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**Series P9**

**POWER DEVICES**

Contactors and overload relays

F.2 Control and signalling units  $\varnothing$  22 mm

**Series 077**

Auxiliary relays and contactors

F.40 Control and signalling units  $\varnothing$  30 mm

**Series 105**

Motor protection devices

F.57 Signalling devices

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**Series NLT**

F.62 Light towers

Main switches

**Series IP**

F.68 Foot switches

**AUXILIARY DEVICES**

**Control and signalling units**

Electronic relays and limit switches

**POWER ELECTRONICS**

Speed drive units

Soft starters

Lighting dimmer-stabilizer/Numerical index





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## Main features

### Shape, material and colours



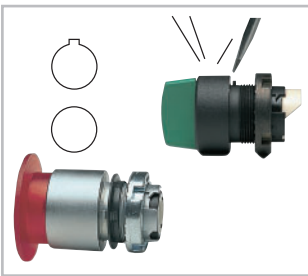
The P9 line offers three types of operators:

- **round in satin chrome**
- **round in engineering thermoplastic**
- **square in engineering 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.

### 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.

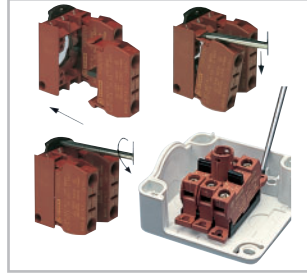
### Rear locking and back mounting procedure



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 enclosure base.

Each single block can be mounted or removed individually.

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.

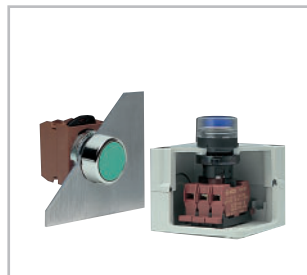
### Safety and reliability



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 contact pressure

### Mounting system



The P9 line offers a wide variety of operators, contact blocks and power supplies for panel mounting.

Furthermore a range of 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.

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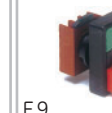
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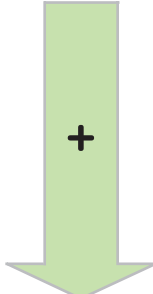
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Panel mounting devices



Control units

Standard push-b. F.11 	Mushroom push-button F.11 	Emergency push-button F.11 	Key push-button F.11 	Knob selector sw. F.12 	Lever selector sw. F.13 
Key selector sw. F.14 	Selector push-b. F.17 	Toggle switch F.17 	Joystick F.19 	Emergency lever F.18 	Double push-b. F.9 



Contact blocks F.20 
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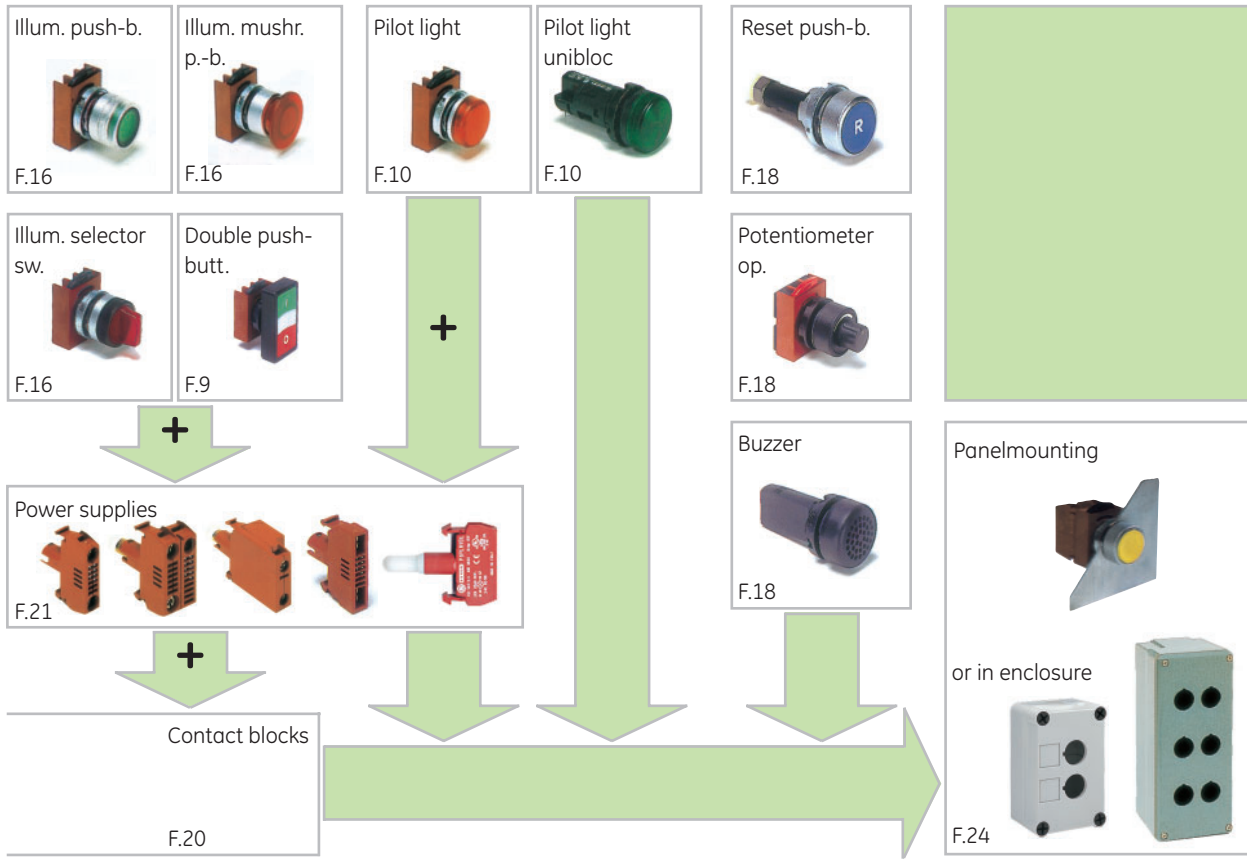


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**Illuminated control units Signalling units**

**Others units**



Range overview

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**Accessories**

General	Push-buttons	Mushroom push-buttons	Illuminated push-buttons	Illuminated mushroom push-buttons	Illuminated selector switches	Pilot lights
Nameplates F.51	Rubber caps F.28	Name plates F.32	Diffusers F.29	Collar F.30	Padlock F.30	Diffusers F.29
Plugs F.30	Padlock F.30	Collar Ø 40 F.30	Padlock F.30			
Flanges F.30	Push-on/push-off device F.30		Push-on/push-off device F.30			
Ring wrench F.30			Bulbs BA9S F.31			
Neutral plate F.32	Keys F.31		Bulb extractor F.30			



## Technical data

### Compliance with standards

IEC 947.5.1 - VDE 0660 - NFC 63140  
IEC/EN 60947.5.1 - UTE - BSI - NEMA  
CENELEC EN 50007

### Approvals

cUL U.S. - RINA - CE - GOST R - Lloyd's Register of Shipping - Bureau Veritas - Germanischer Lloyd

### 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	FW24 (DIN 50016)

### Temperature ranges

Operation	-30 °C to + 70 °C
Storage	-40 °C to + 70 °C

### Protection degree 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 type NEMA 1-3-3R-3S-4-4X-12-13 according to UL 508.

### Protection degree of the terminals

IP2x according to CENELEC EN 60529.

### Shock resistance (acc. 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

### Insulation class

Groep C according VDE 0110

### Electrical shocks protection (acc. IEC 536)

Metal operators	Class I
Plastic operators	Class II (double insulation)

### Short-circuit protection

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

### Performances of the contacts

- Slow acting
- Self-cleaning sliding
- NC forced breaking
- Double movable bridge
- 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 I<sub>th</sub> = 10 A

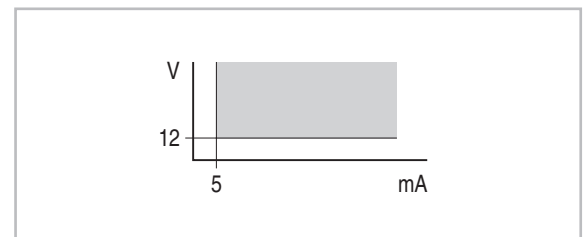
#### Performances according IEC 947.5.1

Categorie AC 15									
Voltage	Ue (V)	24	48	60	110	220	380	500	600
Current	Ie (A)	10	10	10	6	3	2	1.5	1.2
Categorie DC 13									
Voltage	Ue (V)	24	48	60	110	220	300		
Current	Ie (A)	2.5	1.4	1	0.55	0.27	0.2		

#### Performances according to CSA and UL

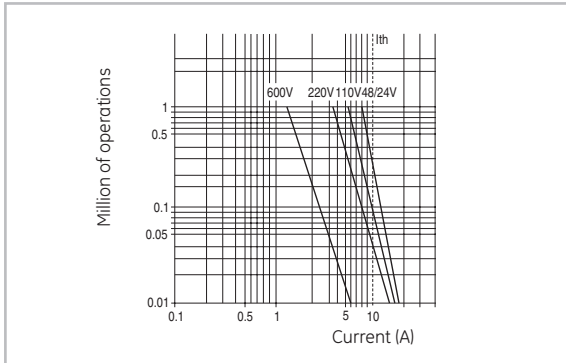
AC Heavy Duty	(A600)
DC Standard Duty	(Q300)

### Operating range

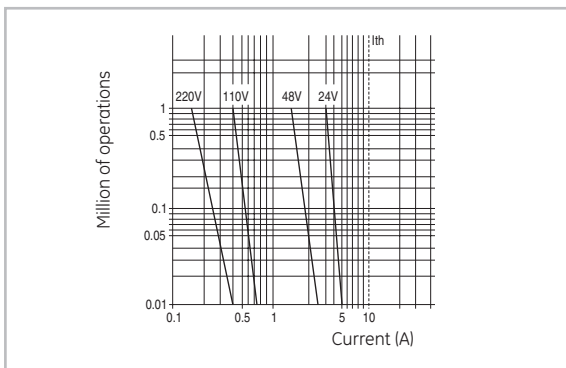


### Electrical endurance

Alternative current 50/60 Hz cat. AC 15



Direct current cat. DC 13



### Mechanical endurance

Locking emergency	
Mushroom head push-buttons 3 positions	0.3 Mil./op.
Illuminated mushroom head push-buttons 3 pos.	
Joysticks	
Key push-buttons	
Toggle switches	0.5 Mil./op.
Illuminated selector switches	
Push-on push-off device	
Standard selector switches	
Key selector switches	
Illuminated push-buttons	1 Mil./op
Selector push-buttons	
Emergency lever	
Standard push-buttons	3 Mil./op.
Mushroom head push-buttons	

### Rear panel modularity

The P9 series is composed with 10 mm or a multiple of 10 mm modular units, fitted side by side on a proper mounting flange. The standard operators are supplied with a three position flange with a capacity of 3 units of 10 mm or 1 of 10 mm and 1 of 20 mm or 1 of 30 mm.

When the three position flange is not enough to satisfy the applications needs, the five position flange is required to add two more units of 10 mm mounted side by side.

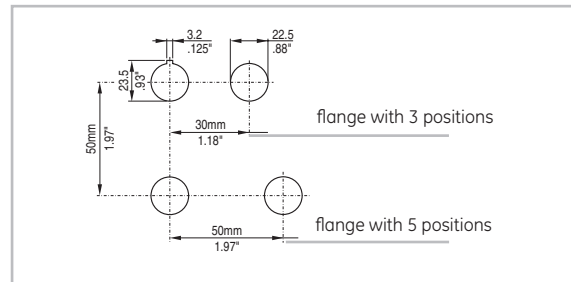
Using the five position flange take into account the bigger with (50 mm instead of 30 mm).

### Number of electrical contacts

	Flange	
	standard 3 positions	optional 5 positions
Standard push-buttons		
Mushroom head push-buttons	max 6	max 8
Emergency lever		
Standard selectors	max 4	max 8
Key selector switches		
Joysticks		
Key push-buttons	max 4	-
Selector push-buttons		
Toggle switches		
Mushroom head with lock	max 4	-
Mushroom head push-buttons 3 pos.	max 2	
Illuminated push-buttons		
Illuminated mushroom head push-buttons	max 4	max 4
Illuminated selector switches		
Illuminated mush. push-buttons with lock	max 2	max 2
Illuminated mush. push-buttons 3 pos.		

### Mounting

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



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

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## Complete devices

Description	Contact-block	Power supply	Cap colour	Cat. no.		Ref. no.		
				Metal	Plastic			
<b>Momentary push-buttons</b> (head + contact block) 	Standard flush	1 NO 	Black	<b>P9MPN53007</b>	153007	<b>P9XPN52007</b>	152007	
				Green	<b>P9MPN53006</b>	153006	<b>P9XPN52002</b>	152002
	Standard raised	1 NC 	Red	<b>P9MPN53061</b>	153061	<b>P9XPN52061</b>	152061	
<b>Mushroom push-buttons</b> (head + contact block) 	Mushroom head momentary	1 NC 	Red Ø 40	<b>P9MEM53111</b>	153111	<b>P9XEM52111</b>	152111	
	Mush.with latch pull to release Twist to release	1 NC 	Red Ø 40	<b>P9MET53121</b>	153121	<b>P9XET52121</b>	152121	
<b>Emergency push-buttons<sup>(1)</sup></b> (head + contact block) 	Twist to release VISION Key (3095) to release					<b>P9XER50775</b>	150775	
	(1) Emergency stop as per EN 418 (2) Includes 2 keys					<b>P9XERW50776</b>	150776	
							<b>P9XEC50777</b>	150777 <sup>(2)</sup>
<b>Knob selector switch</b> (knob head + contact block) 	2 fixed positions 	1 NO 	Black	<b>P9MSM53293</b>	153293	<b>P9XSM52293</b>	152293	
	3 fixed positions 	2 NO 	Black	<b>P9MSM53391</b>	153391	<b>P9XSM52391</b>	152321	
<b>Knob selector switch</b> (knob head + contact block) 	2 fixed positions	1 NO 	Key 3095	<b>P9MSC53435</b>	153435	<b>P9XSC52435</b>	152435	
	2 fixed positions (includes plate I-0)					<b>P9XSC52434</b>	152434	
	3 fixed positions (includes plate I-0-II)	2 NO 	Key 3095	<b>P9MSC53497</b>	153497	<b>P9XSC52497</b>	152497	
							<b>P9XSC52496</b>	152496

The catalogue numbers in **bold** are available from stock.





Complete devices

	Description	Contact-block	Power supply	Cap colour	Cat. no.		Ref. no.							
					Metal	Plastic								
<b>Illuminated push-buttons</b> (Head + Standard full voltage power supply+ contact blocks)	Momentary flush (bulb not included)	1NO		Green	<b>P9MPL53502</b>	153502	<b>P9XPL52502</b>	152502						
					1 NC		Red	<b>P9MPL53511</b>	153511	<b>P9XPL52511</b>	152511			
								1NO + 1NC		Green	<b>P9MPL53514</b>	153514	<b>P9XPL52514</b>	152514
											Red	<b>P9MPL53515</b>	153515	<b>P9XPL52515</b>
					White	<b>P9MPL53513</b>	153513	<b>P9XPL52513</b>	152513					
					<b>Pilot lights</b>	Standard diffused lens- Full voltage Power supply			Green	<b>P9MLD53610</b>	153610	<b>P9XLD52610</b>	152610	
Red	<b>P9MLD53611</b>	153611	<b>P9XLD52611</b>	152611										
Standard diffused lens- Integrated LED 24VAC/DC			Green	<b>P9MLD53620</b>		153623	<b>P9XLD52620</b>	152620						
			Red	<b>P9MLD53621</b>		153621	<b>P9XLD52621</b>	152621						
<b>Double functions push-buttons</b> (Head + contact block & power supply when indicated)	Flush both caps	1 NO + 1NC		Green-red				<b>P9DPL54700</b>	154700					
	Flush both caps - Full voltage power supply	1 NO + 1NC		Green-red				<b>P9DPL54720</b>	154720					
	Flush both caps with ISO I/O Full voltage power supply	1 NO + 1NC		Green-red			<b>P9DPL54701</b>	154701						
	Flush both caps with ISO I/O	1 NO + 1NC		Green-red			<b>P9DPL54721</b>	154721						

The catalogue numbers **in bold** are available from stock.

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Pilot lights

Description	Cat. no.	Ref. no. <i>see bottom</i>	Cat. no.	Ref. no. <i>see bottom</i>	Cat. no.	Ref. no. <i>see bottom</i>
	Metal		Plastic		Plastic	
						
<b>Standard</b>						
Diffused lens (for filament bulb)	<b>P9ML●D</b>	<i>see bottom</i>	<b>P9XL●D</b>	<i>see bottom</i>	<b>P9SL●D</b>	<i>see bottom</i>
Refracted lens (for neon bulb)	<b>P9ML●R</b>	<i>see bottom</i>				
Glass lens	<b>P9ML●V</b>	<i>see bottom</i>				
<b>Unibloc (complete pilot light)</b>						
Full voltage AC/DC BA9S max 382 V - 2 W not included						
Diffused lens			<b>P9XU●DD0</b>	<i>see bottom</i>		
Refracted lens						
With resistor 220 V BA9S 110 V - 2 W included						
Diffused lens			<b>P9XU●DRN</b>	<i>see bottom</i>		
Refracted lens						

The catalogue numbers **in bold** are available from stock.

