INRATO
International
focus op veiligheid

Dispositivi di comando a due mani
Two-hand control devices

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

3.28.4
Comando a due mani: comando ad azione mantenuta che richiede almeno l'azionamento simultaneo dei due comandi manuali (attuatori) per avviare e mantenere il funzionamento della macchina o degli elementi di quest'ultima, assicurando così protezione alla persona che li aziona.

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

9.2.6.2
Comandi a due mani: esistono tre tipi di comandi a due mani, la cui selezione dipende dalla valutazione dei rischi. Essi devono avere le caratteristiche seguenti:

TIPO 1: questo tipo richiede:
- la fornitura di due dispositivi di comando dell'attivazione che necessitano l'uso contemporaneo delle due mani;
- l'attivazione continua durante le situazioni pericolose;
- l'interruzione dell'attivazione della macchina al rilascio di uno qualsiasi dei dispositivi di comando dell'attivazione, se le condizioni rimangono pericolose.

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

TIPO 3: comando di tipo 2 che richiede un'attivazione contemporanea dei dispositivi di comando dell'attivazione come segue:
- deve essere necessario fare funzionare i dispositivi di comando dell'attivazione entro un determinato tempo limite minore o uguale a 0,5 s (Appendice B);
- quando viene superato il tempo limite, entrambi i dispositivi di comando dell'attivazione devono essere rilasciati prima che possa essere iniziata una nuova operazione.

DEFINITION OF TWO HAND CONTROL (UNI EN ISO 12100)

3.28.4
Two hand control: maintained action control which requires at least the simultaneous activation of the two manual controls (actuators) to start up and continue running the machine and its elements, thus ensuring that operators are protected.

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

9.2.6.2
Two hand controls: there are three types of two hand control, the selection of which depends on risk assessment. They must have the following features:

TYPE 1: this type must have:
- the supply of two activation control devices which require the simultaneous use of both hands;
- constant activation during dangerous situations;
- machine cut-off when any activation control is released, if conditions continue to be dangerous.

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

TYPE 3: type 2 control which requires the simultaneous activation of the activation control devices as follows:
- it must be possible to engage the activation control devices within a set time equal to or less than 0.5 seconds (Appendix B);
- when the time limit is up, both activation control devices must be released before a new operation can begin.

