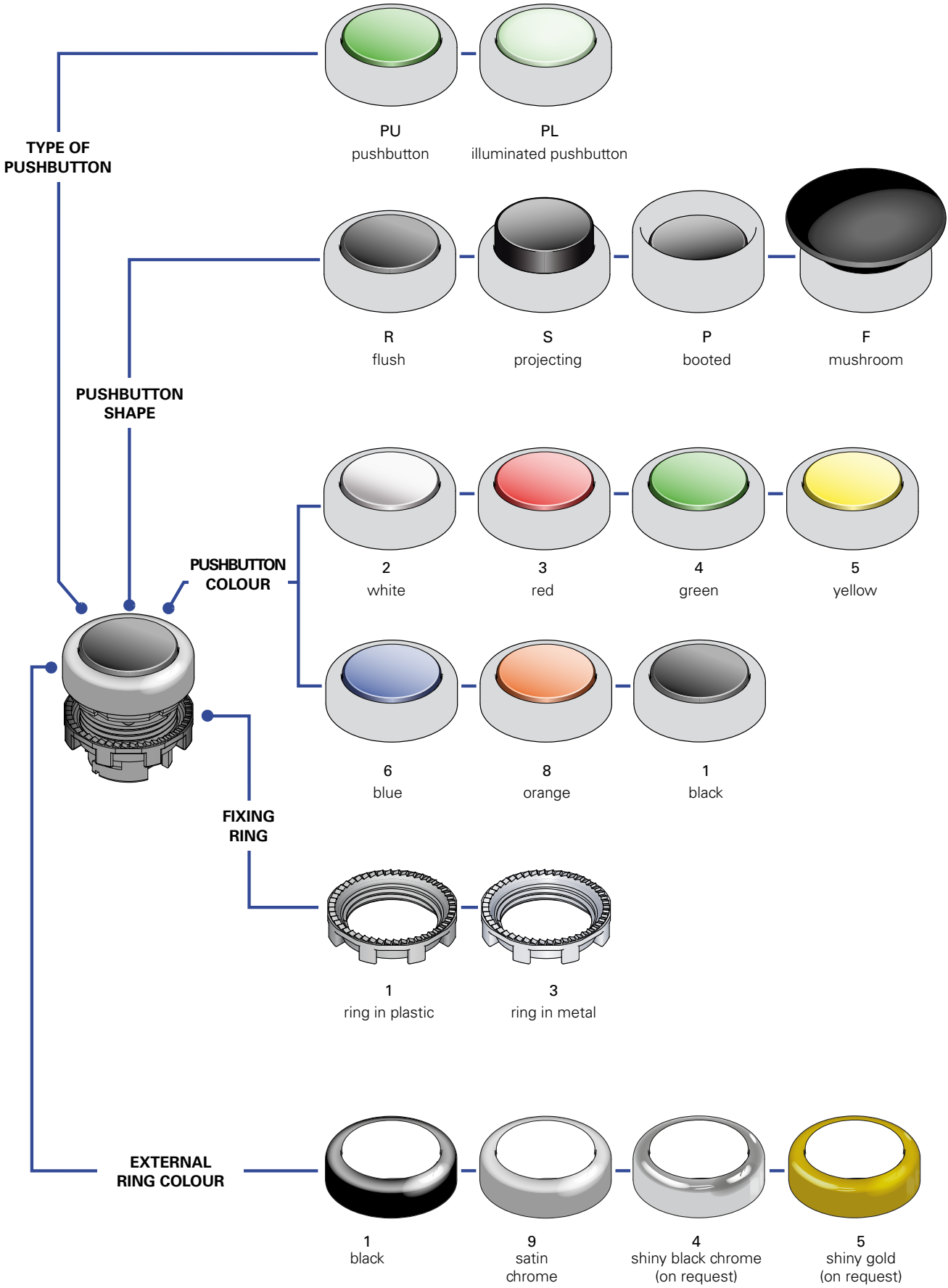


Selection diagram



Pushbuttons code structure

article		options	
E2 1PU2R1210		-T6	
Fixing ring and shaped ring		Ambient temperature	
1	ring in plastic		-25°C ... +85°C (standard)
2	ring in plastic and shaped ring		
3	ring in metal	T6	-40°C ... +85°C
4	ring in metal and shaped ring	Pushbutton marking	
Pushbutton function		0	without marking
1	stay-put	L1	O
2	spring-return	L2	I
4	spring-return for adapter with 4 positions	...	
Pushbutton shape		Other markings on request. See page 3/97.	
R	flush	Ring colour	
S	projecting	1	black (standard)
P	booted	9	satin-finish chrome (standard)
F	mushroom	4	shiny black chrome (on request)
Pushbutton colour		5	shiny gold (on request)
0	without lens	Pushbutton diameter	
1	black	2	Ø 20 mm
2	white	4	Ø 36 mm (mushroom only)
3	red		
4	green		
5	yellow		
6	blue		
8	orange		

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

Illuminated pushbuttons code structure

article		options	
E2 1PL2R2210		-T6	
Fixing ring and shaped ring		Ambient temperature	
1	ring in plastic		-25°C ... +85°C (standard)
2	ring in plastic and shaped ring		
3	ring in metal	T6	-40°C ... +85°C
4	ring in metal and shaped ring	Pushbutton marking	
Pushbutton function		0	without marking
1	stay-put	L1	O
2	spring-return	L2	I
Pushbutton shape		...	
R	flush	Other markings on request. See page 3/97.	
S	projecting	Ring colour	
P	booted	1	black (standard)
F	mushroom	9	satin-finish chrome (standard)
Pushbutton colour		4	shiny black chrome (on request)
0	without lens	5	shiny gold (on request)
2	white	Pushbutton diameter	
3	red	2	Ø 20 mm
4	green	4	Ø 36 mm (mushroom only)
5	yellow		
6	blue		
8	orange		

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



Main features

- Protection degree IP67 and IP69K
- 4 different shapes
- 7 colours available
- Versions for - 40°C
- Stay-put or spring-return versions

Markings and quality marks:



Approval GOST: POCC IT.AB24.B04512

Technical data

General data

Protection degree:	IP67 according to IEC 60529 IP69K according to DIN 40050 ^b
Ambient temperature:	-25°C +80°C
Mechanical endurance:	15 million operations cycles ¹ (Spring-return pushbutton) 1 million operations cycles ¹ (Stay-put pushbutton)
Max operating frequency:	3600 operations cycles ¹ /hour
