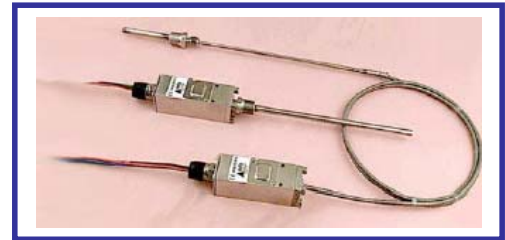


Compact Temperature Switches GR Series

GR7
ISSUE E

- Compact and rugged design.
- Hermetically sealed switch UL and CSA listed.
- ATEX - Flameproof CENELEC EEx d IIC option.
- ATEX – Intrinsically Safe ATEX Ex ia IIC option.
- Weatherproof IP66/NEMA 4.
- Stainless steel body option NEMA 4X rating.
- Ranges available up to 350 °C (660°F)
- 316 Stainless steel capillary and bulb.
- Optional weatherproof, ATEX EEx e, ATEX Ex ia or ATEX - Flameproof EEx d IIC terminal enclosures.
- Easy Field adjustable.
- Accuracy 1%



Performance characteristics

Enclosure options

- IP66 Protection NEMA 4
- Option NEMA 4X

System options

- 1.8 metre capillary with 250mm or 500mm semi rigid stem. (Bulb length 75mm / 2.95 inches)
- Rigid stem – length 216mm / 8.5 inches.
- Other capillary lengths available as specials – please consult sales engineering.

Standard Electrical ratings – Refer to Table 6

- 11 Amps silver contacts
- 5 Amps silver contacts.
- 1 Amp gold contacts

Process connection

- ½" NPT External Sliding Gland, ½" NPT External Direct Mounting.

Unit weight

- Between 0.9 kg – 3.3kg (1.98lb – 5.09lb) see end of datasheet for different instrument weights.

Accuracy

- Set point repeatability $\pm 1\%$ of span at 20 °C / 68 °F ambient.

Product applications

The GR series is suitable for a wide range of applications in many industry sectors:

- Oil & Gas
- Chemical
- Petrochemical
- OEM

The choice of models available ensures that the GR Series is suitable for use in:

- Corrosive atmospheres
- Resistant to chemical attack

How can we help you?

Delta Controls' range of reliable pressure and temperature measurement instruments can be customised to meet individual requirements. For technical advice or to discuss your application please contact us on +44 (0) 20 8939 3500

Enclosure

FINISH

Enclosures W and H are clear anodised aluminium; Epoxy paint is optional see Code 50 in Table 8. A and R are natural finish stainless steel.

All are suitable for use in hazardous areas as defined by NEC Article 500, Class 1 Groups A, B, C, D Class II Groups E, F, G Division 1 and 2. See Table 3 Code A.

TABLE 1

WEATHERPROOF ENCLOSURES	Code
Aluminium General Purpose Weatherproof For outdoor industrial use IP66/NEMA 4.	W
Stainless Steel Weatherproof For outdoor aggressive atmospheres e.g. marine NEMA 4X/IP66	A
FLAMEPROOF ENCLOSURES	
Aluminium Weatherproof/Explosionproof IP66/NEMA 4, 7, 9 With CENELEC approval EEx d IIC. See approvals. <div style="text-align: right; font-size: small;"> Ex II 2 G </div>	H
Stainless Steel Weatherproof/Explosionproof IP66/NEMA 4X, 7, 9 For use in aggressive atmospheres e.g. marine. With CENELEC approval EEx d IIC. See approvals. <div style="text-align: right; font-size: small;"> Ex II 2 G </div>	R
INTRINSICALLY SAFE ENCLOSURES	
Stainless Steel Weatherproof/Explosionproof IP66/NEMA 4 With ATEX approval Ex ia IIC. II 1 G/D for Zone 0. See approvals. <div style="text-align: right; font-size: small;"> Ex II 1 GD </div>	4
Aluminium Weatherproof/Explosionproof IP66/NEMA 4X For use in aggressive atmospheres e.g. marine. With ATEX approval Ex ia IIC. II 1 G/D for Zone 0. See approvals. <div style="text-align: right; font-size: small;"> Ex II 1 GD </div>	5

Models

TABLE 2

Fixed Switching Differential Set point field adjustable over full range. SPDT & DPDT options available	GR7
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Technical Specifications

ACCURACY

Set point repeatability $\pm 1\%$ of span at 20°C/68°F.

