

#### Introduction

Backed by the experience and knowledge acquired in over 25 years of activity in the automation world, Pizzato Elettrica confirms its capacity of proposing, even in new sectors, innovative solutions which succeed in combining an extremely practical and flexible operation with an accurately detailed linear design. The new EL AN series lift control stations by Pizzato Elettrica incorporate these latest features, and they use articles from the EROUND line as control and signalling devices.

The EL AN series lift control stations have been designed to pilot the movement of lifts during control and maintenance operations.

#### Modularity

The control stations have been designed with the precise objective to make them as user-friendly as possible for maintenance operators, as well as to provide the widest and most versatile choice in the combination of applicable devices.

These diverse options are made possible tanks to the innovative construction of the enclosures cover (registered patent) which allows free arrangement of the perforated holes and shapes for housing various devices; such insert elements make up the whole cover, just one solid piece produced by means of a single moulding process.



#### Wide range

The range of EL AN series control stations includes 4 dimensions and several configurations.

The outlines and details of the new EL AN series control stations have been accurately designed, which contributes to an attractive aesthetic result.

#### Cam switch and selector:



In control station EL AN series can be installed rotary cam switches EH series as an alternative to the E2 series switches.

The cam switch is matched with a wide ergonomic actuation knob, available in versions with two and three stay-put positions; it can also be configured with contact diagrams according to customer requirements up to a maximum number of 8 contacts.

The covers dedicated to house the cam switches provide a suitable slot with protection guard.

Equipped with gasket below the knob provides an IP65 protection degree.



#### Tread-safe

EL AN series control stations can bear any impact and stress thanks to their specific design and resistant materials, fitted for heavy-duty application.



#### **Electrical socket**

The inside of the electrical socket is protected against the risk of accidental contact by means of a special removable cover.

A separator (applicable in different positions) is available, to be used to separate those parts of the control stations having different voltage

The electrical socket is always fitted to the top of the control station and not to the side, so as to make its use more convenient and its position more readily identifiable.

Available in different types, it perfectly adapts to the standards in force in the country where the lift is installed.



#### **Magnetic bases**



All control stations EL AN series can be supplied with a magnetic base applied to the bottom of the box; in this way it will be possible to anchor the control stations to metal walls and surfaces in a removable manner without needing to drill.

Adhesive magnetic bases can be applied at a later time.

#### **Sturdiness**

The devices are guaranteed protection against knocks and treading both by the use of sturdy guards for particularly bulky auxiliary control devices, such as the emergency pushbutton or the selector, makes the product suitable for especially heavy-duty installation areas.

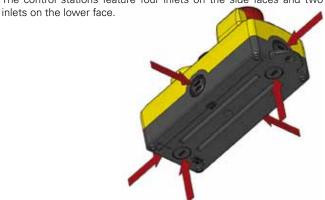






#### Cable entries

The control station EL AN base features numerous possible knockout entries for the passage of cables, in order to ensure easy wiring. The control stations feature four inlets on the side faces and two



#### **LASER** marking



Pizzato Elettrica has introduced a new LASER marking system for control stations EL AC series.

Thanks to this system, which excludes the use of pad printing or labels, product marking is indelible and durable.

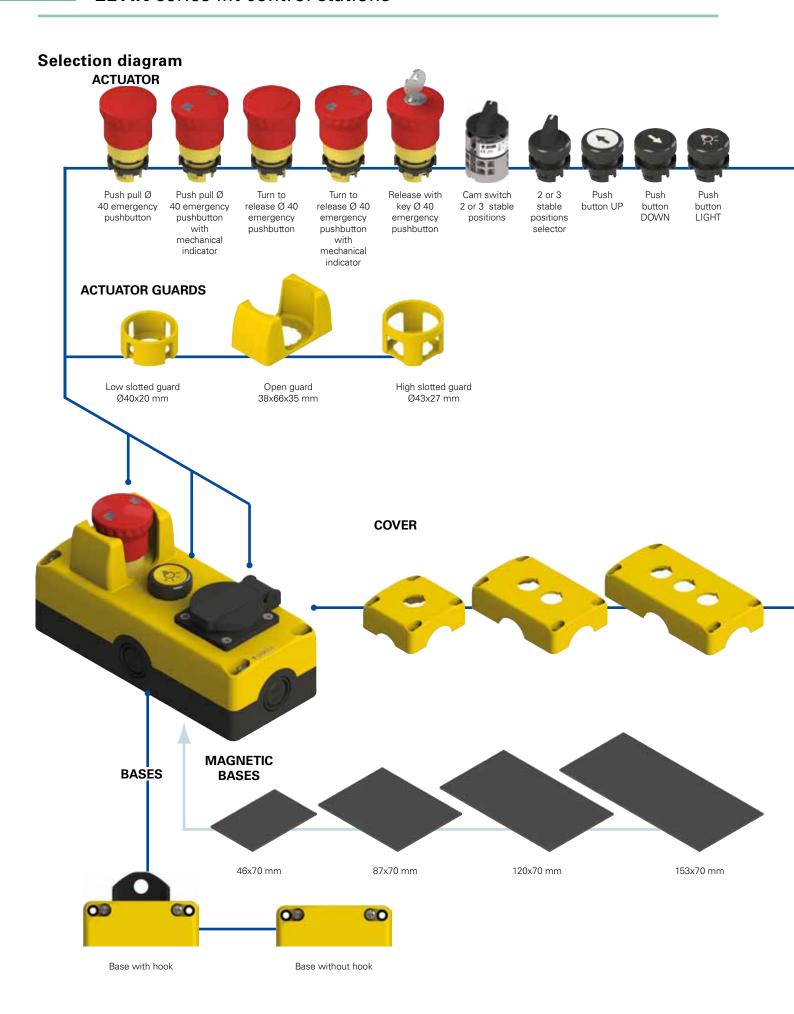
LASER markings for control

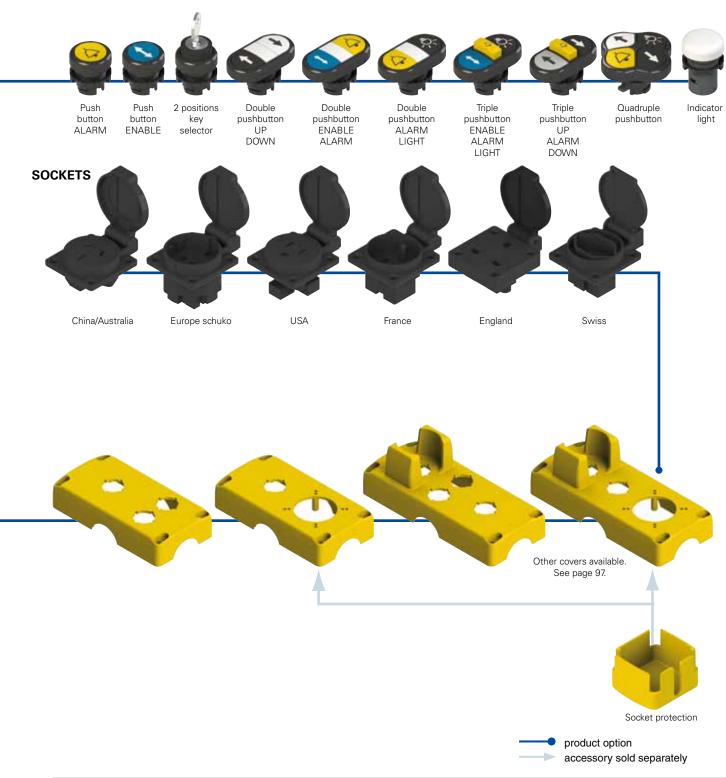
stations EL AC series are now enriched with pictograms and symbols according to new standard 81-20; control stations can also be customized with indications, symbols and customer logos.

