I, A

Command and control stations ‘Ex e’

- Group IIC
- Zone 1, 2, 21, 22
- Aluminium, reinforced polyester or stainless steel enclosures
- Standard or custom products
- Speed of delivery, designed to customer specifications
- Category 2GD

Control stations I and A

The control and monitoring units of series P, I and A... are manufactured from fibreglass reinforced polyester, stainless steel or aluminium, and are suitable for housing electrical command and signal devices. **The units are preconfigured according to the following diagrams and can be ordered using their respective product code.** They can be installed both on board the machine or remotely, and are used in the chemical, petrochemical and pharmaceutical industries. In addition to the following listed standards, Cortem Group offers a wide range of accessories and versions manufactured to customer specification.

Cortem Group applies a tamper-evident holographic security label to its products, complete with a unique authentication numeric code, to combat the illegal sale of imitations and counterfeits, as well as guarantee the authenticity of its products. The failure to observe international standards involves serious hazards to the environment and, above all, personnel who work with the systems on a daily basis.

Sectors of application:


Petroleum refineries


Chemical and petrochemical plants


Onshore plants


Offshore plants


Petroleum loading/ unloading pontoons


Low temperatures


Mining operations

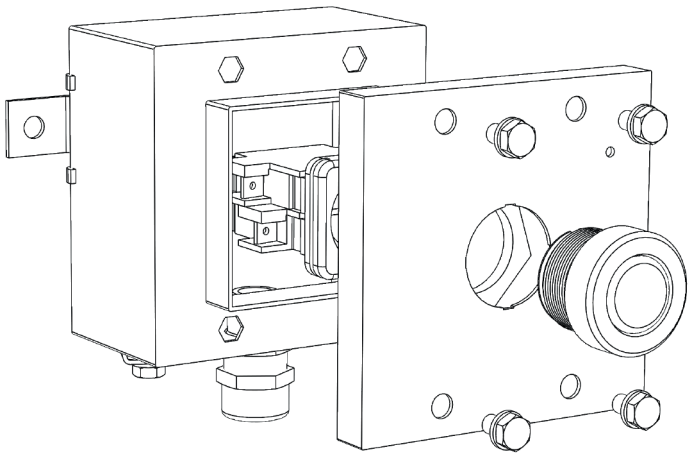
100% produced by Cortem

CERTIFICATION DATA

Classification:	Group II	Category 2GD		
Installation: EN 60079.14	zone 1 - zone 2 (Gas)	zone 21 - zone 22 (Dust)		
Marking:	CE 0722 Ex II 2 GD; Ex de IIC T6, T5 Gb; Ex tb IIIC T85°C Db			
Certificate:	ATEX CESI 03 ATEX 115			
	IECEx IECEx CES 11.0032	For all IEC Ex and TR CU certification data, download the certificate from www.cortemgroup.com		
	TR CU AVAILABLE			
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2007, EN 60079-7: 2007, EN 60079-31: 2009 and EUROPEAN DIRECTIVE 2014/34/UE RoHS Directive 2002/95/EC.			
Temperature class:	T6 (Ta +40°C)	T5 (Ta +55°C)		
Ambient Temp.:	-40°C +55°C			
	-40°C +40°C			
Degree of protection:	IP66			

Control station type I (stainless steel)

EXPLODED VIEW



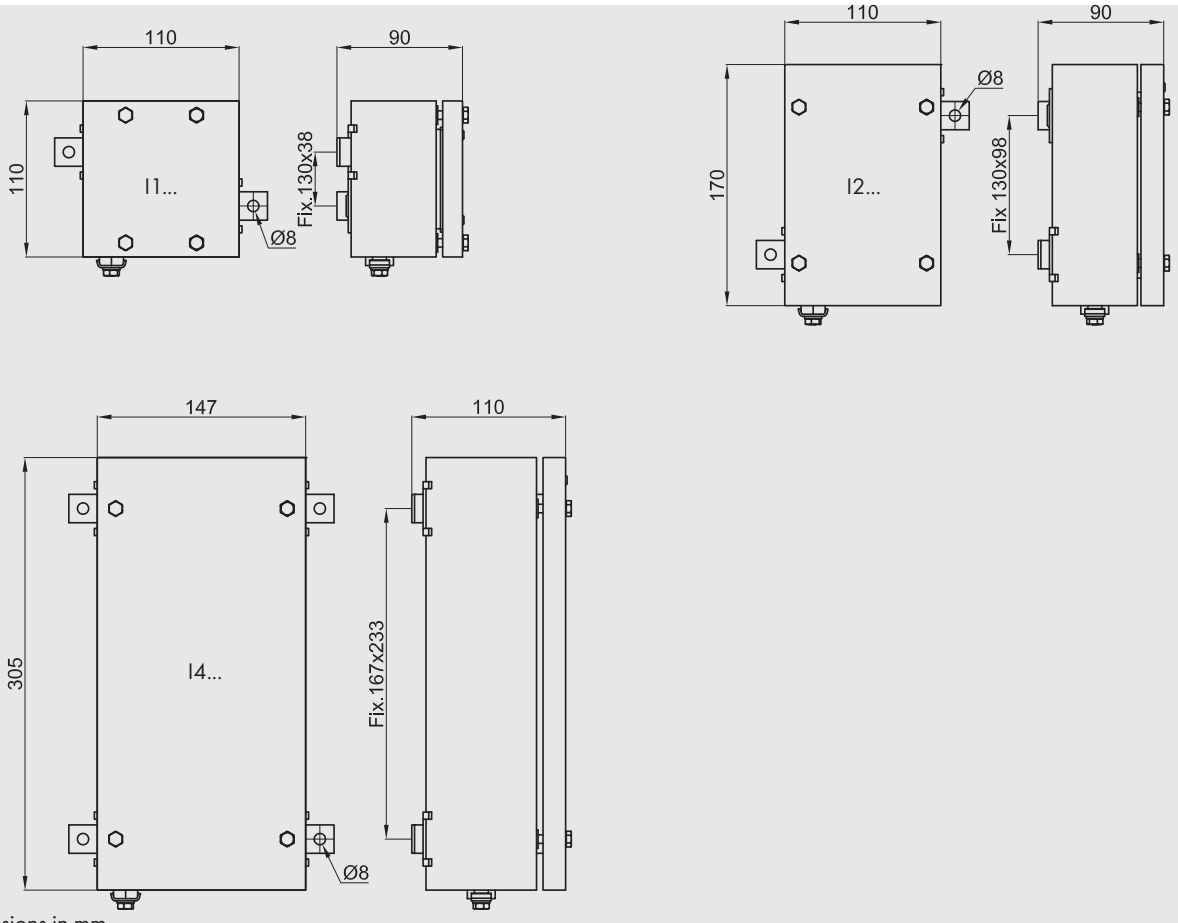
MECHANICAL FEATURES

Body and cover:	Stainless steel complete with feet for fastening
Gaskets:	Acid, hydrocarbon and high temperature resistant silicon positioned between the body and the cover
Screws:	Stainless steel
Certificate plate:	Riveted stainless steel
Earth screw:	Internal M5 on body and cover connected to each other with a 2.5 mm wire^2
Cable gland:	Nickel-plated brass

ACCESSORIES UPON REQUEST / SPECIAL REQUESTS

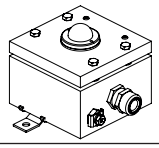
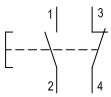
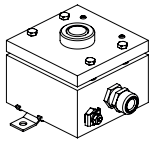
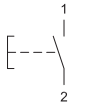
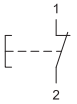
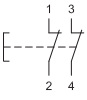
Safety measures and padlocks for stations
Safety measures against accidental contacts (padlockable)
Earthing rings for control units
Nameplates in various materials
Breather or drainage valve
Other contact types (see Ex e Control, monitoring and signalling stations folder)
Various possible configurations

