

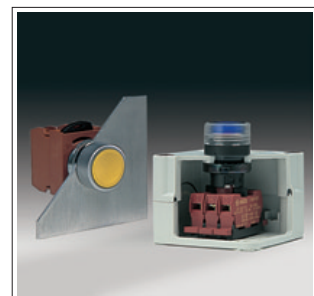


C2000™ - P9 SERIES 22 mm Pushbuttons Control and pilot units



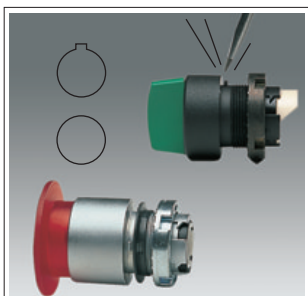
Shape, material and colours

The P9 line offers three types of operators:
• round in satin chrome metal
• round in engineered thermoplastic
• square in engineered thermoplastic
Modern ergonomic P9 actuators are available in a wide variety of colours and styles, and are the result of superior industrial design experience. SERIES P9 satisfies any sophisticated industrial applications.



Mounting system

The P9 line offers a wide variety of operators, contact blocks and power supplies for panel mounting.
Furthermore a range of operators, contact blocks and power supplies are available for base mounting.
The base mounting option is simple thanks to plastic enclosures fitted with a standard mounting adaptor, which allows a snap-on and secure fastening.



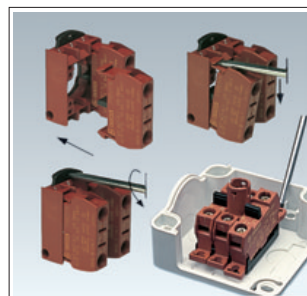
Fitting and positioning

All the P9 operators are fitted with seal to ensure IP66 degree of protection.
A locating tab on the operator allows the correct positioning on panels with holes drilled according to CENELEC EN 50007 standards (with notch).
The tab also ensures panel stability and prevents unwanted rotations.
The tab can be removed with a screwdriver for applications in holes without notch.



Rear locking and back mounting procedure

P9 operators are back mounted to the panel by a patented locking ring. The units can be assembled using a standard screwdriver.
As an option, an assembly wrench is available.



Fast mounting

All the P9 rear panel devices are snap-on. Mounting between panel and operator is accomplished by means of a patented snap-on flange which ensures a fast fitting.
For base mounting, the fitting is done directly on the adaptor inside the enclosures base.
Each single block can be mounted or removed individually.

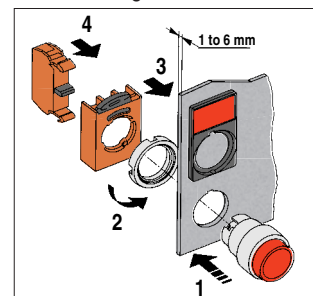


Safety and reliability

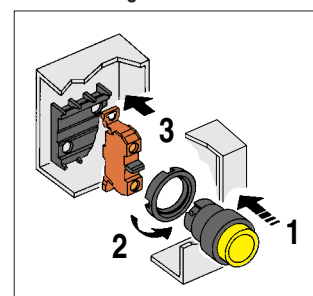
The P9 contact blocks are designed to ensure maximum reliability in every condition and to monitor control circuits at low energy levels (12V-5mA minimum), thanks to advanced solution such as:
• four contact points
• high efficiency self-cleaning operation
• silver contacts, properly shaped
• high control pressure.
In panel mounting, it is also possible to install or remove the snap-on mounting flange with the contact block group.
Blocks and/or flange can be disassembled by a standard screwdriver, to simplify operations.

Technical data

Panel mounting

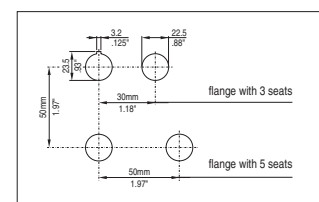


Base mounting



Mounting

Fitted for panels 1 to 6 mm thick with holes drilled according to CENELEC EN 50007 standards.



Compliance with standards

IEC 947.5.1 - VDE 0660 - NF-C63140
CEI EN 60947.5.1 - UTE - BSI
NEMA - CENELEC EN 50007

Approvals

UL (U.S.A.) - CSA (Canada) - RINA (I) - Lloyd's Register of Shipping (U.K.) - Bureau Veritas (F)

Climatic protections

The standard versions are suitable for use in the following climates:
• Temperate climate cat. 23/50 (DIN 50014)
• Wet climate cat. 23/83 (DIN 50015)
• Hot wet climate cat. 40/92 (DIN 50015)
• Variable wet climate cat. FW24 (DIN 50016)

Temperature ranges

• Operation: from -25°C up to +70°C
• Storage : from -40°C up to +70°C

Degree of protection of the operators

IP66 according to CENELEC EN 60529 when they are mounted into enclosures with the same or a higher degree of protection.
* Suitable for using into enclosures NEMA type 1-3-3R-3S-4-4X-12-13 according to UL 508.

