

## Technical data

### Compliance with standards

IEC 947.5.1 - VDE 0660 - NFC63140  
CEI EN60947.5.1 - UTE - BSI - NEMA  
CENELEC EN 50007

### Approvals

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

### 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

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 IEC255, cat. 3

### Identification of the terminals

According CENELEC EN 50013

### Electrical performances

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

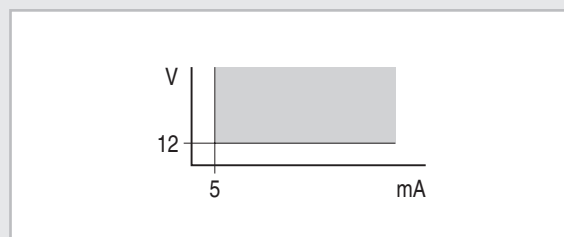
#### Performances according IEC 947.5.1

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

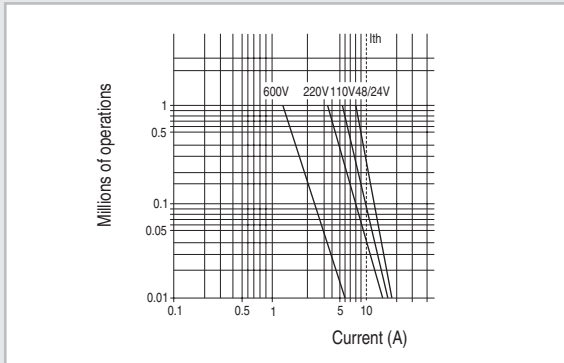
AC Heavy Duty (A600)
DC Standard Duty (Q300)

### Operating range

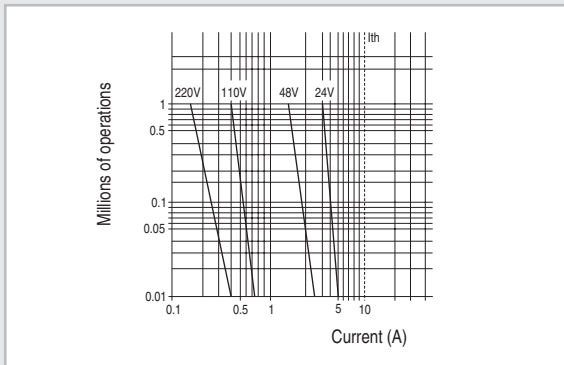


## Electrical endurance

Alternative current 50/60 Hz cat. AC 15



Direct current cat. DC 13



## Mechanical endurance

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

## 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.

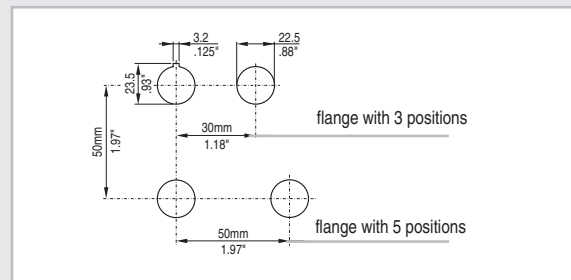
Using the five position flange take into account the bigger width (50 mm instead of 30 mm).

## Number of electrical contacts

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

## Mounting

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



## Nomenclature

### Knob & lever selector switches

P9	□	S	□	□	□	□
Style	Type	Type	Cam	Spring return	Colour	
<b>M</b> = Round satin chrome <b>X</b> = Round plastic <b>S</b> = Square plastic		<b>M</b> = Knob <b>V</b> = Lever <b>L</b> = Illuminated knob <b>A</b> = Illuminated lever	<b>D, I or H</b> = 2 positions <b>E, L, U or Z</b> = 3 positions <b>X</b> = 4 positions <b>Y or W</b> = 5 positions	<b>2/4 Positions</b> <b>0</b> = Fixed <b>5</b> = From right <b>3 Positions</b> <b>0</b> = Fixed <b>1</b> = From left <b>5</b> = From right <b>3</b> = From left & right	<b>N</b> = Black <b>R</b> = Red <b>V</b> = Green <b>G</b> = Yellow <b>L</b> = Blue	

### Key selector switches

P9	□	S	C	□	□	□	□	□
Style	Type	Cam	Spring return	Key removal	Key selection			
<b>M</b> = Round satin chrome <b>X</b> = Round plastic <b>S</b> = Square plastic		<b>D, I or H</b> = 2 positions <b>E, L, U or Z</b> = 3 positions <b>X</b> = 4 positions	<b>2/4 Positions</b> <b>0</b> = Fixed <b>5</b> = From right <b>3 Positions</b> <b>0</b> = Fixed <b>1</b> = From left <b>5</b> = From right <b>3</b> = From left & right	See key removal position	See key selection table on E.16			

### Contact blocks

P9	B	□	□	□	□
Style	Contacts	Terminal type	Contact type		
	<b>0 1</b> = 1 NC <b>1 0</b> = 1 NO <b>1 1</b> = 1 NO + 1 NC	<b>V</b> = Standard screw <b>F</b> = Faston <b>B</b> = Base mounting screw <b>T</b> = Time delay screw	<b>N</b> = Normal <b>A</b> = Early closing <b>R</b> = Late opening <b>3</b> = Time delay 0,1 - 30s <b>8</b> = Time delay 10 - 180s		