DIMENSIONAL DIAGRAM



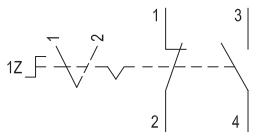
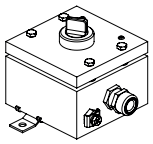
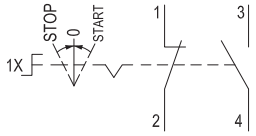
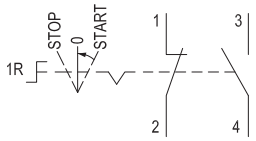
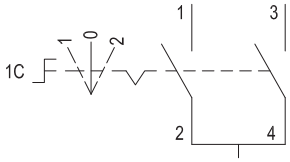
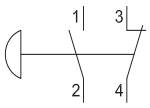
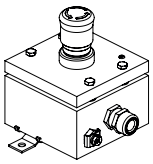
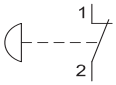
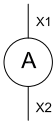
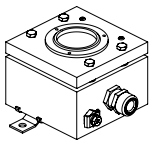
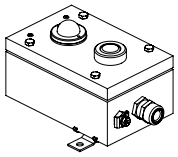
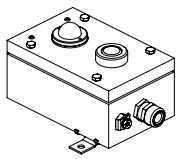
Dimensions in mm

CODE SELECTION TABLE

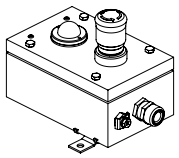
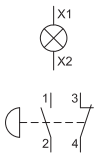
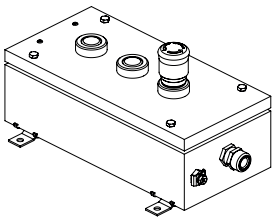
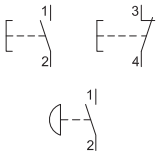
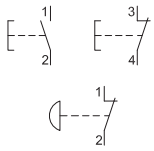
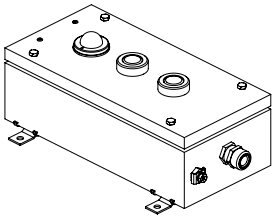
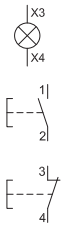
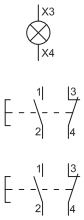
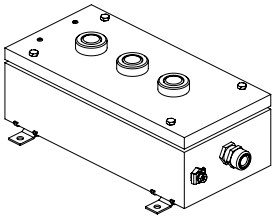
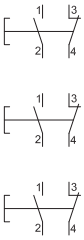
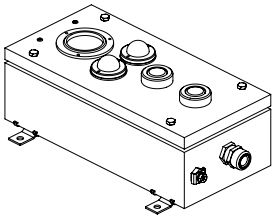
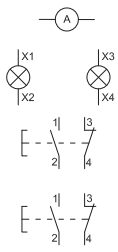
Illustration	Description	Diagram	Codes
Indicator light 	One red 24 VAC/DC indicator light		I1T01R9
	One green 24 VAC/DC indicator light		I1T01V9
	One blue 24 VAC/DC indicator light		I1T01B9
	One yellow 24 VAC/DC indicator light		I1T01G9
	One colourless 24 VAC/DC indicator light		I1T01I9
Button	One red 1NO+1NC pushbutton		I1T01R3
	One black 1NO+1NC pushbutton		I1T01N3
	One green 1NO+1NC pushbutton		I1T01V3
	One red 1NO pushbutton		I1T01R1
	One black 1NO pushbutton		I1T01N1
	One green 1NO pushbutton		I1T01V1
	One red 1NC pushbutton		I1T01R2
	One black 1NC pushbutton		I1T01N2
	One green 1NC pushbutton		I1T01V2
	One red 2NO pushbutton		I1T01R4
	One black 2NO pushbutton		I1T01N4
	One green 2NO pushbutton		I1T01V4
	One red 2NC pushbutton		I1T01R5
	One black 2NC pushbutton		I1T01N5
	One green 2NC pushbutton		I1T01V5

Control station type I (stainless steel)

CODE SELECTION TABLE

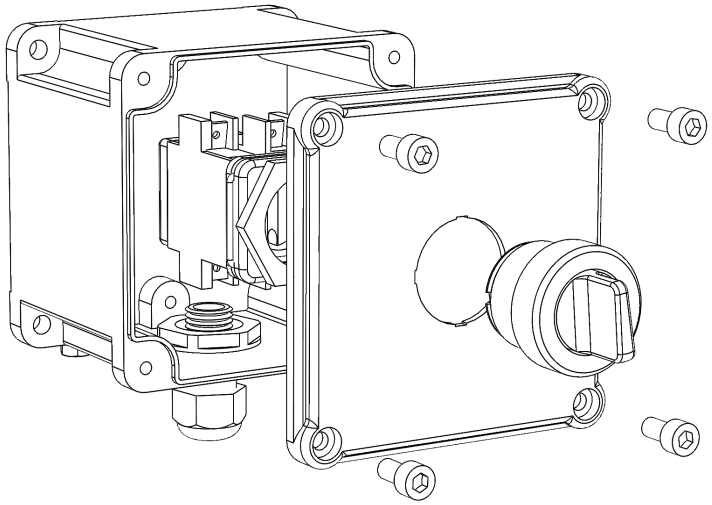
Illustration	Description	Diagram	Codes
Selector	Switch with two fixed-positions, suitable for "automatic-manual" 1NO+1NC service		**I1T011Z**
	Motors "start-stop" control, with spring return to 0 from both STOP and START.		**I1T011X**
	Motors "start-stop" control with spring return from START to 0, and in fixed STOP position can be padlocked.		**I1T011R**
	Three fixed position switch can be padlocked in the centre position. Versions: single pole - double pole - triple pole.		**I1T011C**
Button	Emergency mushroom head pushbutton with 1NO+1NC block (when pressed, rotate to release)		**I1T01F3**
	Emergency mushroom head pushbutton with 1NC block (when pressed, rotate to release)		**I1T01F2**
Ammeter/voltmeter	Ammeter (scale on request)		**I1T02A**
	Voltmeter (scale on request)		**I1T02V**
Indicator light and pushbutton	24 VAC/DC red indicator light and one red 1NO+1NC pushbutton		**I2T07R9R3**
	24 VAC/DC green indicator light and one green 1NO+1NC pushbutton		**I2T07V9V3**
	24 VAC/DC red indicator light and one red 1NC pushbutton		**I2T07R9R2**
	24 VAC/DC green indicator light and one green 1NC pushbutton		**I2T07V9V2**
Indicator light and pushbutton	24 VAC/DC red indicator light and one red 1NO pushbutton		**I2T07R9R1**
	24 VAC/DC green indicator light and one green 1NO pushbutton		**I2T07V9V1**

CODE SELECTION TABLE

Illustration	Description	Diagram	Codes
Indicator light and emergency pushbutton 	24 VAC/DC red indicator light and emergency 1NO+1NC mushroom pushbutton		**I2T07R9F3**
	24 VAC/DC green indicator light and 1NO+1NC emergency mushroom pushbutton		**I2T07V9F3**
Two pushbuttons and emergency pushbutton 	One green 1NO and one red 1NC pushbutton, one mushroom head 1NO pushbutton		**I4T20V1R2F1**
	One green 1NO and one red 1NC pushbutton, one mushroom head 1NC pushbutton		**I4T20V1R2F2**
Indicator light and two pushbuttons 	24 VAC/DC red LED indicator light,one green 1NO pushbutton and red 1NC pushbutton		**I4T20R9V1R2**
	24 VAC/DC green LED indicator light,one green 1NO pushbutton and red 1NC pushbutton		**I4T20V9V1R2**
	24 VAC/DC red LED indicator light, one green 1NO+1NC pushbutton and red 1NO+1NC pushbutton		**I4T20R9V3R3**
	24 VAC/DC green LED indicator light, one green 1NO+1NC pushbutton and red 1NO+1NC pushbutton		**I4T20V9V3R3**
Three buttons 	One black 1NO+1NC pushbutton one red 1NO+1NC pushbutton green 1NO+1NC pushbutton		**I4T20N3R3V3**
Ammeter, two indicator lights and two buttons 	Ammeter, one red and one green 24 VAC/DC indicator light, red 1NO+1NC pushbutton, green 1NO+1NC pushbutton		**I4T32AR9V9R3V3**

Control station type A (aluminium)

