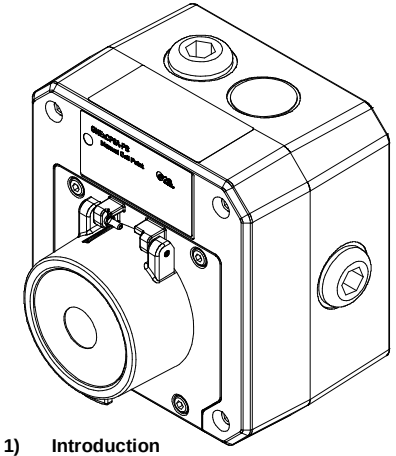
INSTRUCTION MANUAL
GNExCP6B-PB Push Button Manual Call Point
For use in Flammable Gas and Dust Atmospheres

GNExCP6B-PB
Manual Call Point – Push Button With Resistor Modules
For use in Flammable Gas and Combustible Dust Atmospheres.



1) Introduction

The GNExCP6B-PB is a push button manual call point which is certified to the European and International Gas and Dust standards. The unit meets the requirements of the ATEX directive 94/9/EC and IECEx scheme.

The call point can be used in hazardous areas where potentially flammable gas and dust atmospheres may be present.

The GNExCP6B-PB has up to two of the following monitoring resistors/diodes/zeners/LEDs. The units are Group II, EPL (equipment protection level) Gb. The equipment is certified 'Ex e d mb IIC T4 Gb' and as such may be used in Zones 1 and 2 with flammable gases and vapours with gas groups IIA, IIB & IIC and temperature classes T1, T2, T3 and T4.

These units are also Group III, EPL Db. The equipment is certified 'Ex t IIIC T80ºC Db' and as such may be used in Zones 21 and 22 for combustible dusts groups IIIA, IIIB & IIIC.

2) Marking

All units have a rating label, which carries the following important information:-

Unit Type No.:
GNExCP6B-PB Manual Call Point

Input Voltages:

48VDC nominal	56VDC Max	0.75Amax
24VDC nominal	28VDC Max	1.0A Max
12VDC nominal	15VDC Max	1.0A Max
6VDC nominal	9VDC Max	1.0A Max

Code:
Ex e d mb IIC T4 Gb
Ex t IIIC T80 ºC Db
IP66
–40ºC <= Ta <= +50ºC

Certificate No.:
SIRA 09ATEX3286X
IECEx SIR 09.0121X

Epsilon x: II 2GD

CE Marking
Notified body No. 0518

Year/Serial No. i.e. 12/1CP6BPB000001

WARNING - DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT, ELECTROSTATIC HAZARD – CLEAN ONLY WITH A DAMP CLOTH

3) Type Approval Standards

The call point has an EC Type examination certificate issued by SIRA and have been approved to the following standards:-

IEC 60079-0:2007
EN 60079-1:2004 / IEC 60079-1:2003
EN 60079-7:2007 / IEC 60079-7:2006
IEC 60079-18:2009

EN 61241-1:2004 / IEC 61241-1:2004

The equipment is certified for use in ambient temperatures in the range -40°C to +50°C and shall not be used outside this range.

4) Installation Requirements

Installation of this equipment shall only be carried out by suitably trained personnel in accordance with the applicable code of practice e.g. IEC 60079-14/EN 60079-14

Repair of this equipment shall only be carried out by the manufacturer or in accordance with the applicable code of practice e.g. IEC 60079-19/EN 60079-19.

The certification of this equipment relies on the following materials used in its construction:

Enclosure: GRP - Glass Reinforced Polyester

Through enclosure mechanism: Plastic Nylon Zytel Injection Moulded

Sealing of enclosure and mechanism: O-ring Acrylonitrile-Butadiene Rubber

Potting Compound of resistors where used: Epoxy Resin

If the equipment is likely to come into contact with aggressive substances, then it is the responsibility of the user to take suitable precautions that prevent it from being adversely affected, thus ensuring that the type of protection is not compromised.

"Aggressive substances" - e.g. acidic liquids, gases or solvents that may affect polymeric materials.

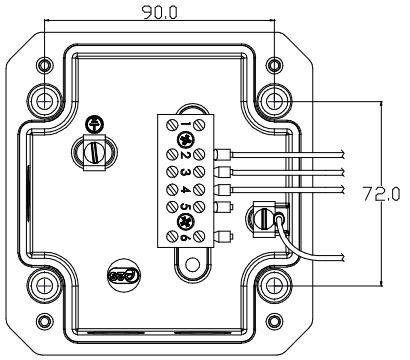
"Suitable precautions" - e.g. regular checks as part of routine inspections or establishing from the material's data sheet that it is resistant to specific chemicals.

Refer to certificates SIRA 09ATEX3286X and IECEx SIR 09.0121X for special conditions of safe use.

Under extreme conditions the unit may generate an ignition-capable level of electrostatic charges. The unit must not be installed in a location where it may be subjected to external conditions (such as high pressure steam) which may cause a build-up of electrostatic charges on non-conducting surfaces. Cleaning of the unit must only be carried out with a damp cloth.

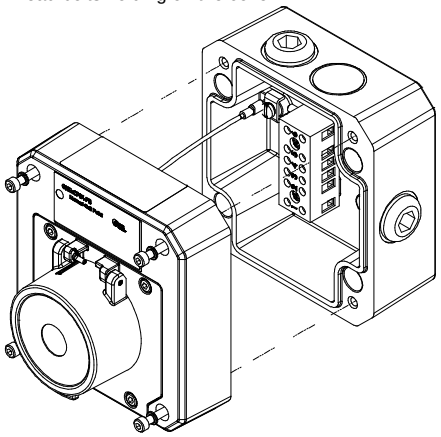
5) Call Point Location and Mounting

The location of the call point should enable ease of access for operation and testing. The unit should be mounted using the 4 off fixing holes which will accept up to M4 sized fixings.