Pulsantiera a due mani
Two-hand control device

SISTEMA MODULARE PER PULSANTIERE

Il sistema modulare per 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

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

DIMENSIONI E FORMA

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

SISTEMA MODULARE PER PULSANTIERE

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

KIT DI RUOTE

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

KIT DI CONNESSIONE

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

MODULAR SYSTEM FOR P/B PANELS

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

COLORATION

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

DIMENSIONS AND SHAPE

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

MODULAR SYSTEM FOR P/B PANELS

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

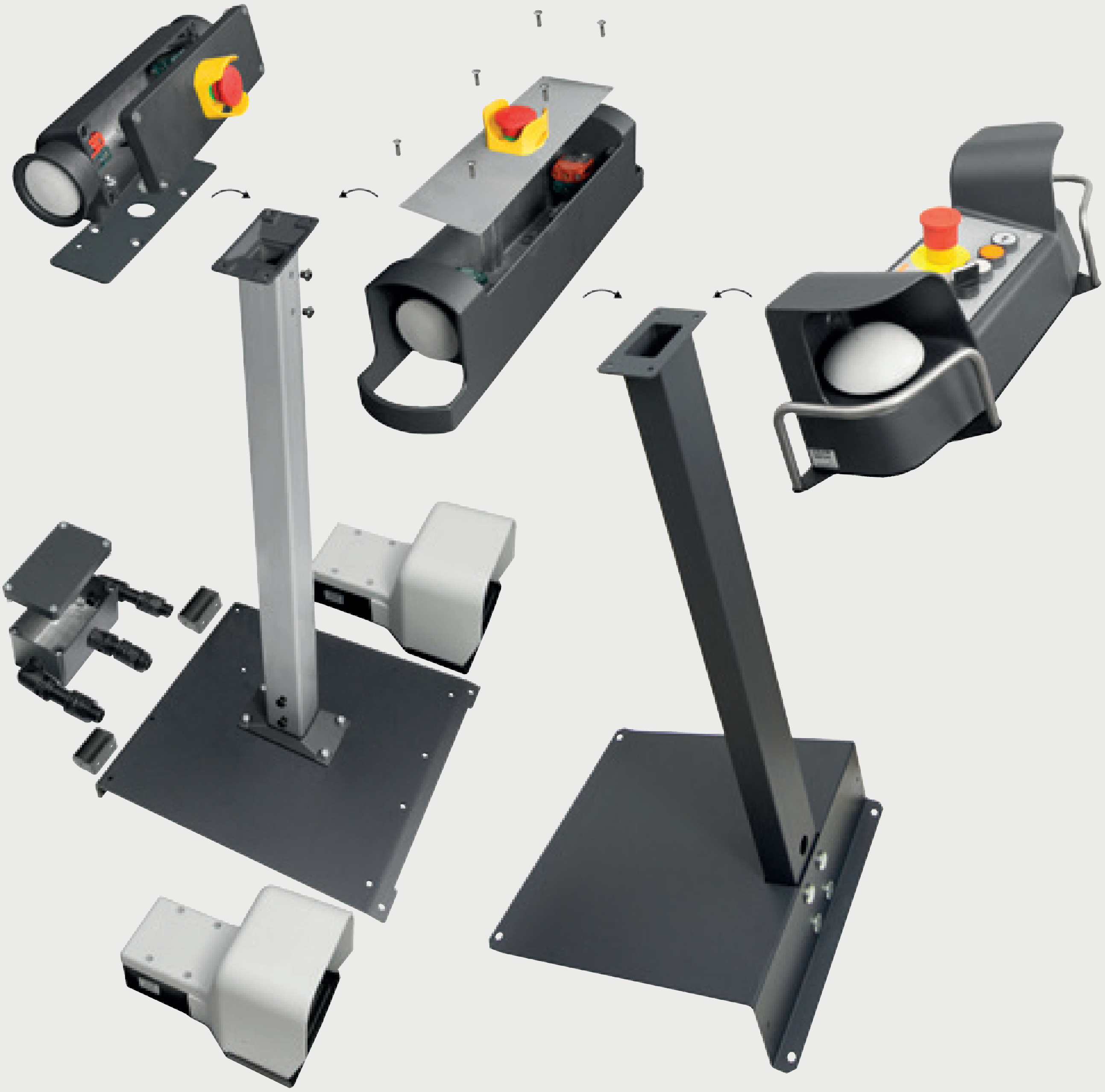
CASTOR KIT

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

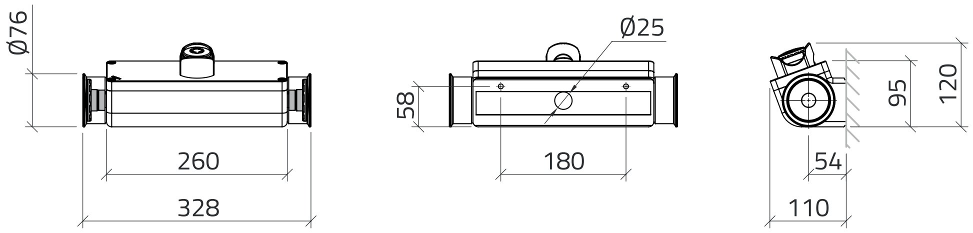
CONNECTION KIT

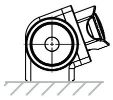
The connection kit allows to easily wire up all the components installed on the base.

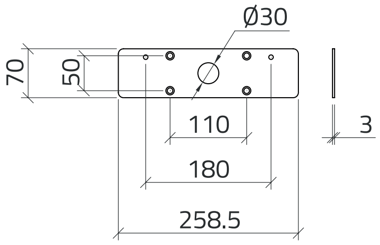
Pulsantiera a due mani
Two-hand control device