#### Electrical panel hanging hook



On request, the EL AN series control stations can be equipped with a special hook to hang the control stations directly on a wall or onto the electrical panel.

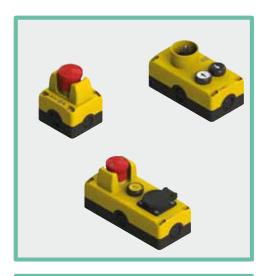




#### Code structure

Attention! The feasibility of a code number does not mean the effective availability of a product. Please contact our sales office.

Box shape		Co	Configuration progressive number				
1	72x80h56 mm	000	configuration 000				
2	120x80h56 mm	001	configuration 001				
3	153x80h56 mm						
4	186x80h56 mm						



#### Main data

- Different configurations available
- Protection degree IP54 or IP65 or IP67
- Actuator guards
- Internal and external fixing
- Customized sockets
- Retained screws

#### Markings and quality marks (enclosures):



Markings and quality marks (contact blocks):









Approval IMQ: CA02.04805 Approval UL: E131787 Approval CCC: 2013010305631156 Approval EAC: RU C-IT ДМ94.B.01024

#### **Technical data**

#### Housing

Made of shock-proof, self-extinguishing polymer with double insulation , UV resistant.

1 element box:

2 lateral knock out conduit entries M20 - M25 - PG 13.5 - 1/2 NPT

2 lateral knock out conduit entries M20 - PG 13.5 - 1/2 NPT

2 bottom knock out conduit entries M16 - PG 11

2 or more elements boxes:

4 lateral knock out conduit entries M20 - M25 - PG 13.5 - 1/2 NPT

2 bottom knock out conduit entries M20 - PG 13.5 - 1/2 NPT Base colour: Black BAI 9005

Cover colour: Yellow RAL 1023

Screws materials: Galvanized steel, stainless steel on request

Protection degree: IP54 according to IEC 60529

IP65 (on request on some articles) according to IEC 60529 IP67 (on request on some articles) according to IEC 60529 with cable gland having equal or higher protection

degree

General data

-25°C ... +80°C Ambient temperature: Cover screws driving torque: 1 ... 1.4 Nm

#### In conformity with standards:

IEC 60947-1, IEC 60947-5-1, IEC 60204-1, EN 60947-1, EN 60947-5-1, EN 60204-1, UL 508, CSA 22-2 N°14, EN 81-20, EN 81-50

#### ⚠ Installation for safety applications:

Use only switches marked with the symbol . The safety circuit must always be connected with the NC contacts (normally closed contacts: 1-2) as stated in the standard ISO 14119, par. 5.4.

#### In conformity with requirements requested by:

Low Voltage Directive 2006/95/EC, Machinery Directive 2006/42/EC and EMC Directive 2004/108/EC.

#### Positive contact opening in conformity with standards:

IEC 60947-5-1, EN 60947-5-1, VDE 0660-206.

#### **Electrical data**

Thermal current (Ith): Rated insulation voltage (Ui): Protection against short circuits:

Rated impulse Uimp: Pollution degree:

10 A 600 Vac/dc fuse 10 A 500 V type gG/gL

6 kV 3

#### **Utilization categories**

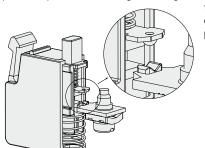
Alternate current: AC15 (50÷60 Hz) Ue (V) 24 48 120 250 400 le (A) 6 6 6 3 6 Direct current: DC13 Ue (V) 24 125 250 le (A)

0.3

0.6

#### High reliability self-cleaning contacts

"V shape" self-cleaning contacts with quadruple contact points. This shape, thanks to its quadruple support, allows to reduce the probability of contact wrong switching. Furthermore it highly improves



the contacts reliability in case of dust ( registered patent).

#### Positive opening

NC contact blocks are suitable for safety application, with positive opening contacts according to IEC 60947-5-1.

2.5

#### Data type approved by UL

Utilization category:

A600 pilot duty (720 VA, 120-600 Vac) Q300 pilot duty (69 VA, 125-250 Vdc)

Use copper wire (Cu) 60 or 75 °C rigid or flexible with cross section12-20 AWG.

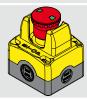




Description	Features			Wiring layout	
Emergency pushbutton Ø 40 - 1NC E2 1PEPZ4531	push-	pull, 40 mm diar red colour			
Open guard VE GP22F5A	open rectangular, yellow colour			Œ√ţ	
Contacts 1x E2 CP01G2V1	pos 2 /	pos 3 1NC ↔			



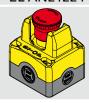




Description		Features	Wiring layout
Emergency pushbutton Ø 40 - 1NC E2 1PEPF4531		h mechanical inc ameter, red colo	1
Open guard VE GP22F5A	open re	ctangular, yellov	
Contacts 1x E2 CP01G2V1	pos 2	pos 3 1NC ⊕	l

# EL AN21224





Description		Features	Wiring layout		
Emergency pushbutton Ø 40 - 1NC E2 1PERZ4531	turn to re	elease, 40 mm o red colour			
Open guard VE GP22F5A	open rectangular, yellow colour			Φ <b>-</b> Γ-√-	
Contacts 1x E2 CP01G2V1	pos 2 /	pos 3 1NC ⊖	ı		

# EL AN21257





Description		Features	Wiring layout	
Emergency pushbutton Ø 40 - 1NC E2 1PERF4531		se, with mechani m diameter, red	1	
Open guard VE GP22F5A	open rectangular, yellow colour			O-F\/
Contacts 1x E2 CP01G2V1	pos 2 /	pos 3 1NC ⊖		





Description	Features			Wiring layout
Illuminated mushroom pushbutton Ø36 LIGHT - 1NO E2 1PL2F541L16	36 mm diameter, spring-return, yellow colour			ПП
LED holders E2 LP1A2V1	White	e LED, 12 30 \	E√ ♦∃	
Contacts 1x E2 CP10G2V1	pos 2	pos 3 LED	1 1	





Description	Features			Wiring layout	
Mushroom pushbutton Ø 36 ALARM - 1NO E2 1PU2F541L14	36 mm diameter, spring-return, yellow colour			(I>	
Contacts 1x E2 CP10G2V1	pos 2 /	pos 3 1NO	4-7		



# EL AN21222



Description		Features	Wiring layout
Mushroom pushbutton Ø 36 LIGHT - 1NO E2 1PU2F141L16	36 mm diame	ter, spring-return	(1-)
Contacts 1x E2 CP10G2V1	pos 2 /	pos 3 1NO	4-7



