

# Pressure Transmitter DTMH

For hydrogen applications

Pressure ranges 0 – 4 bar to 0 – 600 bar

ARMANO

T09-000-059

## Applications

The pressure transmitter DTMH is suitable for the gauge pressure measurement of hydrogen and hydrogenous media. It is applied in the fields of chemistry/ petrochemistry, in engineering, automotive technology as well as hydrogen production and storage.

## Construction

Our pressure transmitter with thin film measuring cell stands out especially due to its robust construction. The thin film sensor is positioned directly in the pressure connection piece. The compact case offers high protection against moisture, it is particularly dirt-resistant and can also be applied under critical conditions.

## Standard Versions

### Construction Type

Installation length: standard, measuring cell placed inside

### Process Connection

G ½ B made of 316L (1.4404/ 1.4435) according to DIN EN 837-1

### Measuring Cell/ Sensor

Thin film, diaphragm made of 316L (1.4404/ 1.4435) welded, placed inside

### Case

Stainless steel, degree of protection IP65

### Pressure Ranges/ Overload

Overpressure

0 – 4 bar to 0 – 600 bar

-1 / +3 bar to -1 / +15 bar

(reference point ambient air pressure during manufacturing)

### Pressure Ranges in bar (DIN EN 837-3)

Compound	Pressure	Overload capability
-1 / +3	0 – 4	20
-1 / +5	0 – 6	
-1 / +9	0 – 10	
-1 / +15	0 – 16	100
	0 – 25	
	0 – 40	
	0 – 60	
	0 – 100	
0 – 160		
0 – 250	900	
0 – 400		
0 – 600		1400

### Output Signal

4...20 mA 2-wire

### Supply voltage

10...30 V DC

### Load impedance

( $U_B - 10$  V) / 0.02 A

### Measuring Accuracy

Better than  $\pm 0.5$  % of full scale value

(including non-linearity, hysteresis and non-repeatability)



### Temperature Ranges

Storage temperature

-40 °C to +80 °C (-40 °F to +176 °F)

Rated temperature

-20 °C to +120 °C (-4 °F to +248 °F)

### Temperature Influence in the Rated Temperature Range

< 0.3 % / 10 K

### Reference Temperature

+20 °C (+68 °F)

### Long-term Stability of Zero Point and Span

Better than  $\pm 0.1$  % p. a.

### Electrical Connection

Plug connector DIN EN 175301-803 construction type A,

3-pin + PE, degree of protection IP65 (EN 60529 / IEC 60529)

For assuring electromagnetic compatibility (EMC), please use a shielded cable (e.g. LP / LiMYCY).

### Position of Installation / Position of Connection

Vertical

### EMC

2014/30/EU

## Options

- Process connection G ¼ B according to DIN EN 837-1
- Electrical connection circular plug connector M 12x1 (IP67), angular or straight cable box, without cable, optional with 2 m die cast cable

## Special Versions Upon Request

- Other process connections
- Other pressure ranges

## Ordering Information

Please specify in your order:

**Basic model**

DTMH

**Pressure range**

e.g. 0 – 60 bar

**Output signal**

e.g. 4...20 mA

**Available specifics**

see above

**Example**

DTMH, 0 – 60 bar, 4...20 mA

[www.armano-messtechnik.com](http://www.armano-messtechnik.com)

ARMANO Messtechnik GmbH

Location Beierfeld • Am Gewerbepark 9 • 08344 Grünhain-Beierfeld  
Tel.: +49 3774 58 – 0 • Fax: +49 3774 58 – 545 • mail@armano-beierfeld.com

Location Wesel • Manometerstraße 5 • 46487 Wesel-Ginderich  
Tel.: +49 2803 9130 – 0 • Fax: +49 2803 1035 • mail@armano-wesel.com

10/22  
Pel/SWÜ

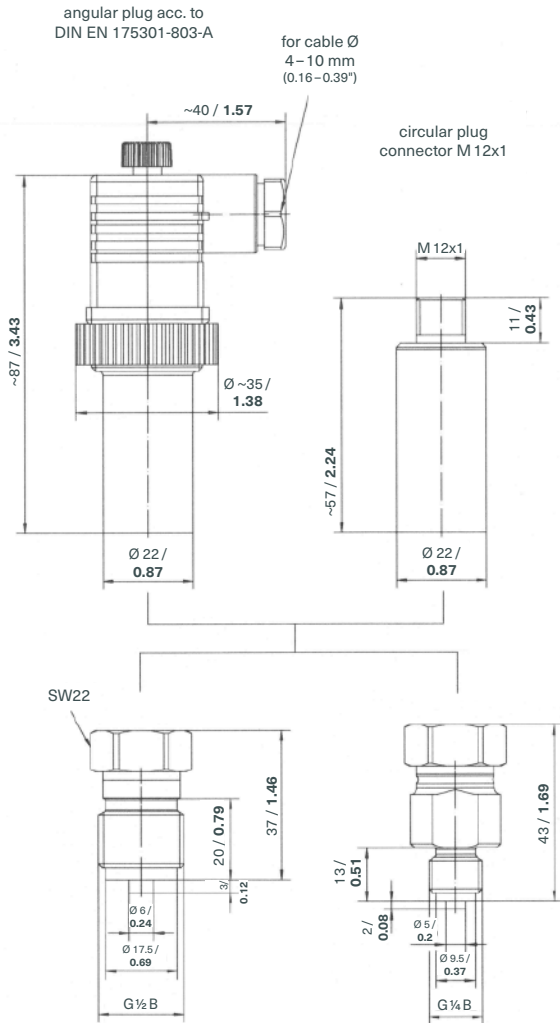
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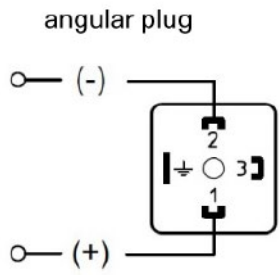
## Dimensional Data (mm / inch) and Weight

### Standard version

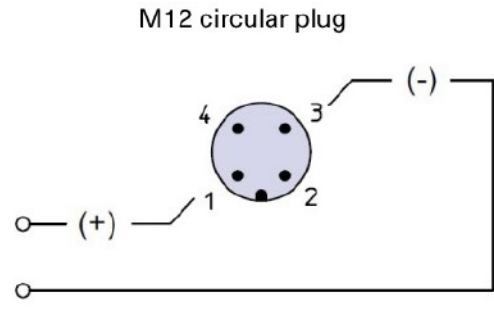


**Weight**  
approx. 0.15 kg (0.33 lb)

## Wiring Diagram



Do not connect terminals 3 and  $\perp$  electrically!



Do not connect terminals 2 and 4 electrically!

Earthing via process connection!

## Zero Adjustment

The zero point can be set easily with a magnet within  $\pm 10\%$  of the nominal range.

To correct the zero point, hold a permanent magnet (e.g. pin board magnet) at the position marked on the pressure transmitter (letter surrounded by a circle) approximately 30 – 150 seconds after the voltage supply has been switched on.

To correct the zero point, atmospheric pressure has to be applied. Offsets for previously set values for initial and final pressures will be corrected automatically by the device. A magnetic field applied outside of this time period has no effect on the setting. The supply voltage must be switched off and on before the zero point can be set again.