Colours							
Lens	●	<b>R</b>	<b>V</b>	<b>G</b>	<b>A</b>	<b>L</b>	<b>B</b>

Double function push-buttons <sup>(1)</sup>

Description	Colours (2)	Cat. no.	Ref. no.	Cat. no.	Ref. no.
		Plastic caps without symbols		Plastic caps with symbols	
					
<b>IP40 protection (acc. to IEC 529)</b>					
With white lens assembled for indicator light. Black insert for not illuminated function included in the packaging.					
 A-flush lens B-flush	A - Black B - Red	<b>P9DPLNRG00</b>	186880	<b>P9DPLNRG01</b>	186890
	A - Green B - Red	<b>P9DPLVRG00</b>	186881	<b>P9DPLVRG01</b>	186891
 A-flush lens B-raised	A - Black B - Red	<b>P9DPLNRS00</b>	186882	<b>P9DPLNRS01</b>	186892
	A - Green B - Red	<b>P9DPLVRS00</b>	186883	<b>P9DPLVRS01</b>	186893
<b>Clear cap (silicon rubber)</b>					
<b>IP66 protection (acc. to IEC 529)</b>					
	A - flush B - flush	<b>080CPDT</b>	173208	<b>080CPDT</b>	173208
	A - flush B - raised	<b>P9ADCST</b>	187796	<b>P9ADCST</b>	187796













The catalogue numbers **in bold** are available from stock.

(1) With white lens assembled.

Black insert for not illuminated function included in the packaging.

(2) Integral caps, colours not replaceable.

Push-buttons

Standard / Momentary		Description	Cat. no.		Ref. no.		Cat. no.		Ref. no.		
			see bottom		see bottom		see bottom		see bottom		
			Metal	Plastic	Plastic						
											
		With flush cap	<b>P9MPN●G</b>	<b>P9XPN●G</b>	<b>P9SPN●G</b>						
		With raised cap	<b>P9MPN●S</b>	<b>P9XPN●S</b>	<b>P9SPN●S</b>						
		Recessed	P9MPN●E								
Mushroom head / Momentary		Mushroom head Ø 28 mm	P9MEM3●N	<b>P9XEM3●N*</b>							
		Mushroom head Ø 40 mm	<b>P9MEM4●N</b>	<b>P9XEM4●N*</b>							
		Mushroom head Ø 60 mm	P9MEM6●N								
		Mushroom head $\nabla$ 30 mm			<b>P9SEM3RN</b>	186031					
				* Color N or R							
Mushroom head with latch											
Standard	Push-pull to release	Mushroom head Ø40 mm	<b>P9MET4●N1</b>	<b>P9XET4●N1</b>	<b>P9SET4R</b>	186061					
	Push-twist to release	Red mushroom head Ø28 mm	P9MER3RN	184070	<b>P9XER3RN</b>	185070					
		Red mushroom head Ø40 mm	<b>P9MER4RN</b>	184071	<b>P9XER4RN</b>	185071					
	Push-key to release	Red mushroom head Ø40 mm	P9MEC4RN▲	<b>P9XEC4RN▲</b>							
											
Emergency with latch											
Positive break in accordance with EN 418	Push-twist to release	Red mushroom head Ø40 mm		<b>P9XER4RAN</b>	185077	<b>P9SER4RA</b>	186072				
	Push-twist to release	Red mushroom head Ø40 mm with status indication		<b>P9XER4RAW</b>	185078						
	Push-key to release	Red mushroom head Ø40 mm with key code 3095		<b>P9XEC4RA95N</b>	185079	<b>P9SEC4RA95</b>	186073				
											
Mushroom head / 3 positions											
		Ø40 mm 1-0 fixed. 2 transient	<b>P9MET4●N2</b>								
		Ø40 mm 0 fixed. 1-2 transient	<b>P9MET4●N3</b>								
With keylock (1)											
Key withdrawable in position I & II		normal	<b>P9MPCN1K▲</b>								
		depressed	<b>P9MPCN2K▲</b>								
		normal & depressed	<b>P9MPCN3K▲</b>								
											
Key withdrawable position III		normal	<b>P9MPCN1E▲</b>								
		depressed	<b>P9MPCN2E▲</b>								
		normal & depressed	<b>P9MPCN3E▲</b>								
											

(1) Keys on F.14

The catalogue numbers in bold are available from stock.

Colours		black	red	green	yellow	brown	blue	white	grey	without cap
Caps	●	N	R	V	G	M	L	B	H	0
Mushroom heads	●	N	R	V	G	-	L	-	-	-

Remark: To complete the catalogue number, substitute the symbol ● by a letter for the choice of the colour and the symbol ▲ by a number for the type of key.

For reference numbers, see chapter X, pg. X.8



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












G

H

I

J/X

Selector switches with knob

2 positions		Function (1)	Cat. no.	Ref. no. see bottom	Cat. no.	Ref. no. see bottom	Cat. no.	Ref. no. see bottom			
									Metal	Plastic	Plastic
											
	Fixed		D	<b>P9MSMD0●</b>		<b>P9XSMD0N</b>	185110	<b>P9SSMD0N</b>	186110		
			I	P9MSMI0●		P9XSMI0N	185120	P9SSMI0N	186120		
	With spring return		H	P9MSMH0●							
			D	P9MSMD5●		P9XSMD5N	185150	P9SSMD5N	186140		
			I	P9MSMI5●				P9SSMI5N	186150		
			H	P9MSMH1●							
3 positions											
	Fixed		E	P9MSME0●				P9SSME0N	186170		
			L	P9MSML0●							
			U	P9MSMU0●		P9XSMU0N	185190	P9SSMU0N	186190		
			Z, B	P9MSMZ0●		P9XSMZ0N	185200	P9SSMZ0N	186200		
	With spring return		E	P9MSME1●				P9SSME1N	186210		
			L	P9MSML1●							
			U	P9MSMU1●				P9SSMU1N	186230		
			Z, B	P9MSMZ1●		P9XSMZ1N	185240	P9SSMZ1N	186240		
			E	P9MSME5●							
			L	P9MSML5●							
			U	P9MSMU5●							
			Z, B	P9MSMZ5●		P9XSMZ5N	185280	P9SSMZ5N	186280		
		E	P9MSME3●								
		L	P9MSML3●								
		U	P9MSMU3●								
		Z, B	<b>P9MSMZ3●</b>		<b>P9XSMZ3N</b>	185320	<b>P9SSMZ3N</b>	186320			
4 positions											
	Fixed		X	P9MSMX0●		P9XSMX0N	185330	P9SSMX0N	186330		
	With spring return		X	P9MSMX5●							
5 positions											
	Fixed		X	P9MSMY0●							
			W	P9MSMW0●							

(1) Electrical diagrams, see F.22




















The catalogue numbers **in bold** are available from stock.

Colours round shape	black	red	green	yellow	blue	
Knobs	●	N	R	V	G	L

For reference numbers, see chapter X, pg. X.8



Selector switches with lever

2 positions		Function (1)	Cat. no.	Ref. no. see bottom	Cat. no.	Ref. no. see bottom		
							Metal	Plastic
								
	Fixed		D	<b>P9MSVD0●</b>		<b>P9XSVDON</b>	185370	
			I	P9MSVI0●		P9XaSVI0N	185371	
			H	P9MSVH0●				
	With spring return		D	<b>P9MSVD5●</b>		<b>P9XSVDSN</b>	185373	
			I	P9MSVI5●				
			H	P9MSVH1●				
3 positions								
	Fixed		E	P9MSVE0●				
			L	P9MSVL0●				
			U	P9MSVU0●				
			Z, B	<b>P9MSVZ0●</b>		<b>P9XSVZ0N</b>	185379	
	With spring return		E	P9MSVE1●				
			L	P9MSVL1●				
			U	P9MSVU1●				
			Z, B	P9MSVZ1●				
			E	P9MSVE5●				
			L	P9MSVL5●				
			U	P9MSVU5●				
			Z, B	P9MSVZ5●				
	E	P9MSVE3●						
	L	P9MSVL3●						
	U	P9MSVU3●						
	Z, B	<b>P9MSVZ3●</b>		<b>P9XSVZ3N</b>	185391			
4 positions								
	Fixed		X	P9MSVX0●		<b>P9XSVX0N</b>	185392	
	With spring return		X	P9MSVX5●				
5 positions								
	Fixed		X	P9MSVY0●				
			W	P9MSVW0●				

(1) Electrical diagrams, see F.22

The catalogue numbers in **bold** are available from stock.

Colours						
Levers	●	<b>N</b>	<b>R</b>	<b>V</b>	<b>G</b>	<b>L</b>

For reference numbers, see chapter X, pg. X.8







Selector switches with key

3 positions		Function (1)	Key removal	Cat. no.	Ref. no. see bottom		Cat. no.	Ref. no. see bottom		Cat. no.	Ref. no. see bottom			
With spring return	Diagram				Metal			Plastic			Plastic (1)			
		E	0	<b>P9MSCE1C▲</b>										
			II	<b>P9MSCE1E▲</b>										
			0-II	<b>P9MSCE1N▲</b>										
		L	0	<b>P9MSSL1C▲</b>										
			II	<b>P9MSSL1E▲</b>										
			0-II	<b>P9MSSL1N▲</b>										
	U	0	<b>P9MSCU1C▲</b>											
		II	<b>P9MSCU1E▲</b>											
		0-II	<b>P9MSCU1N▲</b>											
	Z; B	0	<b>P9MSCZ1C▲</b>											
		II	<b>P9MSCZ1E▲</b>											
		0-II	<b>P9MSCZ1N▲</b>											
		E	I	<b>P9MSCE5A▲</b>										
			0	<b>P9MSCE5C▲</b>										
			I-0	<b>P9MSCE5H▲</b>										
		L	I	<b>P9MSSL5A▲</b>										
			0	<b>P9MSSL5C▲</b>										
			I-0	<b>P9MSSL5H▲</b>										
	U	I	<b>P9MSCU5A▲</b>											
		0	<b>P9MSCU5C▲</b>											
		I-0	<b>P9MSCU5H▲</b>											
	Z, B	I	<b>P9MSCZ5A▲</b>			<b>P9XSCZ5A95</b>	185461	<b>P9SSCZ5A95</b>	186461					
		0	<b>P9MSCZ5C▲</b>			<b>P9XSCZ5C95</b>	185462							
		I-0	<b>P9MSCZ5H▲</b>			<b>P9XSCZ5H95</b>	185463							
	E	0	<b>P9MSCE3C▲</b>											
	L	0	<b>P9MSSL3C▲</b>											
	U	0	<b>P9MSCU3C▲</b>											
	Z, B	0	<b>P9MSCZ3C▲</b>			<b>P9XSCZ3C95</b>	185467	<b>P9SSCZ3C95</b>	186467					
4 positions		Fixed		X	I	<b>P9MSCX0A▲</b>								
	II				<b>P9MSCX0B▲</b>									
	III	<b>P9MSCX0D▲</b>												
	IV	<b>P9MSCX0E▲</b>												
	I-II	<b>P9MSCX0F▲</b>												
	I-III	<b>P9MSCX0J▲</b>												
	I-IV	<b>P9MSCX0K▲</b>												
	II-III	<b>P9MSCX0L▲</b>												
	II-IV	<b>P9MSCX0M▲</b>												
	III-IV	<b>P9MSCX0P▲</b>												
	I-II-III	<b>P9MSCX0R▲</b>												
	I-II-IV	<b>P9MSCX0S▲</b>												
	I-III-IV	<b>P9MSCX0U▲</b>												
II-III-IV	<b>P9MSCX0V▲</b>													
I-II-III-IV	<b>P9MSCX0Z▲</b>													
	With spring return		X	I	<b>P9MSCX5A▲</b>									
				II	<b>P9MSCX5B▲</b>									
		III	<b>P9MSCX5D▲</b>											
		I-II	<b>P9MSCX5F▲</b>											
		I-III	<b>P9MSCX5J▲</b>											
		II-III	<b>P9MSCX5L▲</b>											
		I-II-III	<b>P9MSCX5R▲</b>											

(1) Electrical diagrams, see F.22

The catalogue numbers in **bold** are available from stock.

Keys for round metal shape

	Standard version number	▲	95								
	Standard version with specific number	▲	01	02	03	04	05	10	16	19	55 (Ronis)
	FIAT version number	▲	33	34	37	38	40				
	Colour		yellow	black	red	blue	orange				

(1) Key for square shape and round plastic shape, only standard version 95

For reference numbers, see chapter X, pg. X.8



Panel mounting

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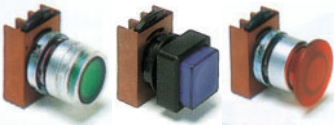



H

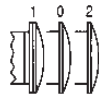
I

J/X










**Illuminated push-buttons**

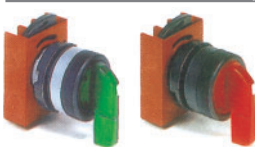






		Cat. no.	Ref. no.	Cat. no.	Ref. no.	Cat. no.	Ref. no.
		Metal	see bottom	Plastic	see bottom	Plastic	see bottom
							
<b>Standard / Momentary</b>							
	With diffused lens:						
	Flush	<b>P9MPL●GD</b>		<b>P9XPL●GD</b>		<b>P9SPL●GD</b>	
	Raised	<b>P9MPL●SD</b>		<b>P9XPL●SD</b>		<b>P9SPL●SD</b>	
	Recessed	P9MPL●ED					
<b>Mushroom head / Momentary</b>							
	Mushroom head Ø40 mm	<b>P9MEM4●L</b>		<b>P9XEM4●L*</b>			
	Mushroom head 30 mm					P9SEM3RL	186551
<b>Mushroom head / With latch</b>							
	Push-pull to release						
	Mushroom head Ø40 mm	P9MET4●L1		P9XET4●L1*		P9SET4RL1	186561
				* Color R, V or G			
<b>Mushroom head / 3 positions</b>							
	With mushroom Ø40 mm						
	1-0 fixed, 2 transient	<b>P9MET4●L2</b>		<b>P9XET4RL2</b>	185571		
	0 transient, 1-2 fixed	<b>P9MET4●L3</b>					



**Illuminated selector switches with knob**

	2 positions	Function (1)				
	<b>Fixed</b>		D	<b>P9MSLD0●</b>	<b>P9XSLD0●</b>	<b>P9SSLD0●</b>
	<b>3 positions</b>					
	<b>Fixed</b>		Z, B	<b>P9MSLZ0●</b>	<b>P9XSLZ0●</b>	<b>P9SSLZ0●</b>
	<b>With spring return</b>		Z, B	<b>P9MSLZ1●</b>		
			Z, B	<b>P9MSLZ5●</b>		
			Z, B	<b>P9MSLZ3●</b>		

**Illuminated selector switches with lever**

	2 positions	Function (1)				
	<b>Fixed</b>		D	<b>P9MSAD0●</b>		
	<b>3 positions</b>					
	<b>Fixed</b>		Z, B	<b>P9MSAZ0●</b>		
	<b>With spring return</b>		Z, B	<b>P9MSAZ1●</b>		
			Z, B	<b>P9MSAZ5●</b>		
			Z, B	<b>P9MSAZ3●</b>		

(1) Electrical diagrams, see F.22








The catalogue numbers **in bold** are available from stock.

Colours		red	green	yellow	orange	blue	white	clear
Lens	●	<b>R</b>	<b>V</b>	<b>G</b>	<b>A</b>	<b>L</b>	<b>B</b>	<b>I</b>
Mushroomheads	●	<b>R</b>	<b>V</b>	<b>G</b>	<b>A</b>	<b>L</b>	<b>B</b>	<b>I</b>
Knob/lever	●	<b>R</b>	<b>V</b>	<b>G</b>	<b>A</b>	<b>L</b>	<b>B</b>	<b>I</b>





For reference numbers, see chapter X, pg. X.8



**Selector push-buttons (black coloured)**

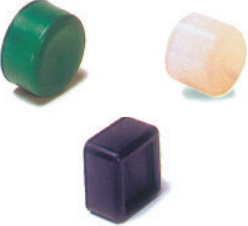



	Function (1)	Cat. no.	Ref. no.	Cat. no.		Ref. no.		
				Metal	Plastic	Plastic	Plastic	
								
<b>2 positions</b>								
	Fixed		201	P9MPS21G	184690			
			231	<b>P9MPS22G</b>	184691			
			235	P9MPS23G	184692			
<b>3 positions</b>								
	Fixed		301	P9MPS34G	184693			
			323	P9MPS35G	184694			

**Toggle switches (black coloured)**





<b>2 positions</b>									
	Fixed position		D	<b>P9MCD</b>	184695	<b>P9XCD</b>	185695	<b>P9SCD</b>	186695
<b>3 positions</b>									
	Fixed position		B	P9MCB	184696				
			B	P9MCC	184697				

The catalogue numbers in **bold** are available from stock.