EXPLODED VIEW



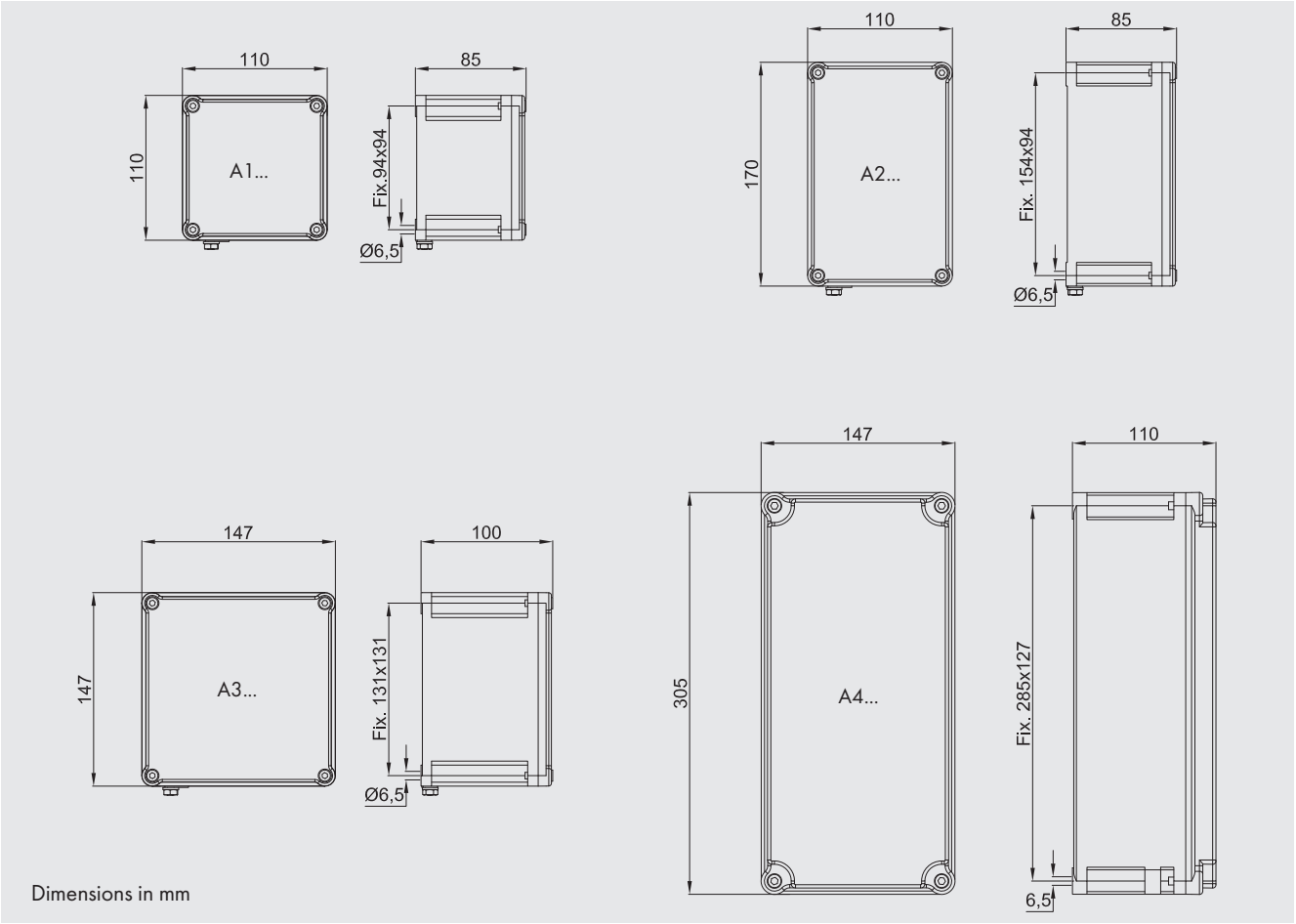
MECHANICAL FEATURES

Body and cover:	**Low copper content aluminium alloy.**
Gaskets:	Acid, hydrocarbon and high temperature resistant silicon positioned between the body and the cover
Certificate plate:	Riveted aluminium
Screws:	Stainless steel
Earth screw:	Internal M5 on body and cover connected to each other with a 2.5 mm wire^2
Coating:	RAL 7035 epoxy (Light grey)
Cable gland:	Polyamide type NAVP20IXE
Resistenza alla corrosione:	The STANDARD of the aluminium alloy used by Cortem has passed the tests required by standards EN60068-2-30 (hot-humid cycles) and EN60068-2-11 (salt fog test)

ACCESSORIES UPON REQUEST / SPECIAL REQUESTS

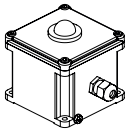
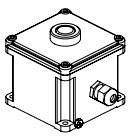
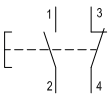
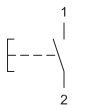
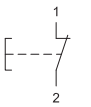
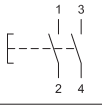
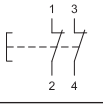
Safety measures and padlocks for stations
Safety measures against accidental contacts (padlockable)
Earthing rings for control units
Nameplates in various materials
Breather or drainage valve
Metal cable glands
Other contact types (see Ex e Control, monitoring and signalling stations folder)
Various possible configurations

DIMENSIONAL DIAGRAM



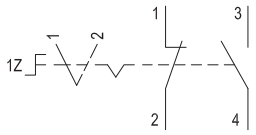
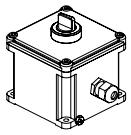
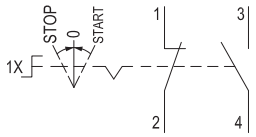
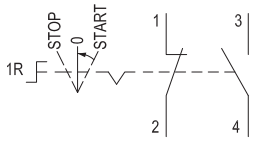
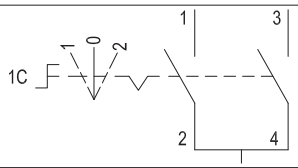
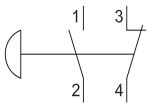
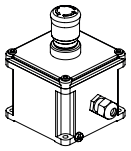
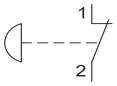
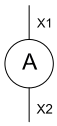
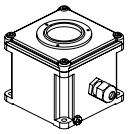
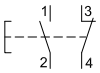
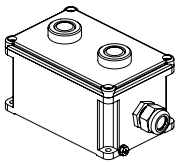
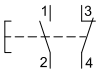
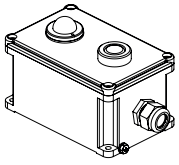
Dimensions in mm

CODE SELECTION TABLE

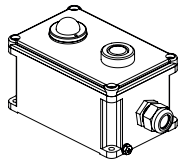
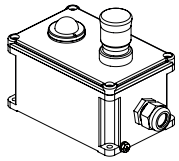
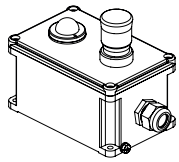
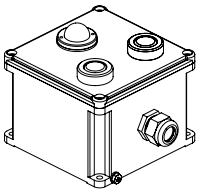
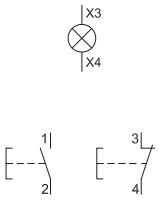
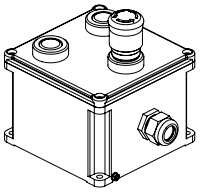
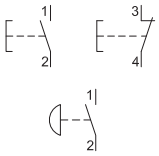
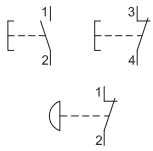
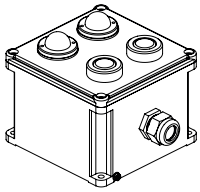
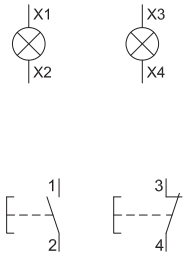
Illustration	Description	Diagram	Codes
Indicator light 	One red 24 VAC/DC indicator light		**A1T01R9**
	One green 24 VAC/DC indicator light		**A1T01V9**
	One blue 24 VAC/DC indicator light		**A1T01B9**
	One yellow 24 VAC/DC indicator light		**A1T01G9**
	One colourless 24 VAC/DC indicator light		**A1T01I9**
Button 	One red 1NO+1NC pushbutton		A1T01R3
	One black 1NO+1NC pushbutton		A1T01N3
	One green 1NO+1NC pushbutton		A1T01V3
	One red 1NO pushbutton		A1T01R1
	One black 1NO pushbutton		A1T01N1
	One green 1NO pushbutton		A1T01V1
	One red 1NC pushbutton		A1T01R2
	One black 1NC pushbutton		A1T01N2
	One green 1NC pushbutton		A1T01V2
	One red 2NO pushbutton		A1T01R4
	One black 2NO pushbutton		A1T01N4
	One green 2NO pushbutton		A1T01V4
	One red 2NC pushbutton		A1T01R5
	One black 2NC pushbutton		A1T01N5
	One green 2NC pushbutton		A1T01V5

