# Watertight Pressure Gauge

## for High Voltage Cables

Model 510

For power cables. The model 510 Watertight HV cable Gauge has to continually operate in the remote severe environments where robustness coupled with repeatability are paramount.

The model 510 is designed to meet many International and regulatory standards including ESI 50-1 that requires the gauges to be fully immersible under water and are Type Tested to industry standard NGTS 3.5.9 Issue 2\*.

Units can be supplied fitted with up to three electrical contacts whose operation can be independently defined and adjusted by use of a removable key. Electrical connections are taken via a three metre PVC insulated and sheathed cable from the side of the case, the wires are colour coded for ease of installation.\* Certification available upon request



Size

150 mm (6")

Mounting

Direct / Surface

Case & Bezel

Grey Cast Iron, grey polyester powder coated, with back flange

Scale Ranges

0 to 1 Bar up to 0 to 25 Bar

Dual Scale units or custom scales can be provided

Pressure Element

Phosphor Bronze seamless bourdon tube, with Brass body and connection

Overload

Units will withstand overload pressure up to 130% FSD.

Pressure Connection

3/8" BSP

Other connections available

**Electrical Contacts** 

Available with independent single, double or triple contacts (see reverse of datasheet for more details)

**Accuracy Class** 

1% of FSD as defined in EN837-1 NGTS 3.5.9 Issue 2\* Type Tested.

Temperature

Operating: -20 to +90 Degrees C Storage: -40 up to + 100 Degrees C

Temperature Effect

Variation in indication caused by temperature shall not exceed  $\pm$  0.04 x ( $t_2$ – $t_1$ )% of the span where:

t<sub>1</sub> is the reference ambient temperature in degrees Celsius t<sub>2</sub> is the ambient temperature in degrees Celsius

#### Dial

White anodised Aluminium with black scales Option: Dual scales or special dial markings are available

Pointer

Black anodised aluminium

Movement Stainless Steel

Window Acrylic Plastic Window

**Environmental Rating** 

IP68 as defined in EN 60 529

Traceability

All instruments are individually calibrated and have an unique Serial Number printed on the dial. A Certificate of conformity traceable to National Standards is supplied free of charge.

Certification Available

BS EN 10204 3.1B Material Certification Point by point Certificate

Safety

All units are manufactured to comply with EN 837-1 and other regulatory standards including P.E.D.

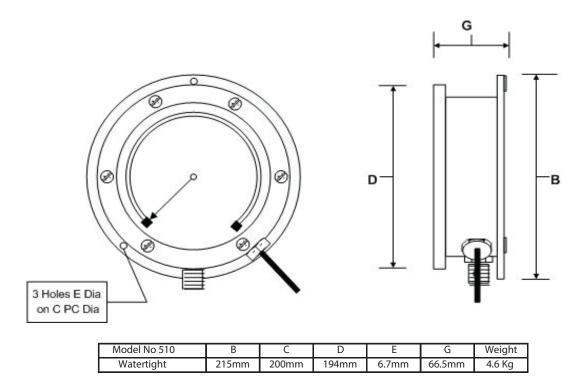
Installation Instrucitons

Refer to EN 837-2





#### **Dimensions**



#### **Electrical Contacts**

Units can be supplied with up to three independently settable Model 144 electric contacts, each of which can have a different mode of operation as follows:-

Make on Rising Pressure MR - contacts normally open but close when rising pressure achieves the pressure setting. Break on Rising Pressure BR - contacts normally closed but open when rising pressure achieves the pressure setting. Make on Falling Pressure MF - contacts normally open but close when rising pressure achieves the pressure setting. Break on Falling Pressure BF - contacts normally closed but open when rising pressure achieves the pressure setting.

#### Standard Vibrations

The following are standard variants readily available based on configurations supplied to many of the world's large cable manufacturers

Option 1 - No electric contact, 3/8"BSP connection, range as specified by customer.

Option 2 - Gauge fitted with 144MF, Make on Fall magnetically assisted electric contacts Spec R/3183, with 3 metres of PVC insulated and sheathed cable from side of case. 3/8"BSP connection, range as specified by customer.

Option 3 - Gauge fitted with 144 MF/MF, Double Make on Fall magnetically assisted electric contacts Spec R/3152, of PVC insulated and sheathed cable from side of case. 3/8"BSP connection, range as specified by customer.

Option 4 - Gauge fitted with 144 MF/MF, Triple Make on Fall and Make on Rise magnetically assisted electric contact with 3 metres of PVC insulated and sheathed cable from side of case. 3/8"BSP connection, range as specified.

### Accessories

#### **Transmitters**

We have a range of standard and 'Smart' Transmitters that can be used in combination with the Watertight Cable Gauges - See separate Datasheets.

#### Valves & Adaptors

A full range of Needle and Ball Valves to fit the Watertight Cable Gauges - See separate Datasheets.

Specifications and dimensions in this leaflet, are subject to change without prior notice.



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