Actuating force at end travel:	spring-return 3,7 N (without contact) stay-put 4,4 N (without contact)
Maximum travel:	5 mm
Ring driving torque:	2 ... 2,5 Nm
Utilization requirements:	see page 3/98
(1) One operation cycle means two movements, one to close and one to open contacts, as foreseen by EN 60947-5-1 standard. (b) Protect the cables from direct high-pressure and high-temperature jets)	

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

⚠ Installation for safety applications:

Use only switches with marking with the symbol ⊕. The safety circuit must always be connected with the **NC contacts** (normally closed contacts: 1-2) as stated in the standard EN 60947-5-1, encl. K, par. 2.

In conformity with requirements requested by:

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

Positive contact opening in conformity with standards:

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

General characteristics

Protection degree IP67 and IP69K

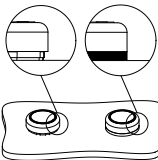
IP69K
IP67

Designed to be employed also in severe environment conditions, Pizzato Elettrica pushbuttons have protection degree IP67 and IP69K, suitable for use in machineries subjected to intense washing with high pressure and high temperature water jets.

Fixing ring

A fixing ring in metal is also available in addition to the fixing ring in technopolymer. The fixing ring in metal is particularly suitable for those applications which require tighter fitting of the panel-mounted device, such as for example in metal panels having holes without reference notches. Both rings feature a toothed surface which comes into contact with the inside of the panel in order to make it easier for the device to be secured to the actual panel.

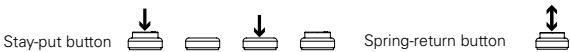
Shaped ring



The shaped ring can be used when no label holders or other devices are applied; it prevents dirt and other residues from settling between the pushbutton and the panel or box. This turns out to be particularly useful in the sectors where high standards of cleanness and hygiene are required.

Functions

Depending on the application, Pizzato Elettrica EROUND pushbuttons are available in two versions: stay-put (once the button is pushed a second manual intervention is needed to release it) and spring-return (the pushbutton hasn't any stable stop system).