Control station type A (aluminium)

CODE SELECTION TABLE

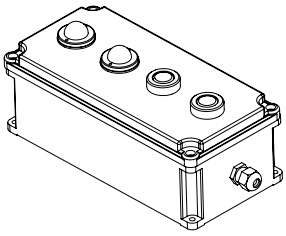
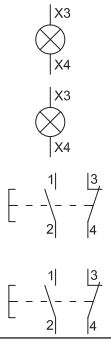
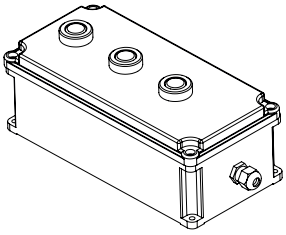
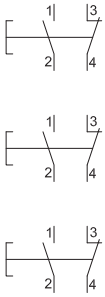
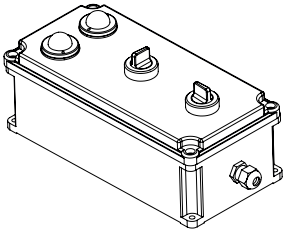
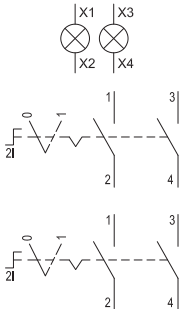
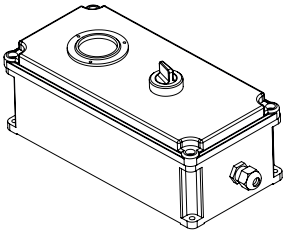
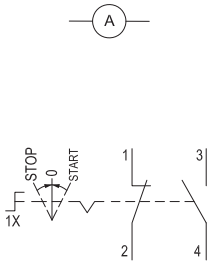
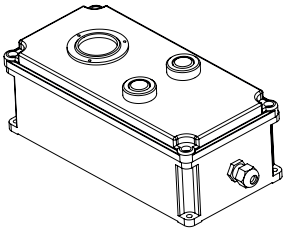
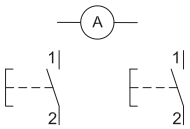
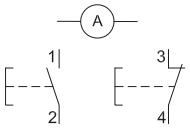
Illustration	Description	Diagram	Codes
Selector	Switch with two fixed-positions, suitable for "automatic-manual" 1NO+1NC service		**A1T011Z**
	Motors "start-stop" control, with spring return to 0 from both STOP and START.		**A1T011X**
	Motors "start-stop" control with spring return from START to 0, and in fixed STOP position can be padlocked.		**A1T011R**
	Three fixed position switch can be padlocked in the centre position. Versions: single pole - double pole - triple pole.		**A1T011C**
Button	Emergency mushroom head pushbutton with 1NO+1NC block (when pressed, rotate to release)		**A1T01F3**
	Emergency mushroom head pushbutton with 1NC block (when pressed, rotate to release)		**A1T01F2**
Ammeter/voltmeter	Ammeter (scale on request)		**A1T02A**
	Voltmeter (scale on request)		**A1T02V**
Two buttons	Red pushbutton + green pushbutton, 1NO+1NC contacts		**A2T07R3V3**
	Black pushbutton + green pushbutton, 1NO+1NC contacts		**A2T07N3V3**
	Red pushbutton + green pushbutton, 1NO contacts		**A2T07R1V1**
	Black pushbutton + green pushbutton, 1NC contacts		**A2T07N1V1**
Indicator light and pushbutton	24 VAC/DC red indicator light and one red 1NO+1NC pushbutton		**A2T07R9R3**
	24 VAC/DC green indicator light and one green 1NO+1NC pushbutton		**A2T07V9V3**
	24 VAC/DC red indicator light and one red 1NC pushbutton		**A2T07R9R2**
	24 VAC/DC green indicator light and one green 1NC pushbutton		**A2T07V9V2**

CODE SELECTION TABLE

Illustration	Description	Diagram	Codes
Indicator light and pushbutton 	24 VAC/DC red indicator light and one red 1NO pushbutton		**A2T07R9R1**
	24 VAC/DC green indicator light and one green 1NO pushbutton		**A2T07V9V1**
Indicator light and emergency pushbutton 	24 VAC/DC red indicator light and emergency 1NO+1NC mushroom pushbutton		**A2T07R9F3**
	24 VAC/DC green indicator light and 1NO+1NC emergency mushroom pushbutton		**A2T07V9F3**
Pushbutton and emergency pushbutton 	Green 1NO pushbutton and one 1NO emergency mushroom head pushbutton		**A2T07V1F1**
	Yellow 1NO pushbutton and one 1NO emergency mushroom head pushbutton		**A2T07G1F1**
	Green 1NO+1NC pushbutton and one 1NO+1NC emergency mushroom head pushbutton		**A2T07V3F3**
	Yellow 1NO+1NC pushbutton and one 1NO+1NC emergency mushroom head pushbutton		**A2T07G3F3**
Indicator light and two pushbuttons 	24 VAC/DC green LED indicator light, one green 1NO pushbutton and red 1NC pushbutton		**A3T18V9V1R2**
Two pushbuttons and Emergency pushbutton 	One green 1NO and one red 1NC pushbutton, one mushroom head 1NO pushbutton		**A3T17V1R2F1**
	One green 1NO and one red 1NC pushbutton, one mushroom head 1NC pushbutton		**A3T17V1R2F2**
Two indicator lights and two pushbuttons 	24 VAC/DC red and green LED indicator lights, one green 1NO pushbutton and red 1NC pushbutton		**A3T19V9R9V1R2**

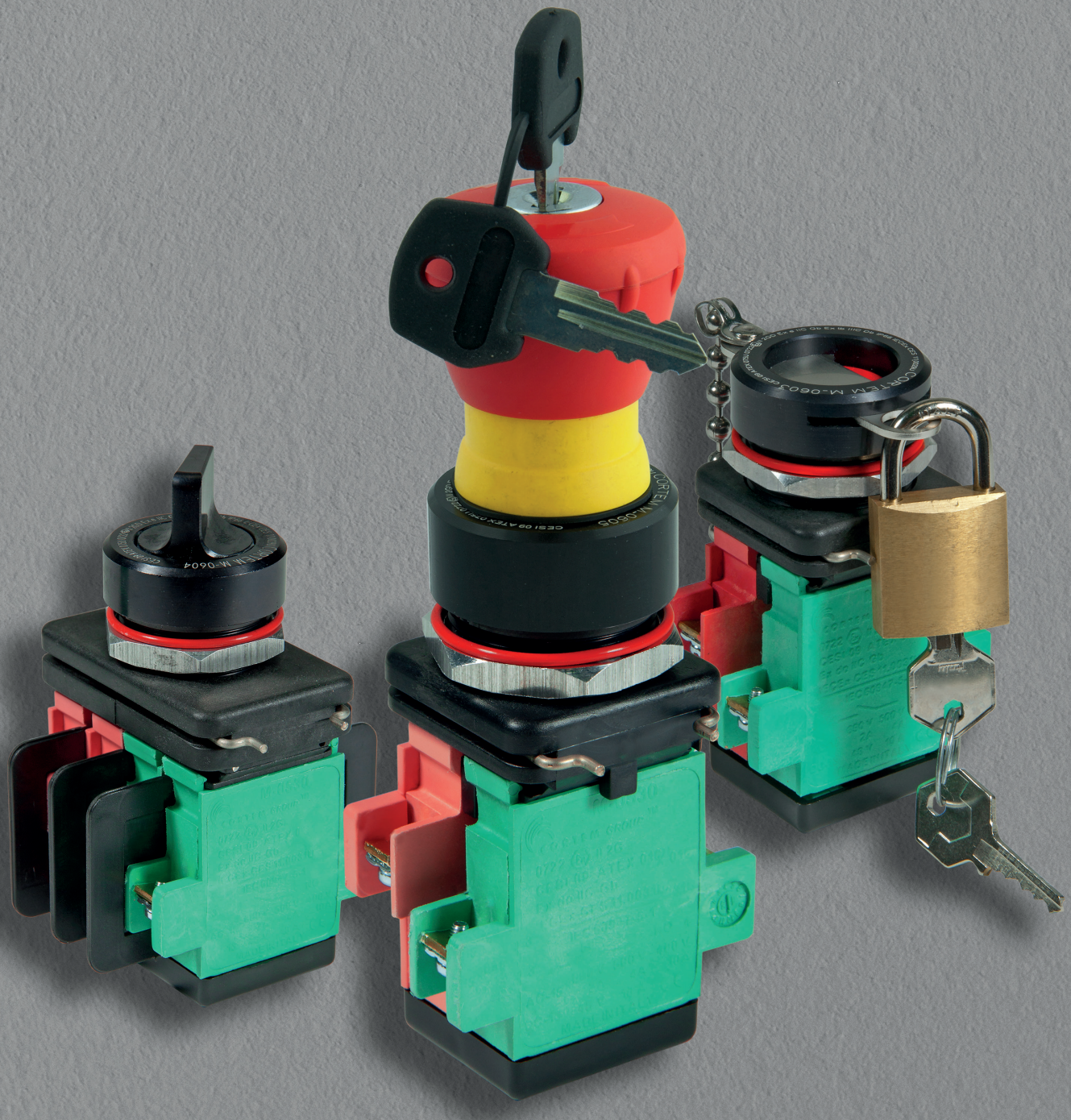
Control station type A (aluminium)