AMBIENT TEMPERATURE RANGE

Certified Enclosures.

Refer to Approvals and Tables 1 & 3 for limitations of ambient use.

OPERATION

Suitable for operating within a range of ambient temperatures from -40° to +80°C (-40° to 176°F)

ELECTRICAL CONNECTIONS

Flying Lead

High Duty PVC insulated 1.19mm²/18 AWG factory sealed flying leads. Rated insulation voltage UL/CSA 600 V.

Terminal Enclosures

Suitable for conductor sizes up to 2.5mm²/14AWG non-pinching, clamped.

Dielectric Strength

The electrical assembly is capable of withstanding 1.5kV between live parts and ground.

Earthing/Grounding

Flying lead versions have separate earth/ground conductor. Terminal enclosures have additional internal earthing/grounding facility.

Isolation

These products are not suitable for electrical isolation for purposes of safety.

Pollution Degree

All switches rated IP66 are suitable for use in pollution degree 3.
Ref IEC 947-5-1

OPTIONAL EXTRAS

Mounting

Position/Location/Installation

Avoid sitting in locations that transmit excessive shock or vibration. For further advice contact our engineers.

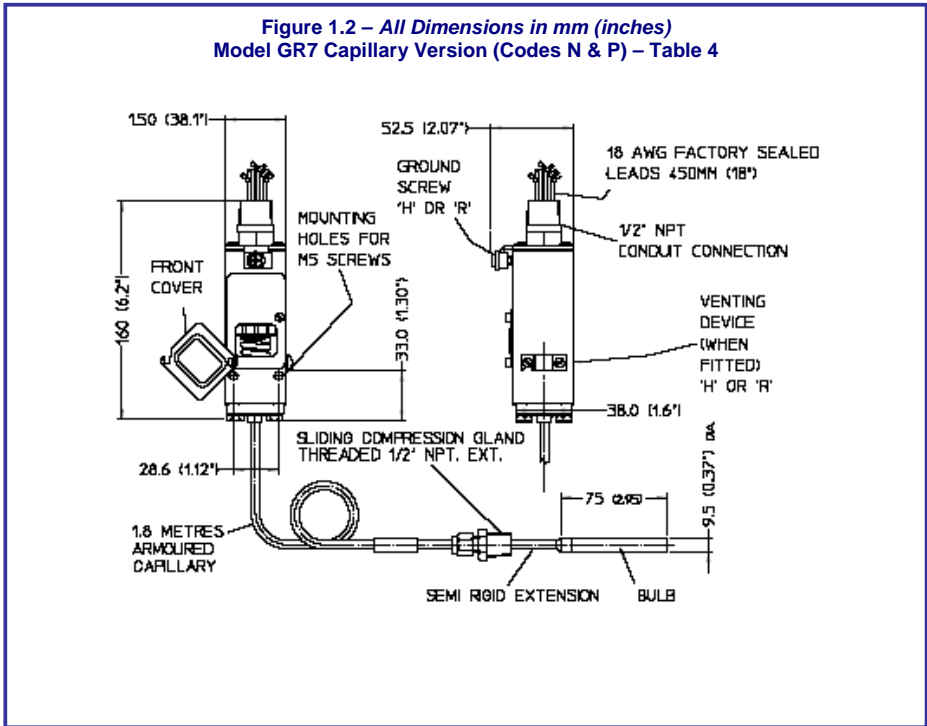
Pipe Mounting Bracket

See Table 8.

Tagging

See Table 8.