### EL AN21258



Description		Features	Wiring layout		
Short handle selector - 1NC E2 1SE12AVA31AF	2 stay-put positions, red colour			ON	þ
Ø 43 guard VE GP22B5A	43 mm	diameter, yellov			
Contacts 1x E2 CP01G2V1	pos 2	pos 3 1NC ↔	pos 1	STOP	Υ'



# EL AN21255

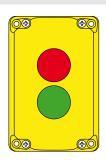


Description		Features			g layout
Short handle selector - 2NO E2 1SE13GCE11AB		pring return - sta eturn, black colo	<b>▶</b>  ∢	<b>}</b>	
Ø 43 guard VE GP22B5A	43 mm	diameter, yellov	0	11	
Contacts 2x E2 CP10G2V1	pos 2 1NO	pos 3	√I≻	\	



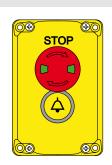


Description		Features				Wiring layout			
Quadruple pushbuttons - 4NO E2 1PQFA1QAAQ	flush, spring- return white colour	flush, spring- return black colour	flush, spring- return black colour	flush, spring- return yellow colour	E- <del>\</del>	E- <del>\</del>	E- <del>\</del>	E\	
Contacts 4x E2 CP10G2V1	pos 2 1NO	pos 3 1NO	pos 4 1NO	pos 1 1NO	1				



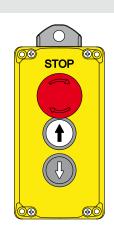


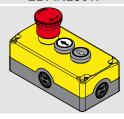
Description	Features	Wiring layout
Monolithic indicator light Ø 30 E6 1 L1A3110	30 mm diameter, red colour red, 12 30 Vac/dc	——————————————————————————————————————
Monolithic indicator light Ø 30 E6 1IL1A4110	30 mm diameter, green colour green, 12 30 Vac/dc	———— LED



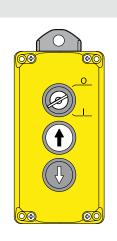


Description		Features		Wiring layout
Emergency pushbutton Ø 40 - 1NC E2 1PERF4531	turn to releas 40 mr	ا ا		
Contacts 1x E2 CP01G2V1	pos 2 /	pos 3 1NC ↔	pos 1 /	
Pushbutton ALARM - 1NO E2 1PU2R521L32	flush, sp	oring-return, blac	F-7	
Contacts 1x E2 CP10G2V1	pos 2	pos 3 1NO	pos 1	[

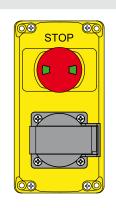


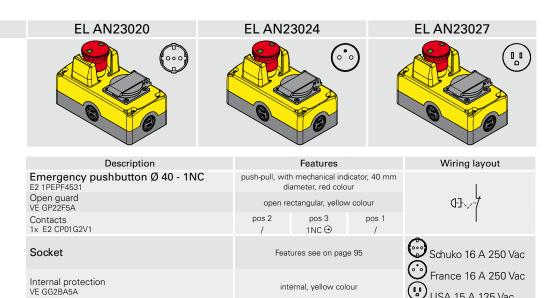


Description		Features	Wiring layout	
Emergency pushbutton Ø 40 - 1NC E2 1PERZ4531	turn to release, 40 mm diameter, red colour			Q-Fx7
Contacts 1x E2 CP01G2V1	pos 2 /	pos 3 1NC ⊖	pos 1 /	41-4
Pushbutton UP - 1NO E2 1PU2R221L9	flush, sp	ring-return, whit	_	
Contacts 1x E2 CP10G2V1	pos 2 /	pos 3 1NO	pos 1 /	E)
Pushbutton DOWN - 1NO E2 1PU2R121L10	flush, sp	ring-return, blac	[ ]	
Contacts 1x E2 CP10G2V1	pos 2 /	pos 3 1NO	pos 1 /	E\



Description		Features	Wiring layout		
Key selector - 1NO E2 1SC2AVA11AA	2 stay-put positions, "0" key withdrawal position, black colour			0	1
Contacts 1x E2 CP10G2V1	pos 2 /	pos 3 1NO	pos 1	1	þ
Pushbutton UP - 1NO E2 1PU2R221L9	flush, sp	oring-return, whit	E		
Contacts 1x E2 CP10G2V1	pos 2 /	pos 3 1NO	pos 1 /	L	
Pushbutton DOWN - 1NO E2 1PU2R121L10	flush, spring-return, black colour			E	_
Contacts 1x E2 CP10G2V1	pos 2 /	pos 3 1NO	pos 1 /	L	









USA 15 A 125 Vac

Description	Features			Wiring layout		
Short handle selector - 2NC+2NO E2 1SE12AVA11AB	2 stay-put positions, black colour			NORMAL	1177	
Contacts 2x E2 CP01G2V1+2x E2 CP10G2V1	pos 3 1NC ⊖	pos 2 1NC ↔	pos 4 1NO	pos 1 1NO	INSPECTION	<b>/</b>
Pushbutton UP - 1NO E2 1PU2R221L7	flush, spring-return, white colour			E\		
Contacts 1x E2 CP10G2V1	pos 2 /	pos 1N		pos 1 /	L	
Pushbutton DOWN - 1NO E2 1PU2R121L8	flush, spring-return, black colour			E-4		
Contacts 1x E2 CP10G2V1	pos 2	pos 1N		pos 1 /	[	

Schuko 16 A 250 Vac

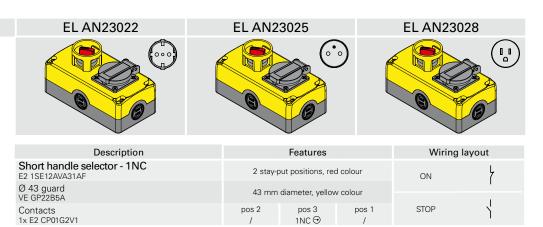
France 16 A 250 Vac

USA 15 A 125 Vac



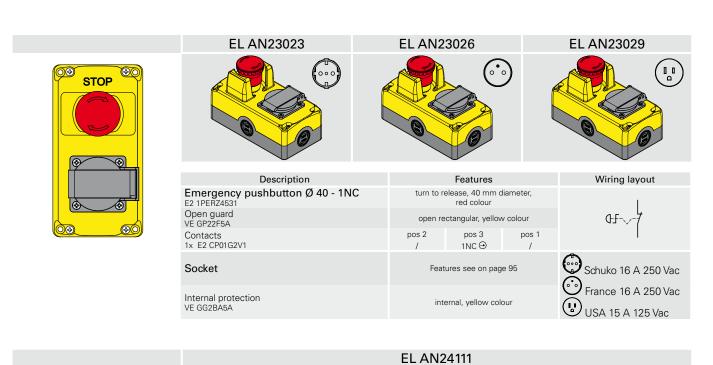
Socket

Internal protection VE GG2BA5A



Features see on page 95

internal, yellow colour

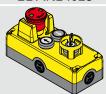






Description		Feat	ures		Wiring	layout
Emergency pushbutton Ø 40 - 1NC E2 1PERZ4531	turn to release, 40 mm diameter, red colour					
Contacts 1x E2 CP01G2V1	pos 2	po: 1N0		pos 1 /	73-7	
Pushbutton UP - 2NO E2 1PU2R221L7	flush, spring-return, white colour			г \		
Contacts 2x E2 CP10G2V1	pos 2 1NO	po	s 3	pos 1 1NO	E4	)
Pushbutton DOWN - 2NO E2 1PU2R121L8	flush, spring-return, black colour				г \	
Contacts 2x E2 CP10G2V1	pos 2 1NO	po	s 3	pos 1 1NO	E4	
Short handle selector - 2NC+2NO E2 1SE12AVA11AB	2 stay-put positions, black colour			NORMAL	\\ \ \ \	
Ø 43 guard VE GP22B5A	43 mm diameter, yellow colour					1.1.1.1
Contacts 2x E2 CP01G2V1+2x E2 CP10G2V1	pos 2 1NC ⊖	pos 4 1NO	pos 3 1NO	pos 1 1NC ⊖	INSPECTION	7711



