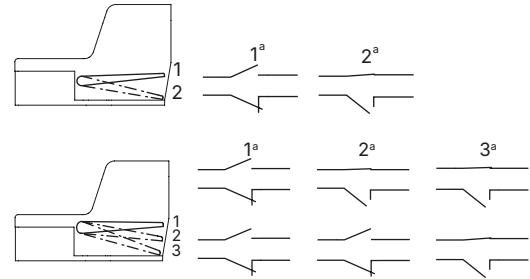
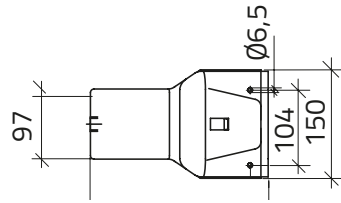
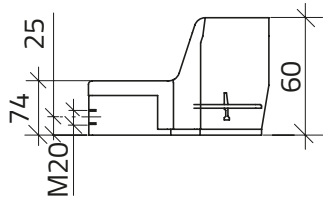
● RAL 7016

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 microinterruttori)
3 positions (2 microswitches)

● Grigio / Grey

1000 060PP3PT22



2 posizioni (1 microinterruttore) senza coperchio
2 positions (1 microswitch) without cover

● Rosso / Red

632 060PT11

Interruttori a pedale in alluminio / Aluminum foot switches



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

g cod

1700 060PPLA11



2 posizioni (1 microinterruttore) con leva di sicurezza - senza coperchio
2 positions (1 microswitch) with safety lever - without cover

1232 060PA11

Kit di connessione interruttori a pedale / Foot switches connection kit



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

g cod

50 060KCP

Accessori per comando a pedale / Foot switch accessories



Kit 2° microinterruttore / Kit for 2nd microswitch

g cod

74 060KM11

Microinterruttori 1NO + 1NC / Microswitches 1NO + 1NC

22 060M11

Microinterruttori 2NC / Microswitches 2NC

22 060M02





Sistemi di sospensione modulare

Modular suspension switches

SISTEMI DI SOSPENSIONE MODULARE

La gamma offre molteplici sistemi di sospensione e proiezione delle periferiche di comando, garantendo il loro posizionamento in perfetta ergonomia e sicurezza, personalizzando ogni configurazione sulla base delle proprie esigenze.

Le diverse linee a disposizione, che permettono applicazioni a diversi carichi statici, sono pensate per rispondere ad ogni possibile richiesta.

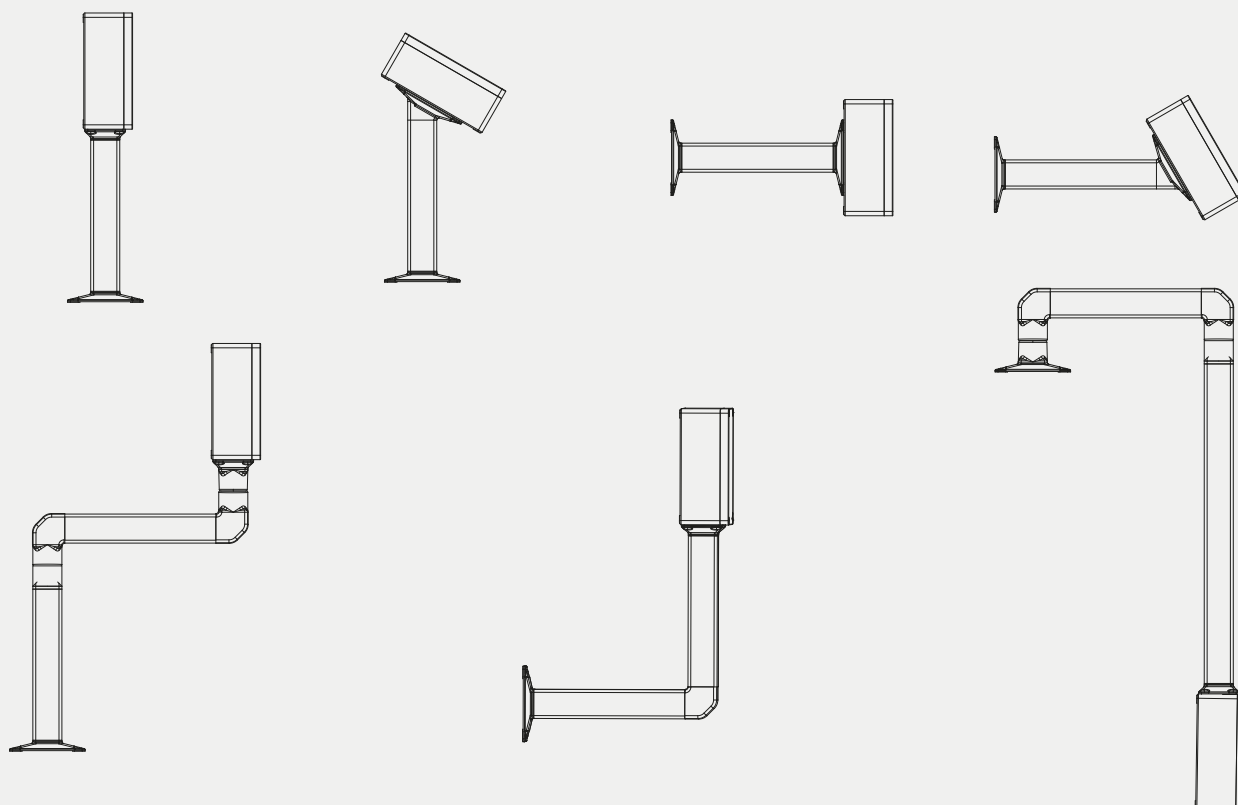
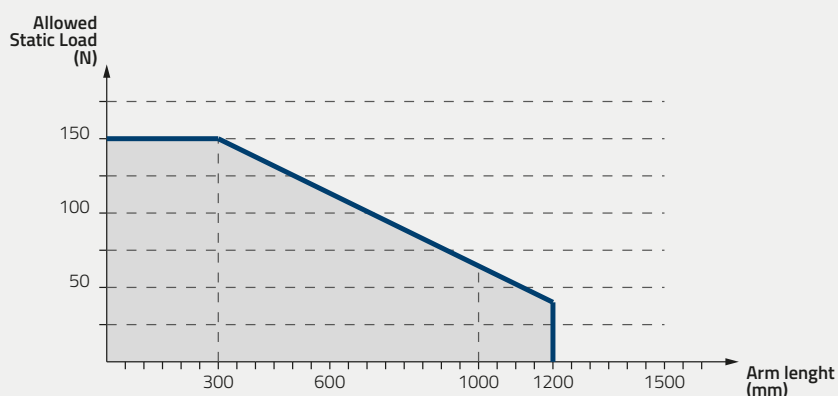
MODULAR SUSPENSION ARM SYSTEM

The range offers multiple suspension and support systems for control units, ensuring perfectly ergonomic and safe positioning while allowing full customisation of each configuration according to specific requirements.

The different product lines, designed for applications with various static loads, are developed to meet every possible need.

