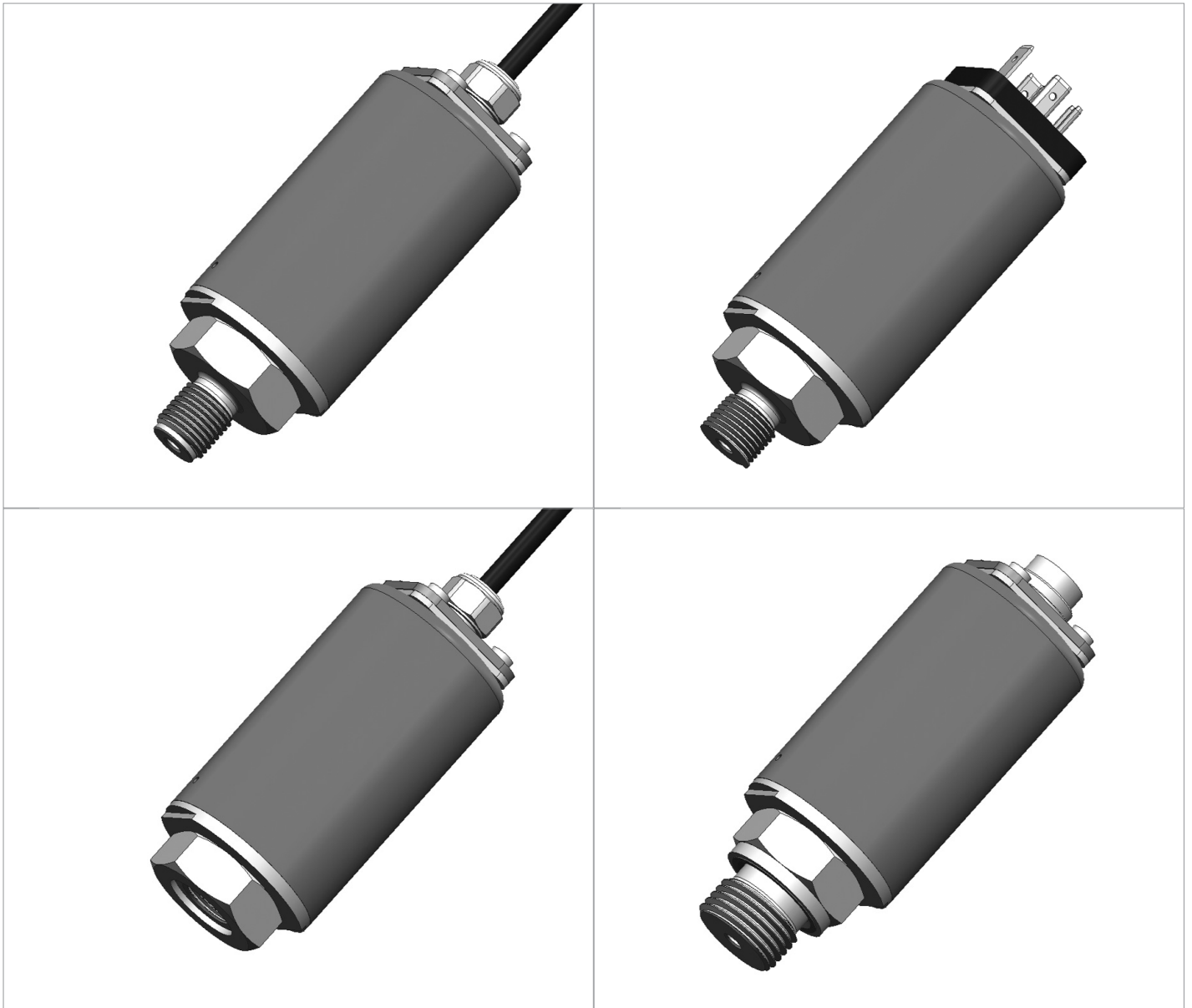


## Relative and absolute pressure transmitter

–1 ... 0 – 600 bar



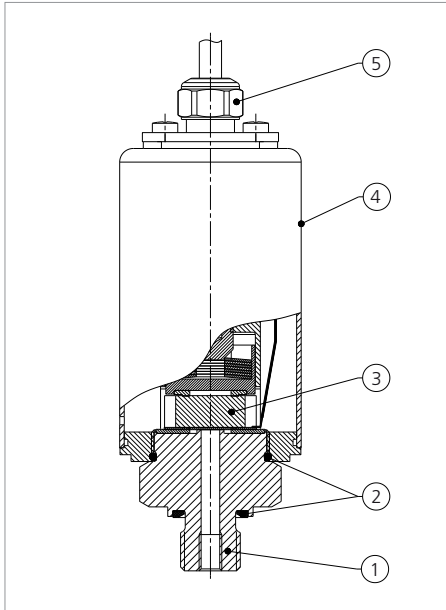
 **Huba Control**

FEINE MESSIDEEN FÜR DRUCK UND STRÖMUNG  
FOR FINE PRESSURE AND FLOW MEASUREMENT  
LA FINESSE DES MESURES DE PRESSION ET DE DÉBIT

## Technical overview

The pressure transmitter of type series 691 with unique and for the last 15 years used in millions of applications ceramic technology, features calibrated and amplified sensor signals which are available as standardised voltage or current outputs.