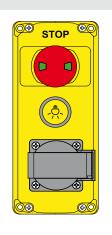


Description	Features			Wiring	layout
Emergency pushbutton Ø 40 - 1NC E2 1PERF4531	turn to release, with mechanical indicator, 40 mm diameter, red colour			0-F-√-7	
Contacts 1x E2 CP01G2V1	pos 2 /	pos 3 1NC ⊖	pos 1 /	(J)-(	<i>/</i> -7
Pushbutton UP - 2NO E2 1PU2R221L7	flush, sp	oring-return, whit	г \		
Contacts 2x E2 CP10G2V1	pos 2 1NO	pos 3 /	pos 1 1NO	E\	
Pushbutton DOWN - 2NO E2 1PU2R121L8	flush, s	pring-return, black	г \		
Contacts 2x E2 CP10G2V1	pos 2 1NO	pos 3 /	pos 1 1NO	E <b>\</b>	1)
Key selector - 1NO E2 1SC2AVA11AA	2 stay-put positions, "0" key withdrawal position, black colour			0	\
Ø 43 guard VE GP22B5A	43 mm diameter, yellow colour				<u>'</u>
Contacts 1x E2 CP10G2V1	pos 2 /	pos 3 1NO	pos 1 /	I	ነ





Description		Features		Wiring layout
Emergency pushbutton Ø 40 - 1NC E2 1PERZ4531	40 mr	turn to release, m diameter, red	Q-F>-7	
Contacts 1x E2 CP01G2V1	pos 2	pos 3 1NC ⊖	pos 1	V3-V-7
Pushbutton UP - 1NO E2 1PU2R221L7	flush, sp	ring-return, whi	_	
Contacts 1x E2 CP10G2V1	pos 2	pos 3 1NO	pos 1	E\
Pushbutton DOWN - 1NO E2 1PU2R121L8	flush, sp	oring-return, blac	ck colour	_ ,
Contacts 1x E2 CP10G2V1	pos 2	pos 3 1NO	pos 1 /	E
Pushbutton ENABLE - 1NO E2 1PU2R621L174	flush, s	pring-return, blu	E <del>\</del>	
Contacts 1x E2 CP10G2V1	pos 2	pos 3 1NO	pos 1	E\

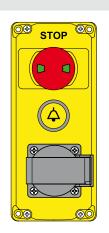








Description		Features		Wiring layout
Emergency pushbutton Ø 40 - 1NC E2 1PEPF4531		with mechanica n diameter, red	Q <del>]</del>	
Contacts 1x E2 CP01G2V1	pos 2 /	pos 3 1NC ⊖	pos 1 /	414
Illuminated pushbutton LIGHT - 1NO E2 1PL2R521L41	flush, spi	ring-return, yello	1.1	
LED holders E2 LP1A2V1	white	LED, 12 30 V	E√ ♦≘	
Contacts 1x E2 CP10G2V1	pos 2 /	pos 3 LED	pos 1 1NO	
Socket	Feat	ures see on pag	Schuko 16 A 250 Vac	
Internal protection VE GG2BA5A	inte	ernal, yellow colo	France 16 A 250 Vac	

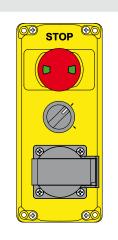








Description		Features	Wiring layout	
Emergency pushbutton Ø 40 - 1NC		with mechanical n diameter, red o	47 /	
Contacts 1x E2 CP01G2V1	pos 2 /	pos 3 1NC ⊖	pos 1 /	<del>43.,-7</del>
Pushbutton ALARM - 1NO E2 1PU2R521L32	flush, spr	ring-return, yello	F- <del>-\</del>	
Contacts 1x E2 CP10G2V1	pos 2 /	pos 3 1NO	pos 1 /	
Socket	Feat	ures see on page	Schuko 16 A 250 Vac	
Internal protection VE GG2BA5A/	inte	ernal, yellow colo	France 16 A 250 Vac	

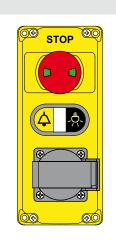








Description		Features		Wiring layout		
Emergency pushbutton Ø 40 - 1NC E2 1PEPF4531	push-pull, with mechanical indicator, 40 mm diameter, red colour			47 /		
Contacts 1x E2 CP01G2V1	pos 2 /	pos 3 1NC ↔	pos 1 /	03->-7		
Short handle selector - 1NO+1NC E2 1SE12AVA11AB	2 stay-p	ut positions, blad		17		
Contacts 1x E2 CP10G2V1+1x E2 CP01G2V1	pos 2 1NO	pos 3	pos 1 1NC ⊖		Υ\ 	
Socket	Feat	tures see on pag	Schuko 16	A 250 Vac		
Internal protection VE GG2BA5A	internal, yellow colour  France 16 A  USA 15 A 1					



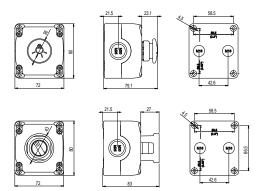


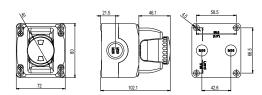




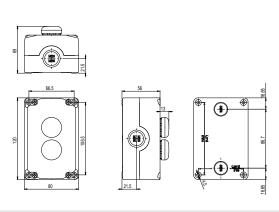
Description	Features			Wiring layout		
Emergency pushbutton Ø 40 - 1NC E2 1PEPF4531	push-pull, with mechanical indicator, 40 mm diameter, red colour			47		
Contacts 1x E2 CP01G2V1	pos 2 /	pos 3 1NC ⊖	pos 1 /	03.,-/		
Double pushbutton: ALARM - 1NO LIGHT - 1NO E2 1PDRL1AABR	yellow pushbutton ALARM	lush, spring-retur white indicator light	black pushbutton LIGHT	E\	E	
Contacts 2x E2 CP10G2V1	pos 2 1NO	pos 3	pos 1 1NO		ı	
Socket	Features see on page 95 Schuko 16 A 25				16 A 250 Vac	
Internal protection VE GG2BA5A	internal, yellow colour  USA 15 A 125 Va					

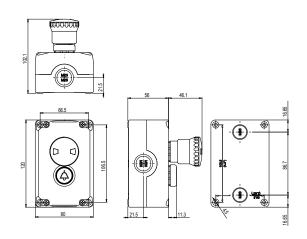
### Lift control stations EL AN 21 \*\*\* series dimensions