**Rubber protective caps (IP66)**

	Description	Cat. no.		Ref. no.	
		Plastic		Plastic	
					
Standard flush push-buttons	coloured (nitrilic rubber)	080CP●		P9ASCG●	
	clear (silicon rubber)	080CPT	170198	P9ASCGT	170790
Raised push buttons	clear (silicon rubber)	P9ARCST	187490	P9ASCST	187791


## Emergency lever

	Cat. no.	Ref. no.	Cat. no.	Ref. no.	Cat. no.	Ref. no.			
							Metal	Plastic	Plastic
									
									
	<b>Red lever</b>	<b>P9MWR</b>	<b>184770</b>						


## Reset push-button

						
	<b>White symbol on blue background</b>	<b>P9MRG</b>	<b>184771</b>	<b>P9XRG</b>	<b>185771</b>	

## Potentiometer operator (potentiometer not included)

							
	<b>Black knob</b>	<b>P9MZ</b>	<b>184772</b>	<b>P9XZ</b>	<b>185772</b>	<b>P9SZ</b>	<b>186772</b>








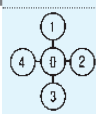

## Buzzer

							
	<b>Black coloured</b> Bitonal sound Full voltage AC/DC Frequency: 2kHz Sound intensity: 80dB at 1 m Consumption: 3 to 9 mA 24 V 110-240 V						
				<b>P9XBD</b>	<b>185773</b>	<b>P9SBD</b>	<b>186773</b>
				<b>P9XBM</b>	<b>185774</b>	<b>P9SBM</b>	<b>186774</b>



The catalogue numbers **in bold** are available from stock.

For reference numbers, see chapter X, pg. X.8

**Joysticks (black coloured)**

		Cat. no.	Ref. no.	Cat. no.	Ref. no.	Cat. no.	Ref. no.
		Metal		Plastic		Plastic	
							
<b>2 positions + central zero position <sup>(1)</sup></b>							
 <p><b>Without interlock</b></p>	 <p>fixed positions transient positions 1 transient - 3 fixed positions</p>	P9MMN2F	184700	P9XMN2F	185700		
		<b>P9MMN2T</b>	184701	<b>P9XMN2T</b>	185701		
		P9MMN2A	184702				
		P9MMN2B	184703				
 <p><b>With interlock</b></p>	<p>fixed positions transient positions 1 transient - 3 fixed positions 1 fixed - 1 transient positions</p>	P9MMB2F	184710	P9XMB2F	185710		
		<b>P9MMB2T</b>	184711	<b>P9XMB2T</b>	185711		
		P9MMB2A	184712	P9XMB2A	185712		
		P9MMB2B	184713	P9XMB2B	185713		
<b>4 positions + central zero position <sup>(1)</sup></b>							
 <p><b>Without interlock</b></p>	 <p>fixed positions transient positions</p>	P9MMN4F	184720	P9XMN4F	185720		
		<b>P9MMN4T</b>	184721	<b>P9XMN4T</b>	185721		
 <p><b>With interlock</b></p>	<p>fixed positions transient positions</p>	P9MMB4F	184740	P9XMB4F	185740		
		P9MMB4T	184741	P9XMB4T	185741		

**Spare boots for joysticks**

 (a)  (b)	Standard rubber boot for joystick	(a)	P9ARSCMN	188043		
	Standard rubber boot for joystick with interlock	(a)	P9ARSCMB	188044		
	Silicone boot for joystick	(b)	P9ARSGMN	187495		
	Silicone boot for joystick with interlock	(b)	P9ARSGMB	187496		

(1) Electrical diagrams, see F.22

The catalogue numbers **in bold** are available from stock.

For reference numbers, see chapter X, pg. X.8



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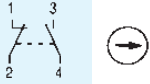
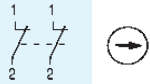
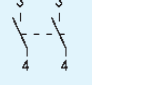
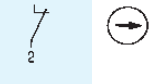
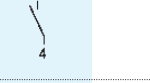

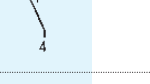


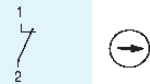


H

I

J/X

Contact blocks


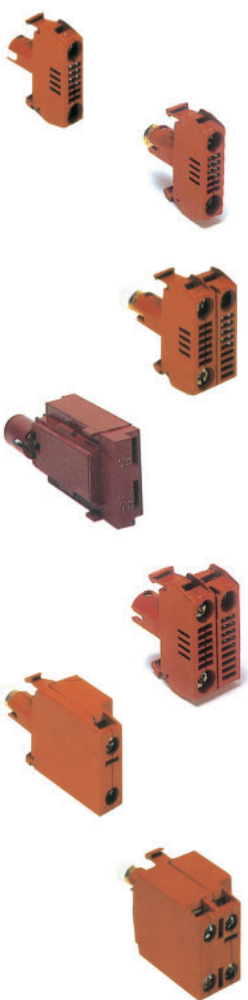











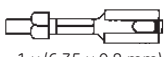



		Cat. no.	Ref. no.
<b>Logic Reed</b>	Contact type	NC	<b>P9B01FH</b> 187014
		NO	<b>P9B10FH</b> 187015
A new range of LOGIC REED contact blocks with faston terminals for use with power lower than 12V - 5mA.	Rated voltage	AC2 to 120V max. DC2 to 30V max.	
	Rated current	AC/DC - 0.001 to 0.15A max.	
	Rated power	AC - 8VA max. DC - 4.5W max.	
	Minimum centerline distance	30x32 mm.	
	Mounting on operators	through specific bayonet flange adaptor.	<b>P9ACFSM</b> 187846
	Full voltage power supply		<b>P9PDHF</b> 187056

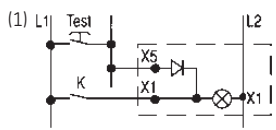
	With screw	Contact type	Cat. no.	Ref. no.	
	 min. 1 of 22 AWG (0.32 mm <sup>2</sup> ) max. 2 of 12 AWG (3.3 mm <sup>2</sup> )		<b>P9B11VN</b>	187000	
			<b>P9B02VN</b>	187008	
		<b>P9B20VN</b>	187009		
		<b>P9B01VN</b>	187001		
		<b>P9B10VN</b>	187002		
		<b>P9B01VR</b>	187003		
		<b>P9B10VA</b>	187004		
		 1 x (6.35 x 0.8 mm) 2 x (2.8 x 0.8 mm)		<b>P9B01FN</b>	187012
				<b>P9B10FN</b>	187013
		<b>Terminal adapter</b> printed circuit board adapter		<b>P9ACA6</b>	188804

The catalogue numbers in **bold** are available from stock.



Power supplies

With screw  min. 1 of 22 AWG (0.32 mm <sup>2</sup> ) max. 2 of 12 AWG (3.3 mm <sup>2</sup> )	Position on flange 2 3 1	Contact type	Cat. no.	Ref. no.	
			Full voltage ≙ IEC: BA9S max 380V-2W not included UL-CSA: BA9S max 250V-2W not included	 <b>P9PDNV0</b>	187020
		Logic Reed fullvoltage for low power	<b>P9PDHF</b>	187056	
		Long life 110/120V ≙ BA9S 130V-2W included	<b>P9PRLVJ</b>	187021	
		Resistor + Diode 220/240 V ~ BA9S 130V-2W included	<b>P9PRDVN</b>	187022	
		Resistor 110/120V ≙ BA9S 60V-1.2W included	<b>P9PRNVJ</b>	187023	
		220/240V ≙ BA9S 130V-2W included	<b>P9PRNVN</b>	187024	
		Resistor ENEL version BA9S 48V-2W included 110V ≙	<b>P9PREVJ</b>	187025	
		125/127V ≙	<b>P9PREVL</b>	187026	
		UL-CSA: BA9S max 250V-2W not included Test full voltage (1) ≙ IEC: BA9S max 380V-2W not included	<b>P9PDTV0</b>	187027	
		Test resistor (1) 220/240 V ≙ BA9S 130V-2W included	<b>P9PRTVN</b>	187028	
		Transformer 50/60 Hz BA9S 6V-1.5W included	<b>P9PTNV♦</b>	see bottom	
		Multifunction (2) full voltage 24V ≙ BA9S 24V-2W included	<b>P9PDMVD</b>	187040	
	Multifunction (2) full voltage 110V ≙ BA9S 130V-2W included	<b>P9PDMVJ</b>	187041		
	Multifunction (2) Transformer 50/60 Hz BA9S 6V-0.6W included	<b>P9PTMV†</b>	see bottom		
<b>Faston</b>  1 x (6.35 x 0.8 mm) 2 x (2.8 x 0.8 mm)		Full voltage IEC: BA9S max 380V-2W not included UL-CSA: BA9S max 250V-2W not included	<b>P9PDNF0</b>	187055	
<b>Integrated LED</b> 		Standard light	24V AC/DC 120V AC 230V AC	<b>P9PLNVD•</b> <b>P9PLNVJ•</b> <b>P9PLNVN•</b>	see bottom see bottom see bottom
		Flashing light	24V AC/DC 120V AC 230V AC	<b>P9PLFVD•</b> <b>P9PLFVJ•</b> <b>P9PLFVN•</b>	see bottom see bottom see bottom



(2) Y1 Y2 Do not connect for flashing light  
 Y1 Y2 Link to external contact in order to have steady or flashing light  
 L C closed = Steady light  
 L C open = Flashing light

LED colour•	orange	white	yellow	blue	red	green
	<b>A</b>	<b>B</b>	<b>G</b>	<b>L</b>	<b>R</b>	<b>V</b>

The catalogue numbers in **bold** are available from stock.

Voltage	110-120	220-250	380	415-440	480-500
	♦	<b>J</b>	<b>N</b>	<b>U</b>	<b>W</b> <b>Y</b>
	:	<b>J</b>	<b>N</b>	<b>U</b>	- -

For reference numbers, see chapter X, pg. X.8



Diagrams

Selector switches

Positions	Function	Contacts	Position on flange 2 3 1
	D	B10 13-14	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
	D	B10 13-14 B01 21-22	<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
	D	B11 13-14 11-12	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
	I	B11 13-14 11-12	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
	H	B11 13-14 B11 11-12	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
	B	B10 13-14 B10 23-24	<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
	E	B11 13-14 11-12	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
	L	B11 13-14 11-12	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
	U	B11 13-14 11-12 23-24 21-22	<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
	Z	B11 13-14 11-12 23-24 21-22	<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
	Z	B10 13-14 B01 21-22	<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
	X	B11 13-14 11-12 23-24 21-22	<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
	Y	B11 13-14 11-12 23-24 21-22	<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
	W	B11 13-14 11-12 23-24 21-22	<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>

Selector push-buttons

Positions	Function	Contacts	Normal Depressed	Position on flange 2 3 1
	201	B11 13-14 11-12 23-24 21-22		<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
	231	B11 13-14 11-12 23-24 21-22		<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
	235	B11 13-14 11-12 23-24 21-22		<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
	301	B11 13-14 11-12 23-24 21-22		<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
	323	B11 13-14 11-12 23-24 21-22		<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>

X Can not be depressed

Joysticks

Positions	Contacts	Position on flange 2 3 1
	B11 13-14 11-12 23-24 21-22	<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
	B11 13-14 11-12 23-24 21-22	<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>

Toggle switches

Positions	Function	Contacts	Position on flange 2 3 1
	D	B11 13-14 11-12	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
	B	B11 13-14 11-12	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>



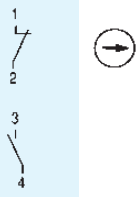
Mushroom head push-buttons 3 pos.

Function	Contacts	Position on flange 2 3 1
2	B01R 11-12 B01 21-22	<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
3	B11 13-14 11-12	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>





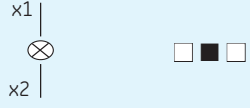




**Base mounting - Contact blocks**

With screw  min. 1 of 22 AWG (0.32 mm <sup>2</sup> ) max. 2 of 12 AWG (3.3 mm <sup>2</sup> )	Contact type	Cat. no.	Ref. no.
			
	NC	<b>P9B01BN</b>	187017
	NO	<b>P9B10BN</b>	187018

**Base mounting - Power supplies**

With screw  min. 1 of 22 AWG (0.32 mm <sup>2</sup> ) max. 2 of 12 AWG (3.3 mm <sup>2</sup> )	Position on flange 2 3 1	Bulb power supply	Cat. no.	Ref. no.
				
	Full voltage ≅ IEC: BA9S max 380V-2W not included UL-CSA: BA9S max 250V-2W not included	<b>P9PDNB0</b>	187070	
<b>Integrated LED</b> 		Standard light		
		24V AC/DC	<b>P9PLNBD•</b>	see bottom
		120V AC	<b>P9PLNBJ•</b>	see bottom
230V AC	<b>P9PLNBN•</b>	see bottom		

The catalogue numbers **in bold** are available from stock.

LED colour•	orange	white	yellow	blue	red	green
	A	B	G	L	R	V

For reference numbers, see chapter X, pg. X.8



**Empty box for DIN Rail application (Light grey coloured RAL 7035)**



	Cat. no.	Ref. no.
1	<b>P9EPEM</b>	<b>189200</b>
<ul style="list-style-type: none"> <li>- Up to 3 base mounting contact blocks and power supplies</li> <li>- 1hole P9EPEM 189200</li> <li>- Can be used in modular cabinet</li> <li>- 36mm width</li> <li>- Double protection</li> </ul>		

**Push-button stations in thermoplastic (Light grey coloured RAL 7035)**

*For panel and base mounting*

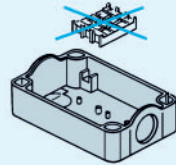
- IP66 according to IEC529, EN 60529
- Engineered thermoplastic covers, bases and screws
- Self extinguishing Class V0, according to UL 94
- Rust resistant (4X according to UL 508)
- Total insulation with all thermoplastic operators
- Contact blocks and power supplies for both base and front mounting

*Empty versions*

Cover with holes  
Knockouts conduit entry



Number of holes	Cat. no.	Ref. no.
1 (yellow cover)	<b>P9EPEG1</b>	<b>189000</b>
1	<b>P9EPE01</b>	<b>189001</b>
2	<b>P9EPE02</b>	<b>189002</b>
2 (yellow cover)	<b>P9EPEG2</b>	<b>189006</b>
3	<b>P9EPE03</b>	<b>189003</b>
4	<b>P9EPE04</b>	<b>189004</b>
6	<b>P9EPE06</b>	<b>189005</b>

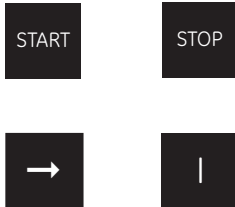


For panel mounting

*Accessories*

**Write-on plates**

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



Description	Symbols	Cat. no.	Ref. no.
Without text		<b>P9AELN</b>	<b>189030</b>
Text in English (1) START		P9AELN202	189031
STOP		P9AELN201	189032
FORWARD		P9AELN214	189033
REVERSE		P9AELN215	189034
CLOSE		P9AELN205	189035
OPEN		P9AELN206	189036
UP		P9AELN204	189037
DOWN		P9AELN203	189038
LEFT		P9AELN222	189152
RIGHT		P9AELN224	189154
	→	P9AELN006	189041
	I	P9AELN028	189042
	0	P9AELN029	189043
	II	P9AELN035	189044
	III	P9AELN038	189045
	0-I	P9AELN039	189046
	I-0-II	P9AELN042	189047
<b>Earth terminal clamp</b>		<b>P9AEMT</b>	<b>189029</b>

The catalogue numbers in **bold** are available from stock.

Intro

A

B

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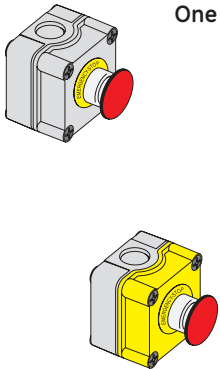
J/X



Push-button stations in thermoplastic (continued)

Equipped versions		Operators	Colour	Diagram	Name-plate	Cat. no.	Ref. no.	
	One unit	Flush push-button	green	$\begin{array}{l} 13 \\ \backslash \\ 4 \end{array}$	I	<b>P9EPA01Y02</b>	189010	
		Flush push-button	white	$\begin{array}{l} 13 \\ \backslash \\ 4 \end{array}$	I	<b>P9EPA01Y03</b>	189011	
		Emergency push-button with latch according to EN418 (yellow cover)	red	$\begin{array}{l} 1L \\ 2 \end{array}$	0	<b>P9EPAG1Y0N</b>	189007	
		Emergency push-button with latch & status indicator according to EN418 (yellow cover)	red	$\begin{array}{l} 1L \\ 2 \end{array}$	0	<b>P9EPAG1Y01W</b>	189008	
		Emergency push-button with latch according to EN418 - key to release (yellow cover)	red	$\begin{array}{l} 1L \\ 2 \end{array}$	0	<b>P9EPAG1Y06N</b>	189009	
Equipped versions		Operators	Colour	Diagram	Name-plate	Cat. no.	Ref. no.	
	Two units	Flush push-buttons	green	$\begin{array}{l} 13 \\ \backslash \\ 4 \end{array}$	I	<b>P9EPA02Y01</b>	189016	
		Flush push-buttons	red	$\begin{array}{l} 1L \\ 2 \end{array}$	0			
	Three units	Full voltage pilot light max 380V-2W not included	BA9S	white	$\begin{array}{l} \text{⊗} \times 1 \\ \text{⊙} \times 2 \end{array}$	blank	<b>P9EPA03Y01</b>	189018
		Flush push-buttons		green	$\begin{array}{l} 13 \\ \backslash \\ 4 \end{array}$	I		
		Flush push-buttons		red	$\begin{array}{l} 1L \\ 2 \end{array}$	0		
		Flush push-buttons		black	$\begin{array}{l} 13 \\ \backslash \\ 4 \end{array}$	↑	<b>P9EPA03Y05</b>	189022
		Flush push-buttons		red	$\begin{array}{l} 1L \\ 2 \end{array}$	0		
		Flush push-buttons		black	$\begin{array}{l} 13 \\ \backslash \\ 4 \end{array}$	↓		

Equipped boxes

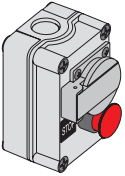
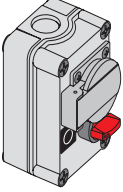
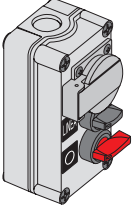
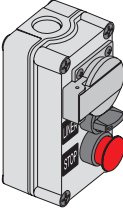
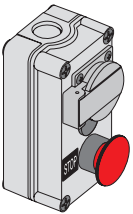
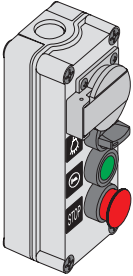
Equipped versions		Composition	Individual operators	Cat. no.	Ref. no.	Pack
	One operator	Specially enclosures to use for shaft lifts (other versions, please contact us)				
		Thermoplastic box. 1 element	P9EPE01	<b>P9EPC01X00</b>	215432	1
		Emergency push button mushroom head Ø40, push-pull to release	P9XET4RN1			
		1NC contact block	P9B01VN			
		1NO contact block	P9B10VN			
		Nameplate with inscription "EMERGENCY-STOP"	080XTGR02			
		PG16 packing gland				
		Thermoplastic box. Yellow cover. 1 element	P9EPEG1	<b>P9EPC01X01</b>	215433	1
		Emergency push-button mushroom head Ø40, push-twist to release	P9XER4RN			
		1NC contact block	P9B01VN			
		Nameplate with inscription "EMERGENCY-STOP"	080XTGR02			

(1) Other languages on request

The catalogue numbers in **bold** are available from stock.