Figure 1.2 – All Dimensions in mm (inches)
 Model GR7 Capillary Version (Codes N & P) – Table 4



Dimensions

Wiring Diagram

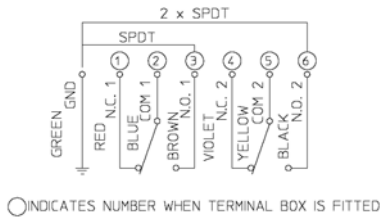
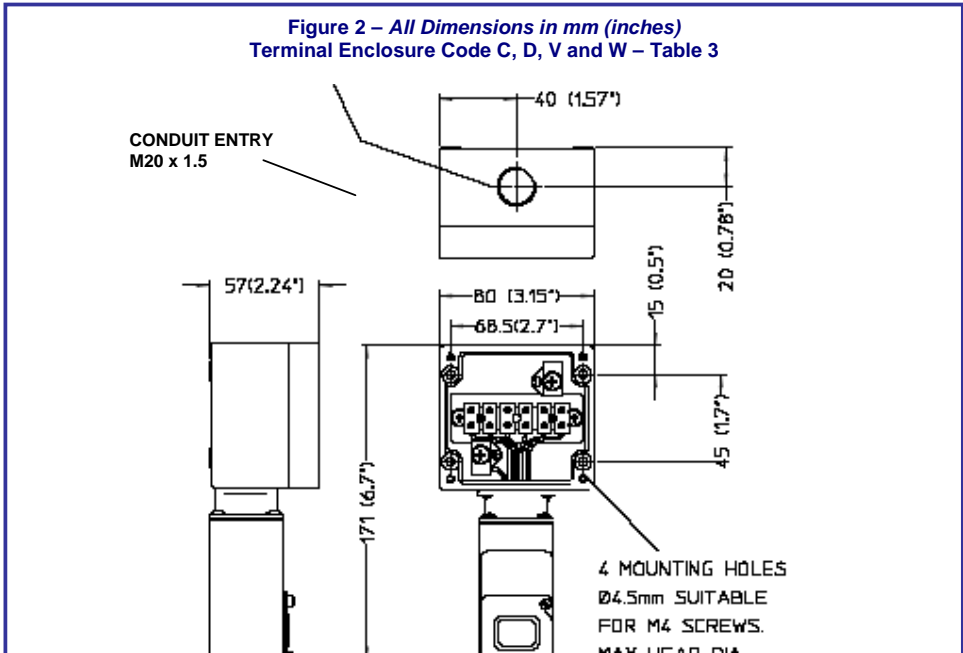
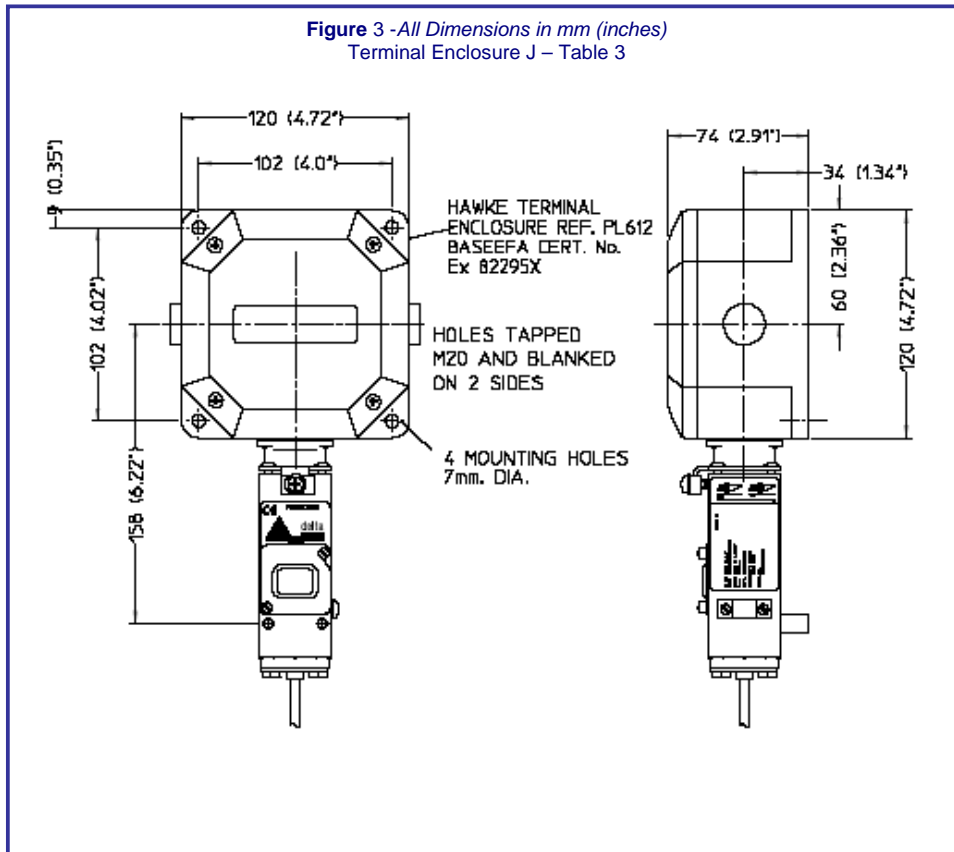