DIAGRAMMI DI CARICO / LOAD-BEARING DIAGRAM

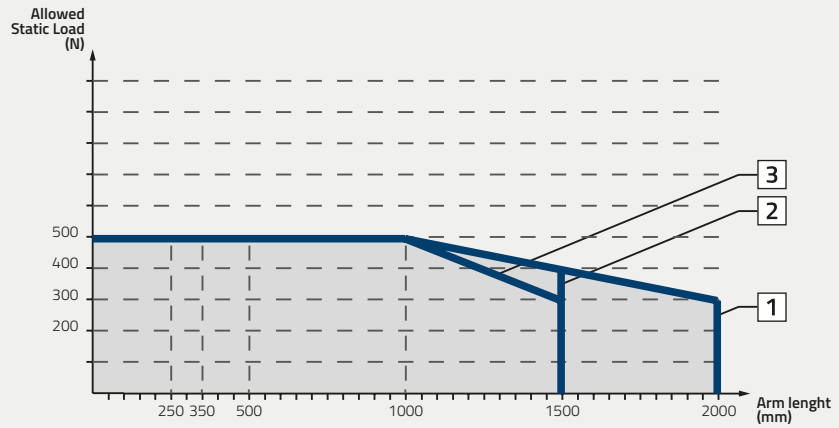
LINEA 50 / LINE 50



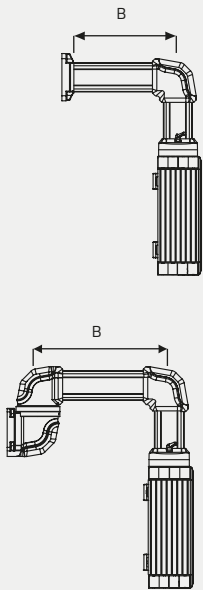
Sistemi di sospensione modulare

Modular suspension system

LINEA 70 / LINE 70

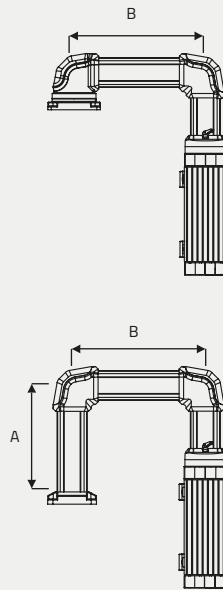


1 Partenza verticale
Vertical outlet



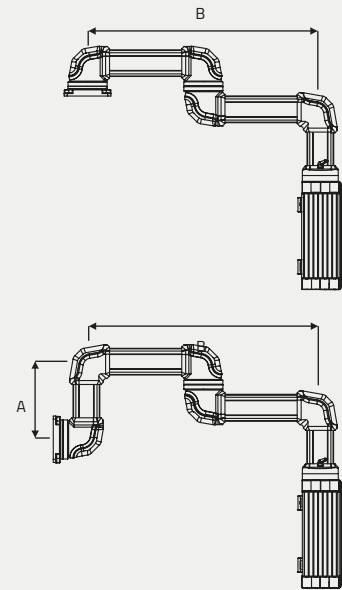
B max: 2000 mm

2 Partenza orizzontale
Horizontal outlet



A max: 500 mm
B max: 1500 mm

3 Con utilizzo del giunto a snodo
Using the swivel joint



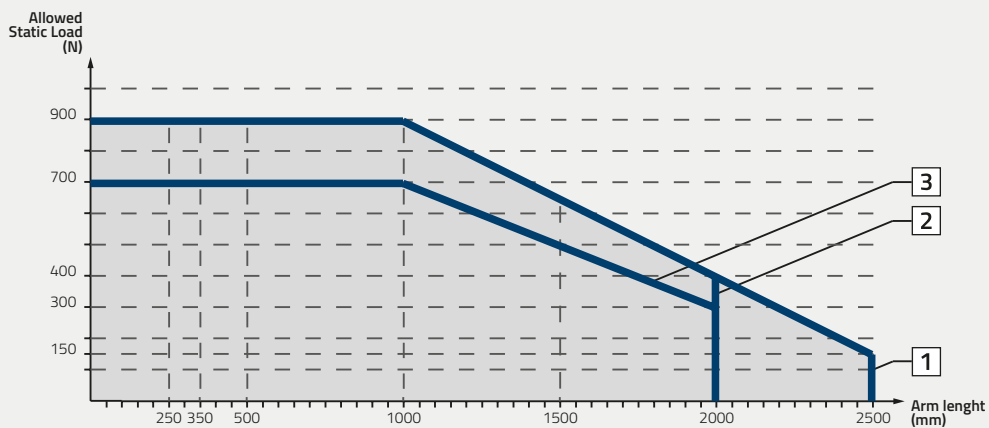
A max: 500 mm
B max: 1500 mm



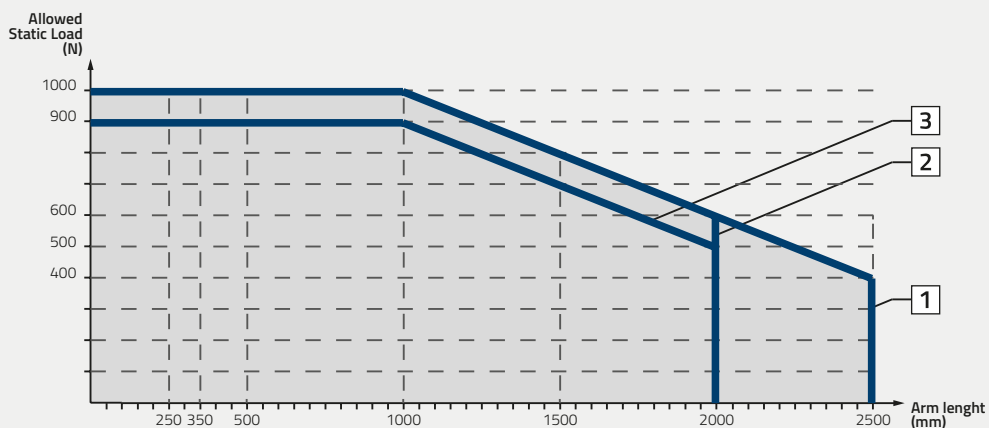
Sistemi di sospensione modulare

Modular suspension system

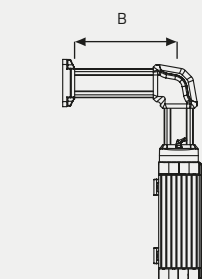
LINEA 85 / LINE 85



LINEA 100 / LINE 100

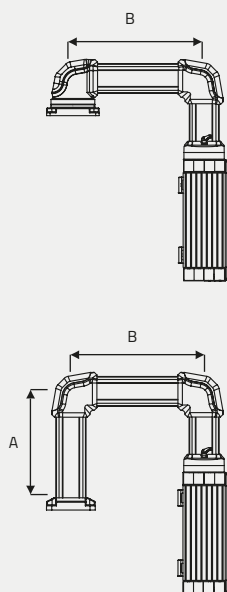


1 Partenza verticale
Vertical outlet



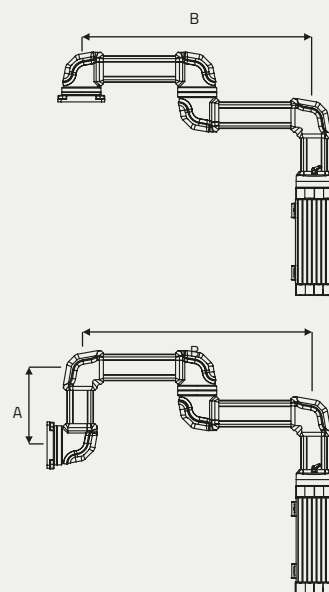
B max: 2500 mm

2 Partenza orizzontale
Horizontal outlet



A max: 500 mm
B max: 2000 mm

3 Con utilizzo del giunto a snodo
Using the swivel joint



A max: 500 mm
B max: 2000 mm



Sistemi di sospensione modulare

Modular suspension system

QUADRI DI COMANDO IN ALLUMINIO

I quadri di comando in alluminio sono proposti in 3 profondità e molteplici dimensioni. Il pannello posteriore, incernierato, facilita le operazioni di installazione/cablaggio e successive ispezioni.

Su ordinazione sono disponibili modelli con profondità maggiori, ottenute mediante l'aggiunta di un profilo di estensione al corpo principale, o con pannello posteriore fisso.

Il pannello frontale è completamente personalizzabile. Realizzabile in materiale composito o alluminio, può essere lavorato per realizzazione forature, asolature, finestre per pc ad incasso, stampe digitali che lo completano con descrizione funzioni, simboli e loghi aziendali, e operatori industriali.

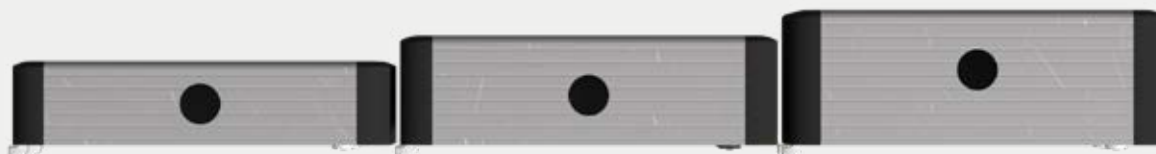
ALUMINUM CONTROL CABINETS

The aluminum control cabinets are available in three depths and multiple sizes. The hinged rear panel simplifies installation, wiring, and subsequent inspection operations.