CODE SELECTION TABLE

Illustration	Description	Diagram	Codes
Two indicator lights and two pushbuttons 	24 VAC/DC red and green LED indicator lights, one green 1NO+1NC pushbutton and red 1NO+1NC pushbutton		**A4T25V9R9V3R3**
Three buttons 	Two green pushbuttons and one red 1NO+1NC		**A4T26V3R3V3**
Two indicator lights and two selectors 	24 VAC/DC red and green LED indicator lights, two switches arrangement 2I		**A4T27R9V92I2I**
Ammeter and selector 	Ammeter 1 A, scale 3 - 5 In and "start-stop" motors control switch, with spring return to 0 from both STOP and START.		**A4T39A1X**
Ammeter and two buttons 	Ammeter 1 A, scale 3 - 5 In with red 1NO pushbutton and green 1NO pushbutton		**A4T40AR1V1**
	Ammeter 1 A, scale 3 - 5 In with red 1NO pushbutton and green 1NC pushbutton		**A4T40AR1V2**

Ex e control, monitoring and signalling devices

The M-0 control, monitoring and signalling stations are installed as accessories outside of 'Ex e' enclosures, panels and control stations used in all industrial environments where there may be an explosive atmosphere classified as Zone 1, 2, 21, 22. The M-0 devices allow the electrical or mechanical equipment assembled inside the 'Ex e' enclosures to be opened or closed, and the light signalling of the operating status. The components of the control stations are constructed from stainless steel to ensure maximum efficiency in almost any environmental conditions. The levers are constructed from aluminium, and the plastic pushbutton components ensure maximum durability over time, even in highly corrosive atmospheres. The M-0 control devices have an IP66 protection rating.

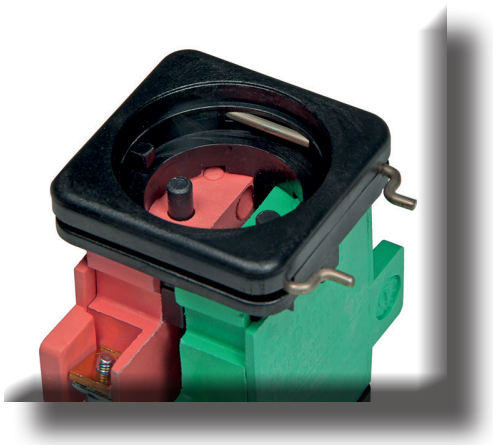


Contact block for pushbuttons

ELECTRICAL FEATURES

Rated voltage							
400 V	500 V	690 V	400 V	400 V	400 V	48 V	230 V
Category of use							
AC-15	AC-15	AC-15	AC-1	AC-2	AC-3	DC-13	DC-13
Rated current							
10 A	4 A	2 A	16 A	6 A	2.4 A	10 A	0.5 A

Rated voltage: max. 690 V
Frequency: 50/60 Hz
Rated current: 10 A
Connection: max. 2.5 mm^2
Lightning impulse withstand voltage: 4 kV
Pollution degree: 2
Conditional short circuit current: 1kA
Maximum use of short circuit protection devices: a gG 10A 500V fuse on each conductor
Minimum travel for positive opening: 3 mm
Minimum force required to achieve positive opening of all opening contacts: 5 N
Maximum travel (+ overtravel): 4.75 Hz
Body: Polyamide
Contacts: Brass
Pins, springs and screws: Stainless steel



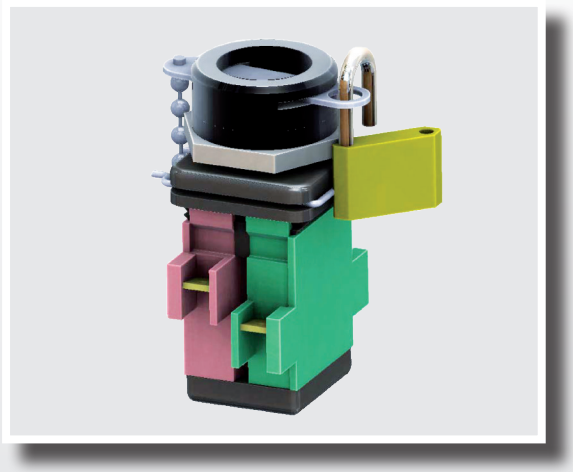
Installation

The new slot-in adapter system makes light work of fitting contacts in control panels with walls up to 7 mm thick. In addition, with the mushroom head pushbutton having a smaller diameter thread (M32x1.5), the cover can accommodate more control and signalling devices than the previous version.

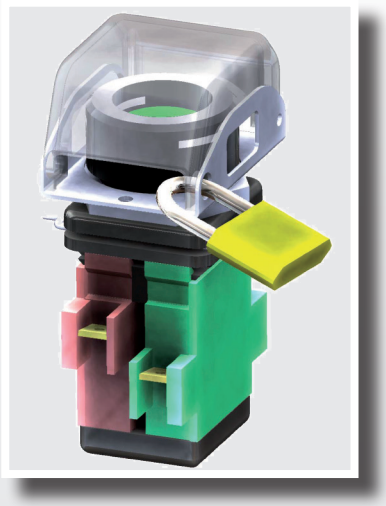
SAFETY MEASURES AND PADLOCKS FOR STATIONS, ACCESSORIES AND SPECIAL REQUESTS

Selector padlock system
(codes **M-962** and **M-963**)

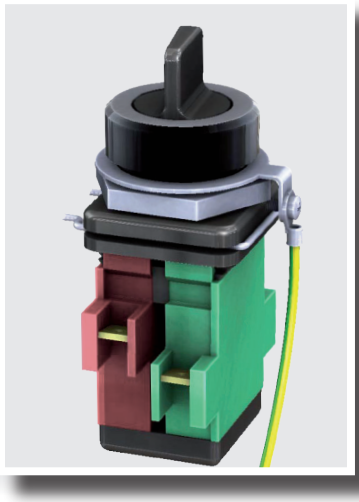
Pushbutton padlock system
(code M-0603/..**L**)



Padlockable protection
(code **M-0631**)



Earthing rings for the installation control units in polyester enclosures (code **A331IB**)