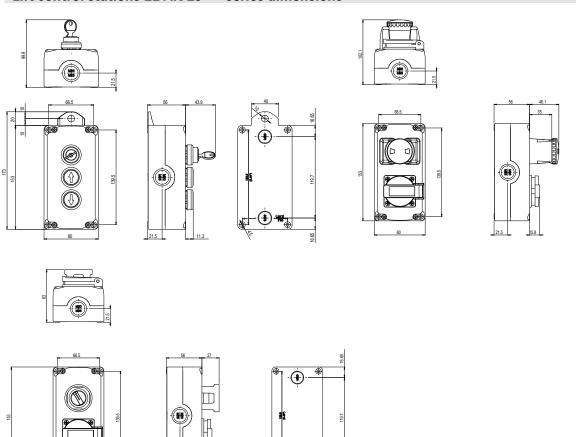


#### Lift control stations EL AN 22 • • • series dimensions



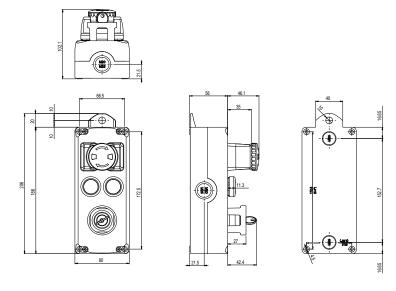


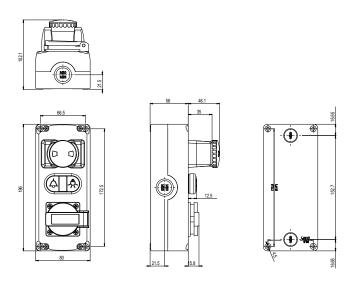
#### Lift control stations EL AN 23 • • • series dimensions

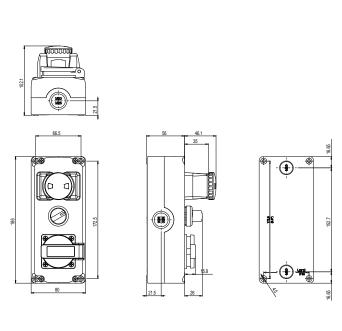


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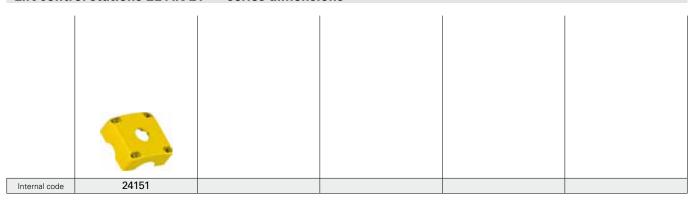
# Lift control stations EL AN 24 • • • dimensions







#### Lift control stations EL AN 21 •• • series dimensions



#### Lift control stations EL AN 22 • • series dimensions



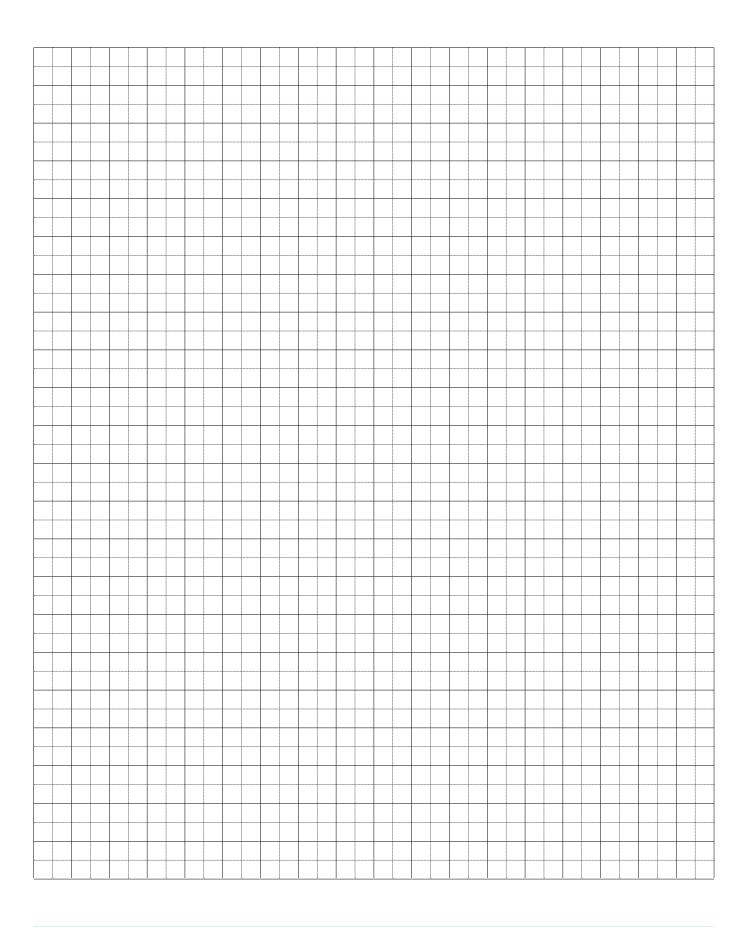
#### Lift control stations EL AN 23 • • • series dimensions



### Lift control stations EL AN 24 • • • dimensions



# Notes



#### Slotted protection guard



Article VE GP22A5A Description

Cylindrical yellow protection guard with 4 slots Ø 40x20 mm

It does not alter the device IP protection degree.

#### Open protection guard



Article VE GP22F5A Description

Rectangular open yellow 66x38 h35 mm protection guard

#### Cylindrical protection guard



Article VE GP22B5A Description

Cylindrical yellow Ø43x27 mm protection guard

Not suitable for emergency pushbuttons E2 1PE••••• series It does not alter the device IP protection degree.

#### Blanking plug

10 pcs packs



Technical data: Body and nut material: Protection degree: Driving torque: Installation prescriptions:

polymer IP67 and IP69K from 2 to 2.5 Nm page 3/98

Article E2 1TA1A110 Description

Black blanking plug for Ø 22 mm holes

#### Sockets with protection IP54



Sockets complete with 4 fixing screws

VE PE1E1AA1

Article

VE PE1E1BA1

VE PE1E1CA1

VE PE1E1DA1

VE PE1E1EA1

VE PE1E1FA1

#### Shape Description



Europe Schuko + Italy IEC 60884-1 with children protection 16 A 250 Vac

USA UL498/NEMA5-15 CSA22.2 nr.42

15 A 125 Vac

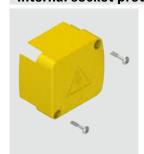
France CEE 7/V IEC 60884-1 NFC 61314 with children protection 16 A 250 Vac

England BS1363 with children protection 13 A 250 Vac

Swiss IEC 60884-1 SEV 1011 10 A 250 Vac

> Australia / China AS/NZS 3112 15A 250 Vac

#### Internal socket protection



Article Description VE GG2BA5A Yellow socket protection

Protection complete with 2 screws for fixing under the socket.

#### **Cover protection**



Article Description VE GG2CA5A Yellow cover protection Yellow cover protection VE GG2CB5A Black cover protection VE GG2CA1A (on request)

Hinges and fixing screws kit, only for control stations EL AC••••.