**Equipped boxes (continued)**

		Specially enclosures to use for shaft lifts (other versions, please contact us)				
		Composition	Individual operators	Cat. no.	Ref. no.	Pack
	<b>Two operators</b>	Thermoplastic box, 2 elements	P9EPE02	<b>P9EPL02X01</b>	189136	1
		Emergency push-button mushroom head Ø28, push-twist to release	P9XER3RN			
		1NC contact block	P9B01VN			
		Nameplate with inscription "STOP"	P9AELN201			
		16A Schuko socket-outlet with cover				
		Thermoplastic box, 2 elements	P9EPE02	<b>P9EPL02X02</b>	189137	1
Selector switch, 2 positions, with red knob	P9XSMD0R					
		1NC contact block	P9B01VN			
		Nameplate with inscription "O-I"	P9AELN039			
		16A Schuko socket-outlet with cover				
		Thermoplastic box, 3 elements	P9EPE03	<b>P9EPL03X01</b>	189138	1
Selector switch, 2 positions, with black knob	P9XSMD0N					
	<b>Three operators</b>	1NC contact block	P9B01VN			
		1NO contact block	P9B10VN			
		Nameplate with inscription "LINEA"	P9AELN523			
		Selector switch, 2 positions, with red lever	P9XSVD0R			
		1NO contact block	P9B10VN			
		Nameplate with inscription "O-I"	P9AELN039			
		16A Schuko socket-outlet with cover				
		Thermoplastic box, 3 elements	P9EPE03	<b>P9EPL03X02</b>	189139	1
Selector switch, 2 positions, with black knob	P9XSMD0N					
		1NC contact block	P9B01VN			
		1NO contact block	P9B10VN			
		Nameplate with inscription "LINEA"	P9AELN523			
		Emergency push-button mushroom head Ø28, push-twist to release	P9XER3RN			
		1NC contact block	P9B01VN			
		Nameplate with inscription "STOP"	P9AELN201			
		16A Schuko socket-outlet with cover				
		Thermoplastic box, 3 elements	P9EPE03	<b>P9EPL03X03</b>	189140	1
Emergency push-button mushroom head Ø40, push-twist to release	P9XER4RN					
		1NC contact block	P9B01VN			
		Nameplate with inscription "STOP"	P9AELN201			
		Round plug	P9ARHPR			
		16A Schuko socket-outlet with cover				
	<b>Four operators</b>	Thermoplastic box, 4 elements	P9EPE04	<b>P9EPL04X01</b>	189141	1
		Selector switch, 2 positions, with black knob	P9XSMD0N			
		1NC contact block	P9B01VN			
		1NO contact block	P9B10VN			
		Nameplate with "Light" symbol	P9AELN100			
		Standard/momentary push button with flush cap, green	P9XPNVG			
		1NO contact block	P9B10VN			
		Nameplate with "Bell" symbol	P9AELN099			
		Emergency push-button mushroom head Ø28, push-twist to release	P9XER3RN			
		1NC contact block	P9B01VN			
		Nameplate with inscription "STOP"	P9AELN201			
		16A Schuko socket-outlet with cover				

The catalogue numbers **in bold** are available from stock.



**Push-button stations in aluminium (Grey coloured RAL 7012)**

For panel mounting	Protection	Number of holes	Type	Cat. no.	Ref. no.		
 <p>Cover with holes with conduit entry</p>	IP66 (according to IEC 529, EN 60529)	1	1	<b>080SP1</b>	170801		
		1	1M (1)	<b>080SP1M</b>	170831		
		2	2	<b>080SP2</b>	170802		
		2	2M (1)	<b>080SP2M</b>	170832		
		3	3	<b>080SP3</b>	170803		
		4	4	<b>080SP4</b>	170804		
		4	4M (1)	<b>080SP4M</b>	170834		
		6	6	<b>080SP6</b>	170806		
		8	8	<b>080SP8</b>	170807		
		12	12	<b>080SP12</b>	170808		
		18	18	<b>080SP18</b>	170809		
		24	24	<b>080SP24</b>	170810		
		35	35	<b>080SP35</b>	170811		
		<p>Cover with holes without conduit entry</p>	IP66 (according to IEC 529, EN 60529)	1	1	080SP1SFE	170836
				1	1M (1)	080SP1MSFE	170839
2	2			080SP2SFE	170842		
2	2M (1)			080SP2MSFE	170845		
3	3			080SP3SFE	170848		
4	4			080SP4SFE	170850		
4	4M (1)			080SP4MSFE	170851		
6	6			080SP6SFE	170852		
8	8			080SP8SFE	170854		
12	12			080SP12SFE	170857		
18	18			080SP18SFE	170860		
24	24			080SP24SFE	170862		
35	35			080SP35SFE	170864		
 <p>Cover without holes with conduit entry</p>	IP66 (according to IEC 529, EN 60529)			1	1	080SP1SFC	170835
				1	1M (1)	080SP1MSFC	170838
		2	2	080SP2SFC	170841		
		2	2M (1)	080SP2MSFC	170844		
		3	3	080SP3SFC	170847		
		4	4	080SP4SFC	170841		
		4	4M (1)	080SP4MSFC	170844		
		6	6	080SP6SFC	170847		
		8	8	080SP8SFC	170853		
		12	12	080SP12SFC	170856		
		18	18	080SP18SFC	170859		
		24	24	080SP24SFC	170859		
		35	35	080SP35SFC	170863		
		<p>Cover without holes without conduit entry</p>	IP66 (according to IEC 529, EN 60529)	1	1	080SP1SF	170837
				1	1M (1)	080SP1MSF	170840
2	2			080SP2SF	170843		
2	2M (1)			080SP2MSF	170846		
3	3			080SP3SF	170849		
4	4			080SP4SF	170843		
4	4M (1)			080SP4MSF	170846		
6	6			080SP6SF	170849		
8	8			080SP8SF	170855		
12	12			080SP12SF	170858		
18	18			080SP18SF	170861		
24	24			080SP24SF	170861		
35	35			080SP35SF	170865		

(1) With deep socle

**Accessories**















Description	Cat. no.	Ref. no.
Kit of two hinges for types 18, 24, 35 with holes	<b>080KCSP</b>	170883

Overall dimensions, see F.41

The catalogue numbers **in bold** are available from stock.



Caps for standard push-buttons

Colour	Cat. no.	Ref. no.	Cat. no.	Ref. no.	Cat. no.	Ref. no.	Cat. no.	Ref. no.	
	Flush and recessed		Raised		Flush		Raised		
Neutral									
	<b>P9ARBG ●</b>	18710 ■	<b>P9ARBS ●</b>	18720 ■	<b>P9ASBG ●</b>	18750 ■	<b>P9ASBS ●</b>	18760 ■	
With symbols <sup>(1)</sup>									
Stop 	Black Red	<b>P9ARBGN 029</b> <b>P9ARBGR 029</b>	187150 187110	<b>P9ARBSN 029</b> <b>P9ARBSR 029</b>	187250 187210	<b>P9ASBGN 029</b> <b>P9ASBGR 029</b>	187550 187510	<b>P9ASBSN 029</b> <b>P9ASBSR 029</b>	187650 187610
Start 	Black Green White	<b>P9ARBGN 028</b> <b>P9ARBGV 028</b> <b>P9ARBGB 028</b>	187111 187112 187151	<b>P9ARBSN 028</b> <b>P9ARBSV 028</b> <b>P9ARBSB 028</b>	187211 187212 187251	<b>P9ASBGN 028</b> <b>P9ASBGV 028</b> <b>P9ASBGB 028</b>	187511 187512 187551	<b>P9ASBSN 028</b> <b>P9ASBSV 028</b> <b>P9ASBSB 028</b>	187611 187612 187651
Continuous rectilinear motion 	Black Green White	<b>P9ARBGN 006</b> <b>P9ARBGV 006</b> <b>P9ARBGB 006</b>	187117 187118 187152	<b>P9ARBSN 006</b> <b>P9ARBSV 006</b> <b>P9ARBSB 006</b>	187217 187218 187252	<b>P9ASBGN 006</b> <b>P9ASBGV 006</b> <b>P9ASBGB 006</b>	187517 187518 187552	<b>P9ASBSN 006</b> <b>P9ASBSV 006</b> <b>P9ASBSB 006</b>	187617 187618 187652
Increase 	Black	<b>P9ARBGN 017</b>	187125						
Decrease 	Black	<b>P9ARBGN 018</b>	187127						
Reset 	Blue	<b>P9ARBGL 037</b>	187143			<b>P9ASBGL 037</b>	187543	<b>P9ASBSL 037</b>	187643
Stop/Reset 	Red	<b>P9ARBGR 036</b>	187144						
Test 	Black Green	<b>P9ARBGN 030</b> <b>P9ARBGV 030</b>	187145 187146	<b>P9ARBSN 030</b> <b>P9ARBSV 030</b>	187245 187246	<b>P9ASBGN 030</b> <b>P9ASBGV 030</b>	187545 187546	<b>P9ASBSN 030</b> <b>P9ASBSV 030</b>	187645 187646
Stop 	Red	<b>P9ARBGR 201</b>	187147	<b>P9ARBSR 201</b>	187247	<b>P9ASBGR 201</b>	187547	<b>P9ASBSR 201</b>	187647
Start 	Black Green White	<b>P9ARBGN 202</b> <b>P9ARBGV 202</b> <b>P9ARBGB 202</b>	187148 187149 188909	<b>P9ARBSN 202</b> <b>P9ARBSV 202</b> <b>P9ARBSB 202</b>	187248 187249 188978	<b>P9ASBGN 202</b> <b>P9ASBGV 202</b> <b>P9ASBGB 202</b>	187548 187549 189859	<b>P9ASBSN 202</b> <b>P9ASBSV 202</b> <b>P9ASBSB 202</b>	187648 187649 189928




(1) Other symbols on request

The catalogue numbers in bold are available from stock.

Colours	black	red	green	yellow	brown	blue	white	grey	
Caps	●	<b>N</b>	<b>R</b>	<b>V</b>	<b>G</b>	<b>M</b>	<b>L</b>	<b>B</b>	<b>H</b>



Diffusers/insert for illuminated units

		Cat. no.	Ref. no.	Cat. no.	Ref. no.	Cat. no.	Ref. no.
		For pilot lights		For illuminated push buttons		For pilot lights and illuminated push buttons	
							
	Neutral	P9ARDLS	187300	P9ARDPL	187350	080QDF	173220
	With symbols <sup>(1)</sup>	on white background					
	Stop	<b>P9ARDLS029</b>	187301	<b>P9ARDPL029</b>	187351	<b>080QDF029</b>	187701
	Start	<b>P9ARDLS028</b>	187302	<b>P9ARDPL028</b>	187352	<b>080QDF028</b>	187702
	Continuous rectilinear motion	<b>P9ARDLS006</b>	187305	<b>P9ARDPL006</b>	187355	<b>080QDF006</b>	187705
	Increase	P9ARDLS017	187309	P9ARDPL017	187359	080QDF017	187709
	Decrease	P9ARDLS018	187310	P9ARDPL018	187360	080QDF018	187710
	Auto cycle	P9ARDLS026	187311	P9ARDPL026	187361	080QDF026	187711
	Manual	P9ARDLS027	187312	P9ARDPL027	187362	080QDF027	185788
	Locking	P9ARDLS031	187313	P9ARDPL031	187363	080QDF031	187713
	Releasing	P9ARDLS032	187314	P9ARDPL032	187364	080QDF032	187714
	Coolant	P9ARDLS001	187315	P9ARDPL001	187365	080QDF001	187715
	Light	P9ARDLS002	187316	P9ARDPL002	187366	080QDF002	187716
	Test	P9ARDLS030	187318	P9ARDPL030	187368	080QDF030	185789
	Stop	<b>P9ARDLS201</b>	187319	<b>P9ARDPL201</b>	187369	<b>080QDF201</b>	187719
	Start	<b>P9ARDLS202</b>	187320	<b>P9ARDPL202</b>	187370	<b>080QDF202</b>	187720

(1) Other symbols on request

The catalogue numbers in **bold** are available from stock.








## Common accessories

	Plugs	Description	Cat. no.	Ref. no.	Cat. no.	Ref. no.	
			Plastic		Plastic		
		Round	<b>P9ARHPR</b>	187491			
		Square 30 x 30 mm			<b>P9ASHP3</b>	187792	
		Rectangular 30 x 50 mm			<b>P9ASHP5</b>	187793	
	<b>Protections</b>						
		Collar for mushroom head push-buttons Ø40 mm.	P9ARRE4	187492			
		Protection cover padlockable for standard push-buttons, illuminated push-buttons, selector switches, illuminated selector switches with knob.	P9ACRCL	187840	P9ACRCL	187840	
	<b>Flanges</b>						
		With three positions	Centre distances 30 x 50 mm	P9ACFS3	187841	P9ACFS3	187841
		With five positions	Centre distances 50 x 50 mm	<b>P9ACFS5</b>	187842	<b>P9ACFS5</b>	187842
		With two positions	For Logic Reed contact blocks	<b>P9ACFSM</b>	187846	<b>P9ACFSM</b>	187846
	<b>Adapter screw plug-in terminal</b>						
		Only for Logic Reed contact blocks and power supplies	<b>P9ACAFV</b>	187847	<b>P9ACAFV</b>	187847	
	<b>Adapter</b>						
		Gives round control and signalling units a square appearance. Made in black thermoplastic. Can be used with nameplate for square operators P9ASTBS (see P.30). Excluded for mushroom flush buttons with positive break and types with 3 positions.	<b>P9ARSN1</b>	188805			
	<b>Push-on/push off</b>						
		Device for standard push-buttons and illuminated push-buttons. To be added only to single pole contact blocks. The NO-contacts must be early closing types.	<b>P9ACDPP</b>	187843	<b>P9ACDPP</b>	187843	
	<b>Extended screw</b>						
		For reset push-buttons (setting min. 80, max. 170 mm)	P9ACVLR	187844	P9ACVLR	187844	
	<b>Central contact driving plug</b>						
		For standard momentary push-buttons and momentary mushroom head push-buttons.			P9ASHAC	187794	
	<b>Tools</b>						
		Locking ring wrench	<b>P9ACWAF</b>	187845	<b>P9ACWAF</b>	187845	
		Bulb extractor	<b>080ESL</b>	170212	<b>080ESL</b>	170212	
		Extractor for caps and lenses			<b>P9ASEBG</b>	187795	




The catalogue numbers **in bold** are available from stock.

Spare keys

Description		Cat. no.	Ref. no.
		Plastic	
			
			
Standard version	Code		
	3095	<b>077C3095</b>	173095
	9901	077C9901	173901
	9902	077C9902	173902
	9903	077C9903	173903
	9904	077C9904	173904
	9905	077C9905	173905
	9910	077C9910	173910
	9916	077C9916	173916
	9919	077C9919	173919
	3353	077C3353	173353
	(Ronis) 455	077CR455	173455
FIAT version	Colour	Code	
	yellow	73033	077CF73033 173033
	black	73034	077CF73034 173034
	red	73037	077CF73037 173037
	blue	73038	077CF73038 173038
	orange	73040	077CF73040 173040






Bulbs BA9s

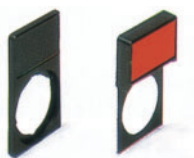
Description			Cat. no.	Ref. no.
			Plastic	
				
				
Filament type	Vn	W		
	6	0.6	<b>BA9S606</b>	187850
	6	1.5	<b>BA9S615</b>	187851
	12	2.0	BA9S122	187852
	24	2.0	<b>BA9S242</b>	187853
	30	2.1	<b>BA9S30</b>	187854
	48	2.0	BA9S48	187855
	60	1.2	BA9S6012	187856
	130	2.0	<b>BA9S130</b>	187857
	220	2.0	BA9S220	187868
Neon type				
	110	0.11	BA9SN110	187860
	220	0.33	<b>BA9SN220</b>	187861
MultiLED	VN AC/DC ± 10%			
	6		BA9S6LED•	
	12		BA9S12LED•	
	24		BA9S24LED•	
	48		BA9S48LED•	
	60		BA9S60LED	187191
	110		BA9S110LED•	
	130		BA9S130LED	187190
	(AC) 230		BA9S230LED•	



Colours	red	green	yellow	blue	white
•	R	V	G	L	B

Insert holders

Description		Cat. no.	Ref. no.	Cat. no.	Ref. no.
		Plastic		Plastic	
					
Supplied with neutral insert engravable on both sides or transparent.					
Standard 30 x 50 mm	Background black/red, white text	<b>P9ARTBS</b>	188000	<b>P9ASTBS</b>	188010
	Background white, black text	<b>P9ARTWS</b>	188005	<b>P9ASTWS</b>	188011
	Transparent	<b>P9ARTTS</b>	188012	<b>P9ASTTS</b>	188014
Extended 45 x 50 mm	Background black/red, white text	<b>P9ARTBM</b>	188001		
	Background white, black text	<b>P9ARTWM</b>	188008		
	Transparent	<b>P9ARTTM</b>	188019		



For reference numbers, see chapter X, pg. X.8


The catalogue numbers in **bold** are available from stock.