Various application-specific pressure and electrical connections can be provided.



## Legend to cross-section drawing

- 1 Pressure connection
- 2 Seals
- 3 Ceramic element
- 4 Cover
- 5 Electrical connection (Example cable with M10x1.5 screw fitting)

## The distinct advantages

- Very low temperature sensitivity
- High resistance to extreme temperatures
- No mechanical creepage
- Individual applications due to modular system

## Medium

Liquids and gases

## Pressure range

Relative                      -1 ... 0 – 600 bar  
Absolute                    0 ... 0.1 – 16 bar

## Tolerable overload

2 x Measuring range  
but as a maximum 1000 bar

## Rupture pressure

3 x Measuring range  
but as a maximum 1200 bar

## Materials in contact with the medium

Pressure connection:  
Stainless steel 1.4305 / AISI 303  
Special version in PVDF  
Measuring cell: Ceramic Al<sub>2</sub>O<sub>3</sub> (96%)  
Sealing material: FPM, EPDM, NBR, MVQ

## Case material

Stainless steel 1.4305 / AISI 303 or PVDF

## Temperature

Medium and ambient      -15 ... +80 °C  
                                     -40 ... +80 °C on request  
Storage                        -40 ... +80 °C

Heat sink for high media temperatures available.

## Output

3-wire

0 ... 5 VDC    11 ... 33 VDC / 24 VAC ±15%  
0 ... 10 VDC   18 ... 33 VDC / 24 VAC ±15%

2-wire

4 ... 20 mA                                      11 ... 33 VDC

## Load

3-wire                                              > 10 kOhm / < 100 nF

2-wire                                               $\leq \frac{\text{supply voltage} - 11 \text{ V}}{0.02 \text{ A}}$  [Ohm]

## Current consumption

At nominal pressure

3-wire                                              < 5 mA  
2-wire                                              20 mA

## Dynamic response

Suitable for static and dynamic measurements

Response time                                      < 5 ms  
Load cycle                                              < 50 Hz

## Electrical connection

Connector DIN EN 175301-803-A  
Round plug connector DIN EN 60130-9  
Cable 1.5 m

## Polarity reversal protection

Short circuit proof and protected against polarity reversal. Each connection is protected against crossover up to max. supply voltage.

## Protection standard

Connector                                              IP 65  
Cable                                                      IP 65 or IP 67

## Pressure connection

Inside thread: G 1/4, 7/16-20 UNF (Schrader)

Outside thread: G1/8, G1/4, G1/2,  
7/16-20 UNF, 1/4-18 NPT, 1/2-14 NPT

## Installation arrangement

Unrestricted  
Recommended: Pressure connection downwards

## Mounting

Bracket (accessories)

## Tests / Admissions

CE conform

## Weight

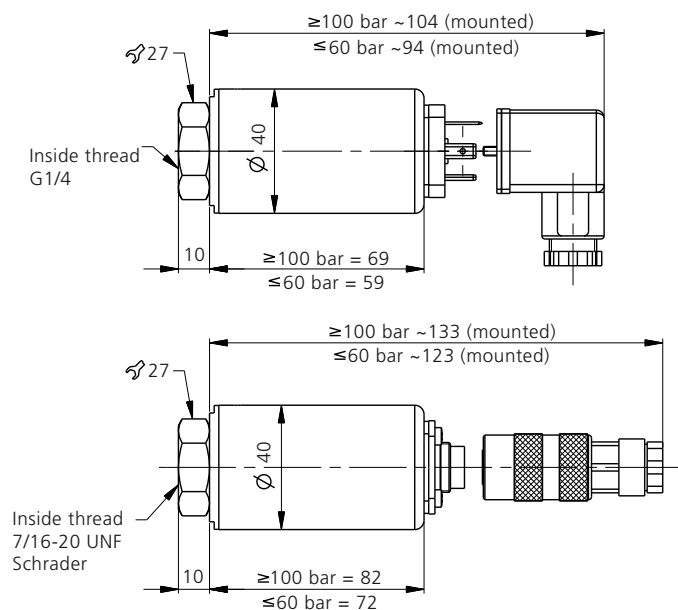
Inside thread:  
G 1/4, 7/16-20 UNF                                      approx. 200 g

Outside thread:  
G 1/8, 7/16-20 UNF                                      approx. 212 g  
G 1/4, 1/4-18 NPT                                      approx. 245 g  
G 1/2, 1/2-14 NPT                                      approx. 280 g