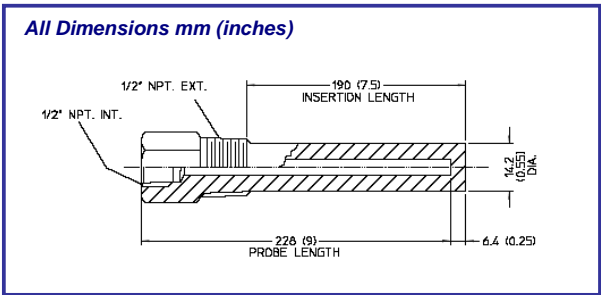
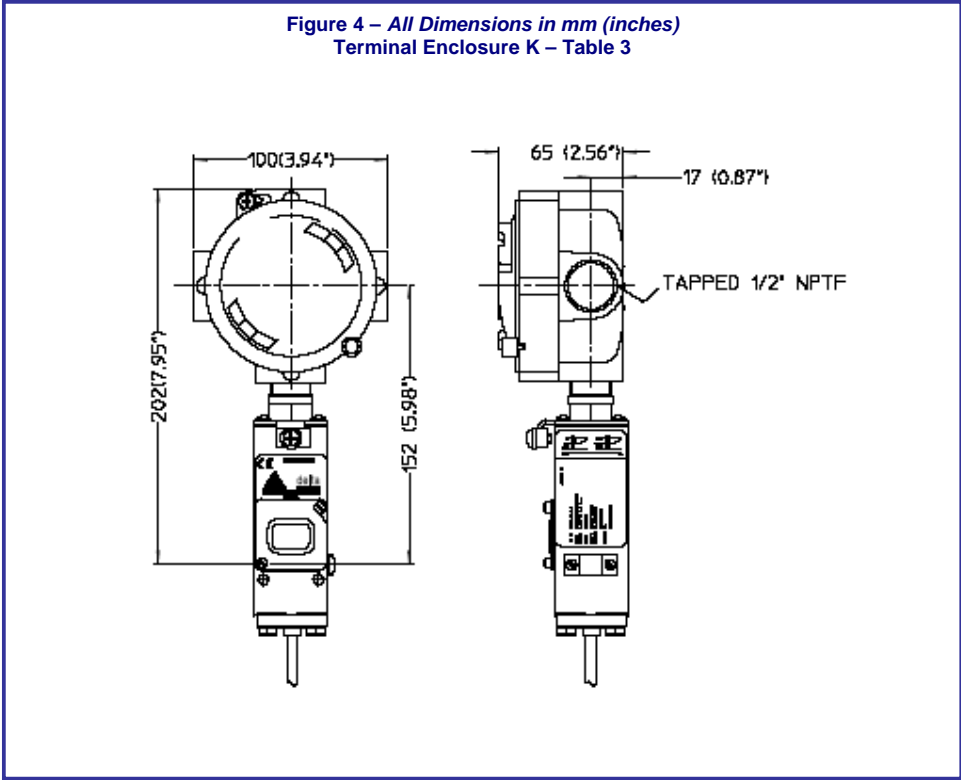
Figure 2 – All Dimensions in mm (inches)
 Terminal Enclosure Code C, D, V and W – Table 3



Dimensions



Dimensions



THERMOWELL

Material 316 SS
 Max. Working Pressure
 140 bar (2000 psi) at 20°C

Thermowells can also be manufactured to customers own drawing specification requirements.

In the interest of development and improvement Delta Controls Ltd, reserves the right to amend, without notice, details contained in this publication. Delta Controls Ltd will accept no legal liability for any errors, omissions or amendments.



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