#### Separator



Article	Description
VE GG2DA1	Separator

Separator applicable in different positions, to be used to separate those parts of the control stations having different voltage. Only for control stations EL AN ....

#### Magnetic bases



Adhesive magnetic base plastoferrite to b applied on the bottom of the control stations E AC•••• and EL AN•••• allowing to anchor them t metal surfaces.

	Article	Description		
	VE BM2B46X70	46x70 mm for EL AN boxes		
	VE BM2B87X70	87x70 mm for EL AN boxes		
es be of	VE BM2B120X70	120x70 mm for EL AN boxes		
	VE BM2B153X70	153x70 mm for EL AN boxes		
•• to	VE BM2B240X70	240x70 mm for EL AC boxes		

#### **Contact blocks**



Article	Contacts
E2 CP01G2V1	Slow action 1NC ⊕
E2 CP10G2V1	Slow action 1NO
E2 CP01K2V1	Lagging slow action 1NC →
E2 CP10L2V1	Leading slow action 1NO

#### General data

Protection degree: IP20 according to IEC 60529 Ambient temperature: -40°C ... +80°C

Mechanical endurance: 20 million operations cycles Max operating frequency: 3600 operations cycles/hour

Contacts material: silver contacts

Screw terminal driving torque: 0.6 ... 0.8 Nm

Contacts form: "V shape" self-cleaning contacts with

quadruple contact points

#### **Contact blocks**



Article	Contacts			
E2 CP01S2V1	slow self-monitored action 1NC →			

#### General data

Protection degree: IP20 according to IEC 60529

Ambient temperature: -40°C ... +80°C
Mechanical endurance: 20 million operations cycles
Max operating frequency: 3600 operations cycles/hour

Contacts material: silver contacts

Contacts form: "V shape" self-cleaning contacts with

quadruple contact points

Screw terminal driving torque: 0.6 ... 0.8 Nm

#### **Contact blocks**



Article	Contacts		
E2 CP11G2V1	Slow action 1NO+1NC →		
E2 CP20G2V1	Slow action 2NO		
E2 CP02G2V1	Slow action 2NC →		

#### General data

Protection degree: IP20 according to IEC 60529
Ambient temperature: -40°C ... +80°C

Mechanical endurance: 20 million operations cycles Max operating frequency: 3600 operations cycles/hour Contacts material: silver contacts

Contacts form: "V shape" self-cleaning contacts with

quadruple contact points

Screw terminal driving torque: 0.6 ... 0.8 Nm

#### **LED** holders



LED colour	Actuator colour	Operation voltage				
	Coloui	12 30 Vac/dc	120 Vac	230 Vac		
white	white / yellow	E2 LP1A2V1	E2 LP3A2V1	E2 LP4A2V1		
red	red	E2 LP1A3V1	E2 LP3A3V1	E2 LP4A3V1		
green	green	E2 LP1A4V1	E2 LP3A4V1	E2 LP4A4V1		
blue		E2 LP1A6V1	E2 LP3A6V1	E2 LP4A6V1		
orange	orange	E2 LP1A8V1	E2 LP3A8V1	E2 LP4A8V1		

#### General data

Protection degree: IP20 according to IEC 60529 Ambient temperature: -25°C ... +70°C Endurance: 100.000 hours (at rated voltage and ambient temperature +25°C)

Operation voltage: 12 ... 30 Vac/dc; 5 ... 15 mA 102 ...138 Vac; 10 ... 12 mA 195 ... 264 Vac; 9 ... 10 mA

Screw terminal driving torque: 0.6 ... 0.8 Nm

Fixing ring 20 pcs pace						
	Article	Description				
Q	VE GF121A	Polymer fixing ring				
	Article	Description				
	VE GF720A	Metal fixing ring				

Article

# Article Description VE CH121A1 Polymer fixing tool for VE GF •••• fixing rings

#### Fixing adapter

Description



E2 1BAC11	Fixing adapter with 3 positions for E2 CP contact block and E2 LP LED holder



Article	Description
2 1BAC21	Fixing adapter with 4 positions for E2 CP contact block

Can be exclusively combined with selectors E2 1SE•••••••, key selectors E2 1SC••••••, pushbuttons E2 1PU••••••, double pushbuttons E2 1PD••••••, emergency pushbuttons E2 1PE•••••, configured in the appropriate versions for adapters with 4 positions.

**10 pcs** packs

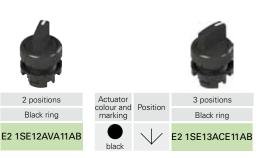
#### **Emergency pushbuttons**



#### **Selectors**

Actuator colour and marking

Yellow



#### **Key selectors**



Actuator colour and	Position	2 positions		
marking	Position	Black ring		
black	<b>\</b>	E2 1SC2AVA11AA		

#### Legend



Spring-return

Key withdrawal position

#### Illuminated disc

Position

colour and marking	Article	Description
	VE DL1A5A00	Yellow illuminated disc, Ø 60 mm, 24 Vac/dc, no marking
0015 500	VE DL1A5A09	Yellow illuminated disc, Ø 60 mm, 24 Vac/dc, with marking: STOP STOP STOP STOP
	VE DL1A5A13	Yellow illuminated disc, Ø 60 mm, 24 Vac/dc, with marking:

#### Blinking illuminated disc

colour and marking	Article	Description			
	VE DL1A5L00	Yellow illuminated disc, blinking (0.5s on 0.5s off), Ø 60 mm, 24 Vac/dc, no marking			
2015 202	VE DL1A5L09	Yellow illuminated disc, blinking (0.5s on 0.5s off),Ø 60 mm, 24 Vac/dc, with marking:			
0	VE DL1A5L13	Yellow illuminated disc, blinking (0.5s on 0.5s off), Ø 60 mm, 24 Vac/dc, with marking:			

#### Cam switches



	Contacts					Position	Article		
1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	FUSILIUII	Article
NC	NO	NC	NO	-	-	-	-	<b>\</b>	EH B2A22A-P01
NO	NO	NC	NC	NC	NC	-	-	$\checkmark$	EH B2A24A-P01
NC	NO	NC	NO	NC	NO			<b>\</b>	EH B2A33A-P01
NO	NC	NO	NC	NO	NC	NC	NC	$\checkmark$	EH B2A35A-P01
NC	NO	NC	NO	NC	NO	NC	NO	<b>\</b>	EH B2A44A-P01
NC	NO	NC	NO	NC	NO	NC	NO	$\checkmark$	EH B3A44A-P01

Supplied with fixing screw and knob. Please note: only compatible with dedicated box covers. For further information please contact the sales dept.