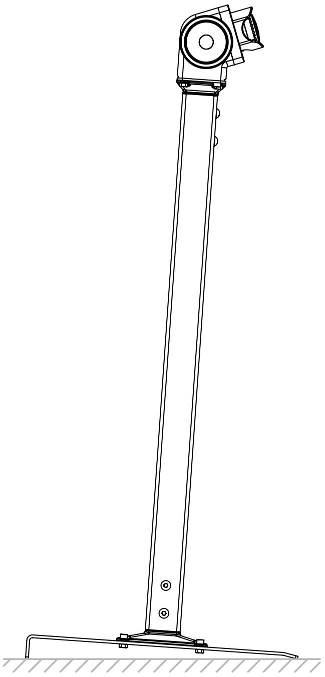


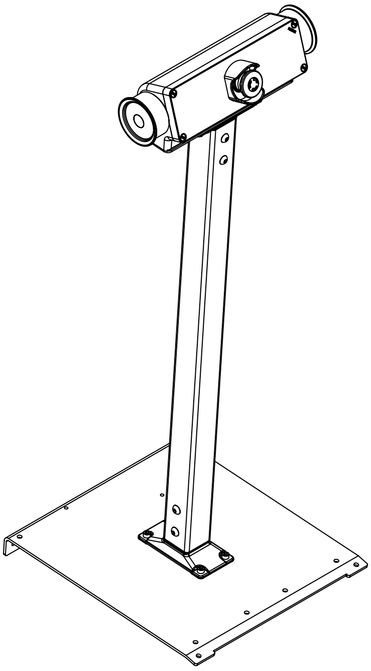
Dispositivi di comando a due mani
Two-hand control devices


Ø76
260
328
Ø25
58
180
95
120
54
110

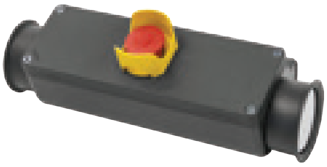



Ø30
70
50
110
180
258.5
3



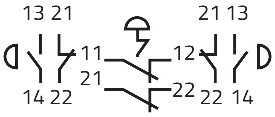


Dispositivi di comando a due mani
Two-hand control devices

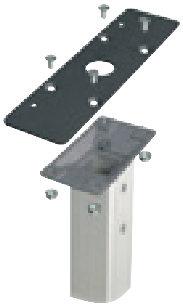


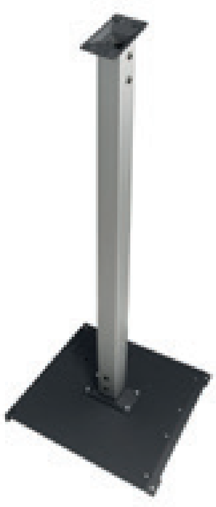
Pulsantiera a due mani inclinata in alluminio
Sloped aluminium two-hand control panel