Customizing possibilities

In order to suit the various requests and needs of the customers, Pizzato Elettrica offers the possibility to customize the EROUND control and signalling devices: the rings can be requested in different colours (gold satinized, bright black chrome, black and satin chrome), while the lens can be customized with inscriptions, symbols and colours.

Temperature range extended

-40°C

Special versions can be ordered for use in environments where the temperature changes from +80°C to -40°C.

They can be installed inside cold stores, sterilizers or other equipments with very low ambient temperature. Special materials that have been used to realize these versions, maintain unchanged their features also in these conditions, widening the installation possibilities.

Pushbuttons selection table

Actuator colour and marking	Flush		Projecting		Booted		Mushroom	
	black ring	satin chrome ring	black ring	satin chrome ring	black ring	satin chrome ring	black ring	satin chrome ring
	E2 1PU2R0210	E2 1PU2R0290	-	-	E2 1PU2P0210	E2 1PU2P0290	-	-
	E2 1PU2R1210	E2 1PU2R1290	E2 1PU2S1210	E2 1PU2S1290	E2 1PU2P1210	E2 1PU2P1290	E2 1PU2F1410	E2 1PU2F1490
	E2 1PU2R2210	E2 1PU2R2290	E2 1PU2S2210	E2 1PU2S2290	E2 1PU2P2210	E2 1PU2P2290	E2 1PU2F2410	E2 1PU2F2490
	E2 1PU2R3210	E2 1PU2R3290	E2 1PU2S3210	E2 1PU2S3290	E2 1PU2P3210	E2 1PU2P3290	E2 1PU2F3410	E2 1PU2F3490
	E2 1PU2R4210	E2 1PU2R4290	E2 1PU2S4210	E2 1PU2S4290	E2 1PU2P4210	E2 1PU2P4290	E2 1PU2F4410	E2 1PU2F4490
	E2 1PU2R5210	E2 1PU2R5290	E2 1PU2S5210	E2 1PU2S5290	E2 1PU2P5210	E2 1PU2P5290	E2 1PU2F5410	E2 1PU2F5490
	E2 1PU2R6210	E2 1PU2R6290	E2 1PU2S6210	E2 1PU2S6290	E2 1PU2P6210	E2 1PU2P6290	E2 1PU2F6410	E2 1PU2F6490
	E2 1PU2R8210	E2 1PU2R8290	E2 1PU2S8210	E2 1PU2S8290	E2 1PU2P8210	E2 1PU2P8290	E2 1PU2F8410	E2 1PU2F8490
	E2 1PU2R321L1	E2 1PU2R329L1	E2 1PU2S321L1	E2 1PU2S329L1	-	-	E2 1PU2F341L1	E2 1PU2F349L1
	E2 1PU2R421L2	E2 1PU2R429L2	E2 1PU2S421L2	E2 1PU2S429L2	E2 1PU2P421L2	E2 1PU2P429L2	E2 1PU2F441L2	E2 1PU2F449L2
	E2 1PU2R121L1	E2 1PU2R129L1	E2 1PU2S121L1	E2 1PU2S129L1	-	-	E2 1PU2F141L1	E2 1PU2F149L1
	E2 1PU2R221L2	E2 1PU2R229L2	E2 1PU2S221L2	E2 1PU2S229L2	E2 1PU2P221L2	E2 1PU2P229L2	E2 1PU2F241L2	E2 1PU2F249L2

For ordering a stay-put pushbutton substitute in the article codes 1PU2 with 1PU1.