Protection degree according to IEC 60529: IP65 only if installed

on appropriate cover IP20 on the terminals -25°C +55°C

Ambient temperature: Mechanical endurance: 1.5 million operation cycles at 120 operation cycles/hour

Contacts material: silver contacts Screw terminal driving torque: 0.6 ... 0.8 Nm Thermal current (Ith): 16 A 660 Vac Rated insulation voltage (Ui): Rated impulse withstand voltage (U<sub>imp</sub>): 4 kV

Rated operation current le: alternate current					
Vac	AC-21A AC-22A (A)	AC23A	(A-kW)	AC-3 (	A-kW)
		1PH	3PH	1PH	3PH
110	/	14 - 1.5	/	12 - 1.1	/
230	/	14 - 3.1	13 - 4.2	12 - 2.5	10 - 3.1
400	16	/	13 - 7.5	/	10 - 5.1

# **Double pushbuttons**



Actuator colour and marking		Flush upper pushbutton Projecting central pushbutton Flush lower pushbutton	
		Function	Black ring
	"→" black pushbutton	DOWN	
	white indicator light		E2 1PDRL1AABS
•	" <b>←</b> " white pushbutton	UP	
<b>(1)</b>	"↑" white pushbutton	UP	
	white indicator light		E2 1PDRL1AABN
V	" <b>↓</b> " black pushbutton	DOWN	
	yellow pushbutton	ALARM	
7	white indicator light		E2 1PDRL1AADJ
	t blue pushbutton	ENABLE	
os.	ے ہے۔ black pushbutton	LIGHT	
	white indicator light		E2 1PDRL1AABR
	yellow pushbutton	ALARM	
<b>♦</b>	ےُ۔ black pushbutton	LIGHT	
	white indicator light		E2 1PDRL1AADL
	t blue pushbutton	ENABLE	

# Triple pushbuttons



Actuator colour and marking		Flush upper pushbutton Projecting central pushbutton Flush lower pushbutton	
		Function	Black ring
63	ے ہُر۔ black pushbutton	LIGHT	
4	yellow pushbutton	ALARM	E2 1PTRS1AADK
	t blue pushbutton	ENABLE	
	"→" black pushbutton	DOWN	
<b>♦</b>	yellow pushbutton	ALARM	E2 1PTRS1AABK
	" <b>←</b> " white pushbutton	UP	

### Flush and mushroom pushbutton





Actuator colour	Function	Flush Pushbuttons	Flush Ø 36 mm mush- room pushbuttons
and marking		Black ring	Black ring
white	UP	E2 1PU2R221L7	/
black	DOWN	E2 1PU2R121L8	/
black	LIGHT	E2 1PU2R121L16	E2 1PU2F141L16
yellow	LIGHT	1	E2 1PL2F541L16
yellow	ALARM	E2 1PU2R521L14	E2 1PU2F541L14
blue	ENABLE	E2 1PU2R621L170	

### Quadruple pushbuttons



		-		
Actuator colour and marking (starting from the top and clockwise)		flush upper pushbutton flush right pushbutton flush lower pushbutton flush left pushbutton		
		Function	black ring	
	"↑" white pushbutton	UP		
†	ےُّر black pushbutton	LIGHT	F2.4B0F440AA0	
	" <b>↓</b> " black pushbutton	DOWN	E2 1PQFA1QAAQ	
	yellow pushbutton	ALARM		
T A	"↑" white pushbutton	UP		
	ے ہے۔ black pushbutton	LIGHT	F2 4D0F4404 AC	
VA V	"♥" black pushbutton	DOWN	E2 1PQFA1QAAS	
	t blue pushbutton	ENABLE		
T C	"↑" white pushbutton	UP		
	yellow pushbutton	ALARM	E0.4B0E440AAB	
	"♥" black pushbutton	DOWN	E2 1PQFA1QAAR	
	t blue pushbutton	ENABLE		

Items with code on the **green** background are available in stock

### Monolithic illuminated indicator

10 pcs packs



LED colour		Operation voltage			
	LED Colour	12 30 Vac/dc	120 Vac	230 Vac	
	white	E6 1IL1A2110	E6 1IL7A2110	E6 1IL8A2110	
	red	E6 1IL1A3110	E6 1IL7A3110	E6 1IL8A3110	
	green	E6 1IL1A4110	E6 1IL7A4110	E6 1IL8A4110	
	yellow	E6 1IL1A5110	E6 1IL7A5110	E6 1IL8A5110	
	blue	E6 1IL1A6110	E6 1IL7A6110	E6 1IL8A6110	
	orange	E6 1IL1A8110	E6 1IL7A8110	E6 1IL8A8110	

#### **DIN** rail adapter

10 pcs packs



VE AD3PF9A0

Article

Description

Adapter with Ø22 hole for front fixing on DIN rail of control and signalling devices EROUND series.

Not suitable for cam switches and quadruple pushbuttons



### **USB** socket





Back connection	Front connection USB 2.0 Type A integrated female socket black ring	
USB Type A integrated female socket	E2 1USB1CAK	1
outlet with cable in PVC (1.8 m long) and USB Type A male socket	/	E2 1USB1CN1.8
outlet with cable in PVC (3 m long) and USB Type A male connector	/	E2 1USB1CN3
outlet with cable in PVC (5 m long) and USB Type A male connector	1	E2 1USB1CN5

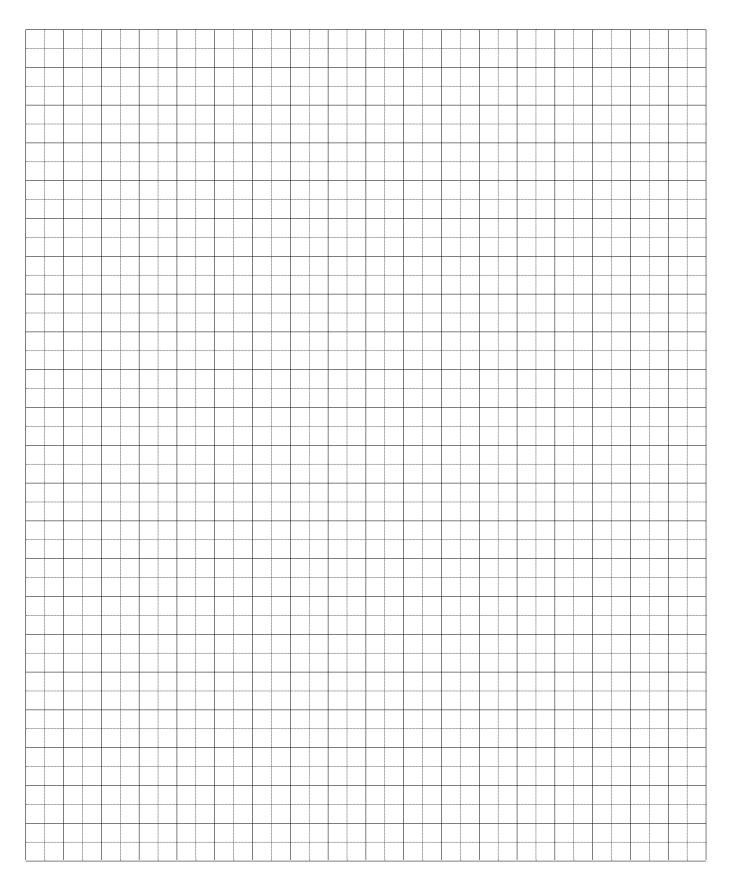
### **RJ45** socket





Back connection	Front connection RJ45 integrated female socket black ring	
RJ45 integrated female socket	E2 1RJ451AAK	/
Output with cable in PVC (1 m long) and RJ45 male connector	/	E2 1RJ451AN1
Output with cable in PVC (2.5 m long) and RJ45 male connector	1	E21RJ451AN2.5

# Notes



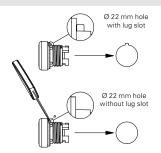
# Utilization requirements

#### Alignment lug

The alignment lug in the external diameter of the EROUND series devices allows to obtain an exact alignment of the device while installing it on the panel avoiding any rotation.