Models with greater depths, achieved by adding an extension profile to the main body, or with a fixed rear panel, can be supplied on request.

The front panel is fully customizable.

Made of composite material or aluminum, it can be machined to include holes, slots, and recessed PC windows, completed with digital prints featuring function descriptions, symbols, company logos, and industrial operators.



Profondità 100 mm
Depth 100 mm

Profondità 130 mm
Depth 130 mm

Profondità 160 mm
Depth 160 mm



Pannello posteriore incernierato
Hinged rear panel



Pannello frontale personalizzabile
Customisable front panel

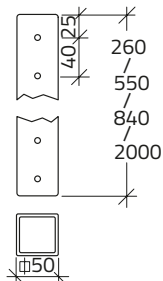


Linea 50

Line 50

Profili di alluminio 50 × 50

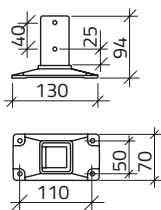
Aluminium profile 50 × 50



| | g | cod |
|--|------|-----------------|
| Lunghezza / Length 260 mm | 360 | 060B2 |
| Lunghezza / Length 550 mm | 780 | 060B5 |
| Lunghezza / Length 840 mm | 1160 | 060B8 |
| Lunghezza / Length 2000 mm <small>senza fori / undrilled</small> | 2790 | 060C2000 |

Giunti

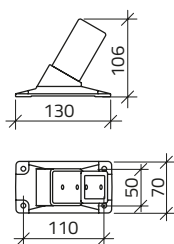
Joints



Giunto ortogonale / Orthogonal joint

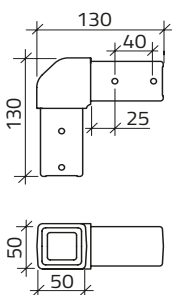
| g | cod |
|---|-----|
|---|-----|

327 **060GCO**



Giunto inclinato / Oblique joint

410 **060GCI**



Giunto angolare 90° / 90° angle joint

651 **060GCA**

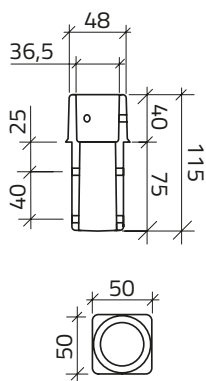


Linea 50 Line 50

Giunti Joints

g

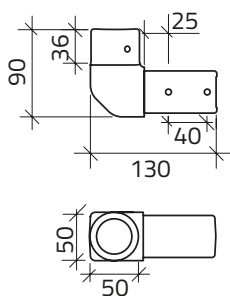
cod



Giunto angolare 90° / 90° angle joint

324

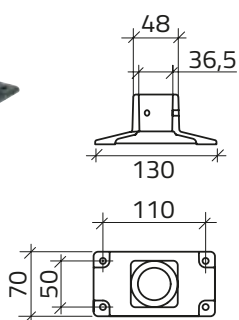
060GRD



Giunto girevole 90° / Swivel 90° joint

521

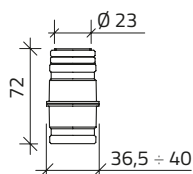
060GRA



Giunto girevole / Swivel joint

243

060GRO



**Piastra base per stativo componibile
Base plate for modular stand**

310

060GRS

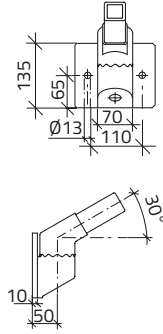


Linea 50 Line 50

Accessori Accessories

g

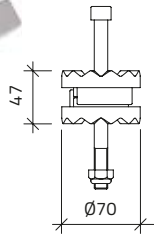
cod



Supporto per braccio / Arm support

1800

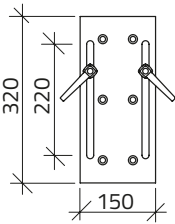
060SB



Snodo per braccio / Articulated joint for arm

530

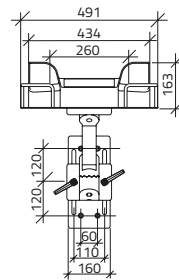
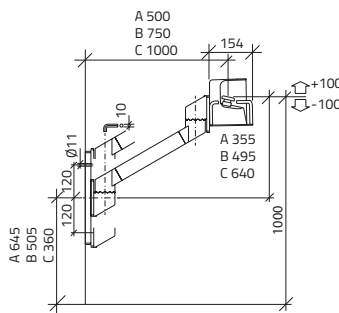
060SRBO



Piastra di regolazione / Adjustment plate

2420

060PRBO



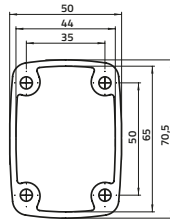
Linea 70

Line 70

Profilo di alluminio 50 x 70

Aluminum profile 50 x 70

L — mat — g — cod



| | | | |
|---------|----|------|---------------------|
| 250 mm | Al | 600 | 060S070B0250 |
| 350 mm | Al | 840 | 060S070B0350 |
| 500 mm | Al | 1200 | 060S070B0500 |
| 750 mm | Al | 1800 | 060S070B0750 |
| 1000 mm | Al | 2400 | 060S070B1000 |
| 1500 mm | Al | 3600 | 060S070B1500 |
| 2000 mm | Al | 4800 | 060S070B2000 |