Example: E2 1PU2R0210 → E2 1PU1R0210

Illuminated pushbuttons selection table

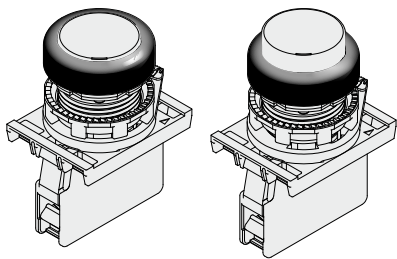
Actuator colour and marking	Flush		Projecting		Booted		Mushroom	
	black ring	satin chrome ring	black ring	satin chrome ring	black ring	satin chrome ring	black ring	satin chrome ring
	E2 1PL2R0210	E2 1PL2R0290	-	-	E2 1PL2P0210	E2 1PL2P0290	-	-
	E2 1PL2R2210	E2 1PL2R2290	E2 1PL2S2210	E2 1PL2S2290	E2 1PL2P2210	E2 1PL2P2290	E2 1PL2F2410	E2 1PL2F2490
	E2 1PL2R3210	E2 1PL2R3290	E2 1PL2S3210	E2 1PL2S3290	E2 1PL2P3210	E2 1PL2P3290	E2 1PL2F3410	E2 1PL2F3490
	E2 1PL2R4210	E2 1PL2R4290	E2 1PL2S4210	E2 1PL2S4290	E2 1PL2P4210	E2 1PL2P4290	E2 1PL2F4410	E2 1PL2F4490
	E2 1PL2R5210	E2 1PL2R5290	E2 1PL2S5210	E2 1PL2S5290	E2 1PL2P5210	E2 1PL2P5290	E2 1PL2F5410	E2 1PL2F5490
	E2 1PL2R6210	E2 1PL2R6290	E2 1PL2S6210	E2 1PL2S6290	E2 1PL2P6210	E2 1PL2P6290	E2 1PL2F6410	E2 1PL2F6490
	E2 1PL2R8210	E2 1PL2R8290	E2 1PL2S8210	E2 1PL2S8290	E2 1PL2P8210	E2 1PL2P8290	E2 1PL2F8410	E2 1PL2F8490
	E2 1PL2R321L1	E2 1PL2R329L1	E2 1PL2S321L1	E2 1PL2S329L1	-	-	E2 1PL2F341L1	E2 1PL2F349L1
	E2 1PL2R421L2	E2 1PL2R429L2	E2 1PL2S421L2	E2 1PL2S429L2	E2 1PL2P421L2	E2 1PL2P429L2	E2 1PL2F441L2	E2 1PL2F449L2
	E2 1PL2R221L1	E2 1PL2R229L1	E2 1PL2S221L1	E2 1PL2S229L1	-	-	E2 1PL2F241L1	E2 1PL2F249L1
	E2 1PL2R221L2	E2 1PL2R229L2	E2 1PL2S221L2	E2 1PL2S229L2	E2 1PL2P221L2	E2 1PL2P229L2	E2 1PL2F241L2	E2 1PL2F249L2

For ordering a stay-put pushbutton substitute in the article codes 1PL2 with 1PL1.

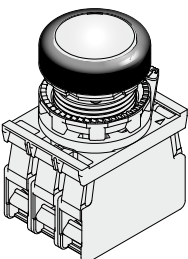
Example: E2 1PL2R0210 → E2 1PL1R0210

Items with code on the green background are available in stock

Complete units with pushbuttons



Complete units with illuminated pushbuttons



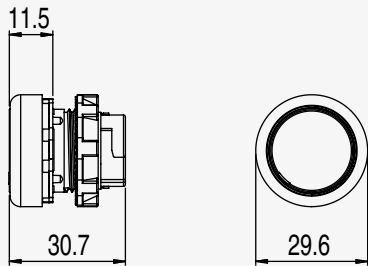
Actuator colour and marking	Contacts			Flush	Projecting
	pos 2	pos 3	pos 1	black ring	black ring
 black	-	1NO	-	E2 AC-DXBC1204 E2 1PU2R1210 + E2 1BAC11 + E2 CP10G2V1	
 white	-	1NO	-	E2 AC-DXBC1200 E2 1PU2R2210 + E2 1BAC11 + E2 CP10G2V1	
 red	-	1NC 	-	E2 AC-DXBC1208 E2 1PU2R3210 + E2 1BAC11 + E2 CP01G2V1	E2 AC-DXBC1209 E2 1PU2S3210 + E2 1BAC11 + E2 CP01G2V1
 green	-	1NO	-	E2 AC-DXBC1201 E2 1PU2R4210 + E2 1BAC11 + E2 CP10G2V1	
 yellow	-	1NO	-	E2 AC-DXBC1206 E2 1PU2R5210 + E2 1BAC11 + E2 CP10G2V1	
 blue	-	1NO	-	E2 AC-DXBC1207 E2 1PU2R6210 + E2 1BAC11 + E2 CP10G2V1	
 red	-	1NC 	-	E2 AC-DXBC1211 E2 1PU2R321L1 + E2 1BAC11 + E2 CP01G2V1	E2 AC-DXBC1212 E2 1PU2S321L1 + E2 1BAC11 + E2 CP01G2V1
 green	-	1NO	-	E2 AC-DXBC1210 E2 1PU2R421L2 + E2 1BAC11 + E2 CP10G2V1	
 black	-	1NC 	-	E2 AC-DXBC1227 E2 1PU2R121L1 + E2 1BAC11 + E2 CP01G2V1	
 white	-	1NO	-	E2 AC-DXBC1226 E2 1PU2R221L2 + E2 1BAC11 + E2 CP10G2V1	

