

# HT-TH2 Temperature sensor

# Hydrogen



- Pressures of up to 1000 Bar
- Low-cost OEM temperature sensor
- Suitable for hydrogen applications
- Multiple signal output options
- Stainless Steel 316L wetted parts
- No internal seals
- Weld-less design

**DISCOVER MORE AT**  
**[HYDROTECHNIK.CO.UK/TH2](http://HYDROTECHNIK.CO.UK/TH2)**

**Storage**  
**Fuel Cells**

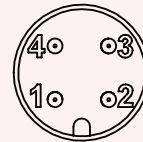
**Automotive**

**Gas Engineering**

**Chemical Engineering**

## TECHNICAL DATA

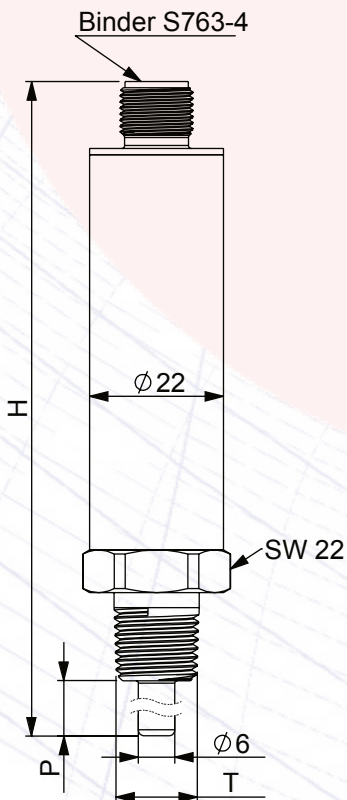
| Parameter                    | Standard sensor                          | Explosion-proof sensor                      |
|------------------------------|--|---|
| Temperature range            | -50...+100°C to 0...200°C                |   |
| Output                       | 4...20mA                                 |   |
| Span                         | 16mA                                     |   |
| Supply voltage (Vs)          | 10...32V                                 | 20...27V                                    |
| Recommended load resistor    | $(V_s - 10V) / 20mA$ kΩ                  |   |
| Isolation resistance         | 100 MΩ                                   |   |
| Measuring medium temperature | -40...+125°C                             | -40...+120°C                                |
| Storage temperature          | -40...+125°C                             |   |
| Weight                       | 80...120g                                | 60g   |
| Mounting direction           | No restriction                           |   |
| Wetted components            | Stainless Steel 316L                     |   |
| Maximum mounting force       | 25Nm                                     |   |
| Electrical connection        | S763-4. 1 = +VDC, 2 = nc, 3 = -VDC, 4=nc |   |
| Rating                       | IP65                                     | IP67  |
| ATEX rating                  | N/A                                      | IECEx: IEC 60079-0:2011 / IEC 60079-11:2011 |



All parameters guaranteed for specified conditions.

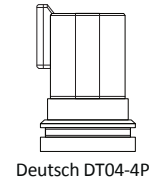
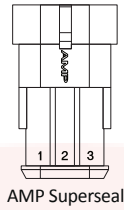
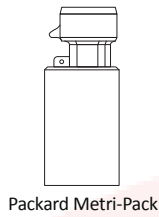
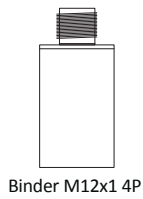
Isolation resistance is measured between case and pins (50VDC for one minute).

## TECHNICAL DRAWING



| Dimension | Standard sensor               | Explosion-proof sensor |
|-----------|-------------------------------|------------------------|
| H         | Max. 70mm                     | 103.5mm                |
| P         | 10mm                          | 5mm                    |
| T         | See ordering code information |                        |

## ELECTRICAL CONNECTIONS EXAMPLES



### HT-TH2-**AA**-**BB**-**CC**-**DD**-**EE**

Replace **AA** with the code for the approval required  
**XX** = No extra approval  
**X1** = Zone 1 II 2G EX ia IIC T4 Gb (4-20mA only)

EC79 as standard

Replace **BB** with the code for output signals required  
**01** = PT100  
**02** = PT1000  
**03** = 4...20mA  
**04** = 0...10V  
**05** = 1...5V  
**06** = 0...5V  
**07** = 0.5...4.5V (ratiometric)

Replace **CC** with the required Temperature range (°C)  
**01** = -50...+100  
**02** = -50...+50  
**03** = 0...50  
**04** = 0...100  
**05** = -50...150  
**06** = -50...200  
**07** = 0...150  
**08** = 0...200  
**09** = -40...125

Replace **EE** with the code for electrical connections required  
**01** = Binder M12x14P  
**02** = Packard Metri-Pack  
**03** = AMP Superseal  
**04** = Deutsch DT04-3P  
**05** = Deutsch DT04-4P  
**06** = DIN Form A  
**07** = Pre-cable at 5 meters  
**08** = 9/16-18 UNF 2A

Other connections available on request

Replace **DD** with the required thread  
**01** = G1/4 E  
**02** = G1/4 A  
**03** = 1/4" NPT  
**04** = G1/2 E  
**05** = 1/4" NPT

## ORDERING EXAMPLE

### HT-TH2-**X1-03-06-03-01**

HT-TH2 with Zone 1 approval, 4...20mA output signal, -50...200°C temperature range, 1/4" NPT thread and Binder M12x14P electrical connection.