	g	cod
● RAL 7016	1461	**060CL2MA**



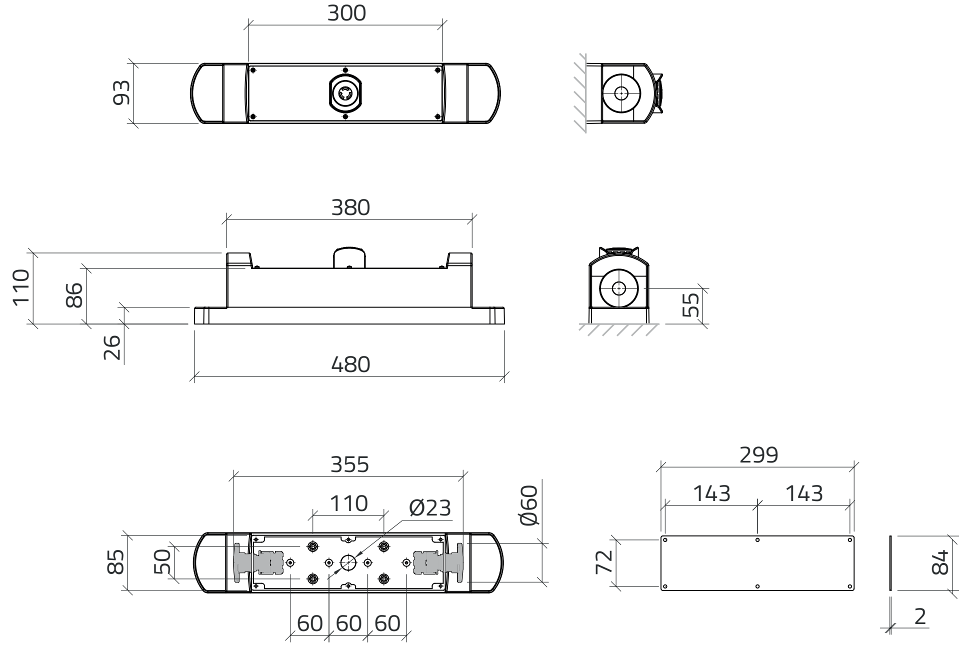
Accessori
Accessories

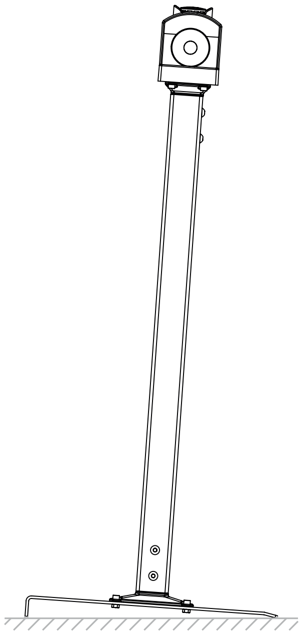


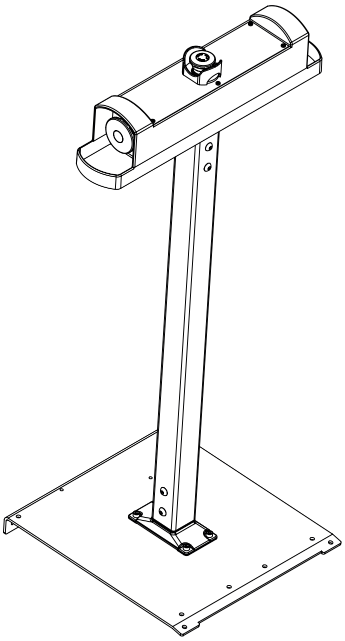


	g	cod
Piastra accoppiamento pulsantiera inclinata Coupling plate for sloped panel	450	**060PAP**
Stativo componibile per comandi bimanuali Modular stand for two-hand control devices	6450	**060SC**

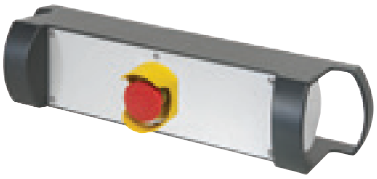
Dispositivi di comando a due mani
Two-hand control devices


300
93
380
110
86
26
480
55
355
110
Ø23
Ø60
85
50
60
60
60
299
143
143
72
84
2



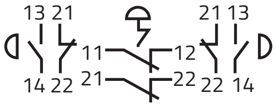


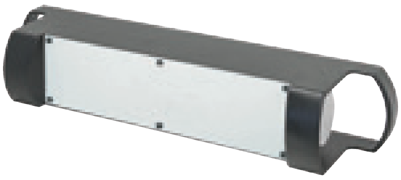
Dispositivi di comando a due mani
Two-hand control devices



Pulsantiera a due mani console in alluminio
Aluminium console two-hand control panel

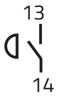
	g	cod
● RAL 7016	2050	**060C2MA**

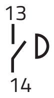




Pulsantiera a due mani console da completare
Console two-hand control panel to be completed

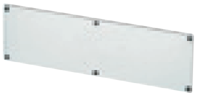
	g	cod
Pulsantiera con pulsanti Control panel with push-buttons		
● RAL 7016	1730	**060C2MGRP**



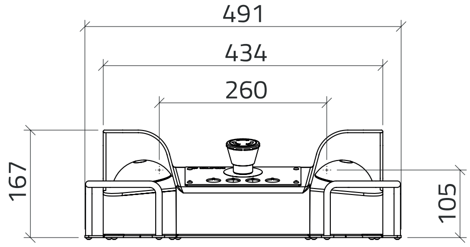


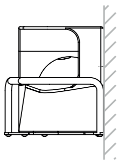
Accessori
Accessories

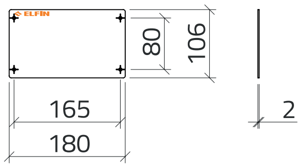
	g	cod
Piastra di ricambio / Spare plate	150	**060PC**
Stativo componibile per comandi bimanuali Modular stand for two-hand control devices	6450	**060SC**

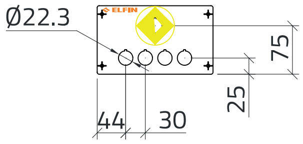


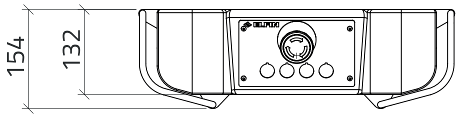
Dispositivi di comando a due mani
Two-hand control devices