View of base unit showing fixing centres (in mm).

To gain access to the mounting holes in the base the front cover must be removed.
This is achieved by removing the 4 off M4 cap head bolts holding on the cover.

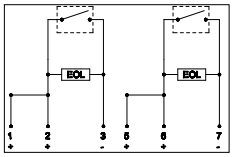


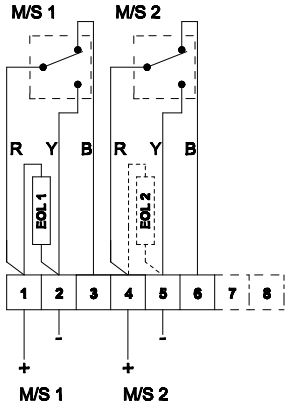
Once the screws are removed the cover will hang down out of the way to gain access to the Ex e terminal block, the internal earth terminal and mounting hole recesses.

(DIN RAILONLY)

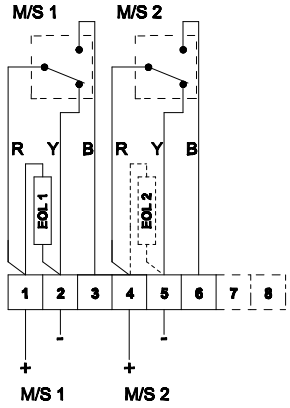
Dual Microswitch with EOL (End Of Line) Device/s

Resistor: - ExxxR
Diode: - ED1
Zener Diode: - ExxxZ





4A - Circuit shown in Unoperated condition
Terminals+ (1) & -(2) M/S 1 open and +(4) & -(5) M/S 2 open
Terminals +(1) & (3) M/S 1 and +(4) & (6) M/S 2 closed

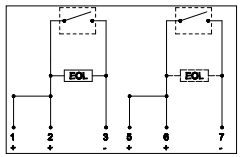


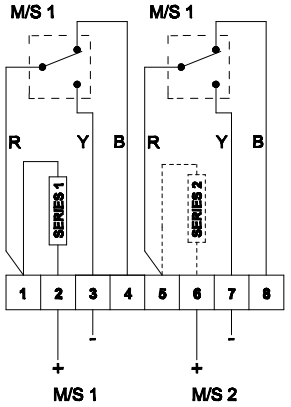
4B - Circuit shown in Operated condition (Button pressed In)
Terminals+ (1) & -(2) M/S 1 open and +(4) & -(5) M/S 2 closed
Terminals +(1) & (3) M/S 1 and +(4) & (6) M/S 2 open

(DIN RAILONLY)

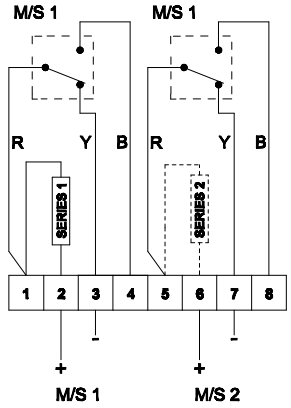
Dual Microswitch with Series Device/s

Resistor: - SxxxR
Diode: - SD1
Zener Diode: - SxxxZ
LED: - LED





5A - Circuit shown in Unoperated condition
Terminals +(2) & -(3) M/S 1 and +(6) & -(7) M/S 2 open
Terminals +(2) & (4) M/S 1 and +(6) & (8) M/S 2 closed

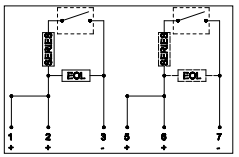


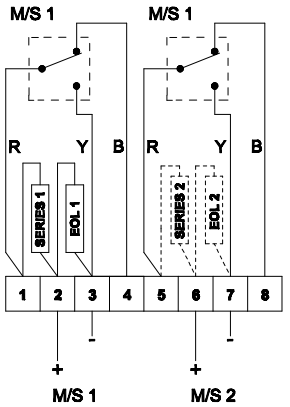
5B - Circuit shown in Operated condition (Button pressed In)
Terminals +(2) & -(3) M/S 1 and +(6) & -(7) M/S 2 closed
Terminals +(2) & (4) M/S 1 and +(6) & (8) M/S 2 open

(DIN RAILONLY)

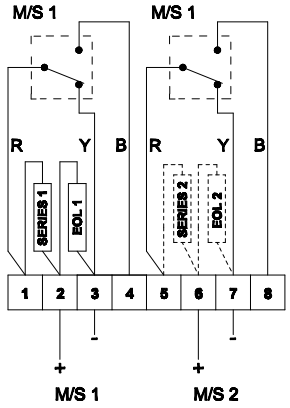
Dual Microswitch with EOL & Series Device/s

	EOL	Series
Resistor: -	ExxxR	SxxxR
Diode: -	ED1	SD1
Zener Diode: -	ExxxZ	SxxxZ
LED: -	N/A	LED





6A - Circuit shown in Unoperated condition
Terminals +(2) & -(3) M/S 1 and +(6) & -(7) M/S 2 open
Terminals +(2) & (4) M/S 1 and +(6) & (8) M/S 2 closed



6B - Circuit shown in Operated condition (Button pressed In)
Terminals +(2) & -(3) M/S 1 and +(6) & -(7) M/S 2 closed
Terminals +(2) & (4) M/S 1 and +(6) & (8) M/S 2 open