Rectangular inserts

For insert holders 30 x 50 mm		Neutral					
		Description	Cat. no.	Ref. no.	Description	Cat. no.	Ref. no.
		black/red background	<b>P9ACPBS</b>	188015			
		white background	<b>P9ACPWS</b>	188017			
		transparent	<b>P9ACPTS</b>	188018			
		English (1)			Aluminium English (1)		
START	black background	START	P9ACPBS202	188202	Without inscription	P9ARTAPN	116099
		STOP	P9ACPBS201	188201	O - I	P9ARTAPN039	116140
		REVERSE	P9ACPBS215	188215	I O II	P9ARTAPN042	116141
		CLOSE	P9ACPBS205	188205	ON	P9ARTAPN212	116147
		OPEN	P9ACPBS206	188206	RESET	P9ARTAPN291	116150
		UP	P9ACPBS204	188204	I II	P9ARTAPN040	116991
		DOWN	P9ACPBS203	188203	I	P9ARTAPN028	118846
		LEFT	P9ACPBS222	188222	STOP	P9ARTAPN201	116143
		RIGHT	P9ACPBS224	188224	START	P9ARTAPN202	116144
		FAST	P9ACPBS208	188208	OPEN	P9ARTAPN206	116145
MARCHE		SLOW	P9ACPBS207	188207	OFF	P9ARTAPN213	116148
		OPEN-CLOSE	P9ACPBS234	188234			
		HAND-AUTO	P9ACPBS243	188243			
		STOP-START	P9ACPBS232	188232			
		FORWARD-REVERSE	P9ACPBS231	188231			
		OFF-ON	P9ACPBS233	188233			
		AUTO-OFF-HAND	P9ACPBS258	188258			
		FORWARD-O-REVERSE	P9ACPBS239	188239			
		O - I	<b>P9ACBS039</b>	188030			
For insert holders 45 x 50 mm		Neutral					
		black/red background, white text	<b>P9ARPB</b>	188002			
		white background, black text	<b>P9ARPW</b>	188028			
		transparent	<b>P9ARPT</b>	188019			


Round plates for emergency

		Diameter 59 mm			Diameter 78 mm		
		Description	Cat. no.	Ref. no.	Description	Cat. no.	Ref. no.
Without text	yellow background		<b>080XTGR</b>	179514	black background	<b>080XTG8</b>	179515
	With text	yellow background			black background		
 <p>59 mm      78 mm</p>	EMERGENZA	<b>080XTGR01</b>	179525	EMERGENZA	<b>080XTG801</b>	179535	
	EMERGENCY STOP	<b>080XTGR02</b>	179526	EMERGENCY STOP	<b>080XTG802</b>	179536	
	ARRET D'URGENCE	<b>080XTGR03</b>	179510	ARRET D'URGENCE	<b>080XTG803</b>	179511	
	NOT - AUS	<b>080XTGR04</b>	179527	NOT - AUS	<b>080XTG804</b>	179537	
	NOODSTOP	<b>080XTGR05</b>	179528	NOODSTOP	<b>080XTG805</b>	179538	
	PARO EMERGENCIA	<b>080XTGR06</b>	179529	PARO EMERGENCIA	<b>080XTG806</b>	179539	
	NOTSTOP	<b>080XTGR07</b>	179530	EMERGENZA GENERALE	<b>080XTG807</b>	179540	
	PARAGEM EMERGENCIA	<b>080XTGR08</b>	179531	PARAGEM EMERGENCIA	<b>080XTG808</b>	179541	

Neutral plate

		Description	Cat. no.	Ref. no.		
	Snap-on system	For identification of contact blocks and power supplies	P9ACPIU	188016		

Adapter ring

		Description	Cat. no.	Ref. no.		
		Adapter ring for 30mm hole to mount P9 22mm in a 30mm hole	P9ARAM32	188801		

(1) Other languages on request. The catalogue numbers **in bold** are available from stock.



Notes

Grid area for notes.

Push-button stations

Intro

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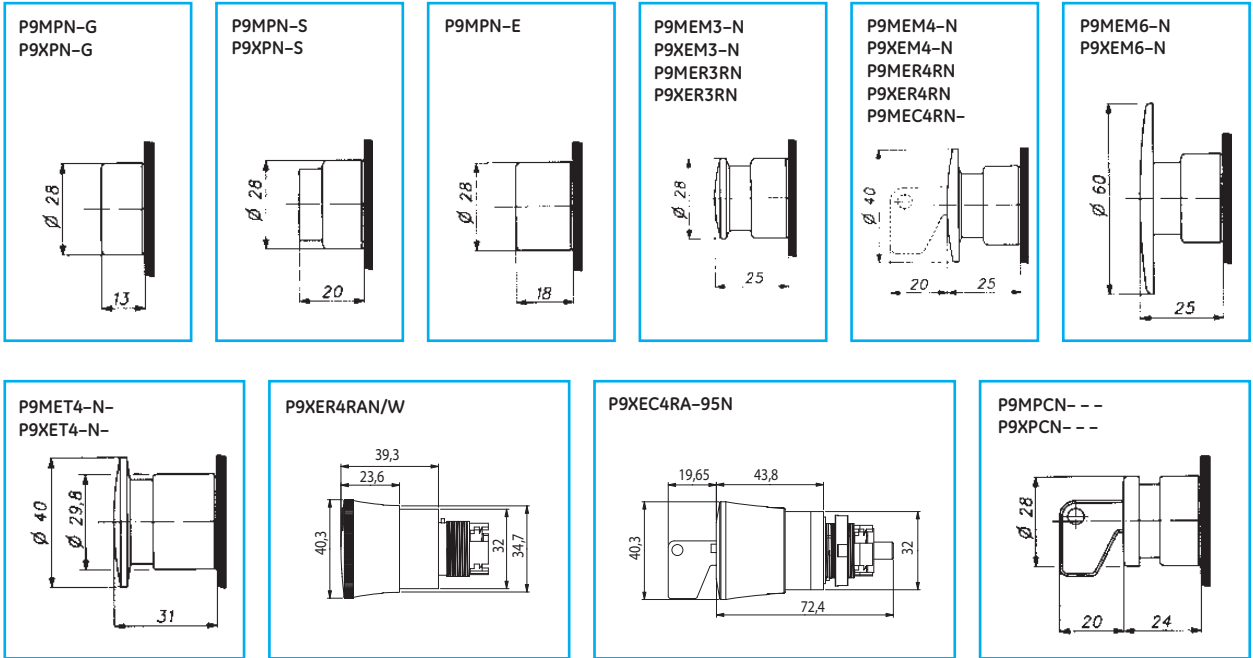
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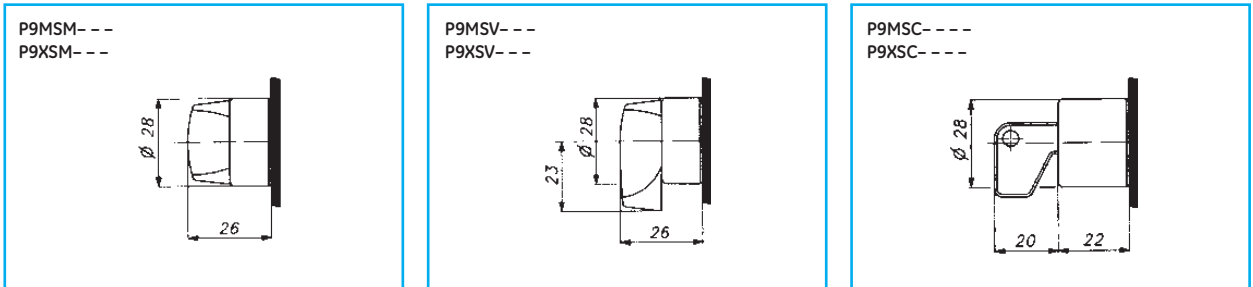


**Dimensional drawings**

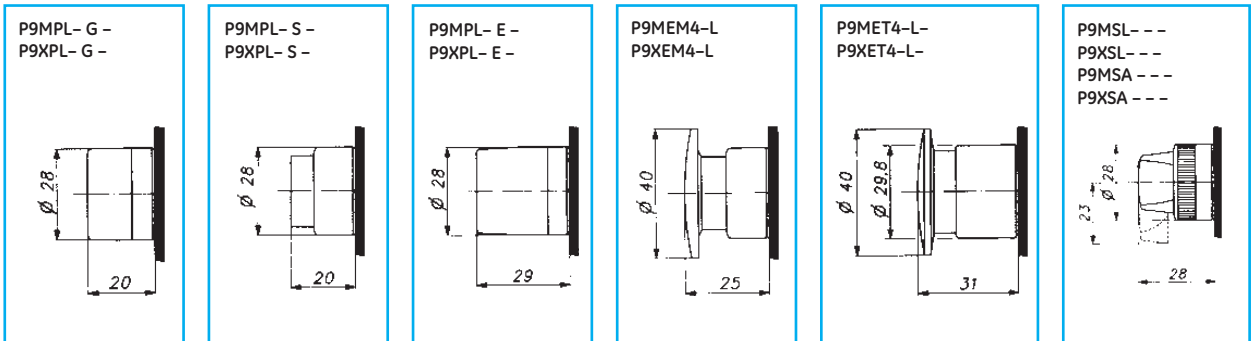
**Round operators - Push-buttons**



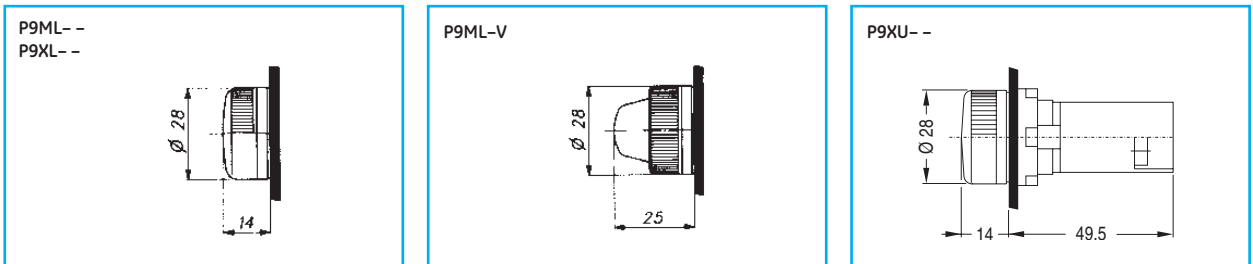
**Round operators - Selector switches**



**Round operators - Illuminated push-buttons and selector switches**



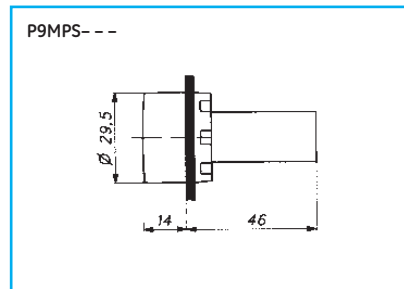
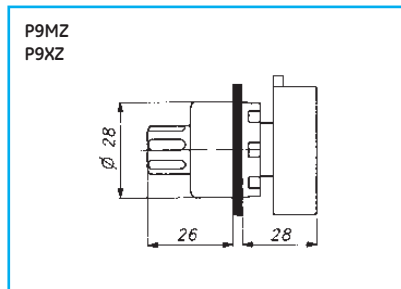
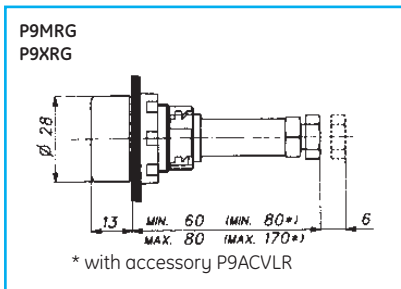
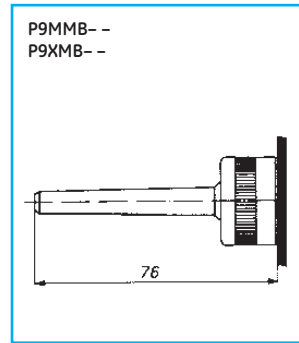
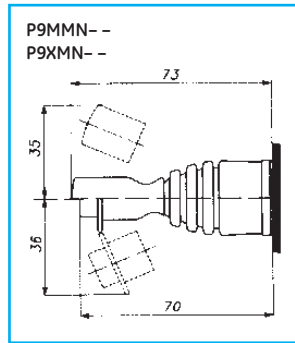
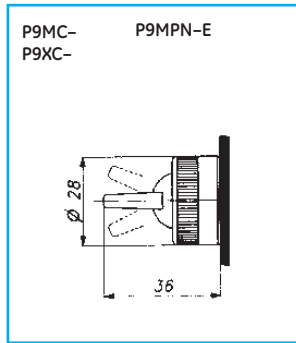
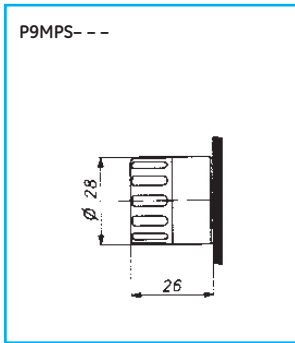
**Round operators - Pilot lights**



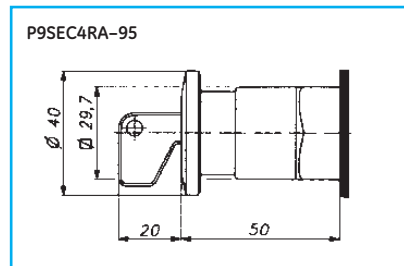
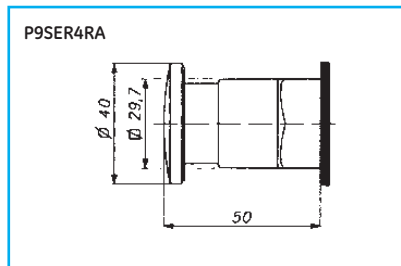
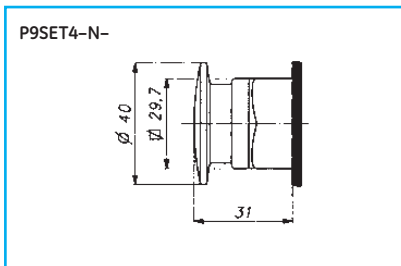
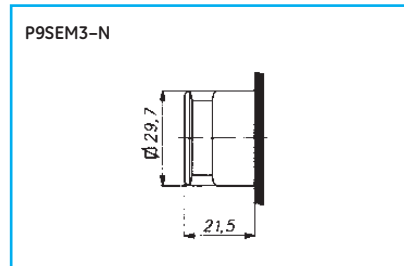
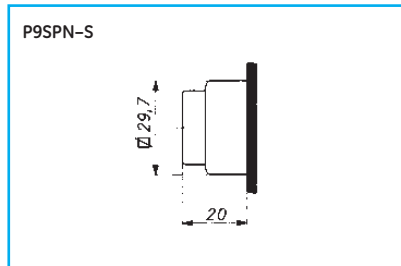
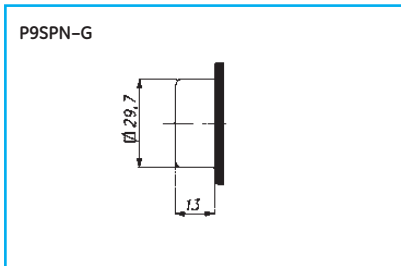
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- J/X



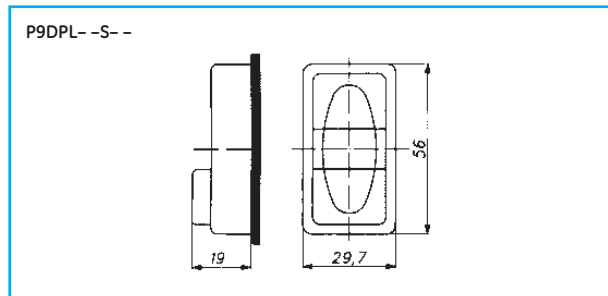
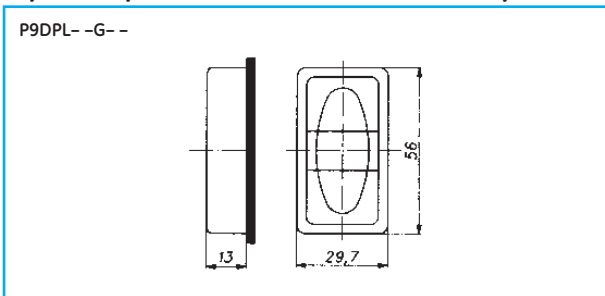
Round operators - Other devices