### Power supplies

P9	P	□	□	□	□
Style	Type	Style	Terminal type	Voltage	
	<b>D</b> = Full voltage <b>T</b> = Transfo. <b>R</b> = Resistor	<b>N</b> = Normal <b>D</b> = Diode <b>L</b> = Long life <b>T</b> = Test <b>M</b> = Multi-function (contin. blinking)	<b>V</b> = Standard screw <b>F</b> = Faston <b>B</b> = Base mounting screw	<b>0</b> = Full voltage <b>D</b> = 24V <b>J</b> = 110-120V <b>L</b> = 125-127V <b>N</b> = 220-250V <b>U</b> = 380V <b>W</b> = 415-440V <b>Y</b> = 480-500V	



## Selector switches with key

2 positions



Fixed

With spring return

Function (1)	Key removal	Cat. no.	Ref. no.	Cat. no.	Ref. no.	Cat. no.	Ref. no.		
			see bottom		see bottom		see bottom		
			Metal	Plastic	Plastic	Plastic	Plastic		
	D	I	<b>P9MSCD0A</b> ▲	<b>P9XSCD0A</b> ▲	<b>P9SSCD0A</b> ▲				
			II	<b>P9MSCD0E</b> ▲	<b>P9XSCD0E</b> ▲	<b>P9SSCD0E</b> ▲			
			I-II	<b>P9MSCD0K</b> ▲	<b>P9XSCD0K</b> ▲	<b>P9SSCD0K</b> ▲			
	I	0	<b>P9MSCI0C</b> ▲	<b>P9XSCI0C</b> ▲	<b>P9SSCI0C</b> ▲				
			I	<b>P9MSCI0E</b> ▲	<b>P9XSCI0E</b> ▲	<b>P9SSCI0E</b> ▲			
			0-I	<b>P9MSCI0N</b> ▲	<b>P9XSCI0N</b> ▲	<b>P9SSCI0N</b> ▲			
	H	I	<b>P9MSCH0A</b> ▲	<b>P9XSCH0A</b> ▲	<b>P9SSCH0A</b> ▲				
			0	<b>P9MSCH0C</b> ▲	<b>P9XSCH0C</b> ▲	<b>P9SSCH0C</b> ▲			
			I-0	<b>P9MSCH0H</b> ▲	<b>P9XSCH0H</b> ▲	<b>P9SSCH0H</b> ▲			
	D	I	<b>P9MSCD5A</b> ▲	<b>P9XSCD5A</b> ▲	<b>P9SSCD5A</b> ▲				
			I	0	<b>P9MSCI5C</b> ▲	<b>P9XSCI5C</b> ▲	<b>P9SSCI5C</b> ▲		
					<b>P9MSCH1C</b> ▲	<b>P9XSCH1C</b> ▲	<b>P9SSCH1C</b> ▲		
	I	0	<b>P9MSCI5C</b> ▲	<b>P9XSCI5C</b> ▲	<b>P9SSCI5C</b> ▲				
			H	0	<b>P9MSCH1C</b> ▲	<b>P9XSCH1C</b> ▲	<b>P9SSCH1C</b> ▲		
3 positions									
	E	I	<b>P9MSCE0A</b> ▲	<b>P9XSCE0A</b> ▲	<b>P9SSCE0A</b> ▲				
			0	<b>P9MSCE0C</b> ▲	<b>P9XSCE0C</b> ▲	<b>P9SSCE0C</b> ▲			
			II	<b>P9MSCE0E</b> ▲	<b>P9XSCE0E</b> ▲	<b>P9SSCE0E</b> ▲			
	L	I	<b>P9MSCL0A</b> ▲	<b>P9XSCL0A</b> ▲	<b>P9SSCL0A</b> ▲				
			0	<b>P9MSCL0C</b> ▲	<b>P9XSCL0C</b> ▲	<b>P9SSCL0C</b> ▲			
			II	<b>P9MSCL0E</b> ▲	<b>P9XSCL0E</b> ▲	<b>P9SSCL0E</b> ▲			
	U	I	<b>P9MSCU0A</b> ▲	<b>P9XSCU0A</b> ▲	<b>P9SSCU0A</b> ▲				
			0	<b>P9MSCU0C</b> ▲	<b>P9XSCU0C</b> ▲	<b>P9SSCU0C</b> ▲			
			II	<b>P9MSCU0E</b> ▲	<b>P9XSCU0E</b> ▲	<b>P9SSCU0E</b> ▲			
	Z, B	I	<b>P9MSCZ0A</b> ▲	<b>P9XSCZ0A</b> ▲	<b>P9SSCZ0A</b> ▲				
			0	<b>P9MSCZ0C</b> ▲	<b>P9XSCZ0C</b> ▲	<b>P9SSCZ0C</b> ▲			
			II	<b>P9MSCZ0E</b> ▲	<b>P9XSCZ0E</b> ▲	<b>P9SSCZ0E</b> ▲			
		I-0	<b>P9MSCZ0H</b> ▲	<b>P9XSCZ0H</b> ▲	<b>P9SSCZ0H</b> ▲				
			I-II	<b>P9MSCZ0K</b> ▲	<b>P9XSCZ0K</b> ▲	<b>P9SSCZ0K</b> ▲			
			0-II	<b>P9MSCZ0N</b> ▲	<b>P9XSCZ0N</b> ▲	<b>P9SSCZ0N</b> ▲			
		I-0-II	<b>P9MSCZ0T</b> ▲	<b>P9XSCZ0T</b> ▲	<b>P9SSCZ0T</b> ▲				

(1) Electrical diagrams, see E.24

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

### Keys



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	bleu	orange				

For reference numbers, see chapter X, pg. X.10