If the application hole does not have the lug slot, it is sufficient to remove the lug by levering it with a screwdriver and paying attention not to damage the gasket.

It is not advisable to remove the alignment lug for turn to release selector (E2 1SE, E2 1SL, E21SC series) and emergency pushbuttons (E2 1PE series) since these are devices with rotating actua-

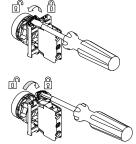


#### Device connection to the fixing adapter

After having fixed the control device to the panel through its proper ring, connect it to the fixing adapter by turning the locking lever.

The lever has two indications: open position (open padlock) and locked position (close padlock).

The locking lever rotation is easier if using a slotted screwdriver.



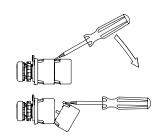
#### Contact and LED holders hooking

Each contact and LED holders have two snap tabs which assure a stable fixing to the adapter, for panel mount versions, or to the enclosure for base fixing versions. Panel contact blocks can be hooked between them, up to a maximum of three, provided that the limits for every actuator are respected as written in the relative chapters.

Contact and LED holders are quickly removed by levering with a slotted screwdriver on the snap tabs.







Contact block release from other block

#### Lenses for indicator lights E2

The E2 indicator lights are provided with lenses of different colours which are interchangeable. The lenses can be fixed and removed by simply turning them clockwise and anticlockwise without needing any tool.

For a good chromatic output, it is necessary a correct combination of lens and LED holder colours.

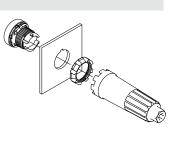


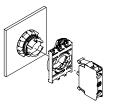
#### **Panel fixing**

signalling and control devices have to be fixed behind the panel through a ring which has to be screwed with the fixing tool provided as accessory.

The driving torque for a correct fixing has to be between 2 and 2.5 Nm.

After fixing the ring it is possible to apply the fixing adapter and the panel contact block or LED holder

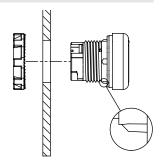




#### Gasket

Thanks to its configuration, the gasket assures a prefixing on the panel.

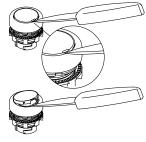
This way the ring nut can be applied with no need of keeping in position the device.



#### Lenses for illuminated pushbuttons

Pushbuttons and illuminated pushbuttons can have interchangeable lenses too

Their lens can be removed by putting a pointed tool under the notch on the lens external diameter and levering it.



#### **General prescription**

The product is designed to be installed into electrical board or enclosures destined to contain electric circuits. All EROUND series components and electrical devices destined to be installed inside boards or enclosures, (e.g. E2 CP, E2 CP, E2 LP, E2 LF), do not have adequate protection against: water, dust in high quantity, condensate, humidity, steam, corrosive agents, explosive and inflammable gas or other polluting agents. The boards and enclosures protection degree have to guarantee the necessary protection for the EROUND series electrical components installed inside, as according to the application.

#### Impacts and vibrations

- Avoid collisions with devices. Excessive impacts and vibrations could not guarantee the correct working of the device.

#### **Devices utilization**

- All devices of the EROUND series are projected for manual operation.
- Do not apply excessive force to the device once it has reached the end of its actuating travel.
- Do not pass the actuating maximum travel.
- Do not disassemble or try to repair the device, in case of defect or fault replace the whole device.
- In case the device is deformed or damaged replace it completely. There is no guarantee of working for a deformed or damage device.
- Always attached the following instructions for use in the manual of the machine were the switch is installed.
- The preservation of the following instructions for use has to allow their consultation for the whole utilization period of the device.

#### Wiring and installation

- The installation has to be made by qualified personnel.
- Comply with minimum distances between devices.
- Comply with the driving torque.
- Keep the electrical load beneath the value indicated on the utilization category.
- Turn off the power before access to the contacts, also during the wiring.
- Do not paint or varnish the devices.
- It is possible to install the product only on surfaces with thickness between 1 and 6mm.
- The protection degree and its correct working are guaranteed only installing the product on flat and smooth surfaces with holes diameter 22 mm according to IEC 60947-5-1.
- After and during the wiring do not pull the electrical cables connected to the contact block. If an elevate traction force is applied to the cables the contact blocks could be separated from the actuator.
- During hooking and release operation of the contact block and the fixing adapter or the enclosure base do not deform or stress the fixing tabs. Tabs deformation could cause the separations between the contact block and the fixing adapter.
- After the installation and before machine working, verify:
- the correct device working;
- the correct and complete locking of the E2 1BAC•1 fixing adapter to the device;
- the correct hooking of the contact block.
- Periodically verify the devices correct working.

#### Do not use in the following environments:

- Environment where dust and dirt can cover the device and by sedimenting stop its correct working.
- Environment where sudden changes of temperature cause condensation.
- Environment where ice formation on the device is possible.
- Environment where the application causes knocks or vibrations which can damage the device.
- Environment with explosive and inflammable gas presence.

#### **Utilization limits**

- Use the devices following the instructions, complying with their working limits and the standards in force.
- The devices have specific application limits (min. and max ambient temperature, mechanical endurance, protection degree, etc.).
- These limits are satisfied by the different devices only if singularly taken and not in combination among them. For further information contact our Technical department.
- The utilization implies compliance and acknowledgement of the following standards: IEC 60204-1, IEC 60947-5-1, ISO 12100-1, ISO12100-2.
- Contact our Technical dept. for information and assistance (phone +39.0424.470.930 / fax +39.0424.470.955/ e-mail tech@pizzato.com) in the following cases:
- Cases not mentioned on the following instructions;
- In nuclear power stations, trains, airplanes, cars, incinerators, medical devices or any application where the safety of two or more persons depend on the correct device working.

#### Additional prescription for safety application

Provided that all previous requirements for the devices installed for safety application are fulfilled, further additional prescriptions have to be observed:

- The utilization in any case implies compliance and acknowledgement of the following standards: IEC 60204-1, IEC 60947-5-1, EN 60954-1, EN 13849, EN ISO 13850, ISO 12100-1, ISO12100-2
- In the emergency mushroom the safety circuit has to be connected to NC 1-2 contacts when the device is not actuated. Auxiliary NO 3-4 contacts have to be used only in the signalling circuit.
- Always connect in series the protection fuse (or equivalent device) to the NC 1-2 contacts of the safety circuit.
- Periodically verify the correct working of the safety devices, the periodicity of this verification is settled by the machine manufacturer based on the machine danger degree and it doesn't have to be less than one a year.
- After the installation and before machine working, verify:
- the correct device working;
- the correct and complete locking of the E2 1BAC•1 fixing adapter to the device;
- the correct hooking of the contact block.
- Do not leave the key inserted in the emergency mushroom with key-release. A sudden actuation of the emergency mushroom with the key inserted could hurt the operator.