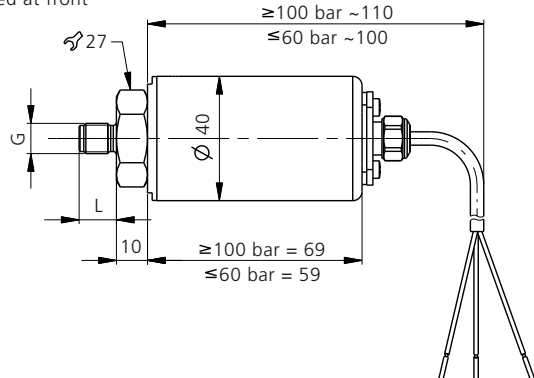
## Packaging

Single packaging in cardboard,  
Accessories integrated



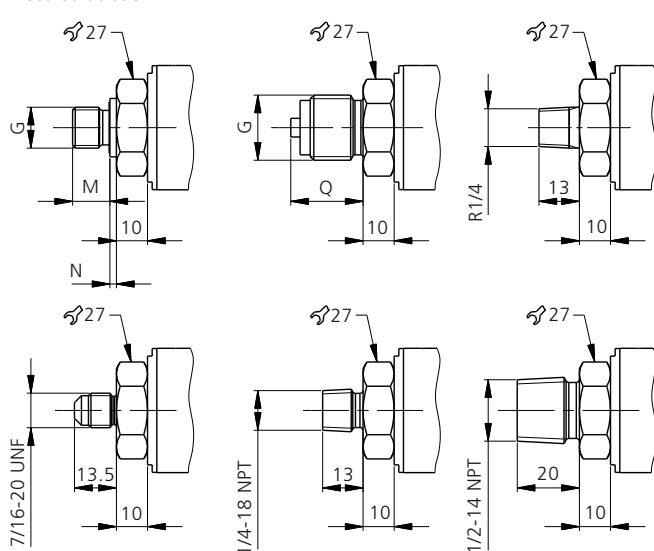


sealed at front

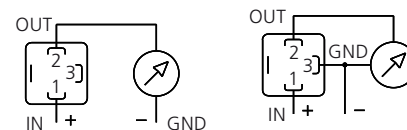


sealed at back

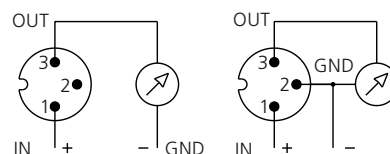
Manometer



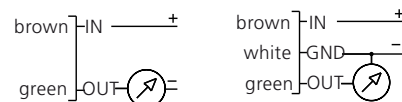
2-wire  
Connector DIN EN 175301-803-A



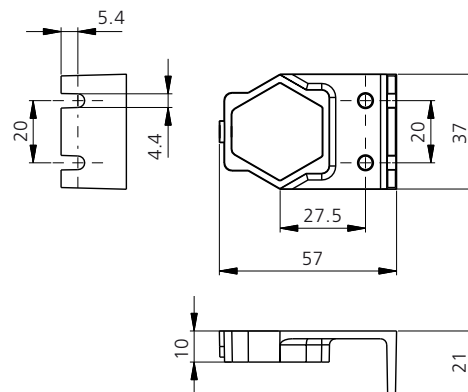
Round plug connector DIN EN 60130-9



Cable



Mounting bracket (accessories)



Legend of dimensioning

| G | G1/8 | G1/4 | G1/2 |
|---|------|------|------|
| L | 12   | 16   | 20   |
| M | 8    | 12   | 14   |
| N | 1.6  | 2.1  | 3.1  |
| Q |      | 15.3 | 23.3 |

## Electromagnetic compatibility

CE conformity (EMC) by application of harmonised standards: Interference stability EN 61000-6-2 and EN 61000-6-3, Interference emit EN 61000-6-3 and EN 61326-1

| Interference stability                        | Test standard       | Effect                                      |
|-----------------------------------------------|---------------------|---------------------------------------------|
| Electrostatic discharge (ESD)                 | EN 61000-4-2        | 8 kV air, 4 kV contact<br>no effect         |
| High-frequency electromagnetic radiation (HF) | EN 61000-4-3        | 10 V/m, 80 ... 1000 MHz<br>no effect        |
| Conducted HF interference                     | EN 61000-4-6        | 10 V, 0.15 ... 80 MHz<br>no effect          |
| Fast transients (burst)                       | EN 61000-4-4        | 2 kV<br>no effect                           |
| Surge                                         | EN 61000-4-5        | max. tolerable cable length 10 m<br>no test |
| Magnetic fields                               | EN 61000-4-8        | 30 A/m, 50 Hz<br>no effect                  |
| Interference emit                             | Test standard       | Effect                                      |
| Conducted interference                        | EN 55022 (CISPR 22) | 0.15... 30 MHz<br>no emission               |
| Radiation from housing                        |                     | 30...1000 MHz, 10 m<br>no emission          |

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