Flange

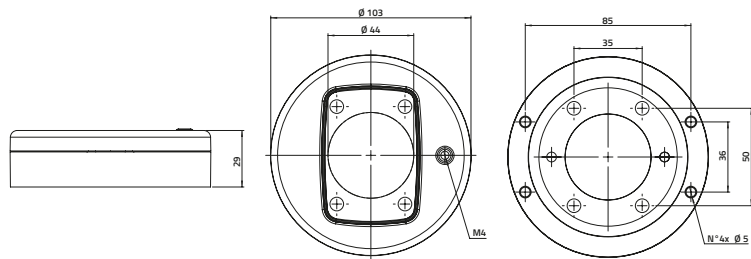
Flanges

mat — g — cod

Flangia girevole / Swivel flange



Al 600 **060S070F320**

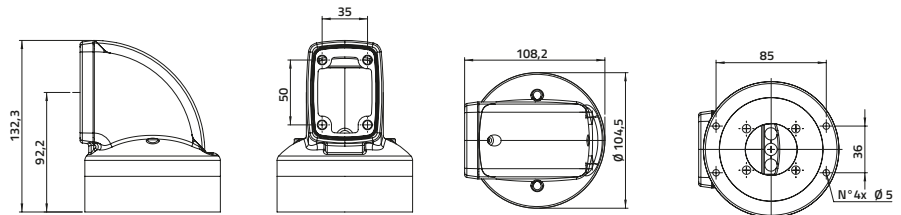


Flangia angolare 90° girevole

Swivel 90° angular flange



Al 1380 **060S070F400**

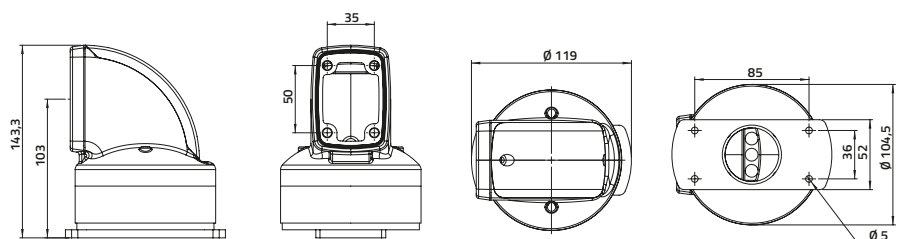


Flangia angolare 90° girevole base rettangolare

Rectangular base swivel 90° angular flange



Al 2280 **060S070F410**



Linea 70

Line 70

Flange Flanges

mat

g

cod

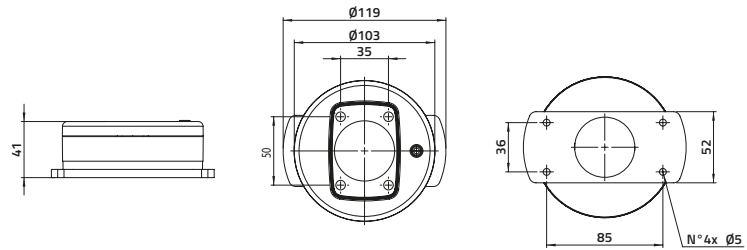


Flangia girevole base rettangolare
Rectangular base swivel flange

Al

750

060S070F830

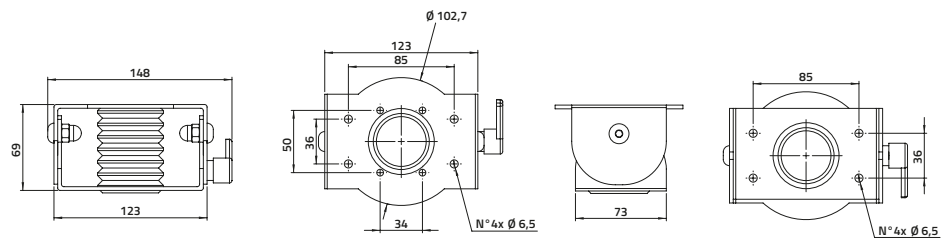


Adattatore inclinazione regolabile
Adapter for adjustable tilt

Al

900

060S070F835

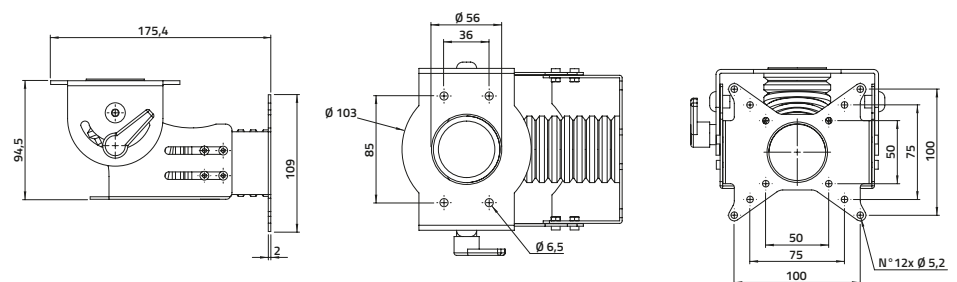


Adattatore inclinazione regolabile VESA MIS-D
Adapter for adjustable tilt VESA MIS-D

Al

900

060S070F836



Linea 70 Line 70

Giunti Joints

mat

g

cod

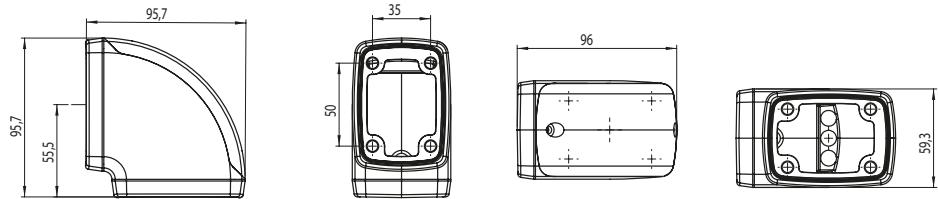


Giunto angolare 90° / 90° angular joint

Al

400

060S070G420

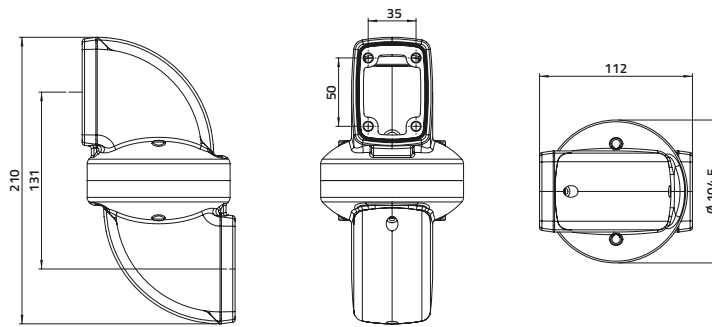


Giunto a snodo girevole / Swivel joint

Al

1650

060S070G500



Montanti Bases

mat

g

cod

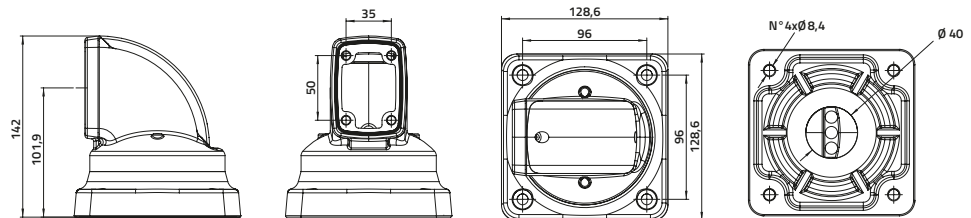


**Montante angolare 90° girevole
Swivel 90° angular base**

Al

1700

060S070M600

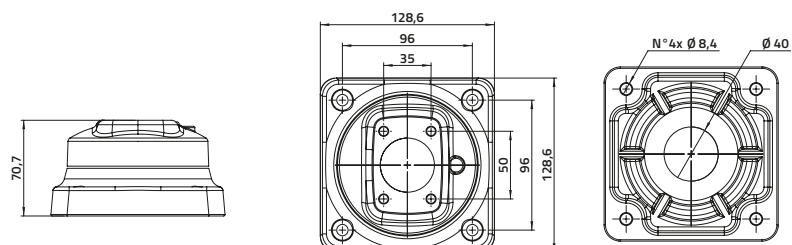


Montante girevole / Swivel base

Al

1600

060S070M610



Linea 70 Line 70

Montanti Bases

mat

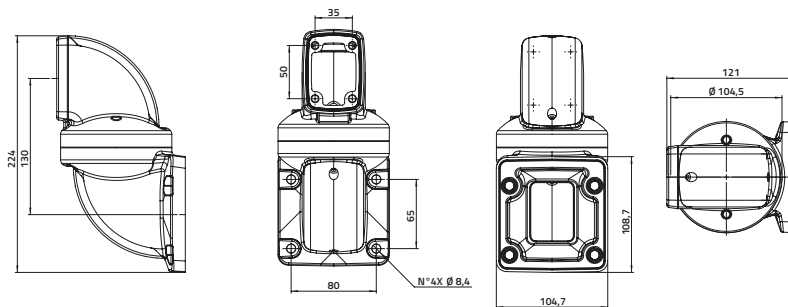
g

cod



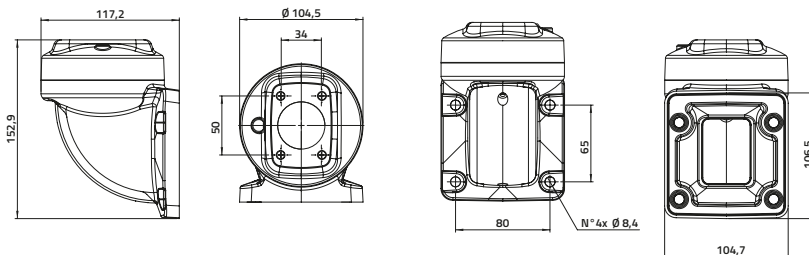
Montante a parete a snodo girevole
Wall-mount swivel base

Al 1850 **060S070M700**



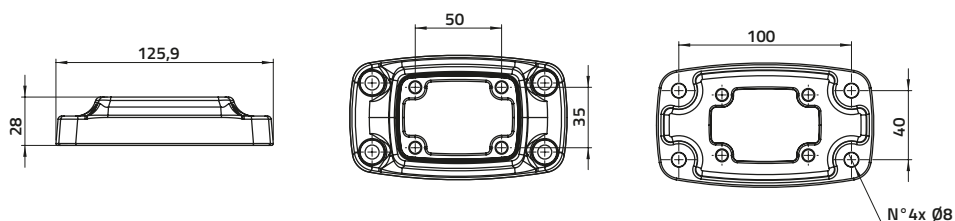
Montante a parete angolare 90° girevole
Wall-mount swivel 90° angular base

