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 Ith = 10 A

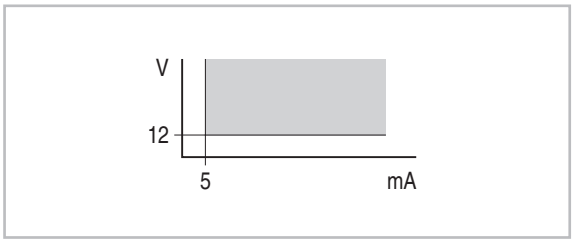
Performances according IEC 947.5.1

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

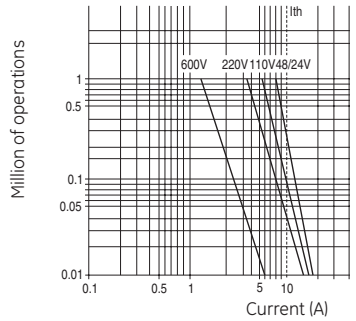
AC Heavy Duty	(A600)
DC Standard Duty	(Q300)

Operating range

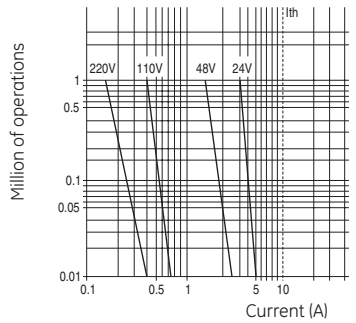


Electrical endurance

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

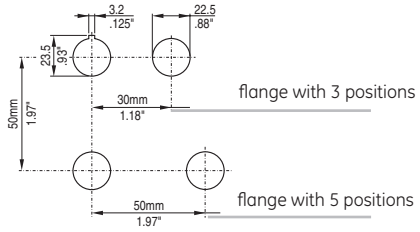
The P9 series is composed with 10 mm or a multiple of 10 mm modular units, fitted side by side on a proper mounting flange.
The standard operators are supplied with a three position flange with a capacity of 3 units of 10 mm or 1 of 10 mm and 1 of 20 mm or 1 of 30 mm.
When the three position flange is 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 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 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 4 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.



Contact blocks

Logic Reed

A new range of LOGIC REED contact blocks with faston terminals for use with power lower than 12V - 5mA.

		Cat. no.	Ref. no.
Contact type	NC	**P9B01FH**	187014
	NO	**P9B10FH**	187015
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.	**P9ACFSM**	187846
Full voltage power supply		**P9PDHF**	187056

With screw

min. 1 of 22 AWG (0.32 mm²)
max. 2 of 12 AWG (3.3 mm²)

Contact type	Cat. no.	Ref. no.
NC+NO	**P9B11VN**	187000
NC+NC	**P9B02VN**	187008
NO+NO	**P9B20VN**	187009
NC	**P9B01VN**	187001
NO	**P9B10VN**	187002
NC late opening	P9B01VR	187003
NO early closing	P9B10VA	187004

Faston

1 x (6.35 x 0.8 mm)
2 x (2.8 x 0.8 mm)

NC	P9B01FN	187012
NO	P9B10FN	187013

Terminal adapter

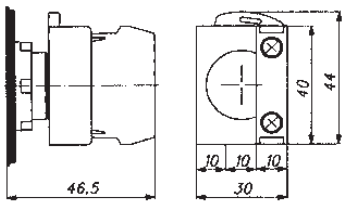
printed circuit board adapter

	P9ACA6	188804

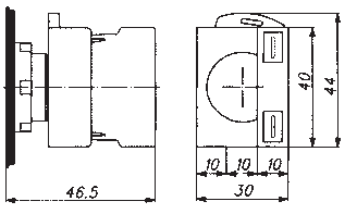
The catalogue numbers **in bold** are available from stock.

Contact blocks

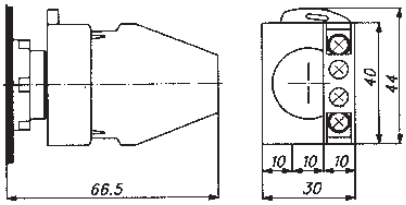
P9B01V– / P9B10V–



P9B01FN / P9B10FN

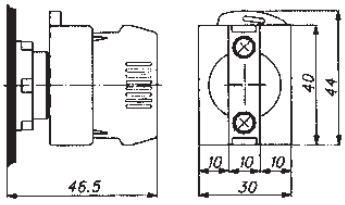


P9B011VN / P9B02VN / P9B20VN

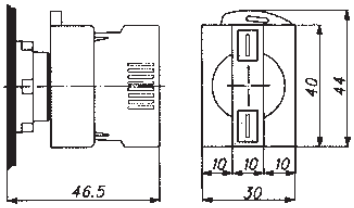


Power supplies

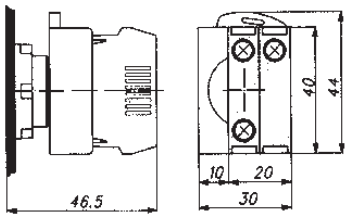
P9PDNV0 / P9PRLV– / P9PRDV–



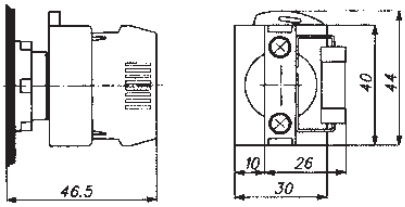
P9PDNF0



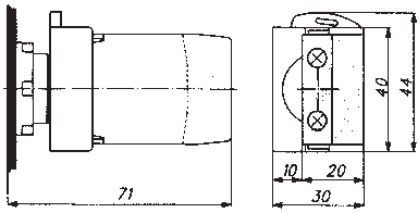
P9PRNV– / P9PDTV0 / P9PRTV–



P9PREV–



P9PTNV–



P9PDMV– / P9PTMV–