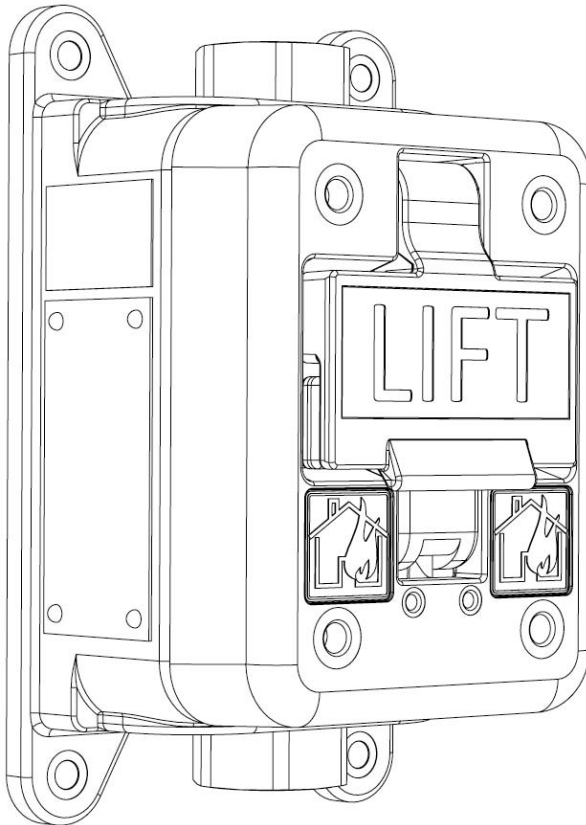




## Technical Manual for the Alarm Pull Station – PH1



Please note that every care has been taken to ensure the accuracy of our technical manual. We do not, however, accept responsibility for damage, loss or expense resulting from any error or omission. We reserve the right to make alterations in line with technical advances and industry standards.



## 1.0 INTRODUCTION

These manual alarm pull stations have been designed for use in hazardous locations and harsh environmental conditions. The GRP enclosures are suitable for use offshore or onshore where light weight combined with a high level of corrosion resistance is required

## 2.0 GENERAL SAFETY MESSAGES AND WARNINGS

All instructions and safety messages in this manual must be followed to allow safe installation of the device. The device must only be installed and maintained by correctly trained site personnel/installers.

- i. To reduce the risk of ignition of hazardous atmospheres and shock, do not apply power to the device until installation has been completed and the device is fully sealed and secured.
- ii. To reduce the risk of ignition of hazardous atmospheres and shock, keep device tightly closed when the circuit is energised.
- iii. Before removing the cover for installation or maintenance, ensure that the power to the device is isolated.
- iv. Following installation, test the device to ensure correct operation.
- v. Following installation ensure a copy of this manual is made available to all operating personnel
- vi. When installing the device, requirements for selection, installation and operation should be referred to e.g. IEE Wiring Regulations and the 'National Electrical Code' in North America. Additional national and/or local requirements may also apply.
- vii. Cable termination should be in accordance with specification applying to the required application. MEDC recommends that all cables and cores should be correctly identified. Please refer to the wiring diagram in this manual (or separate diagram provided with the unit).
- viii. Ensure that only the correct listed or certified cable glands are used and that the assembly is shrouded and correctly earthed.
- ix. Ensure that only the correct listed or certified stopping plugs are used to blank off unused gland entry points and that the NEMA/IP rating of the unit is maintained.
- x. MEDC recommend the use of a sealing compound such as HYLOMAR PL32 on the threads of all glands and stopping plugs in order to maintain the IP rating of the unit.
- xi. The internal earth terminal, where fitted, must be used for the equipment grounding and the external terminal, if available, is for a supplementary bonding connection where local codes or authorities permit or require such a connection.
- xii. When installing the device, MEDC recommends the use of stainless steel fasteners. Ensure that all nuts, bolts and fixings are secure.
- xiii. Blanking plugs are not to be used with the cable entries.
- xiv. When fitting or removing cable entry glands, the cable entry inserts must be held with a suitable tool to prevent movement.
- xv. **To support the requirements of UL38 Clause 6.1.2, when multiple call points are installed in a single zone the two 18AWG wires required for each of the common incoming and outgoing terminals must be crimped together in a single boot lace ferrule.**
- xvi. **Units supplied in any colour other than red are for ancillary use only and shall not be used for fire alarm use**

## 3.0 INSTALLATION

The pull station is mounted via the 4 off  $\varnothing$  6.5mm ( $\varnothing$  1/4") fixing holes in the base of the enclosure. The unit has been designed and certified to operate at any attitude

The fixing holes have been designed to accept an M6 screw or bolt.