Actuator colour and marking	Contacts			Flush
	pos 2	pos 3	pos 1	black ring
 white	1NC 	LED	1NO	E2 AC-DXBC0400 E2 1PL2R2210 + E2 1BAC11 + E2 CP01G2V1 + E2 LP1A2V1 + E2 CP10G2V1
 red	1NC 	LED	1NO	E2 AC-DXBC0402 E2 1PL2R3210 + E2 1BAC11 + E2 CP01G2V1 + E2 LP1A3V1 + E2 CP10G2V1
 green	1NC 	LED	1NO	E2 AC-DXBC0401 E2 1PL2R4210 + E2 1BAC11 + E2 CP01G2V1 + E2 LP1A4V1 + E2 CP10G2V1
 yellow	1NC 	LED	1NO	E2 AC-DXBC0404 E2 1PL2R5210 + E2 1BAC11 + E2 CP01G2V1 + E2 LP1A2V1 + E2 CP10G2V1
 blue	1NC 	LED	1NO	E2 AC-DXBC0403 E2 1PL2R6210 + E2 1BAC11 + E2 CP01G2V1 + E2 LP1A6V1 + E2 CP10G2V1

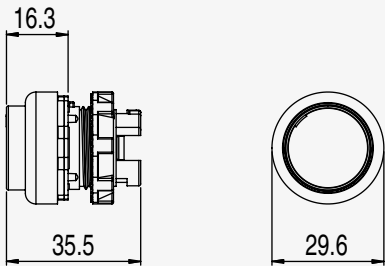
→ For the contact block and LED block characteristics see the respective chapters.

Dimensions

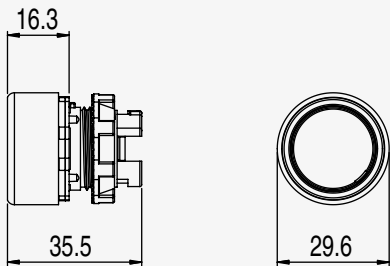
Flush pushbutton



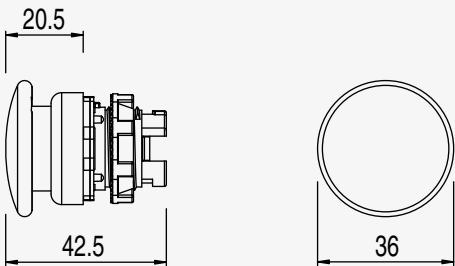
Projecting pushbutton



Booted pushbutton



Mushroom pushbutton



All measures in the drawings are in mm

Lenses for E2 1PU pushbuttons and E2 1PL illuminated pushbuttons



For ordering E2 1PL lenses with marking:

in the article code substitute ●●● with the marking code in the table at page 77.
Example: lens for flush pushbutton with "O" marking, black colour.
VE LP 22R1●●● → VE LP 22R1L1