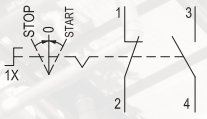
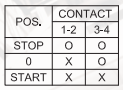
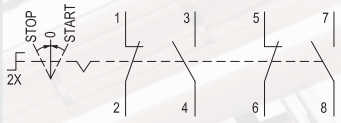
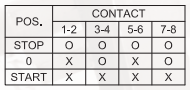
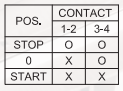
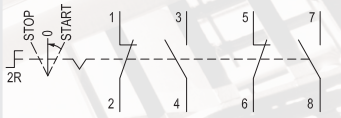
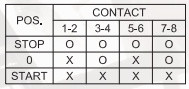
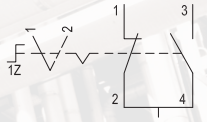
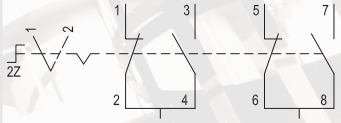
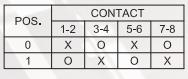
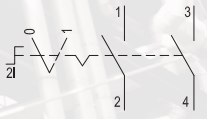
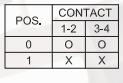
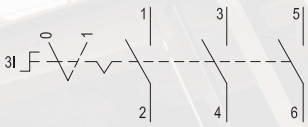
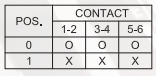
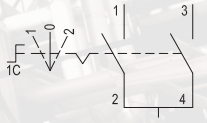
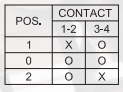
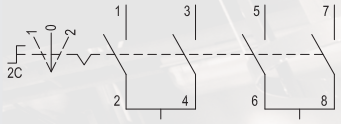
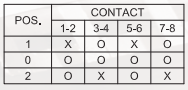
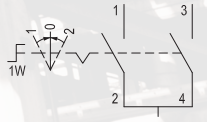
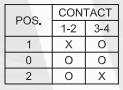
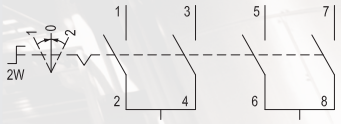
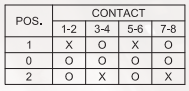
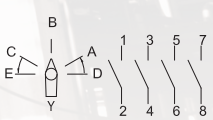
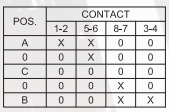
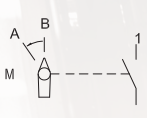
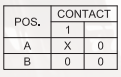


Black mushroom head pushbutton
(code M-0605/**N**)

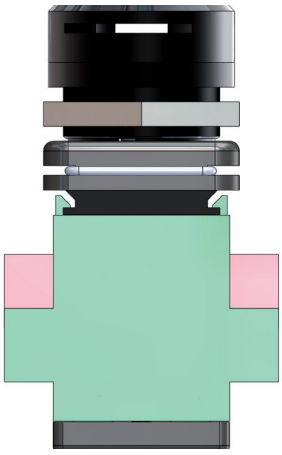
Aluminium Cortem enclosure complete with:
n°1 ammeter B-0140A
n°1 M-0612/3R230 red indicator light
n°1 green indicator light M-0612/3V230
n°2 M-0604/1Z selectors
n°1 NAV32IB type cable glands
n°11 CBD2 type connections
n°1 TE6O earth connection
n°1 B32-229 internal frame
External RAL7035 coating

Stainless steel Cortem enclosure complete with:
n°1 ammeter B-0140A
n°1 M-0605/K emergency pushbutton with key reset
n°1 M-0603/NL padlockable black pushbutton
n°1 M-0612/3G230 yellow indicator light
n°1 green indicator light M-0612/3V230
n°2 M-0604/1C selectors
n°6 NAV32IB type cable glands
n°1 B47-357 internal frame

SELECTOR ARRANGEMENT

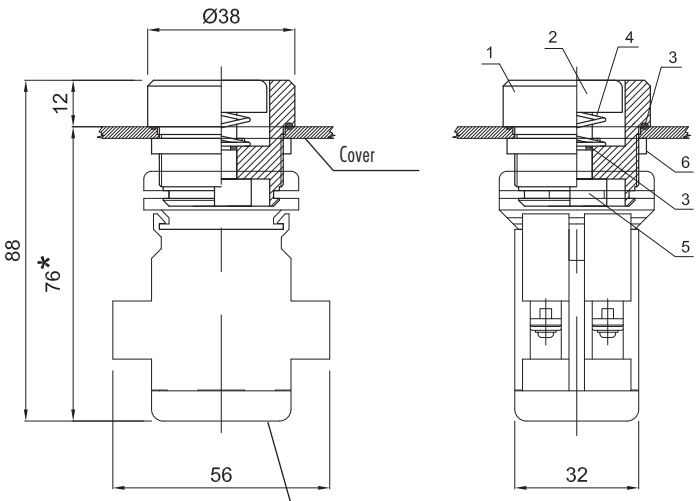
Description	Badge	Single pole arrangement	Contacts	Single pole arrangement	Contacts	Codes
Motors "start-stop" control, with spring return to 0 from both STOP and START.						X
Motors "start-stop" control with spring return from START to 0, and in fixed STOP position can be padlocked.						R
Switch with two fixed-positions, suitable for "automatic-manual" service						Z
Switch						I
Three fixed position switch can be padlocked in the centre position. Versions: single pole - double pole - triple pole						C
Three position switch can be padlocked in centre position with spring return to 0 from positions 1 and 2.						W
5 position reversing start switch. Lever with fixed C position and spring return to 0 from A and B						Y
"Start" motors control with lever spring return to position B						M

Pushbutton M-0603



Range of pushbuttons designed to permit the installation of an increased number of controls on the cover. Polyamide 6 caps available in various colours and in a lockable version. Plates, listing dimensions and with customised wording on the cover, can be affixed to all stations.

ILLUSTRATION	CODE	DESCRIPTION	NOTES	MODULAR CODES
	M-0603/N	Black Ex e pushbutton without contacts	Add requested contact assembly	**N**
	M-0603/NL	Black Ex e pushbutton can be locked without contacts	Add requested contact assembly	**E**
	M-0603/R	Red Ex e pushbutton without contacts	Add requested contact assembly	**R**
	M-0603/RL	Red Ex e pushbutton without contacts, can be padlocked	Add requested contact assembly	**L**
	M-0603/V	Green Ex e pushbutton without contacts	Add requested contact assembly	**V**
	M-0603/G	Yellow Ex e pushbutton without contacts	Add requested contact assembly	**G**
	M-0603/B	Blue Ex e pushbutton without contacts	Add requested contact assembly	**B**
	M-0603/BI	White Ex e pushbutton without contacts	Add requested contact assembly	**I**
	M-0606/10	Contact assembly 1NO		**1**
	M-0606/01	Contact assembly 1NC		**2**
	M-0606/11	Contact assembly 1NO+1NC		**3**
	M-0606/20	Contact assembly 2NO		**4**
	M-0606/02	Contact assembly 2NC		**5**

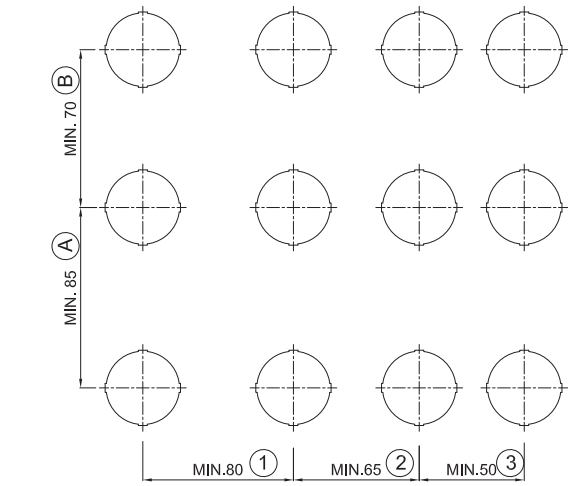


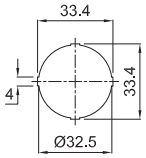
Front part of switch M-0603, comprised of:
1. body
2. coloured cap
3. o-ring
4. spring
5. moving part
6. locknut

Contact block type M-0530 and/or M-0531
Ex II 2G Ex de IIC version (CESI 09 ATEX 016U)

* with 4 raised contacts: 79 mm

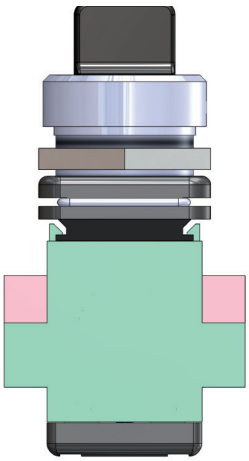
Drilling arrangement (minimum distances)