Al 1700 **060S070M710**



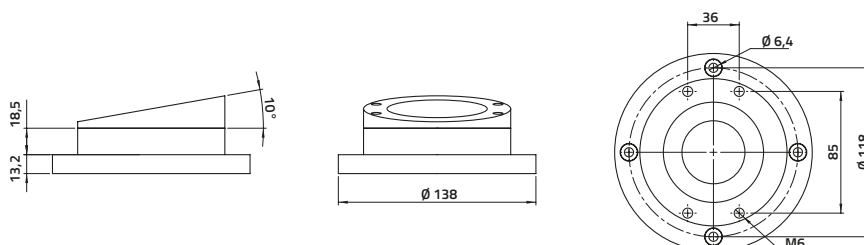
Montante fisso / Fixed base

Al 220 **060S070M800**



Supporto diretto per quadri girevole inclinato 10°
Swivel support for cabinet with 10° tilt

Al 1050 **060S070M841**



Linea 85

Line 85

Flange Flanges

mat

g

cod

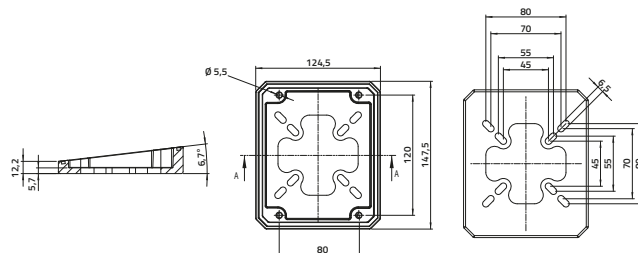


Adattatore per inclinazione 10°
Adapter for 10° tilt

AI

460

060S085F165



Giunti Joints

mat

g

cod

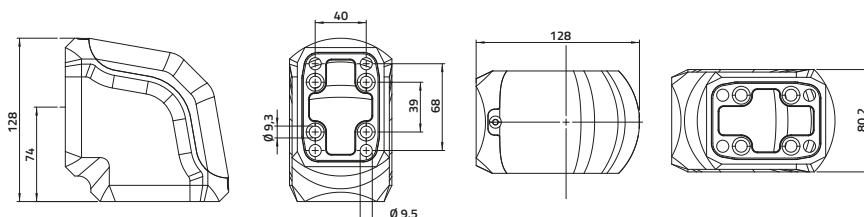


Giunto angolare 90° / 90° angular joint

AI

923

060S085G100

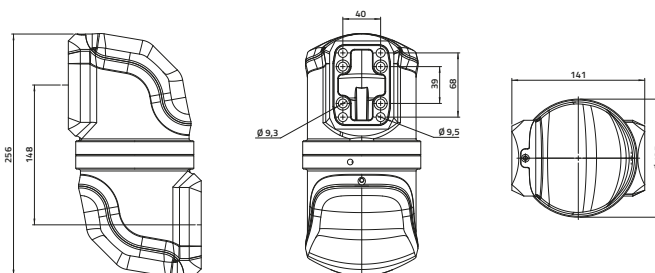


Giunto a snodo girevole / Swivel joint

AI

3230

060S085G130

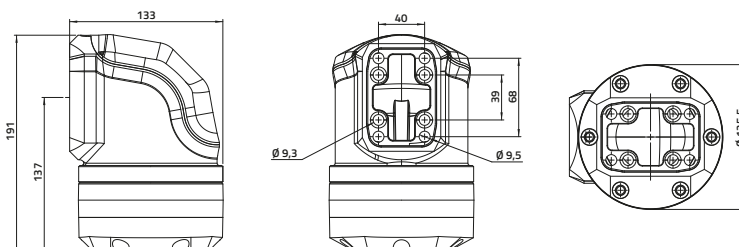


Giunto angolare 90° girevole
90° angular swivel joint

AI

2960

060S085G190



Linea 85

Line 85

Montanti Bases

mat

g

cod

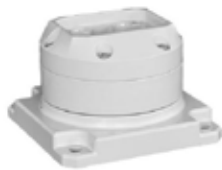
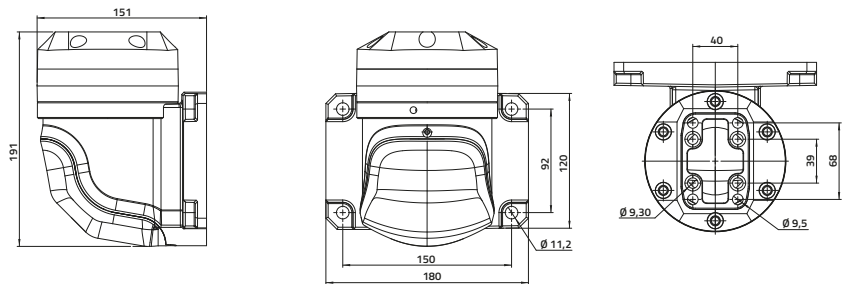


Montante a parete angolare 90° girevole Wall-mount swivel 90° angular base

Al

3550

060S085M170

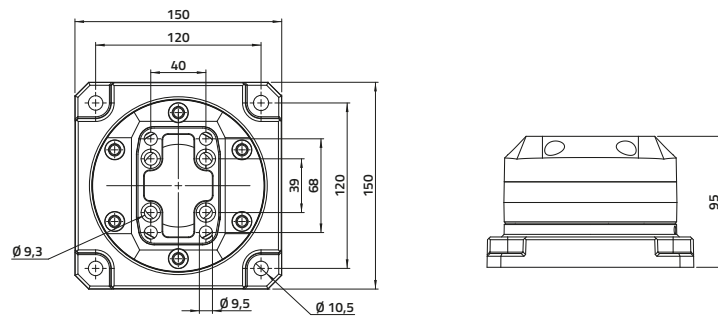


Montante girevole / Swivel base

Al

2900

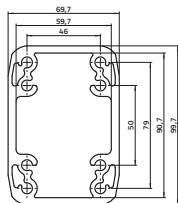
060S085M180



Linea 100

Line 100

Profilo di alluminio 70 × 100 Aluminum profile 70 × 100



L — mat — g — cod

| | | | |
|---------|----|------|---------------------|
| 250 mm | Al | 1247 | 060S100B0250 |
| 350 mm | Al | 1745 | 060S100B0350 |
| 500 mm | Al | 2494 | 060S100B0500 |
| 750 mm | Al | 3741 | 060S100B0750 |
| 1000 mm | Al | 4988 | 060S100B1000 |
| 1500 mm | Al | 7482 | 060S100B1500 |
| 2000 mm | Al | 9976 | 060S100B2000 |

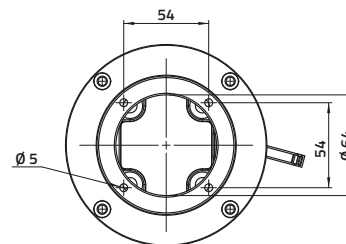
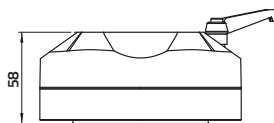
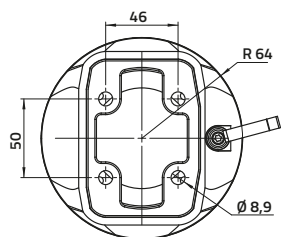
Flange Flanges

mat — g — cod

Flangia girevole / Swivel flange



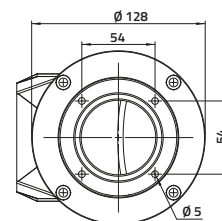
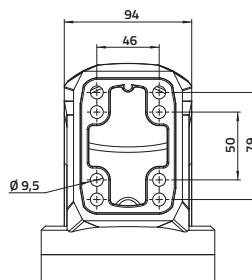
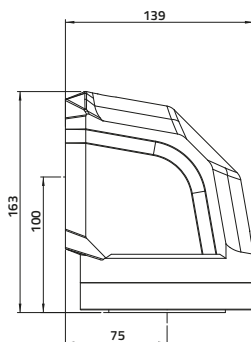
Al 1033 **060S100F090**