Article	Marking	Description	Colours	Pcs/Packs
VE LP21R10		Lens for black flush pushbutton, without marking	●	10
VE LP22R20		Lens for white flush pushbutton, without marking	○	10
VE LP22R30		Lens for red flush pushbutton, without marking	●	10
VE LP22R40		Lens for green flush pushbutton, without marking	●	10
VE LP22R50		Lens for yellow flush pushbutton, without marking	●	10
VE LP22R60		Lens for blue flush pushbutton, without marking	●	10
VE LP22R80		Lens for orange flush pushbutton, without marking	●	10
VE LP22RA0		6 lens without marking for flush pushbutton, colours: black, white, red, green, yellow, blue, orange	● ○ ● ● ● ● ●	1
VE LP21S10		Lens for black projecting pushbutton, without marking	●	10
VE LP22S20		Lens for white projecting pushbutton, without marking	○	10
VE LP22S30		Lens for red projecting pushbutton, without marking	●	10
VE LP22S40		Lens for green projecting pushbutton, without marking	●	10
VE LP22S50		Lens for yellow projecting pushbutton, without marking	●	10
VE LP22S60		Lens for blue projecting pushbutton, without marking	●	10
VE LP22S80		Lens for orange projecting pushbutton, without marking	●	10
VE LP22SA0		6 lens without marking for projecting pushbutton, colours: black, white, red, green, yellow, blue, orange	● ○ ● ● ● ● ●	1
VE LP21R1●●●		Lens for black flush pushbutton, with marking	●	1
VE LP22R2●●●		Lens for white flush pushbutton, with marking	○	1
VE LP22R3●●●		Lens for red flush pushbutton, with marking	●	1
VE LP22R4●●●		Lens for green flush pushbutton, with marking	●	1
VE LP22R5●●●		Lens for yellow flush pushbutton, with marking	●	1
VE LP22R6●●●		Lens for blue flush pushbutton, with marking	●	1
VE LP21S1●●●		Lens for black projecting pushbutton, with marking	●	1
VE LP22S2●●●		Lens for white projecting pushbutton, with marking	○	1
VE LP22S3●●●		Lens for red projecting pushbutton, with marking	●	1
VE LP22S4●●●		Lens for green projecting pushbutton, with marking	●	1
VE LP22S5●●●		Lens for yellow projecting pushbutton, with marking	●	1
VE LP22S6●●●		Lens for blue projecting pushbutton, with marking	●	1

Black coloured lenses cannot be applied on illuminated pushbuttons.

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

Blanking plug

10 pcs packs



Article	Description
VE AS1211	Central blanking plug for E2 1PL..... illuminated pushbuttons. For fixing adapter with 3 positions. It closes the illuminated button central hole allowing to install a contact instead of the LED.

Actuator for adapter with 4 positions

10 pcs packs



Article	Description
VE AS1218	Long closed actuator for fixing adapter with 4 positions. It must be installed after fixing the push-button to the wall. For E2 1PU..... pushbuttons.

Accessories

→ [More ACCESSORIES at page 3/95](#)

Contacts maximum number

Fixing adapter with 3 positions

Spring-return pushbutton
E2 1PU2.....



Maximum number:
contacts 9
levels 3

Stay-put pushbutton
E2 1PU1.....



Maximum number:
contacts 3
levels 1

Illuminated spring-return pushbutton
E2 1PL2.....

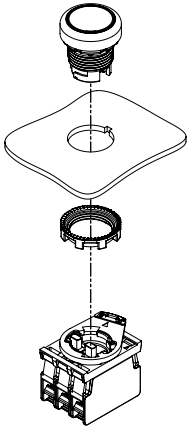


Maximum number:
contacts 6
levels 3

Illuminated stay-put pushbutton
E2 1PL1.....



Maximum number:
contacts 2
levels 1



 contact block

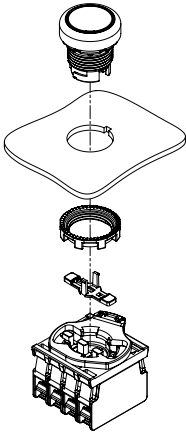
 LED block

Fixing adapter with 4 positions

Spring-return pushbutton
E2 1PU4.....



Maximum number:
contacts 8
levels 2



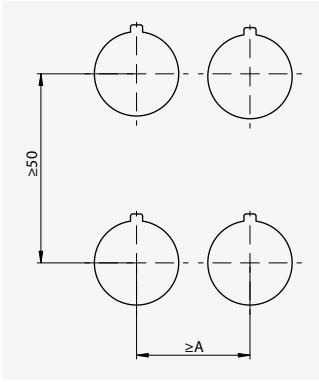
The actuator for an adapter with 4 positions must be mounted after fixing the push-button.

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 **pizzato electronics**

General Catalog 2013-2014

Assembling minimum distances



Fixing adapter with 3 positions

Pushbuttons type	A
Flush	30 mm
Projecting	30 mm
Booted	30 mm
Mushroom	40 mm

Fixing adapter with 4 positions

Pushbuttons type	A
Flush	40 mm
Projecting	40 mm
Booted	40 mm
Mushroom	40 mm

Notes

[illegible][illegible]