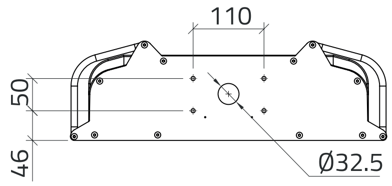

491
434
260
167
105

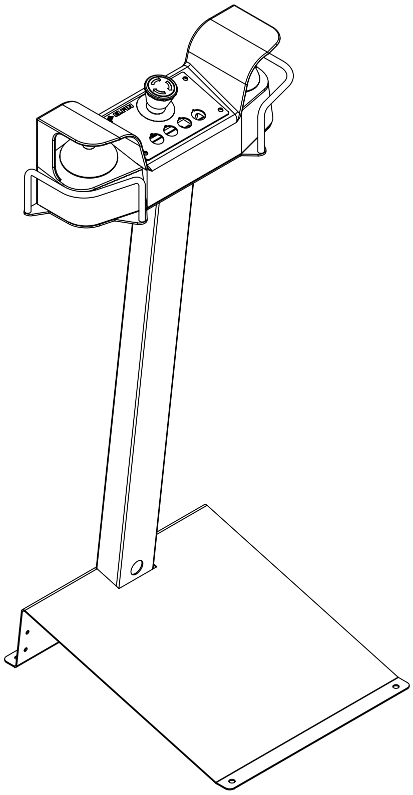


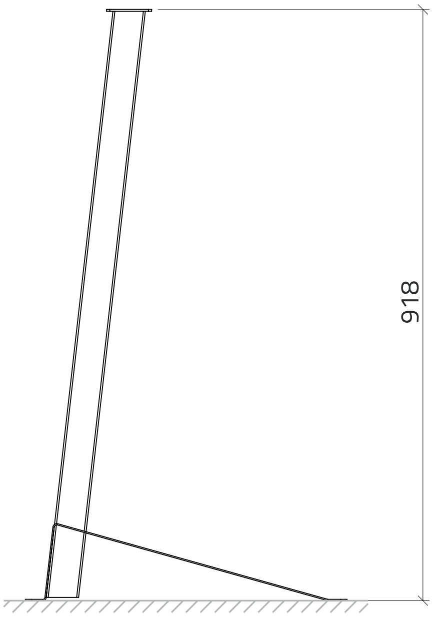

ELFIN
80
106
165
180
2

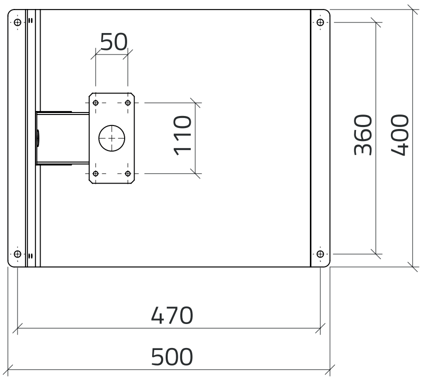

Ø22.3
ELFIN
75
25
44
30


154
132
ELFIN


110
50
46
Ø32.5

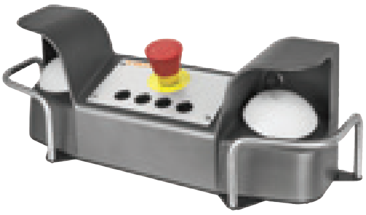




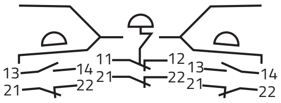

50
110
360
400
470
500

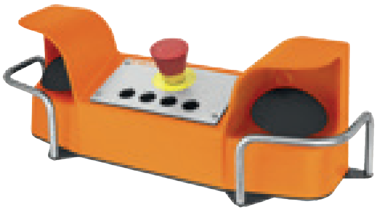
Dispositivi di comando a due mani
Two-hand control devices

Pulsantiera a due mani protetta in alluminio
Aluminium two-hand control panel protected



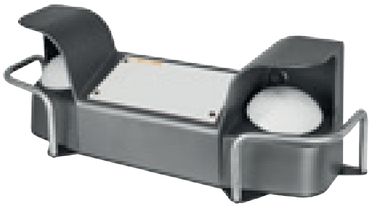
Per personalizzazioni con altri operatori ed elementi di contatto vedi sezione "020 Comando e segnalazione SM2 Ø22"
For customization with other operators or contact blocks, refer to section 020 "Command and signalling SM2 Ø22".