Degree of protection of the terminals

IP2x according to CENELEC EN 60529

Shock resistance

(according to MIL 202 B method 202 A)
1/2 sinusoid 11 ms:
No damage or disassembling at 100 G for all devices (except for the illuminated operators with transformer 38 G).

Vibration resistance

(according to IEC 68-2-6)
16 G with frequency range from 40 to 500 Hz and maximum shifting 0.75 mm. (peak-to-peak).

Rated insulation voltage

690V according to EN 60947.1

Impulse withstand voltage

4 kV according to EN 60947.1

Electric shock protection

• Class I according to IEC 536 for metal operators
• Class II (double insulation) according to IEC 536 for plastic operators.

Short-circuit protection

With fuses type gG of 16A according to IEC 269.1 and 269.3.

Performances of the contacts

- Slow action
- Self-cleaning sliding
- NC "positive opening"
- Double movable contact
- Four switching points
- Double break

Electrical resistance of the contact

≤ 25 m Ω according to IEC 255, cat 3

Identification of the terminals

According CENELEC EN 50013

Electrical performances

Rated thermal current Ith = 10A
Performances according IEC 947.5.1

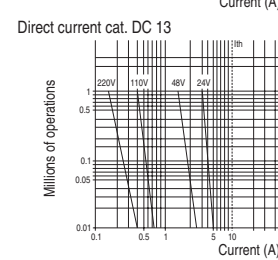
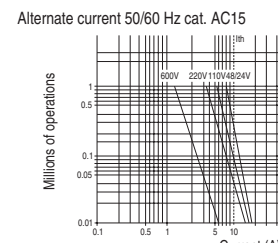
Category AC15	Voltage Ue (V)	24	48	60	110	220	380	500	600
Voltage Ue (V)	10	10	10	6	3	2	1.5	1.2	
Current Ie (A)	24 <td>48<td>60<td>110<td>220<td>380<td>500<td>600<td></td></td></td></td></td></td></td></td>	48 <td>60<td>110<td>220<td>380<td>500<td>600<td></td></td></td></td></td></td></td>	60 <td>110<td>220<td>380<td>500<td>600<td></td></td></td></td></td></td>	110 <td>220<td>380<td>500<td>600<td></td></td></td></td></td>	220 <td>380<td>500<td>600<td></td></td></td></td>	380 <td>500<td>600<td></td></td></td>	500 <td>600<td></td></td>	600 <td></td>	
Current Ie (A)	2.5	1.4	1	0.55	0.27	0.2			

Performances according to CSA and UL
AC/Heavy Duty (A600) - DC/Standard Duty (Q300)

Minimum operating range



Electrical life



Common accessories

Bulbs BA9s

Filament type	Vn	Wn	BA9S606	3.00
6	0.6	0.6	BA9S615	3.00
24	2	2	BA9S242	3.00
30	2.1	2.1	BA9S30	3.00
60	1.2	1.2	BA9S6012	3.00
130	2	2	BA9S130	3.00

Multi led Vn AC/DC ± 10%

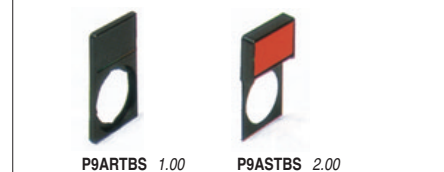
6	BA9S6L	18.00
24	BA9S24L	18.00
48	BA9S48L	18.00
110	BA9S110L	18.00

Colour	red	green	yellow
	R	V	G

Insert holders

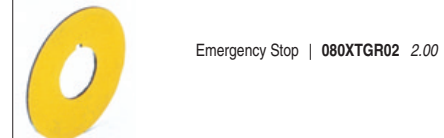
Supplied with neutral insert engravable on both sides

Standard 30 x 50 mm



Round plates

For emergency push-buttons (yellow background) diameter 59 mm



Plugs

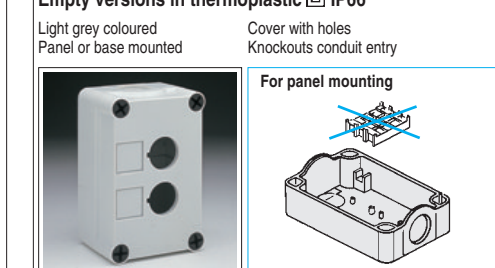


Tools



Push-button stations

Empty versions in thermoplastic IP66



No of holes	P9EPEG1	15.00
1 (yellow cover)	P9EPE01	15.00
2	P9EPE02	17.50
3	P9EPE03	22.50
4	P9EPE04	32.00
6	P9EPE06	49.00