Flangia angolare 90° girevole Swivel 90° angular flange



Al 1770 **060S100F150**



Linea 100

Line 100

Flange
Flanges

mat

g

cod

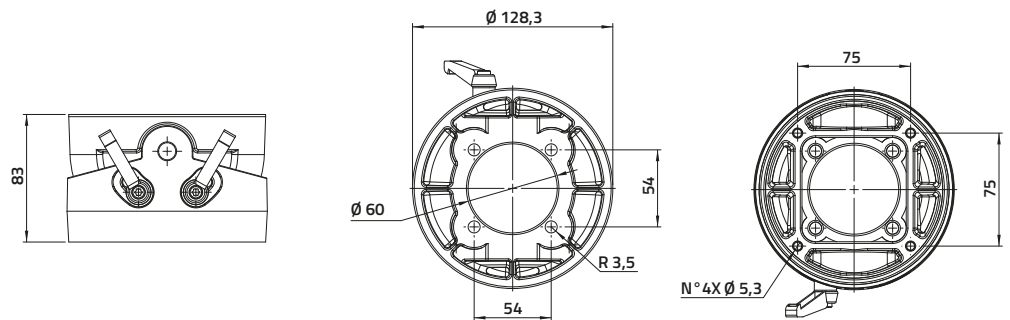


Adattatore inclinazione regolabile ± 15
Adapter for adjustable tilt ± 15

Al

1470

060S100F060

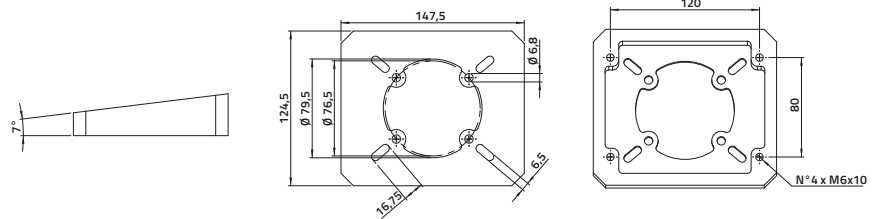


Adattatore per inclinazione 10°
Adapter for 10° tilt

Al

420

060S100F165



Linea 100 Line 100

Giunti Joints

mat

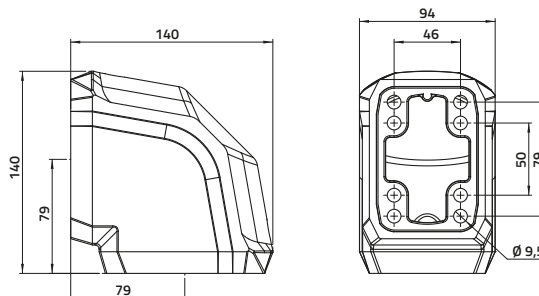
g

cod



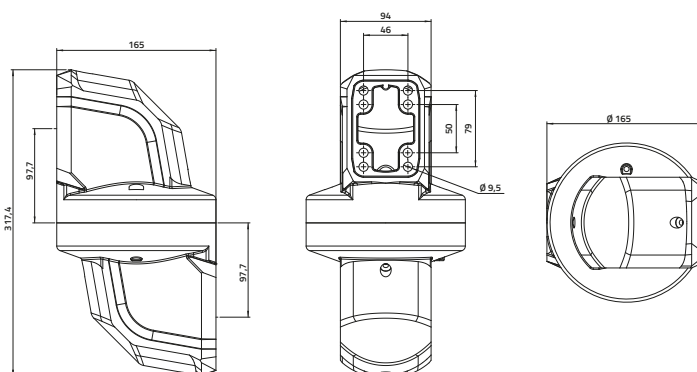
Giunto angolare 90° / 90° angular joint

Al 1330 **060S100G100**



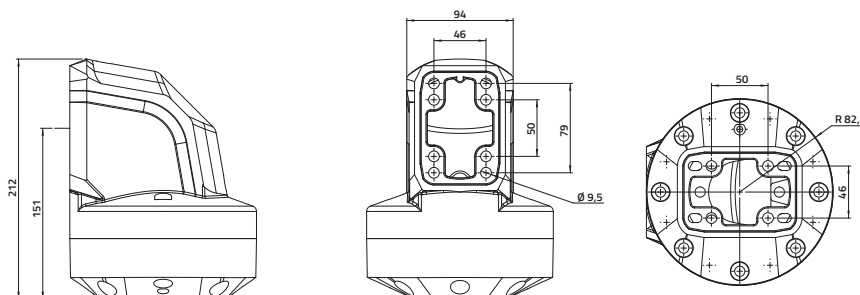
Giunto a snodo girevole / Swivel joint

Al 5213 **060S100G130**



**Giunto angolare 90° girevole
90° angular swivel joint**

Al 4200 **060S100G190**



Linea 100

Line 100

Montanti Bases

mat

g

cod

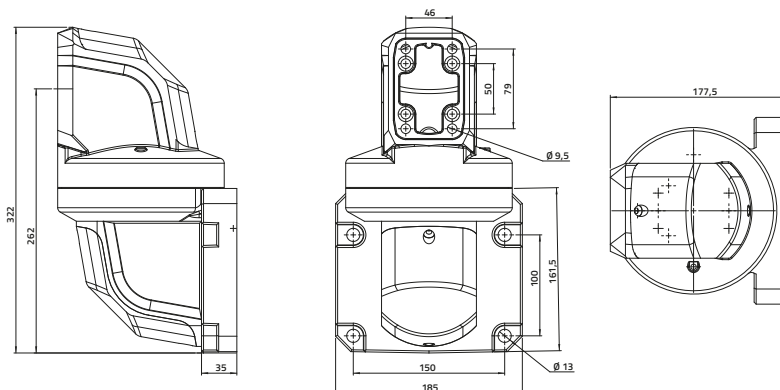


Montante a parete a snodo girevole
Wall-mount swivel base

Al

5918

060S100M110

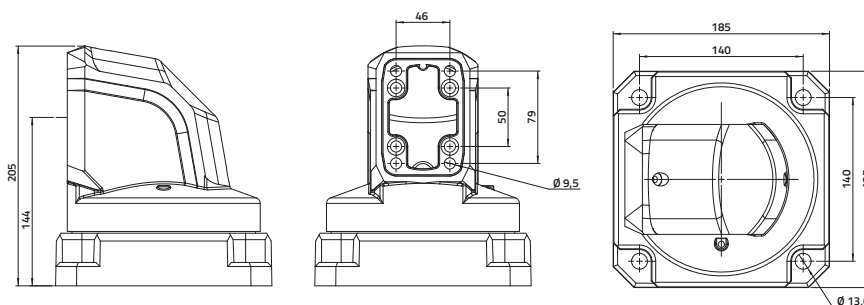


Montante angolare 90° girevole
Swivel 90° angular base

Al

5165

060S100M120



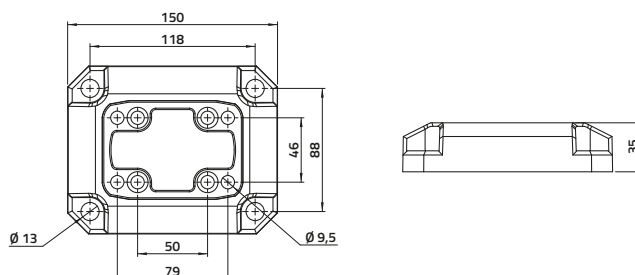
Montante fisso / Fixed base



Al

630

060S100M140



Linea 100

Line 100

Montanti Bases

mat

g

cod

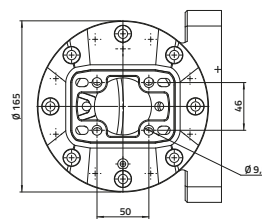
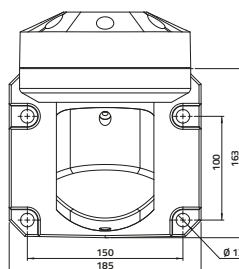
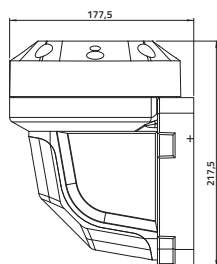


Montante a parete angolare 90° girevole
Wall-mount swivel 90° angular base

Al

5700

060S100M170

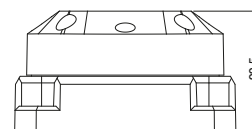
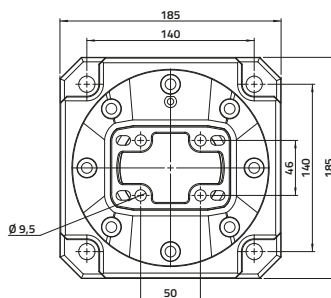