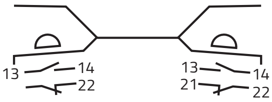
	g	cod
● RAL 7016	4650	**060P2MA**
● RAL 2011	4650	**060P2MAA**

Pulsantiera a due mani protetta da completare
Two-hand control panel protected to be completed

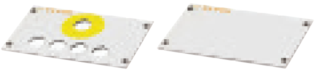


Pulsantiera con pulsanti
Control panel with push-buttons

	g	cod
● RAL 7016	4454	**060P2MGRP**



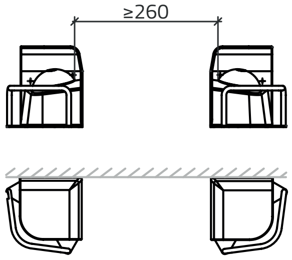
Accessori
Accessories

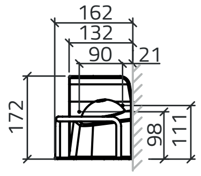


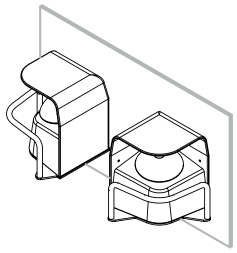
	g	cod
Piastra di ricambio forata / Spare plate drilled	95	**060PP2MF**
Piastra di ricambio non forata / Spare plate undrilled	100	**060PP2MN**
Viti chiusura ermetica / Sealing screws	25	**060VCE**
Stativo per comando bimanuale Stand for two-hand control devices	9785	**060SP2M**

Dispositivi di comando a due mani
Two-hand control devices

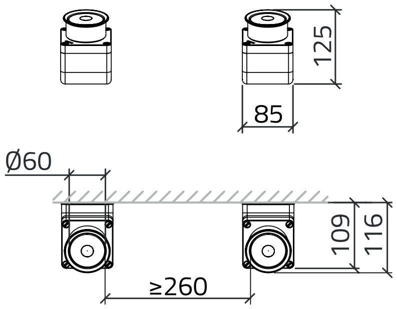
060MPP2GR

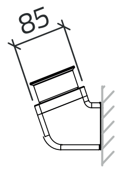


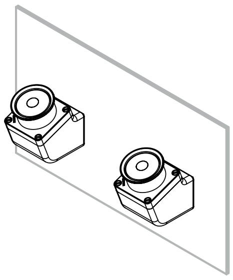

162
132
90
21
172
98
111



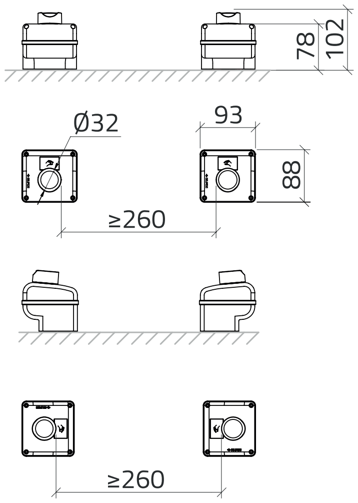
060MLP2GR

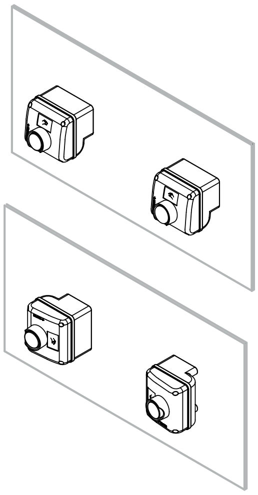

125
85
Ø60
109
116
≥260





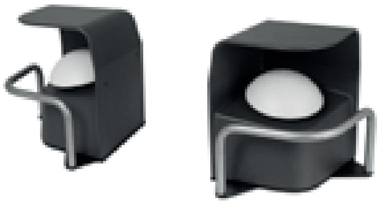
060MEP2GR


78
102
Ø32
93
88
≥260
≥260



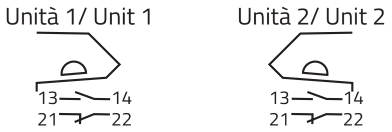
Dispositivi di comando a due mani
Two-hand control devices