### Cable Termination

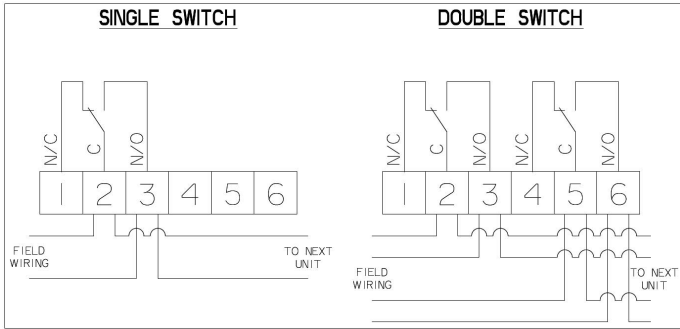
Unscrew the 4 off M6 screws (5.0mm A/F hexagon key) holding the cover assembly to the base. The cover screws are retained in the cover assembly for ease of installation. Gently lift the cover assembly away from the base of the enclosure to gain access to the interior.

Once termination is complete, carefully lower the cover assembly back onto the base, avoiding damage to the mating surfaces. Ensure the o-ring is correctly seated in its groove during re-assembly. Evenly tighten the 4 off cover screws (5.0mm A/F hexagon key). **The required torque on each explosion-proof enclosure cover screw shall not be less than 40 in-lbs (4.5Nm).** Ensure the required gap (0.038mm / 0.0015" Max.) is maintained between the cover and the base.

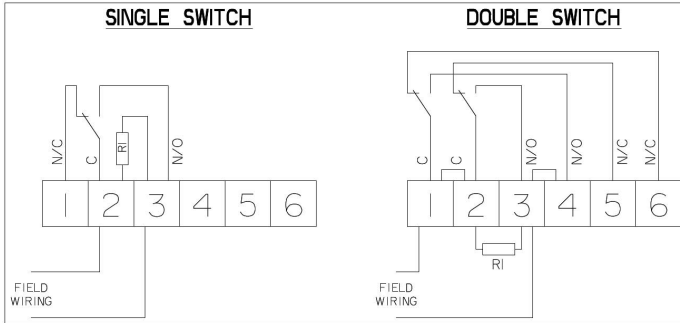
#### 4.0 STANDARD WIRING OPTIONS

See below for various wiring options for the PH1. Note: This is not an exhaustive list and the units may be wired to suit customer's requirements. If a different wiring layout has been specified when ordering the unit, please see separate wiring diagram supplied with the unit.  
EOL resistors should only be fitted to the last unit in a system

##### Wiring - Switch only

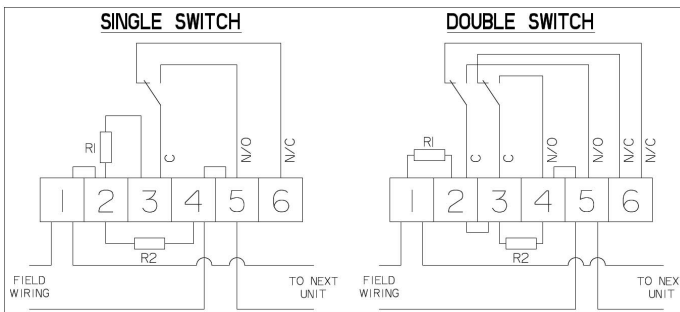


##### Wiring - c/w EOL resistor



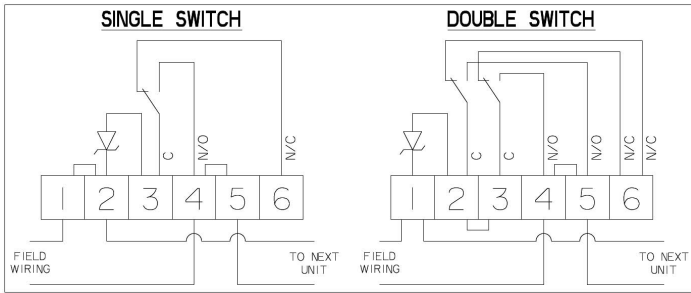
R1 – EOL Resistor

##### Wiring - c/w series or series & EOL resistors

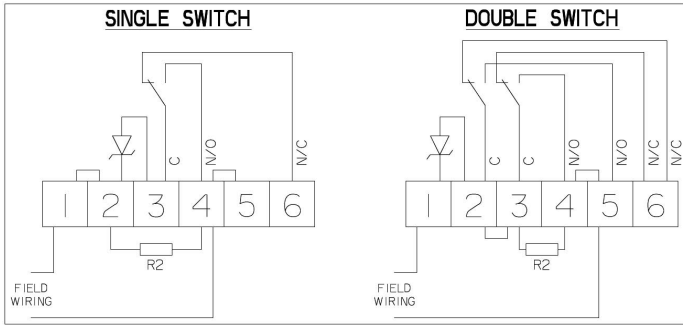


R1 – Series resistor, R2 – EOL resistor (if fitted)