Accessories

Write-on plates

Bilaminated, self adhesive, 20 x 20 mm
Black background engravable for white texts

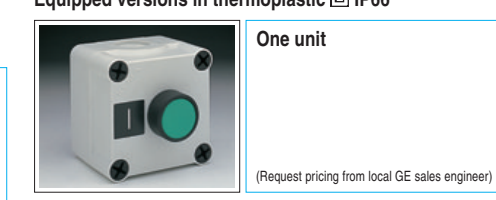
Without text	P9AELN	0.50
With text (1)	P9AELN202	1.50
	P9AELN201	1.50
	P9AELN214	1.50
	P9AELN215	1.50
	P9AELN205	1.50
	P9AELN206	1.50
	P9AELN204	1.50
	P9AELN203	1.50
	P9AELN222	1.50
	P9AELN224	1.50
(1) Other languages on request		
With symbols	P9AELN006	1.50
	P9AELN028	1.50
	P9AELN029	1.50
	P9AELN035	1.50
	P9AELN038	1.50
	P9AELN039	1.50
	P9AELN042	1.50
Earth terminal clamp	P9AEMT	1.00

Empty versions in aluminium alloy

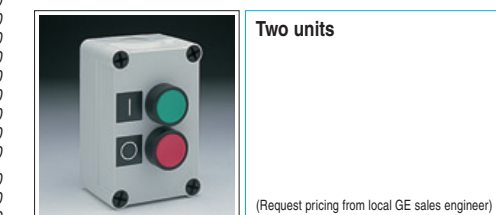
Grey coloured RAL 7012 - Panel mounting

Cover with holes	No. of holes	080SP1	30.00
	1	080SP1M	35.00
	2	080SP2	35.00
	2	080SP2M	42.00
	3	080SP3	42.00
	4	080SP4	43.00
	4	080SP4M	51.00
	6	080SP6	53.00
	8	080SP8	63.00
	12	080SP12	83.00
	18	080SP18	113.00
	24	080SP24	143.00

Equipped versions in thermoplastic IP66

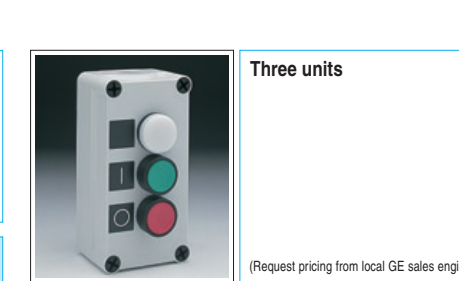


Operators	Colour	Diagram	Namepl.	P9EPA01Y02
Flush push-button	green	13/4	I	
Flush push-button	white	13/4	I	P9EPA01Y03
Flush push-button	red	13/2	0	P9EPA01Y04
Flush push-button	black	13/2	0	P9EPA01Y05
Emergency push-button with latch according to EN418 (on yellow cover)	red	13/2	0	P9EPAG1Y01
Key selector switch with 2 pos.	-	13/2	13/4 0-1	P9EPA01Y06



Operators	Colour	Diagram	Namepl.	P9EPA02Y01
Flush push-buttons	green	13/4	I	
	red	13/2	0	
Flush push-buttons	white	13/4	I	P9EPA02Y02
	black	13/2	0	

The catalogue numbers in bold are available from stock.



Operator	Colour	Diagram	Namepl.	P9EPA03Y01
Full voltage pilot light BA9S max 380V-2W not incl.	white	x1/x2	blank	
Flush push-buttons	green	13/4	I	
	red	13/2	0	
Full voltage pilot light BA9S max 380V-2W not incl.	white	x1/x2	blank	P9EPA03Y02
Flush push-buttons	white	13/4	I	
	black	13/2	0	
Resistor + diode pilot light 220/240V AC BA9S 130V-2W incl.	white	x1/x2	blank	P9EPA03Y03
Flush push-buttons	green	13/4	I	
	red	13/2	0	
Resistor + diode pilot light 220/240V AC BA9S 130V-2W incl.	white	x1/x2	blank	P9EPA03Y04
Flush push-buttons	white	13/4	I	
	black	13/2	0	
Flush push-buttons	black	13/4	↑	P9EPA03Y05
	red	13/2	0	
	black	13/4	↓	

Customised versions on request.

