

Series P9

Control and signalling units

Technical data

Compliance with standards

IEC 947-5-1 - VDE 0660 - NF03140
CEI EN50947-5-1 - 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 50015)

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

Group C according to VDE 0110

E.6 GE Power Controls

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Electrical endurance

Alternative current 50/60 Hz cat. AC 15

Direct current cat. DC 13

Electrical resistance of the contact

< 25 m Ω according to IEC295, cat. 3

Identification of the terminals

According CENELEC EN 50013

Electrical performances

Rated thermal current Ith = 10 A

Performances according IEC 947-5-1

Category AC 15	Use (V)	24	48	60	110	220	380	500	600
Current Ie (A)	10	10	10	6	3	2	1.5	1.2	

Category DC 13	Use (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 (4500)
DC Standard Duty (2000)

Operating range

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		
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 10 mm or 1/4 10 mm and 1/4 20 mm or 1/4 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).

E.7 GE Power Controls

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Contact blocks

Logic Reed

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

Contact type	1NO or 1NC	Cat. no.	Ref. no.
Rated voltage	AC 25 to 120V max.	P9B01FH	187014
Rated current	DC 2 to 30V max.		
Rated power	AC 250 - 0.001 to 0.15A max.		
	AC - 5VA max.		
	DC - 4.5W max.		
Minimum centerline distance	3x3.5 mm.	PIACFSM	187848
Mounting on operators	through specific bayonet flange adaptor	PPDPHF	187056

With screw

min. 1 of 22 AWG (0.32 mm)
max. 2 of 12 AWG (0.5 mm)

Contact type

NC+NO	P9B11VN	187000	
NC-NO	P9B20VN	187008	
NO+NO	P9B20VN	187008	
NC	P9B01VN	187001	
Standard NO low power NO	P9B10VN P9B10FH	187002	
NC late opening	P9B01VR	187003	
NO early closing	P9B10VA	187004	
NC+NO delayed	0.1-30 sec 10-180 sec	P9B11T3 P9B11T8	187010 187011
NC	P9B01FN	187012	
NO	P9B10FN	187013	

The catalogue numbers in bold are available from stock.

E.8 GE Power Controls

59,8

29,7

44,2

Ø22,2

Ø22,5

46,5

Guarnizione
Rubber gasket

SCALA 2:1
SCALE 2:1

Montaggio tipico per più di un pulsante
Standard mounting for more than one button

SCALA 1:2
SCALE 1:2

NOTA:
COD. P9B01VN: IP66 in accordo alla EN60569 se montato all'interno di un involucro con un grado di protezione maggiore o uguale.
COD. P9B01VN: IP2X in accordo alla EN 60569.

NOTE:
COD. P9B01VN: IP66 according to EN60569 if is mounted into an enclosures with se same or higher degree of protection.
COD. P9B01VN: IP2X according to EN 60569.

ELENCO PARTI/ITEMS

ELEMENTO/ELEMENT	QTÀ/QTY	NUMERO PARTE/PART NUMBER	DESCRIZIONE/DESCRIPTION
2	1	CEMA - cod. P9B01VN	N.C. CONTACT
1	1	CEMA - cod. P9MPNLS	PUSH BUTTON BLUE HEAD

Suitbol for:

Unspec. Tolerances

Surf. fin. DIN ISO 1302

Edizione

Scale

Weight 0.100 kg

Made from

DRUCKKNOPF
PULSANT GE SERIE P9
COLORE BLU
C186458

Rev. Change

Date

Name

Origin

Supers

Sup.by

Sheet 1

EN/IT 1 Sh

EN3

01 PULSADOR DE TEST
PULSANTE DI PROVA

1

KNORR
C186458

0.100

BARCA
MARCA

DESCRIPCIÓN
DESCRIZIONE

CANT.
QUANT.

CÓDIGO O NORMA
CÓDICE O NORMA

MATERIAL O REFERENCIA
MATERIALE O REFERENZA

PESO
PESO (Kg)

DIMENSIONES
DIMENSIONES (mm)

LOCOMOTIVA E401

A Modificar cajetin 2016-07-04 96411

ISO 2768-cK
DIN ISO 13920-BF

0.100 A1 BEASAIN OT

Power & Automation

Ed. Descripción Date Name

X:X Diseñado 21/01/2016 10221

Comprovato 21/01/2016 10988

Verificado 21/01/2016 14422

Date

es/it

PULSADOR DE TEST

PULSANTE DI PROVA

CONSTRUCIONES Y AUXILIAR DE FERROCARRILES, S.A.
BEASAIN (GIPUZKOA)

B.20.88.302

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