**Wiring – c/w series zener diode**

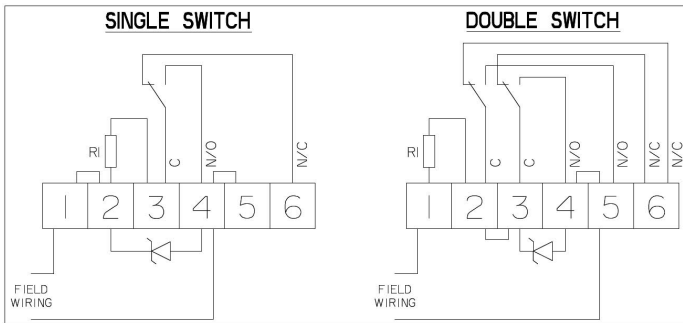


**Standard wiring – c/w series diode and EOL resistor**



R2 – EOL resistor

**Standard wiring – c/w series resistor and EOL diode**



R1 – Series resistor

## 5.0 OPERATION

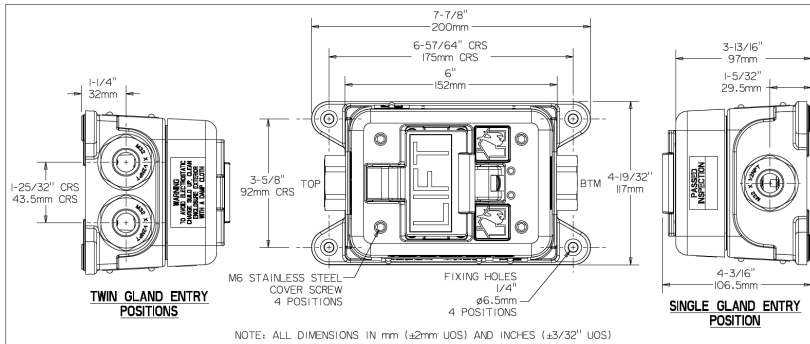
The unit is operated by lifting the spring loaded flap on the front of the unit, then pulling down the handle underneath. The pull handle will rotate downwards through 90 degrees. The pull handle will remain latched in the operated position until manually reset. The lift flap can be lowered back to its original position until the unit needs to be reset.

The reset the unit, first raise the lift flap away from the pull handle. The key (provided with the unit) is inserted into the two holes located underneath the pull handle in the front face until resistance is felt. Depress the key further to release the pull handle which can be returned to its original position. Finally, lower the lift flap back to its original position.

**Note:** When resetting the unit, please ensure the key is depressed centrally with even pressure on each leg of the reset key.

The operating voltage of the unit is stated on the certification label

### GENERAL ARRANGEMENT



## 6.0 MAINTENANCE

During the working life of the unit, it should require little or no maintenance. GRP will resist attack by most acids, alkalis and chemicals and is as resistant to concentrated acids and alkalis as most metal products. However, if abnormal or unusual environmental conditions occur due to plant damage or accident etc., then visual inspection is recommended.

If the unit requires cleaning, then only clean exterior with a damp cloth to avoid electro-static charge build up.

If a unit fault should occur, then the unit can be repaired by MEDC. All parts of the unit are replaceable.

If you acquired a significant quantity of units, then it is recommended that spares are also made available. Please discuss your requirements with the Technical Sales Engineers at MEDC.

## **7.0 CERTIFICATION/APPROVALS**

Please refer to marking on the unit for specific approval details

### **UL Ordinary locations units:**

UL listed for use in USA (USL) and Canada (CSL) ordinary locations

Suitable for indoor or outdoor use.

### **UL Hazardous Locations (Class I, Div. 1) units:**

UL listed for use in USA (USL) and Canada (CSL) Hazardous locations

Class I, Div. 1 & 2 groups B, C & D

Class II, Div. 1 & 2, groups E, F & G

Class III

### **UL Hazardous Locations (Class I, Div. 2) units:**

UL listed for use in USA (USL) and Canada (CSL) Hazardous locations

Class I, Zone 1, AEx d IIC, Ex d IIC

Class I, Div. 2 groups A, B, C & D

Class II, Div. 2, Groups F & G

Class III

### **UL Standards:**

UL38, UL50, UL50E, UL1203, ULC528, UL60079-0, UL60079-1, ANSI/ISA 12.12.01

### **Certified temperature**

-50°C to +70°C

-58°F to +158°F

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