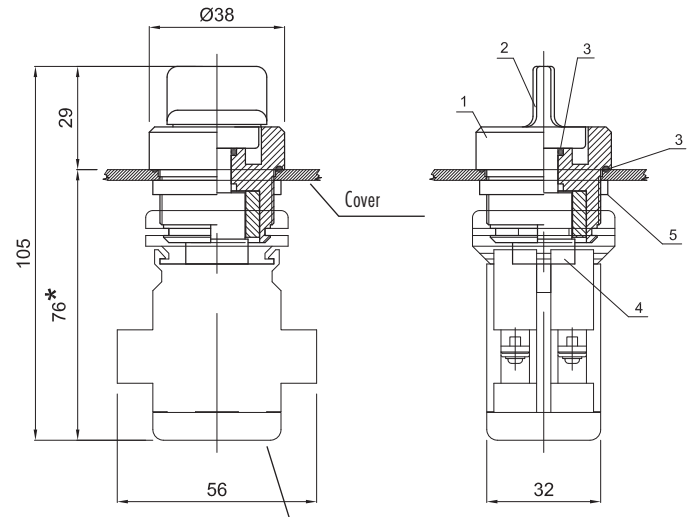


1) control unit with 4 contacts - control unit with 4 contacts
2) control unit with 4 contacts - control unit with 2 contacts
3) control unit with 2 contacts - control unit with 2 contacts
A) control unit with 4 contacts - control unit with 4 contacts
B) control unit with 2 contacts - control unit with 2 contacts

Selector M-0604

ILLUSTRATION	CODE	DESCRIPTION	MODULAR CODES	NOTES
	**M-0604/X**	Selector Ex e arrangement X	**1X**	Selector complete with contacts
	M-0604/R	Selector Ex e arrangement R	**1R**	
	M-0604/RSX	Selector Ex e arrangement R left	**RS**	
	M-0604/1Z	Selector Ex e arrangement 1Z	**1Z**	
	M-0604/2Z	Selector Ex e arrangement 2Z	**2Z**	
	M-0604/1I	Selector Ex e arrangement 1I	**1I**	
	M-0604/2I	Selector Ex e arrangement 2I	**2I**	
	M-0604/3I	Selector Ex e arrangement 3I	**3I**	
	M-0604/4I	Selector Ex e arrangement 4I	**4I**	
	M-0604/1C	Selector Ex e arrangement 1C	**1C**	
	M-0604/2C	Selector Ex e arrangement 2C	**2C**	
	M-0604/1W	Selector Ex e arrangement 1W	**1W**	
	M-0604/2W	Selector Ex e arrangement 2W	**2W**	
	M-0604/1M	Selector Ex e arrangement 1M	**1M**	
	M-0606/11	Contact assembly 1NO+1NC	Replacement part for arrangements: X - R - 1Z - RSX	
	M-0606/22	Contact assembly 2NO+2NC	Replacement part for arrangements: 2Z	
	M-0606/10	Contact assembly 1NO	Replacement part for arrangements: 1I 1M	
	M-0606/20	Contact assembly 2NO	Replacement part for arrangements: 2I 2M 1C 1W	
	M-0606/30	Contact assembly 3NO	Replacement part for arrangements: 3I 3M	
	M-0606/40	Contact assembly 4NO	Replacement part for arrangements: 4I 4M 2C 2W	

Selector complete with 2 or 4 contacts, available in different electrical arrangements for connection to the electrical enclosure and machine.
Can be padlocked and have earthing connection

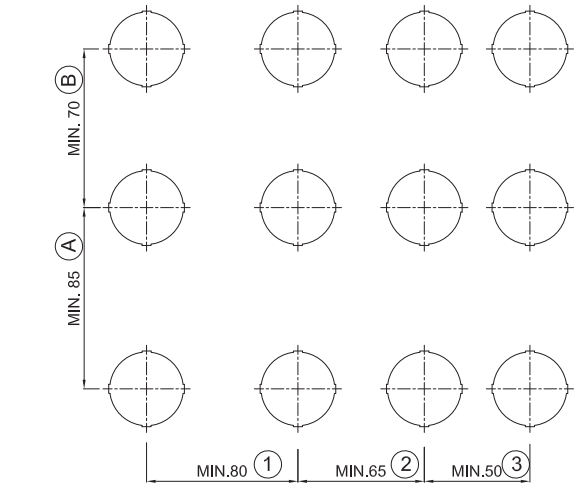


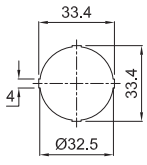
Front part of switch
M-0604, comprised of:
1. body
2. lever
3. o-ring
4. moving part
5. locknut

Contact block type M-0530 and/or M-0531
Ex II 2G Ex de IIC version (CESI 09 ATEX 016U)

* with 4 raised contacts: 79 mm

Drilling arrangement (minimum distances)



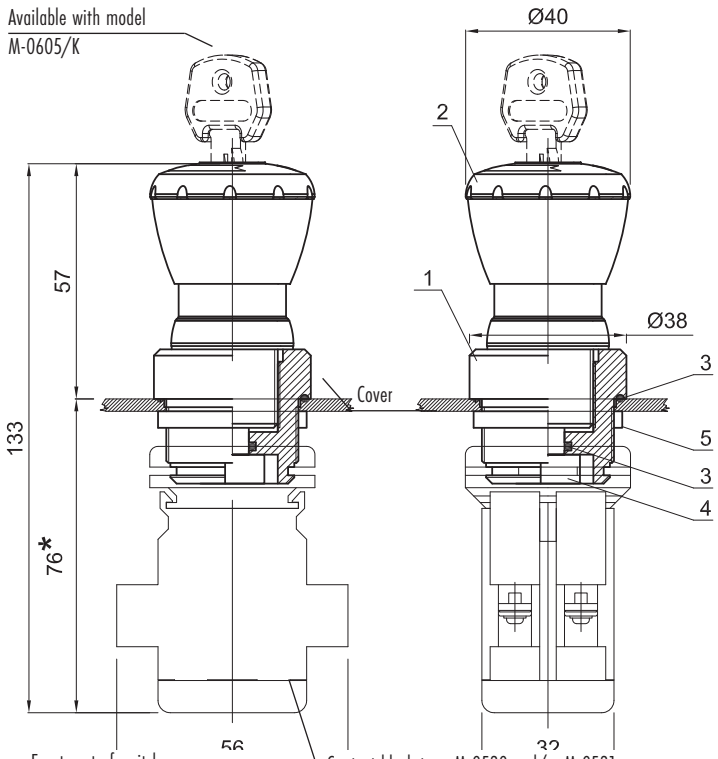


1) control unit with 4 contacts - control unit with 4 contacts
2) control unit with 4 contacts - control unit with 2 contacts
3) control unit with 2 contacts - control unit with 2 contacts
A) control unit with 4 contacts - control unit with 4 contacts
B) control unit with 2 contacts - control unit with 2 contacts

Emergency pushbutton M-0605

The emergency pushbutton allows the operator to safely lock out the machine by pressing the key. With 2 keys provided with each order, the pushbutton of model M-0605/K can be locked.

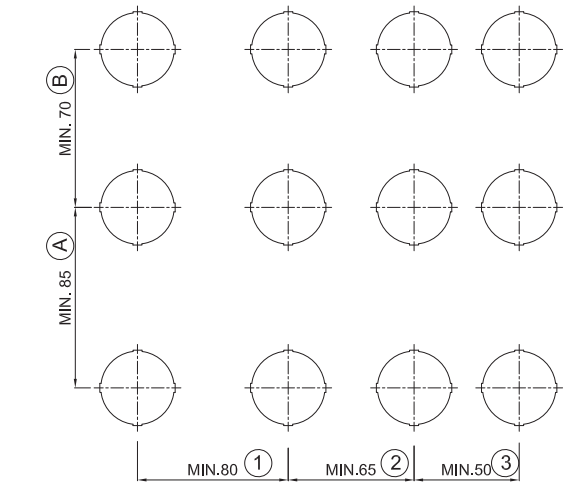
CODE	DESCRIPTION	MODULAR CODES	NOTES
M-0605	Emergency Ex e pushbutton with reset, without contacts	**F**	Add requested contact assembly
M-0605/K	Emergency Ex e pushbutton with key reset, without contacts	**K**	
M-0605/P	Press and pull Ex e pushbutton without contacts	**P**	
M-0606/10	Contact assembly 1NO	**1**	
M-0606/01	Contact assembly 1NC	**2**	
M-0606/11	Contact assembly 1NO+1NC	**3**	
M-0606/20	Contact assembly 2NO	**4**	
M-0606/02	Contact assembly 2NC	**5**	