Square operators - Push-buttons

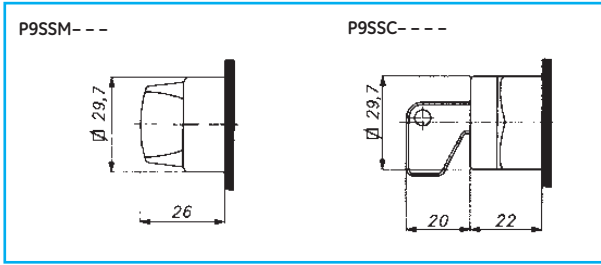


Square operators - Double function push-buttons

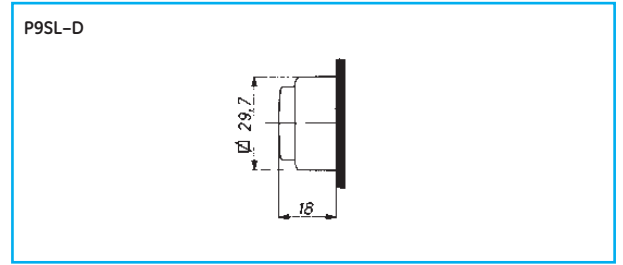


**Dimensional drawings**

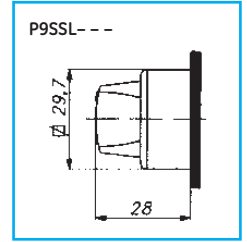
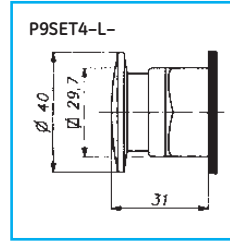
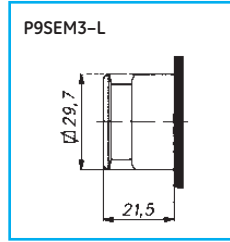
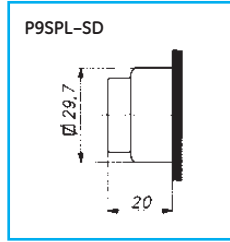
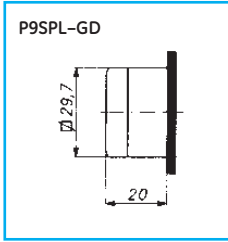
**Square operators - Selector switches**



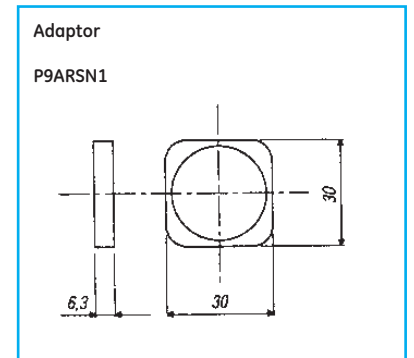
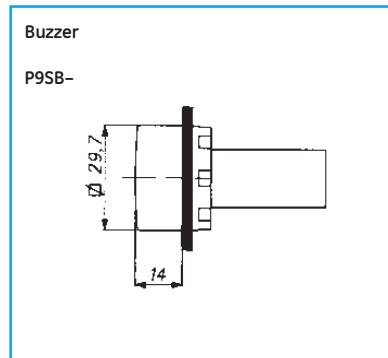
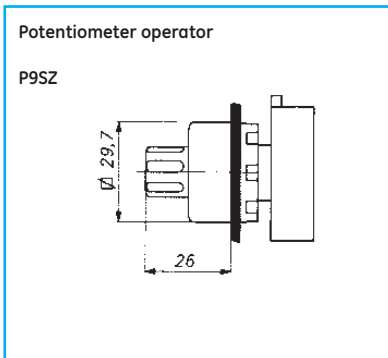
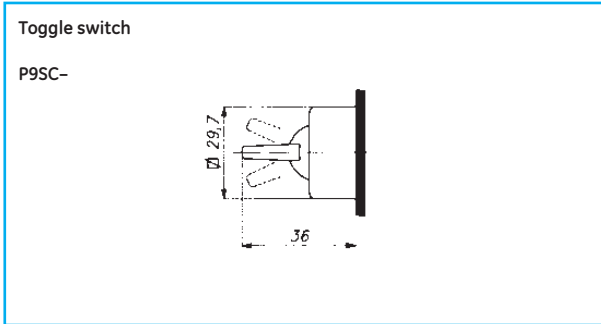
**Square operators - Pilot lights**



**Square operators - Illuminated push-buttons and selector switches**



**Square operators - Other devices**



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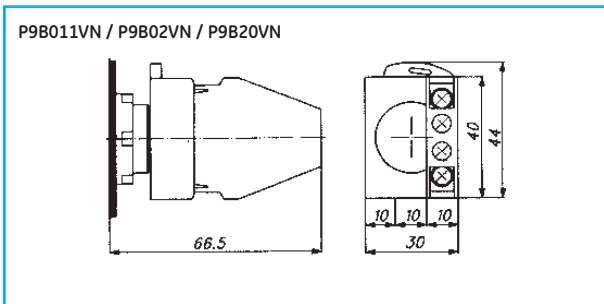
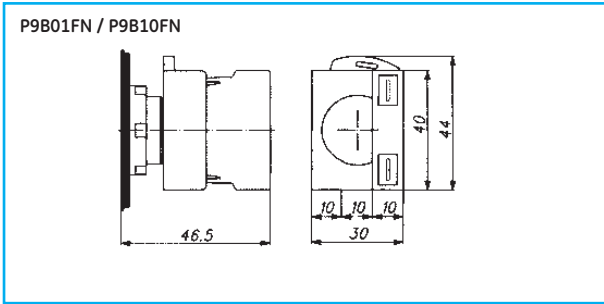
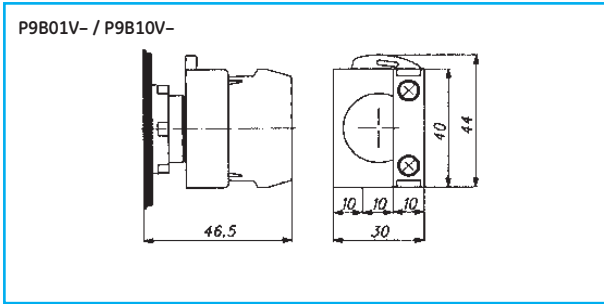
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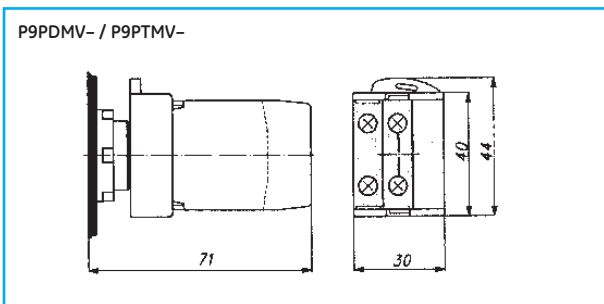
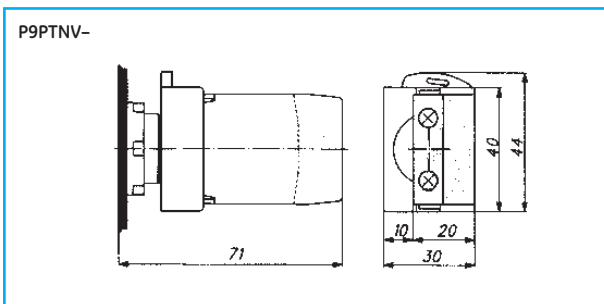
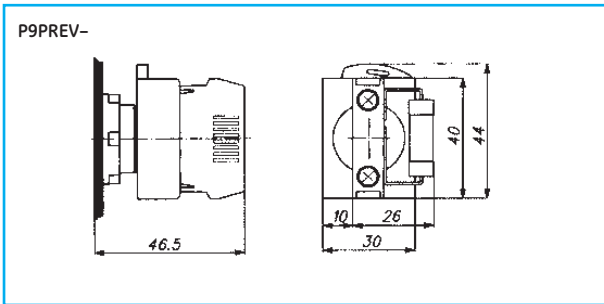
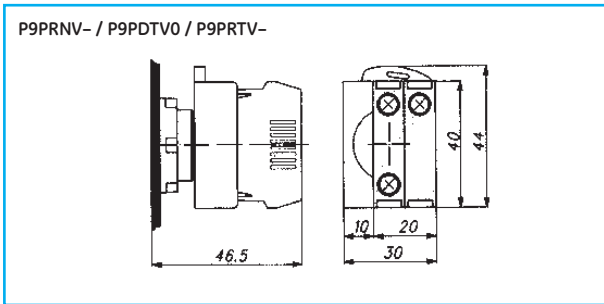
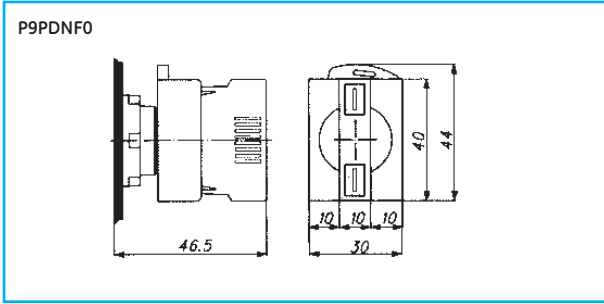
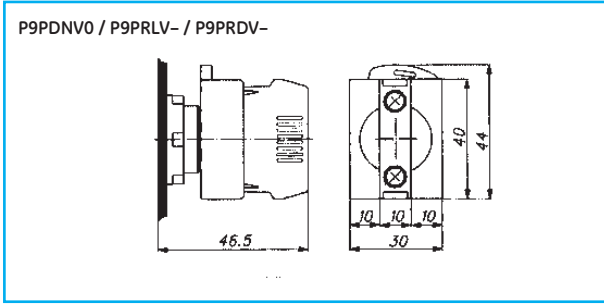




Contact blocks

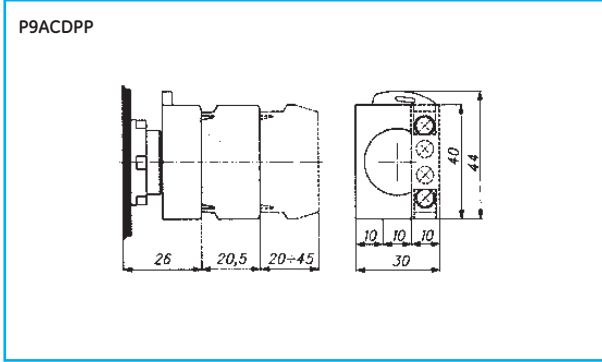


Power supplies

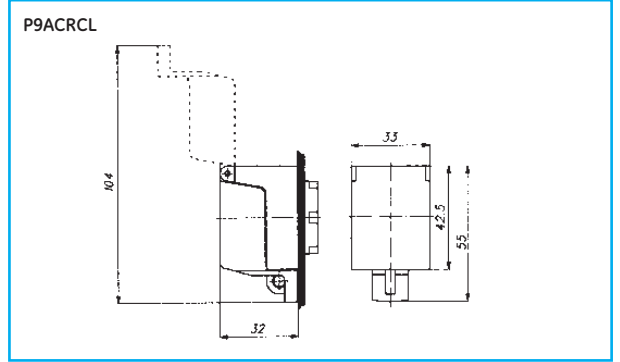


Dimensional drawings

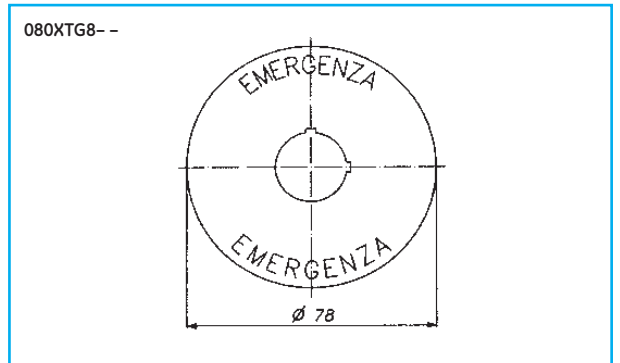
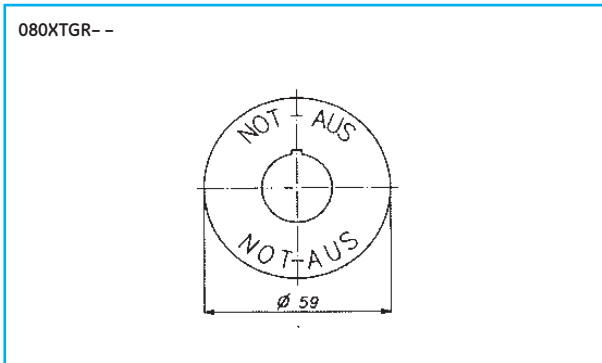
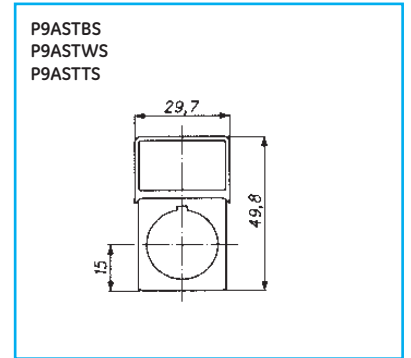
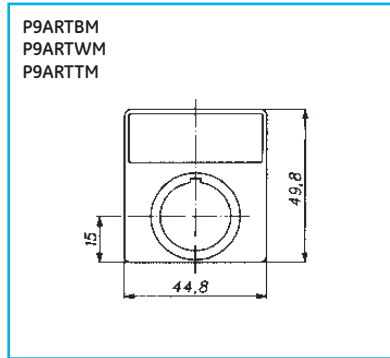
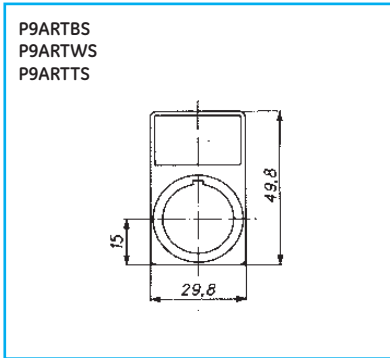
Push-on / push-off devices



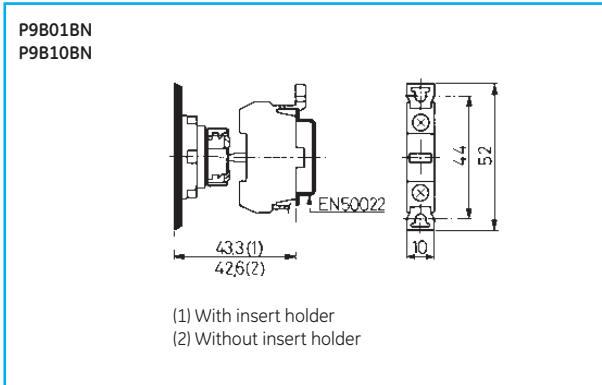
Protection cover



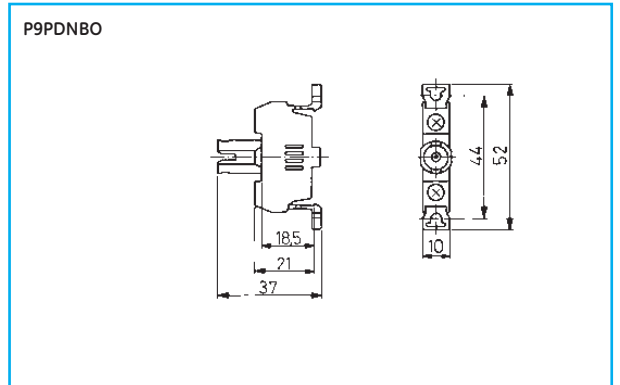
Insert holders and plates



Contact blocks



Power supplies



## Overall dimensions

### Enclosures for push-button stations in thermoplastic

Holes	A	B	C	E1	E2	H
1	72	46	16.5	23 <sup>(1)</sup>	15.5	57
2	110	78	16.5	23 <sup>(1)</sup>	21.5	95
3	140	108	16.5	23 <sup>(1)</sup>	21.5	125
4	175	143	16.5	23 <sup>(1)</sup>	21.5	160
6	235	200	19.5	29 <sup>(2)</sup>	23	220

(1) Suitable for cable gland, with locknut, PG16 or 1/2" NPT  
 (2) Suitable for cable gland, with locknut, PG21 or 3/4" NPT  
 (3) Flush push-button: 13  
 Pilot light: 14  
 Emergency push-button: 50  
 Key selector switch: 22  
 For customized versions see operator dimensions.