Moduli singoli in alluminio
Single aluminium modules



Moduli singoli protetti per comando a due mani
Protected single modules for two-hand control

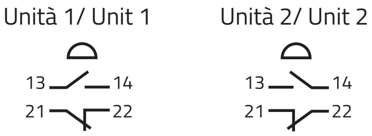
	g	cod
● Grigio / Gray	3200	**060MPP2GR**


Unità 1/ Unit 1
13
14
21
22
Unità 2/ Unit 2
13
14
21
22

Moduli singoli inclinati per comando a due mani
Sloped single modules for two-hand control

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

	g	cod
● Grigio / Gray	1300	**060MLP2GR**

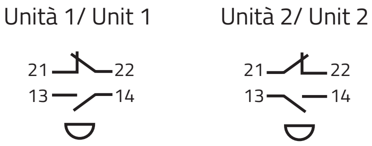

Unità 1/ Unit 1
13
14
21
22
Unità 2/ Unit 2
13
14
21
22

Moduli singoli in termoplastico
Single thermoplastic modules

Moduli singoli per comando a due mani
Single modules for two-hand control

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

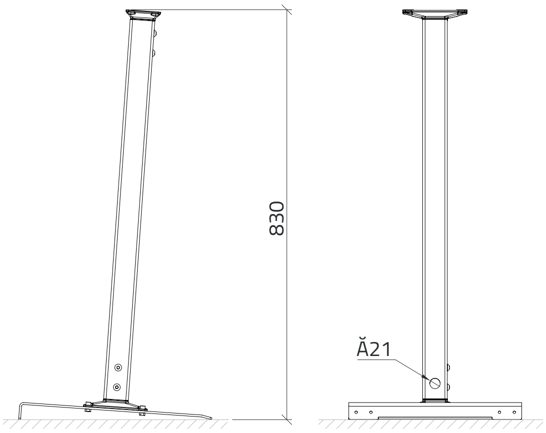
	g	cod
● Grigio / Gray	400	**060MEP2GR**

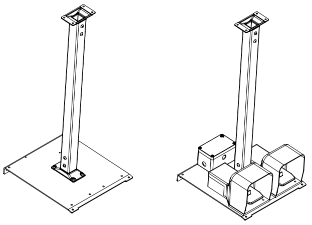

Unità 1/ Unit 1
21
22
13
14
Unità 2/ Unit 2
21
22
13
14

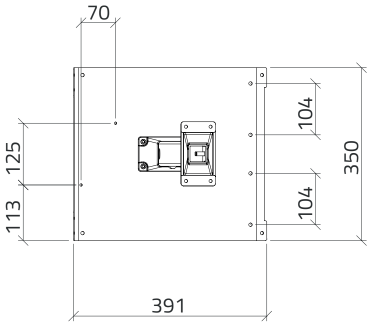
Dispositivi di comando a due mani
Two-hand control devices

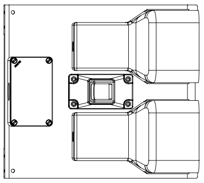
Stativo componibile per comando bimanuale
Modular stand for two-hand control panel

	g	cod
Per articoli 060CL2MA - 060C2MA For item code 060CL2MA - 060CL2MA	6450	**060SC**

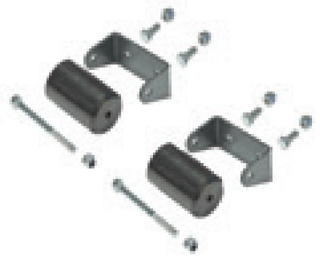




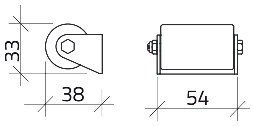




Ruote
Wheels



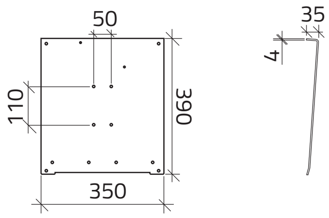
	g	cod
Kit di ruote per piastra base colonna Castor kit for column base plate	200	**060KR**