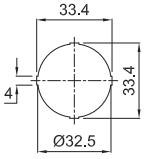


Front part of switch
M-0605, comprised of:
1. body
2. mushroom head pushbutton
3. o-ring
4. moving part
5. locknut

Contact block type M-0530 and/or M-0531
EX II 2G Ex de IIC version (CESI 09 ATEX 016U)

Drilling layout (minimum distances)*





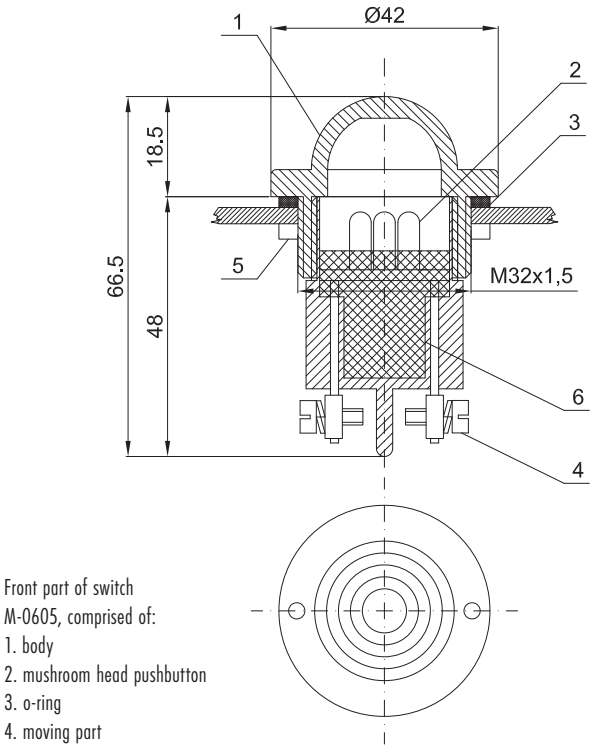
1) control unit with 4 contacts - control unit with 4 contacts
2) control unit with 4 contacts - control unit with 2 contacts
3) control unit with 2 contacts - control unit with 2 contacts
A) control unit with 4 contacts - control unit with 4 contacts
B) control unit with 2 contacts - control unit with 2 contacts

* Standard drilling layout.
Up to 2 contacts can be used per station with the M-0605 emergency pushbutton

M-0612/3 multi-LED indicator light

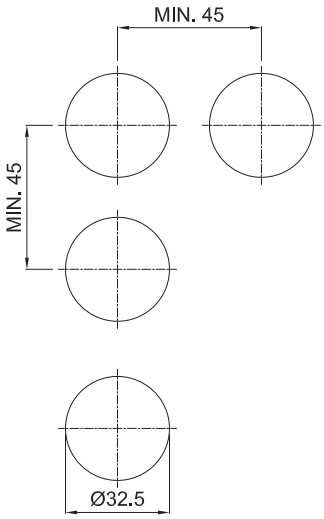
Multi-LED indicator lights available in various cap colours and different voltages. Easy to install and wire and long-lasting reliability with 50,000 hour lifespan LEDs

CODE	DESCRIPTION	MODULAR CODES
M-0612/3B110	Blue 110 VAC/DC multi-LED indicator light	**B6**
M-0612/3B12	Blue 12 VAC/DC multi-LED indicator light	**B7**
M-0612/3B230	Blue 230 VAC multi-LED indicator light	**B8**
M-0612/3B24	Blue 24 VAC/DC multi-LED indicator light	**B9**
M-0612/3G110	Yellow 110 VAC/DC multi-LED indicator light	**G6**
M-0612/3G12	Yellow 12 VAC/DC multi-LED indicator light	**G7**
M-0612/3G230	Yellow 230 VAC multi-LED indicator light	**G8**
M-0612/3G24	Yellow 24 VAC/DC multi-LED indicator light	**G9**
M-0612/3I110	Colourless 110 VAC/DC multi-LED indicator light	**I6**
M-0612/3I12	Colourless 12 VAC/DC multi-LED indicator light	**I7**
M-0612/3I230	Colourless 230 VAC multi-LED indicator light	**I8**
M-0612/3I24	Colourless 24 VAC/DC multi-LED indicator light	**I9**
M-0612/3R110	Red 110 VAC/DC multi-LED indicator light	**R6**
M-0612/3R12	Red 12 VAC/DC multi-LED indicator light	**R7**
M-0612/3R230	Red 230 VAC multi-LED indicator light	**R8**
M-0612/3R24	Red 24 VAC/DC multi-LED indicator light	**R9**
M-0612/3V110	Green 110 VAC/DC multi-LED indicator light	**V6**
M-0612/3V12	Green 12 VAC/DC multi-LED indicator light	**V7**
M-0612/3V230	Green 230 VAC multi-LED indicator light	**V8**
M-0612/3V24	Green 24 VAC/DC multi-LED indicator light	**V9**



Front part of switch
M-0605, comprised of:
1. body
2. mushroom head pushbutton
3. o-ring
4. moving part
5. locknut

Drilling arrangement (minimum distances)



Ammeter B-0140A, voltmeter B-0140V

CODE	DESCRIPTION	NOTES	MODULAR CODES
B-0140A	Ammeter	*	**A**
B-0140V	Voltmeter		**V**

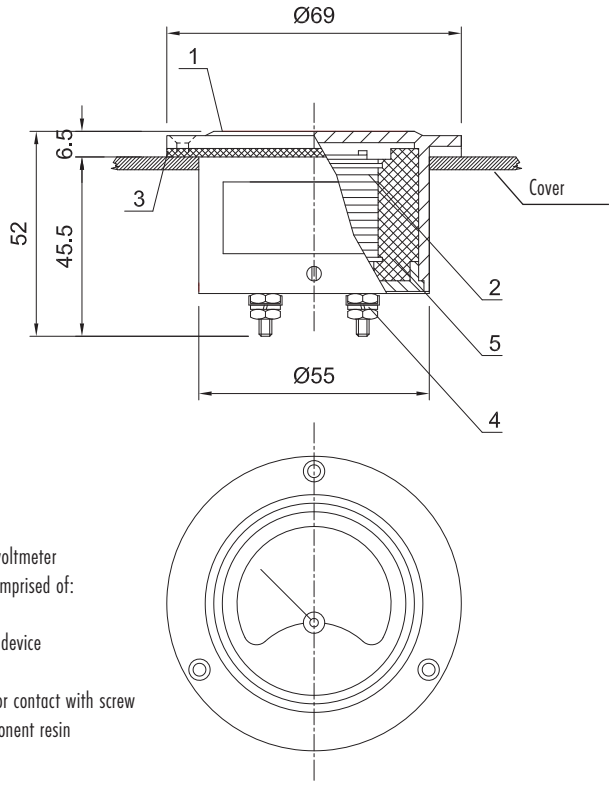
Maximum voltage:	600 V
Rated frequency:	40 ÷ 60 Hz
Accuracy class:	1.5
Power dissipation:	1.1 VA (B-0140A)
	3.0 VA B-0140V

Field of measure - Direct measurement:	0 - 40mA	0 - 0.1A
	0 - 60 mA	0 - 1.5 A
	0 - 100 mA	0 - 2.5 A
	0 - 250 mA	0 - 5 A
	0 - 400 mA	0 - 6 A
	0 - 600 mA	0 - 15 A
Field of measure - With current transformer:	0 - 2.5mA	0 - 50A
	0 - 5 mA	0 - 60 A
	0 - 10 mA	0 - 75 A
	0 - 15 mA	0 - 100 A
	0 - 20 mA	0 - 150 A
	0 - 25 mA	0 - 200 A
	0 - 30 mA	0 - 300 A
	0 - 40 mA	0 - 400 A

Cortem certified ammeters and voltmeters are suitable for measuring electrical quantities, when accuracy and precision are required. The internal plates with field-scale measurement are made to customer specification.

* For ammeter mod. B-0140A4 (4-20 mA) 1200 Ω impedance. If the driver is incompatible with this impedance, it is recommended to use the Cortem supplied transducer, mod. NI-DT1
The transducer must be installed in a safe zone.

Drilling arrangement (minimum distances)



Ammeter/voltmeter
B-0140, comprised of:
1. body
2. internal device
3. gasket
4. connector contact with screw
5. bi-component resin