### Enclosures for push-button stations in aluminium

Type	Holes $\varnothing$ 22		Dimensions						Fixing templates	
	vertic.	horizont.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F	HxLx $\varnothing$ max (mm)	position of the holes
1	1	-	87	87	75	72	21.5	PG 21	74x55x4	1-3
1M	1	-	87	87	100	97	21.5	PG 21	68x55x4	1-3
2	2	-	145	87	75	72	21.5	PG 21	132x55x4	1-3
2M	2	-	145	87	100	97	21.5	PG 21	126x55x4	1-3
3	3	-	195	87	100	97	21.5	PG 21	176x55x4	1-3
4	2	2	145	87	75	72	21.5	PG 21	132x55x4	1-3
4M	2	2	145	87	100	97	21.5	PG 21	126x55x4	1-3
6	3	2	195	87	100	97	21.5	PG 21	176x55x4	1-3
8	2	4	152	152	101.5	98.5	27	PG 29	136x119x6	1-3
12	3	4	205	230	101.5	98.5	27	PG 29	172x214x6	1-2-3-4
18	3	6	257	300	101.5	98.5	35	PG 36	221x282x6	1-2-3-4
24	4	6	257	300	101.5	98.5	35	PG 36	221x282x6	1-2-3-4
35	5	7	350	350	123	106.5	41	PG 36	180x180x10	1-2-3-4

## Technical data

### Compliance with standards

IEC 947.5.1 - VDE 0660 - NFC 63140  
 CEI EN 60947.5.1 - UTE - BSI - NEMA  
 CENELEC EN 50007

### Approvals

UL (U.S.A.) - CSA (Canada) - RINA - CE

### 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	FW24 (DIN 50016)

### Temperature ranges

Operation	-25 °C to + 70 °C
Storage	-40 °C to + 70 °C

### Protection degree of the operators

IP65 according to IEC 529 when they are mounted into enclosures with the same or a higher degree of protection. IP66 with appropriate protective caps.

### Protection degree of the terminals

IP2x according to IEC 529.  
 Fully integrated on signalling units, illuminated push-buttons and illuminated selector switches. With accessory on contact blocks for control units.

### Rated insulation voltage

690V according to EN 60947.1

### Impulse withstand voltage

4 kV according to EN 60947.1

### Insulation class

Group C according to VDE 0110

### Electric shocks protection

Class I according to IEC 536

### Short-circuit protection

With fuses type gI of 10A according to IEC 947.5.1

### Connection terminals

Connection terminals  
 Screw type with retractable clamp.  
 Clamping capacity of rigid and/or flexible conductors:  
 - minimum 22 AWG (0.32 mm<sup>2</sup>)  
 - maximum 12 AWG (3.3 mm<sup>2</sup>)

### Performances of the contacts

- Slow acting
- Self-cleaning
- NC forced breaking
- Double break

### Electrical performances

Rated thermal current I<sub>th</sub> = 10 A

#### Performances according IEC 947.5.1

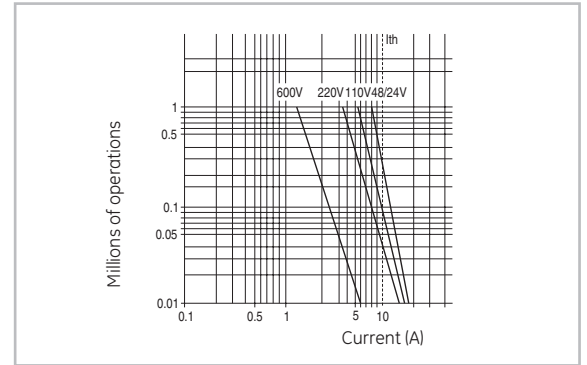
Categorie AC 15 (A600)									
Voltage	Ue (V)	24	48	60	110	220	380	500	600
Current	Ie (A)	10	10	10	6	3	2	1.5	1.2
Categorie DC 13 (P600)									
Voltage	Ue (V)	24	48	60	110	220	300	500	600
Current	Ie (A)	5	2.7	2	1.1	0.55	0.3	0.22	0.2
Categorie DC 13 (Q300) for illuminated push-buttons and illuminated selector switch									
Voltage	Ue (V)	24	48	60	110	220	300		
Current	Ie (A)	2.5	1.1	1	0.55	0.27	0.2		

#### Performances according to CSA and UL

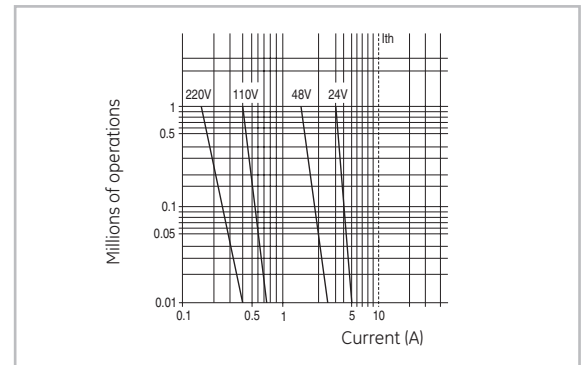
AC Heavy Duty (A600)	
DC Standard Duty (Q300)	for illuminated push-buttons and illuminated selector switch

### Electrical endurance

Alternative current 50/60 Hz cat. AC 15



Direct current cat. DC 13



### Mechanical endurance

Joysticks	
Key push-buttons	0.5 x 10 <sup>6</sup> op.
Locking mushroom push button	
Knob selector switches	
Lever selector switches	
Key selector switches	
Illuminated selector switches	1 x 10 <sup>6</sup> op.
Selector push-buttons	
Timed push-buttons	
Illuminated push-buttons	
Momentary std push-buttons	3 x 10 <sup>6</sup> op.
Momentary mush. push-buttons	

### Number of contact blocks

Momentary standard push-buttons	4 double pole
Momentary mush. push-buttons	(8 single pole)
Key push-buttons	4 double pole
Locking emergency	(4 single pole)
Selector switches	6 double pole
(4 pos. types excl)	(6 single pole)
4 pos. selector switches	2 double pole
Selector push-buttons	6 double pole
	(6 single pole)
Joysticks 2 and	4 double pole
4 positions	(4 single pole)
Illuminated push-buttons	For different contacts
Illuminated selector switches	configuration, contact our sales office

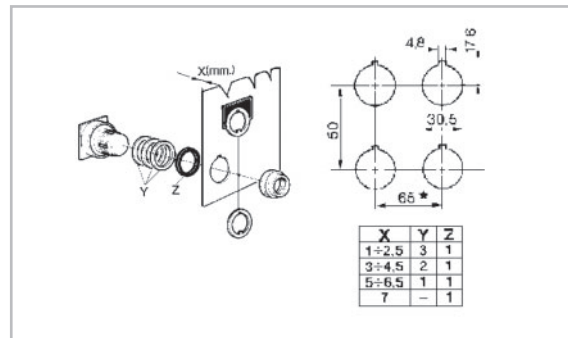
### Fitting of units

The units of Series 077 are designed for fitting onto panels with a thickness between 1 and 7 mm., with holes of 30.5 mm. diameter, according to rules established by EN 60947.5.1.

A special metal ring supplied with each unit or one of the name plates included among the fittings, enables the unit to be exactly positioned.

All equipment is supplied with a set of spacing rings to adjust variations in the thickness of the panel thus ensuring a uniform front protrusion.

For a correct fitting, it needs to observe the diagram below and tables indications.



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## Push-buttons

Standard/Momentary		Description	Contacts	Cat. no.	Ref. no.
			NC+NO	<b>077P11</b>	180019
			NC	<b>077P01</b>	180039
			NO	<b>077P10</b>	180029
Standard/Time delayed <sup>(1)</sup>		Description	Contacts	Cat. no.	Ref. no.
		Contacts delayed at the release of the push button. Accuracy ± 5% Setting range: 0,1 - 30 sec. 10 - 180 sec.	NC+NO	077P11T30	180120
			NC+NO	077P11T180	180121
To complete by		Fixing kits			
		With 4 coloured caps: black, red, green, yellow	Ring type with guard	<b>077GGBCN</b>	<b>180020</b>
			without guard	<b>077GSBCN</b>	<b>180010</b>
		With 4 coloured caps: brown, orange, blue, white	Ring type with guard	<b>077GGBCS</b>	180050
			without guard	077GSBCS	180040
		With 1 clear and 4 marking etched on both sides	Ring type with guard	077GGBCF	180137
				without guard	077GSBCF
					

(1) Not approved by RINA and Lloyd's Register

The catalogue numbers in **bold** are available from stock.

For reference numbers, see chapter X, pg. X.8









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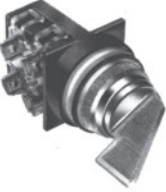










Selector switches with knob

2 positions			Function (1)	Contacts	Cat. no.	Ref. no. see bottom
	Fixed		D	NC+NO	<b>077SDN11</b>	180170
			H	NC+NO	077SHN11	180180
3 positions						
	Fixed		B	NC+NO	<b>077SBN11</b>	180230
			U	2NC+2NO	<b>077SUN22</b>	180440
			Z	2NC+2NO	<b>077SZN22</b>	180480
	With spring return		B	NC+NO	077SBN11SC	180240
			B	NC+NO	077SBN11DC	180250
			B	NC+NO 2NC + 2NO	<b>077SBN11RC</b> <b>077SN22RC</b>	180260 180510











Selector switches with lever

2 positions			Function (1)	Contacts	Cat. no.	Ref. no.
	Fixed		D	NC+NO	<b>077SLD11</b>	180601
3 positions						
	Fixed		B	NC+NO	<b>077SLB11</b>	180607
			Z	2NC+2NO	077SLZ22	180623
	With spring return		Z	2NC+2NO	077SLZ22DC	180625
			Z	2NC+2NO	<b>077SLZ22RC</b>	180626
4 positions						
	Fixed		X	2NC+2NO	<b>077SLX22</b>	180606

The catalogue numbers in **bold** are available from stock.

(1) Electrical diagrams, see F.55

Selector switches with key <sup>(1)</sup>

2 positions		Function (2)	Contacts	Key removal	Cat. no.	Ref. no.
	Fixed		D	NC+NO NC+NO NC+NO	I II I-II	<b>077SCD1101</b> 180630 <b>077SCD1105</b> 180631 <b>077SCD1109</b> 180632
	With spring return		I	NC+NO	0	<b>077SCI11DC03</b> 180640
			H	NC+NO	0	077SCH11SC03 180636
3 positions						
	Fixed		B	NC+NO	I-0-II	<b>077SCB1120</b> 180843
	With spring return		B	NC+NO	I-0	<b>077SCB11DC07</b> 180852
			Z	2NC+2NO	I	077SCZ22DC01 180906
			B	NC+NO	0	<b>077SCB11RC03</b> 180853








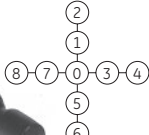
The catalogue numbers in **bold** are available from stock.

(1) Supplied with two standard keys 3095.  
 (2) Electrical diagrams, see F.55

For reference numbers, see chapter X, pg. X.8



Joysticks

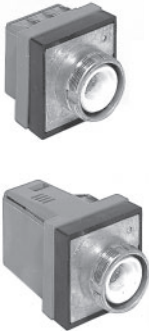


2 positions + central zero position		Function <sup>(1)</sup>	Contacts	Cat. no.		Ref. no.	
				Without interlock	With interlock		
 	Fixed position	N	2NC+2NO	<b>077MTS2422</b>	180910	077MTS2422B	181000
		R	2NC+2NO	<b>077MTS2422R</b>	180912	077MTS2422RB	181002
	Transient position	N	2NC+2NO	<b>077MT24S22</b>	180911	<b>077MT24S22B</b>	181001
		R	2NC+2NO	<b>077MT24S22R</b>	180913	077MT24S22RB	181003
4 positions + central zero position							
 	Fixed positions	N	2NC+2NO	<b>077MTS123422</b>	180914	077MTS123422B	181004
	Transient positions		2NC+2NO	<b>077MT1234S22</b>	180915	<b>077MT1234S22B</b>	181005
2+2 positions + central zero position							
 	Fixed positions	X	4NC+4NO	077M2S2SX44	180918	077M2S2SX44B	181008
	Transient positions		4NC+4NO	077M2T2TX44	180919	077M2T2TX44B	181009
	4,8 transient -3,7 fixed		4NC+4NO	077M2S2TX44	180921		
	Transient positions	Y	4NC+4NO	077M2T2TY44	180923		
4+4 positions + central zero position							
 	Transient positions	X	8NC+8NO	077M4T4TX88	180927		
	2,4,6,8 transient -1,3,5,7 fixed		8NC+8NO	077M4S4TX88	180929	077M4S4TX88B	181019
	Transient positions	Y	8NC+8NO	077M4T4TY88	180931	077M4T4TY88B	181021

The catalogue numbers in bold are available from stock.

(1) Electrical diagrams, see F.55



### Illuminated push-buttons

Momentary	Description	Contacts	Cat. no.	Ref. no.
	Full voltage ~ / — BA9s max 380V - 2 W not included	NC+NO NO+NO NO	<b>077PLM11D0</b> <b>077PLM20D0</b> <b>077PLM10D0</b>	181040 181041 181043
	With transformer 50/60Hz BA9s6V-1.5W included	NC+NO	<b>077PLM11T♦</b>	
<b>To complete by:</b>				
<b>Lenses</b>				
	Standard		<b>077GPL●</b>	see bottom
	Mushroom head Ø 35 mm (to use with the fixing ring 077GG03)		<b>077GELR</b>	180971
<b>Locking rings</b>				
	Without guard		<b>077GG03</b>	180980
	With metal guard		<b>077GGM</b>	180981
	With transparent guard		<b>077GGT</b>	180982

The catalogue numbers **in bold** are available from stock.











Suffix	110-120V	220-250V
♦	<b>J</b>	<b>N</b>

Colours	red	green	yellow	orange	blue	white	clear
Standard lenses	<b>R</b>	<b>V</b>	<b>G</b>	<b>A</b>	<b>BL</b>	<b>B</b>	<b>I</b>

For reference numbers, see chapter X, pg. X.8



**Illuminated selector switches**

2 positions		Function (1)	Contacts	Cat. no.	Ref. no.
	<b>Fixed</b>  Full voltage ~ /  BA9s max. 380V-2W not included	D	NC+NO	<b>077ISD11D0</b>	181060
3 positions		Function (1)	Contacts	Cat. no.	Ref. no.
	<b>Fixed</b>  Full voltage ~ /  BA9s max. 380V-2W not included	B	NC+NO	<b>077ISB11D0</b>	181170
	<b>With spring return</b>  Full voltage ~ /  BA9s max. 380V-2W not included	B Z	NC+NO NC+NO	077ISB11D0RC 077ISZ11D0RC	181174 181176
To complete by:					
	Lenses				
	Knob			<b>077MIS●</b>	see bottom

(1) Electrical diagrams, see F.55

The catalogue numbers **in bold** are available from stock.

Suffix	110-120V	220-250V
◆	<b>J</b>	<b>N</b>

Colours	red	green	yellow
●	<b>R</b>	<b>V</b>	<b>G</b>

For reference numbers, see chapter X, pg. X.8



Intro

A

B

C

D

E

**F**

G

H

I

J/X

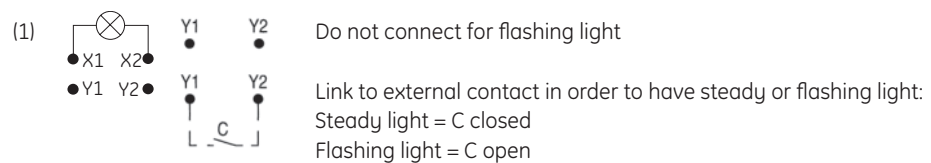
**Pilot lights**

	Description	Cat. no.	Ref. no.
	Full voltage $\sim / \text{---}$ BA9s max. 380V-2W not included	<b>077LDNV0</b>	181300
	With resistor $\sim / \text{---}$ 110-120V, BA9s60V-1.2W included 220-240V, BA9s130V-2W included	<b>077LRNVJ</b> <b>077LRNVN</b>	181301 181302
	With transformer 50/60Hz BA9s6v-1.5w included	<b>077LTNV♦</b>	
	Multifunction (1) full voltage 24V $\sim / \text{---}$ BA9s24V-2W included	<b>077LDMVD</b>	181305
	Multifunction (1) with transformer 50/60 Hz BA9s6V-0.6W included	<b>077LTMV♦</b>	
<b>To complete by:</b>			
	<b>Lenses</b>		
	plastic version	<b>077GL●</b>	see bottom
	Full voltage $\sim / \text{---}$ For bulb E14 base max 660V(1)-6W not included	<b>077DLE14</b>	181260
	<b>To complete by:</b>		
	<b>Lenses</b>		
	For pilot lights 077DLE14 plastic version	<b>099GW1●</b>	see bottom

The catalogue numbers in **bold** are available from stock.

Suffix	110-120V	220-250V
♦	<b>J</b>	<b>N</b>














Colours	red	green	yellow	orange	blue	white	clear
●	<b>R</b>	<b>V</b>	<b>G</b>	<b>A</b>	<b>BL</b>	<b>B</b>	<b>I</b>



For reference numbers, see chapter X, pg. X.8



## Accessories

		Description	Cat. no.	Ref. no.		
	<b>Push-on/push-off device</b>	<b>For momentary standard push-buttons</b> Converts momentary push-button to push-on/push-off. This device can only be used with 077-01 (NC) and/or 077-10A (NO early make) contact blocks.	<b>077DPP</b>	181550		
	<b>Push-pull to release device</b>	<b>For momentary mushroom push-buttons</b> Converts momentary mushroom push-button to push to latch/pull to release.	<b>077DAE</b>	181554		
	<b>Handles</b>	Knob for selector switches	<b>077M●</b>	see bottom		
	<b>Protection</b>	Guard-ring for mushroom head push-button dia 35 mm.	<b>077GE35</b>	181620		
	<b>Plug</b>	For unused mounting hole.	<b>077TPF</b>	181601		
	<b>Potentiometer operator</b>	Suitable for potentiometers with shaft 50 mm long and 6 mm diameter. Potentiometer not included.	<b>077OPZ</b>	181570		
	<b>Rubber protective caps</b>	For standard push-buttons - coloured - clear	<b>077CP●</b> <b>077CPT</b>	see bottom 181588		
		For illuminated standard push-buttons - clear	<b>077CPLT</b>	181600		
		For knob selector switches - black colour with clear knob	<b>077CST</b>	181603		
						
	<b>Spare keys</b>	Standard version	Code			
			3095	<b>077C3095</b>	173095	
	<b>Bulbs BA9s</b>	Filament type	Vn	Wn		
			6	0.6	<b>BA9S606</b>	187850
			6	1.5	<b>BA9S615</b>	187851
			12	2	BA9S122	187852
			24	2	<b>BA9S242</b>	187853
			30	2.1	<b>BA9S30</b>	187854
			48	2	BA9S48	187855
			60	1.2	BA9S6012	187856
			130	2	<b>BA9S130</b>	187857
			Neon type	110	0.11	BA9SN110
			220	0.33	<b>BA9SN220</b>	187861





The catalogue numbers **in bold** are available from stock.