Montante girevole / Swivel base

Al

4700

060S100M180



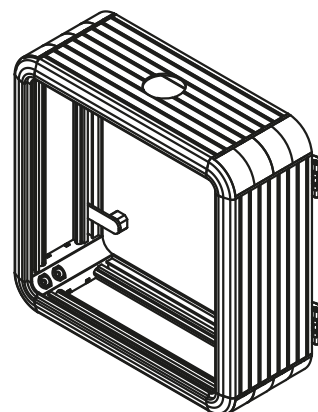
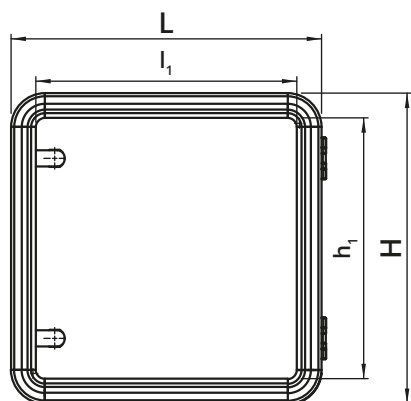
Quadri di comando pensili Suspended control cabinets

Senza maniglie
Without handles



Alluminio / Aluminum

| | | | | | | | |
|-----|-----|-----|-----|-----|-----|------|---------------------|
| 348 | 348 | 100 | 300 | 300 | 90 | 3540 | 060SC3535-10 |
| 448 | 348 | 100 | 400 | 300 | 90 | 4150 | 060SC4535-10 |
| 448 | 448 | 100 | 400 | 400 | 90 | 4840 | 060SC4545-10 |
| 548 | 448 | 100 | 500 | 400 | 90 | 5530 | 060SC5545-10 |
| 548 | 548 | 100 | 500 | 500 | 90 | 6440 | 060SC5555-10 |
| 648 | 548 | 100 | 600 | 600 | 90 | 7210 | 060SC6555-10 |
| 648 | 648 | 100 | 600 | 600 | 90 | 8010 | 060SC6565-10 |
| | | | | | | | |
| 348 | 348 | 130 | 300 | 300 | 120 | 4080 | 060SC3535-13 |
| 448 | 348 | 130 | 400 | 300 | 120 | 4740 | 060SC4535-13 |
| 448 | 448 | 130 | 400 | 400 | 120 | 5485 | 060SC4545-13 |
| 548 | 448 | 130 | 500 | 400 | 120 | 6225 | 060SC5545-13 |
| 548 | 548 | 130 | 500 | 500 | 120 | 6185 | 060SC5555-13 |
| 648 | 548 | 130 | 600 | 600 | 120 | 8010 | 060SC6555-13 |
| 648 | 648 | 130 | 600 | 600 | 120 | 8865 | 060SC6565-13 |
| | | | | | | | |
| 348 | 348 | 160 | 300 | 300 | 150 | 4510 | 060SC3535-16 |
| 448 | 348 | 160 | 400 | 300 | 150 | 5230 | 060SC4535-16 |
| 448 | 448 | 160 | 400 | 400 | 150 | 6030 | 060SC4545-16 |
| 548 | 448 | 160 | 500 | 400 | 150 | 6830 | 060SC5545-16 |
| 548 | 548 | 160 | 500 | 500 | 150 | 7850 | 060SC5555-16 |
| 648 | 548 | 160 | 600 | 600 | 150 | 8735 | 060SC6555-16 |
| 648 | 648 | 160 | 600 | 600 | 150 | 9650 | 060SC6565-16 |



Quadri di comando pensili Suspended control cabinets

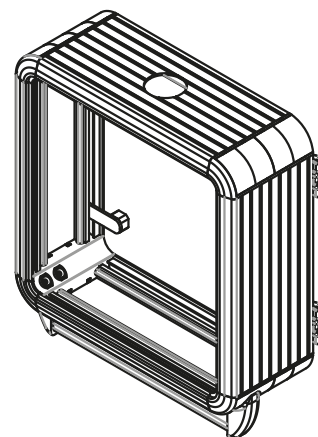
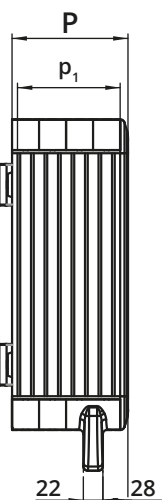
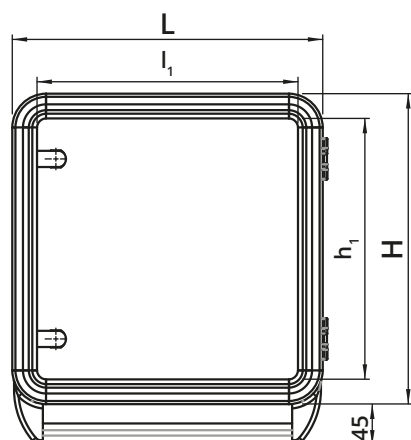
Con maniglia inferiore
With low handle



Alluminio / Aluminum



| | | | | | | | |
|-----|-----|-----|-----|-----|-----|------|-----------------------|
| 348 | 348 | 100 | 300 | 300 | 90 | 3620 | 060SC3535-10M1 |
| 448 | 348 | 100 | 400 | 300 | 90 | 4245 | 060SC4535-10M1 |
| 448 | 448 | 100 | 400 | 400 | 90 | 4935 | 060SC4545-10M1 |
| 548 | 448 | 100 | 500 | 400 | 90 | 5630 | 060SC5545-10M1 |
| 548 | 548 | 100 | 500 | 500 | 90 | 6540 | 060SC5555-10M1 |
| 648 | 548 | 100 | 600 | 600 | 90 | 7330 | 060SC6555-10M1 |
| 648 | 648 | 100 | 600 | 600 | 90 | 8130 | 060SC6565-10M1 |
| | | | | | | | |
| 348 | 348 | 130 | 300 | 300 | 120 | 4155 | 060SC3535-13M1 |
| 448 | 348 | 130 | 400 | 300 | 120 | 4835 | 060SC4535-13M1 |
| 448 | 448 | 130 | 400 | 400 | 120 | 5575 | 060SC4545-13M1 |
| 548 | 448 | 130 | 500 | 400 | 120 | 6330 | 060SC5545-13M1 |
| 548 | 548 | 130 | 500 | 500 | 120 | 7290 | 060SC5555-13M1 |
| 648 | 548 | 130 | 600 | 600 | 120 | 8130 | 060SC6555-13M1 |
| 648 | 648 | 130 | 600 | 600 | 120 | 8985 | 060SC6565-13M1 |
| | | | | | | | |
| 348 | 348 | 160 | 300 | 300 | 150 | 4585 | 060SC3535-16M1 |
| 448 | 348 | 160 | 400 | 300 | 150 | 5325 | 060SC4535-16M1 |
| 448 | 448 | 160 | 400 | 400 | 150 | 6125 | 060SC4545-16M1 |
| 548 | 448 | 160 | 500 | 400 | 150 | 6935 | 060SC5545-16M1 |
| 548 | 548 | 160 | 500 | 500 | 150 | 7955 | 060SC5555-16M1 |
| 648 | 548 | 160 | 600 | 600 | 150 | 8855 | 060SC6555-16M1 |
| 648 | 648 | 160 | 600 | 600 | 150 | 9770 | 060SC6565-16M1 |



Quadri di comando pensili

Suspended control cabinets

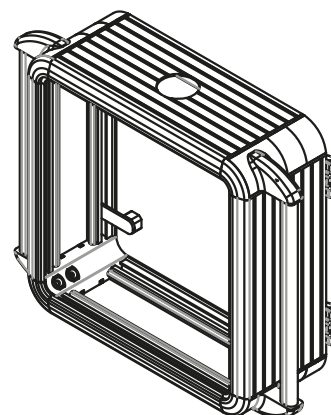
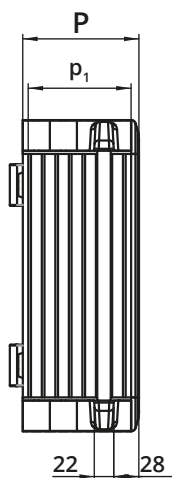
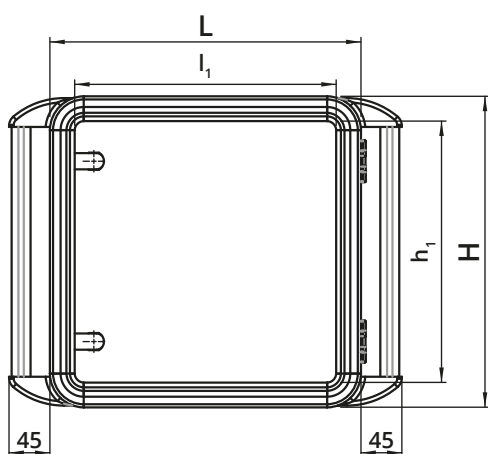
Con maniglie laterali
With side handles