Dispositivi di comando a due mani
Two-hand control devices

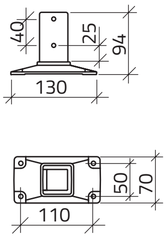
Piastre
Plates

	g	cod
Piastra base colonna / Column base plate	4600	**060BC**

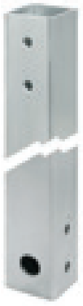

50
110
390
350
35
4

Giunti
Joints

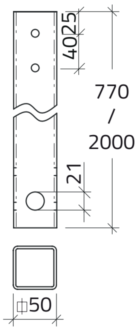
	g	cod
Ortogonale / Orthogonal	315	**060GCO**


40
25
94
130
50
70
110

Colonne
Colums

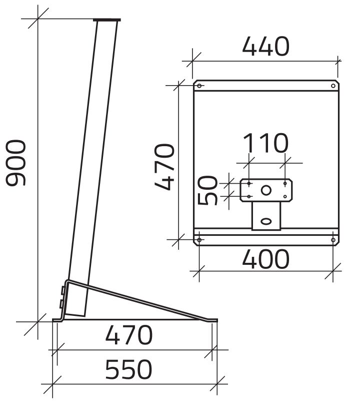


	g	cod
Lunghezza / Length mm 770	1185	**060C8**

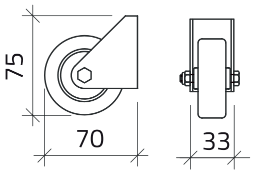

40
25
770
/
2000
21
⌷50

Dispositivi di comando a due mani
Two-hand control devices

	g	cod
Stativo per comando bimanuale **Stand for two-hand control panel** Per articolo 060C2MA - 060P2MA For item code 060C2MA - 060P2MA	9785	**060SP2M**

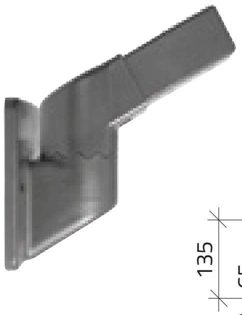


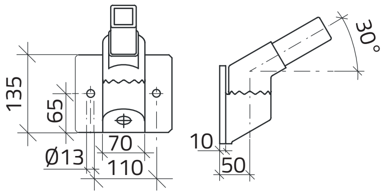
	g	cod
Kit ruote per stativo / Castor kit for stand	290	**060SMS**



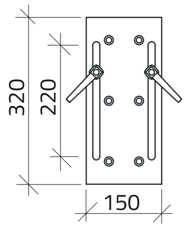
Dispositivi di comando a due mani
Two-hand control devices

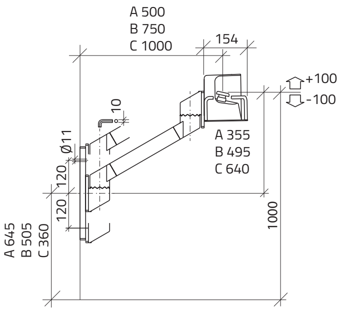
	g	cod
Supporto per braccio / Arm support	1800	**060SB**

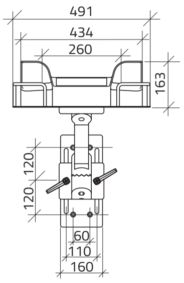



30°
135
65
Ø13
70
110
10
50

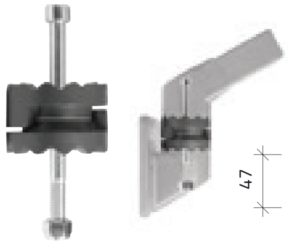
	g	cod
Piastra di regolazione/ Adjustment plate	2420	**060PRBO**

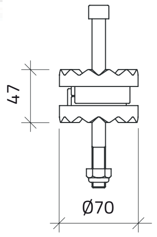



A 500
B 750
C 1000
154
+100
-100
10
Ø11
A 355
B 495
C 640
120
120
A 645
B 505
C 360
1000

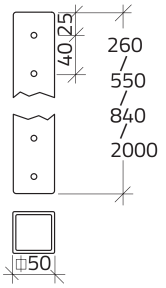

491
434
260
163
120
120
60
110
160

	g	cod
Snodo per braccio **Articulated joint for arm**	530	**060SRBO**





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


40
25
260
/
550
/
840
/
2000
□50