Colours ●	black	red	green	yellow	blue	white
Knobs	N	R	V	G	BL	-
Protective caps	<b>N</b>	<b>R</b>	<b>V</b>	G	-	-
Mono LED	-	R	V	G	BL	B

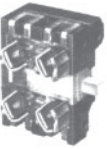
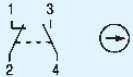




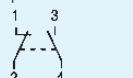


For reference numbers, see chapter X, pg. X.8



Nameplates

	Description	Cat. no.	Ref. no.
	For push-button and pilot lights		
	Without text (black background)	077TNA	181650
	With text in English (black background)	077TNA40	181840
	For 2 position selector switch and selector push-button		
	Without text (black background)	077TNA2	181660
	With text (black background)	077TNA230	181930
	For 3 position selector switch and selector push-button		
	Without text (black background)	077TNA3	181670
	With text (black background)	077TNA301	181951
		077TNA312	181962
		077TNA313	181963
	Diameter 62 mm for emergency push-buttons		
	Without text (yellow background)	077TGR	181720
	With text (yellow background): EMERGENCY STOP	077TGRO2	181722

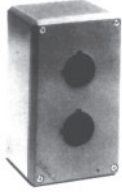

Contact blocks

2 positions	Contacts	Cat. no.	Ref. no.	
	Standard			
	For all the applications Illuminated push-buttons and illuminated selector switches excluded			
		NC+NO	<b>077-11</b>	180001
		NC	<b>077-01</b>	180003
		NO	<b>077-10</b>	180002
		NC late opening	<b>077-01R</b>	180008
		NO early closing	<b>077-10A</b>	180007
	Accessories for contact blocks 077-... IP2X protection	for use with NO for use with NC for use with NO+NC	<b>077PTB10</b> <b>077PTB01</b> <b>077PTB11</b>	181608 181609 181615
	For 2 + 2 and 4 + 4 positions joysticks Snap action		099SPDDB	180009
		NC+NO	P9B11VN	187000
	NC	P9B01VN	187001	
	NO	P9B10VN	187002	

The catalogue numbers in bold are available from stock.



Enclosures for push-button stations in aluminium alloy (Grey RAL 7012)

			Cat. no.	Ref. no.	
	Cover with holes with conduit entry	No. of holes	Type		
		1	1	<b>077SP1</b>	180521
		1	1M	<b>077SP1M</b>	180522
		2	2	<b>077SP2</b>	180523
		2	2M	<b>077SP2M</b>	180524
		3	3	<b>077SP3</b>	180525
		4	4V	<b>077SP4V</b>	180526
		4	4	<b>077SP4</b>	180527
		6	6	<b>077SP6</b>	180528
		9	9	<b>077SP9</b>	180529
		12	12	<b>077SP12</b>	180530
		16	16	<b>077SP16</b>	180531
		20	20	<b>077SP20</b>	180532
		25	25	<b>077SP25</b>	180533
		30	30	<b>077SP30</b>	180534
		36	36	077SP36	180535
			Cover with holes without conduit entry	No. of holes	Type
1	1			077SP1SFE	180536
1	1M			077SP1MSFE	180537
2	2			077SP2SFE	180538
2	2M			077SP2MSFE	180539
3	3			077SP3SFE	180540
4	4V			077SP4VSFE	180541
4	4			077SP4SFE	180542
6	6			077SP6SFE	180543
9	9			077SP9SFE	180544
12	12			077SP12SFE	180545
16	16			077SP16SFE	180546
20	20			077SP20SFE	180547
25	25			077SP25SFE	180548
30	30			077SP30SFE	180549
36	36			077SP36SFE	180550
	Cover without holes with conduit entry			Type	
		1	080SP1SFC	170835	
		1M	080SP1MSFC	170838	
		2	080SP2SFC	170841	
		2M	080SP2MSFC	170844	
		3	080SP3SFC	170847	
		4V	077SP4VSFC	180551	
		4	080SP8SFC	170853	
		6	080SP12SFC	170856	
		9	080SP12SFC	170856	
		12	080SP18SFC	170859	
		16	080SP18SFC	170859	
		20	080SP35SFC	170863	
		25	080SP35SFC	170863	
		30	<b>077SP36SFC</b>	180552	
		36	077SP36SFC	180552	
			Cover without holes without conduit entry	Type	
1	080SP1SF			170837	
1M	080SP1MSF			170840	
2	080SP2SF			170843	
2M	080SP2MSF			170846	
3	080SP3SF			170849	
4V	077SP4VSF			180553	
4	080SP8SF			170855	
6	080SP12SF			170858	
9	080SP12SF			170858	
12	080SP18SF			170861	
16	080SP18SF			170861	
20	080SP35SF			170865	
25	080SP35SF			170865	
30	<b>077SP36SF</b>			180554	
36	077SP36SF			180554	
	Accessories				
	Kit of two hinges for types from 12 to 36 holes.	<b>080KCSP</b>	170883		

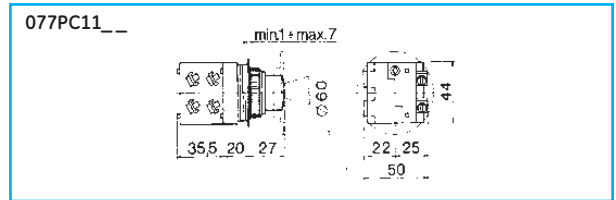
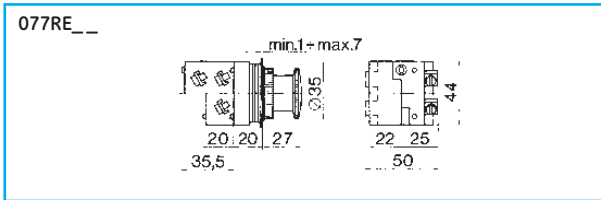
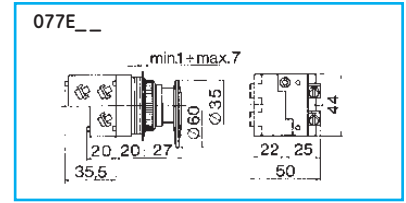
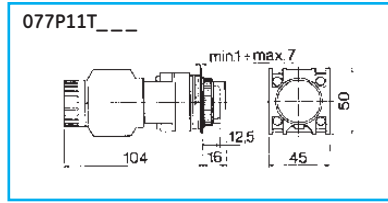
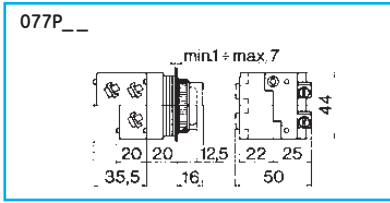
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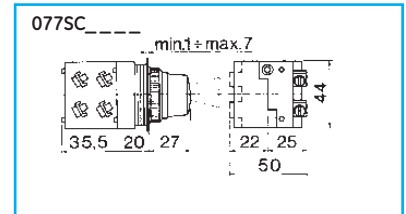
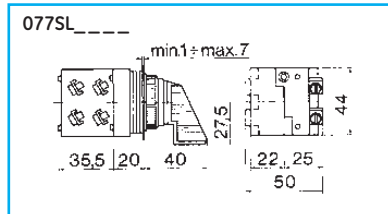
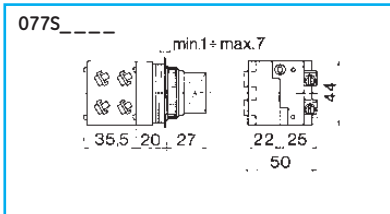


**Dimensional drawings**

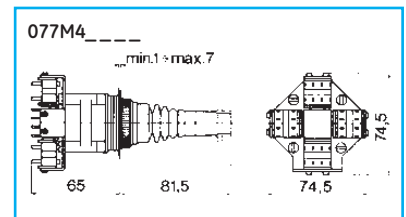
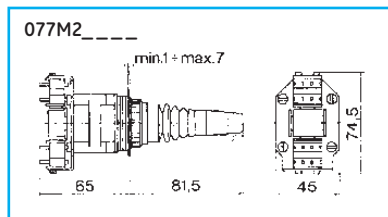
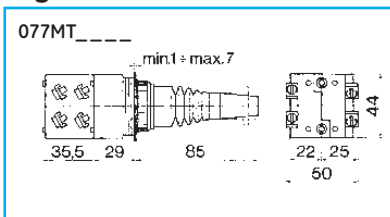
**Push-buttons**



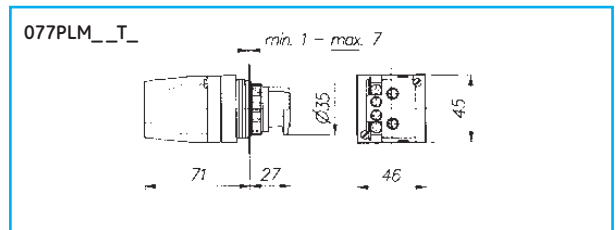
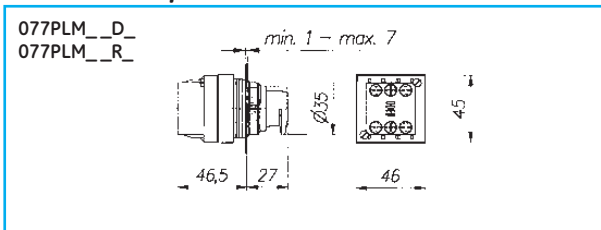
**Selector switches**



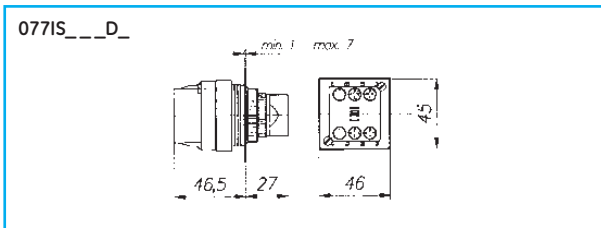
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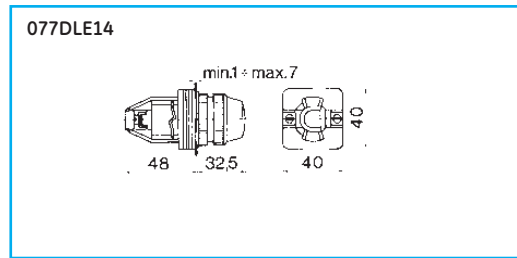
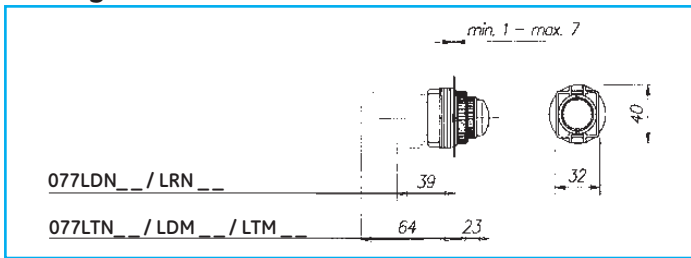
**Illuminated push-buttons**



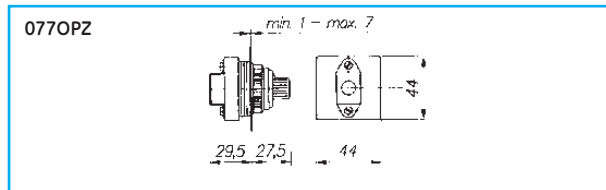
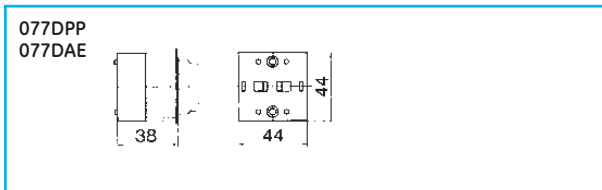
**Illuminated selector switches**



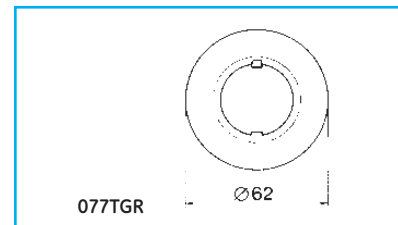
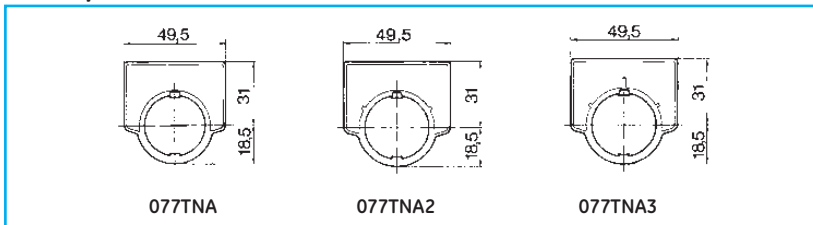
Pilot lights



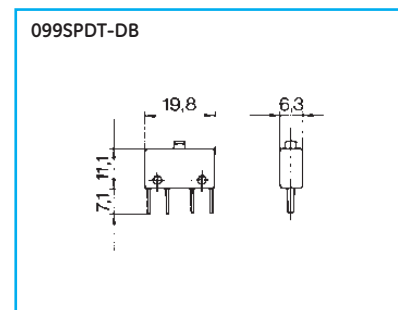
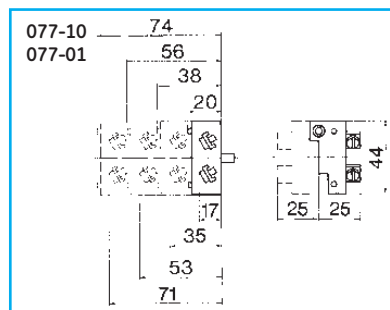
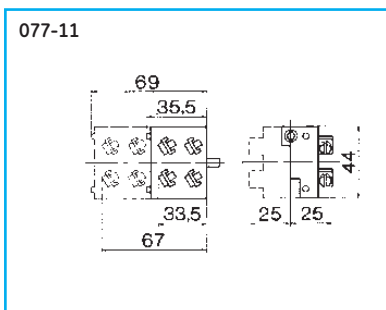
Kits



Nameplates

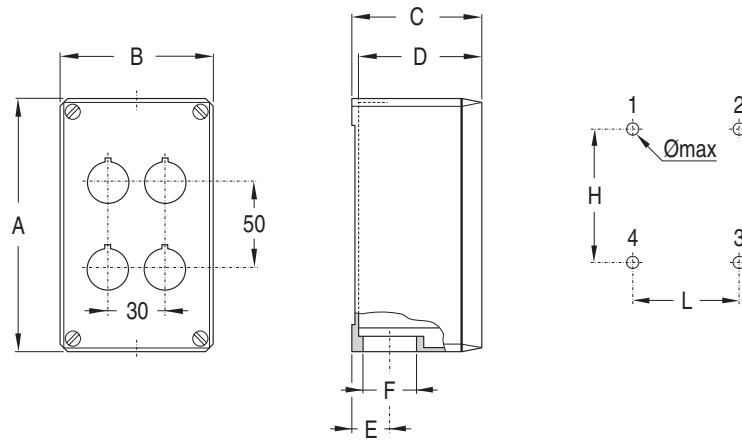


Contact blocks



Dimensional drawings

Aluminium enclosures



Type	Number of holes Ø 30		Dimensions						Fixing templates	
	Vertic.	Horizont.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F	HxLxØmax (mm)	position of the holes
1	-	-	87	87	75	72	21.5	PG 21	74x55x4	1 - 3
1M	-	-	87	87	100	97	21.5	PG 21	68x55x4	1 - 3
2	2	-	145	87	75	72	21.5	PG 21	132x55x4	1 - 3
2M	2	-	145	87	100	97	21.5	PG 21	126x55x4	1 - 3
3	3	-	195	87	100	97	21.5	PG 21	176x55x4	1 - 3
4V	4	-	257	92	86.5	83.5	23	PG 21	224x76x6	1 - 3
4	2	2	152	152	101.5	98.5	27	PG 29	136x119x6	1 - 3
6	2	3	205	230	101.5	98.5	27	PG 29	172x214x6	1-2-3-4
9	3	3	205	230	101.5	98.5	27	PG 29	172x214x6	1-2-3-4
12	3	4	257	300	101.5	98.5	35	PG 36	221x282x6	1-2-3-4
16	4	4	257	300	101.5	98.5	35	PG 36	221x282x6	1-2-3-4
20	5	4	350	350	123.5	106.5	41	PG 36	180x180x10	1-2-3-4
25	5	5	350	350	123.5	106.5	41	PG 36	180x180x10	1-2-3-4
30	6	5	410	410	144.5	127.5	53	PG 48	180x180x10	1-2-3-4
36	6	6	410	410	144.5	127.5	53	PG 48	180x180x10	1-2-3-4

F