Alluminio / Aluminum



| | | | | | | | |
|-----|-----|-----|-----|-----|-----|------|-----------------------|
| 348 | 348 | 100 | 300 | 300 | 90 | 3695 | 060SC3535-10M2 |
| 448 | 348 | 100 | 400 | 300 | 90 | 4335 | 060SC4535-10M2 |
| 448 | 448 | 100 | 400 | 400 | 90 | 5025 | 060SC4545-10M2 |
| 548 | 448 | 100 | 500 | 400 | 90 | 5735 | 060SC5545-10M2 |
| 548 | 548 | 100 | 500 | 500 | 90 | 6640 | 060SC5555-10M2 |
| 648 | 548 | 100 | 600 | 600 | 90 | 7445 | 060SC6555-10M2 |
| 648 | 648 | 100 | 600 | 600 | 90 | 8250 | 060SC6565-10M2 |
| | | | | | | | |
| 348 | 348 | 130 | 300 | 300 | 120 | 4235 | 060SC3535-13M2 |
| 448 | 348 | 130 | 400 | 300 | 120 | 4925 | 060SC4535-13M2 |
| 448 | 448 | 130 | 400 | 400 | 120 | 5670 | 060SC4545-13M2 |
| 548 | 448 | 130 | 500 | 400 | 120 | 6430 | 060SC5545-13M2 |
| 548 | 548 | 130 | 500 | 500 | 120 | 7390 | 060SC5555-13M2 |
| 648 | 548 | 130 | 600 | 600 | 120 | 8250 | 060SC6555-13M2 |
| 648 | 648 | 130 | 600 | 600 | 120 | 9105 | 060SC6565-13M2 |
| | | | | | | | |
| 348 | 348 | 160 | 300 | 300 | 150 | 4665 | 060SC3535-16M2 |
| 448 | 348 | 160 | 400 | 300 | 150 | 5415 | 060SC4535-16M2 |
| 448 | 448 | 160 | 400 | 400 | 150 | 6220 | 060SC4545-16M2 |
| 548 | 448 | 160 | 500 | 400 | 150 | 7035 | 060SC5545-16M2 |
| 548 | 548 | 160 | 500 | 500 | 150 | 8055 | 060SC5555-16M2 |
| 648 | 548 | 160 | 600 | 600 | 150 | 8970 | 060SC6555-16M2 |
| 648 | 648 | 160 | 600 | 600 | 150 | 9885 | 060SC6565-16M2 |



Pulsantiere pensili

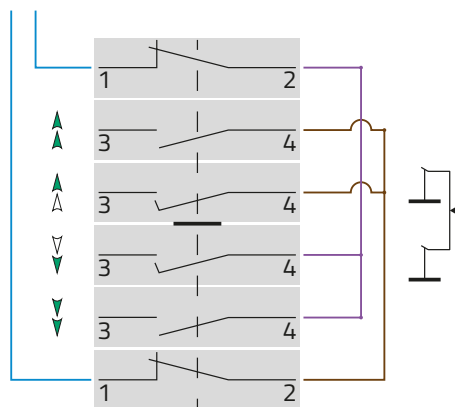
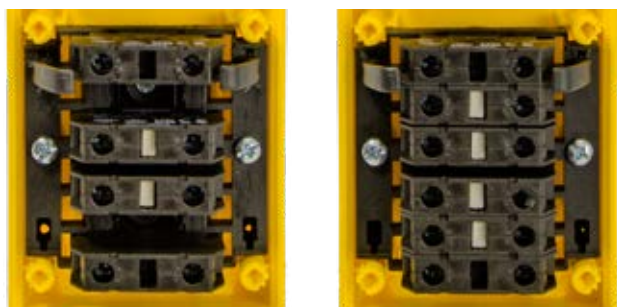
Pendant push-button stations



Operatori disponibili a una o due velocità
Available operators 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

CARATTERISTICHE TECNICHE

| | |
|--------------------------|--------------|
| Involucro | ABS |
| Grado di protezione | IP65 |
| Temperatura di esercizio | -5 °C +25 °C |

TECHNICAL DATA

| | |
|-----------------------|--------------|
| Body | ABS |
| Degree Protection | IP65 |
| Operating temperature | -5 °C +25 °C |

CARATTERISTICHE PULSANTI

| | |
|---------------------------------------|---------------------------------------|
| Durata meccanica | 5 × 10 ⁵ cicli |
| Durata elettrica | 1 × 10 ⁶ cicli di manovra |
| Tensione nominale U _e | 250V AC |
| Corrente nominale I _a | 4 A |
| Potenze nominali di impiego | AC15 secondo EN IEC 947-5-1 / 1000 VA |
| Tensione di isolamento U _I | 300 V U _{imp} 2,5 Kw |

PUSH-BUTTON DATA

| | |
|---|--|
| Mechanical durability | 5 × 10 ⁵ operations |
| Electrical durability | 1 × 10 ⁶ operations |
| Rating operating voltage U _e | 250V AC |
| Rating operating current I _A | 4 A |
| Rated switch power | AC15 according to EN IEC 947-5-1 / 1000 VA |
| Insulation Voltage U _I | 300 V U _{imp} 2,5 Kw |



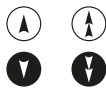
Pulsantiere pensili

Pendant push-button stations

Con operatore
With operator

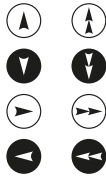
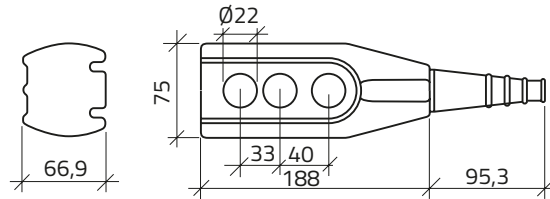
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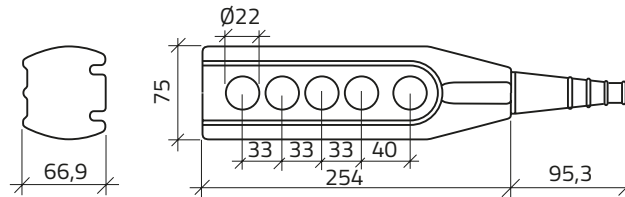
2 operatori + emergenza 1NC / 2 operators + emergency stop 1NC

| | | |
|---|-----|-----------------|
| Pulsanti a 1 velocità / 1 speed push-button | 390 | 060PM2S1 |
| Pulsanti a 2 velocità / 2 speed push-button | 390 | 060PM2S2 |



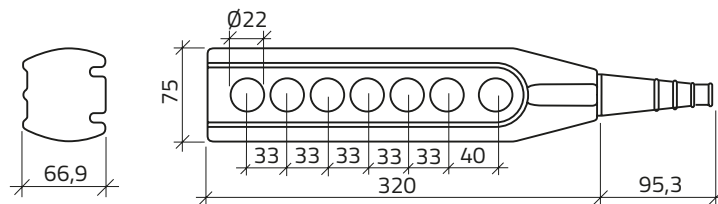
4 operatori + emergenza 1NC / 4 operators + emergency stop 1NC

| | | |
|---|-----|-----------------|
| Pulsanti a 1 velocità / 1 speed push-button | 550 | 060PM4S1 |
| Pulsanti a 2 velocità / 2 speed push-button | 550 | 060PM4S2 |



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

| | | |
|---|-----|-----------------|
| Pulsanti a 1 velocità / 1 speed push-button | 960 | 060PM6S1 |
| Pulsanti a 2 velocità / 2 speed push-button | 960 | 060PM6S2 |



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

| | | |
|---|------|-----------------|
| Pulsanti a 1 velocità / 1 speed push-button | 1070 | 060PM8S1 |
| Pulsanti a 2 velocità / 2 speed push-button | 1070 | 060PM8S2 |

