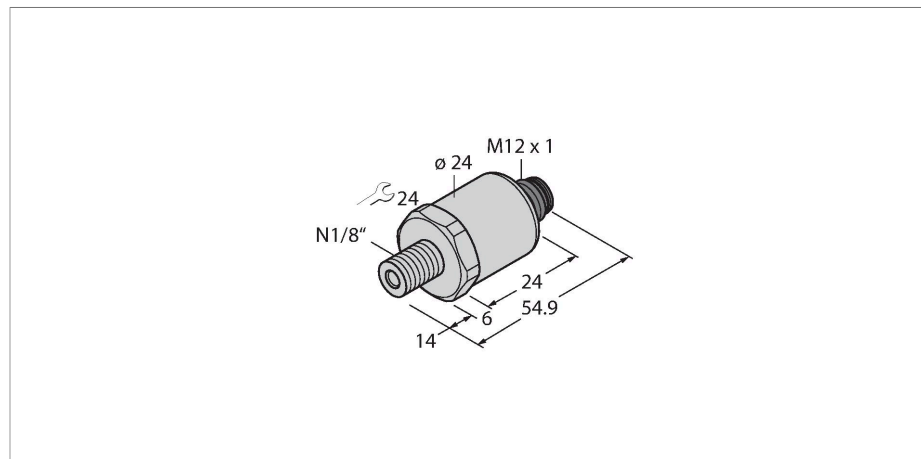


# PT10R-1014-U3-H1141

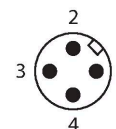
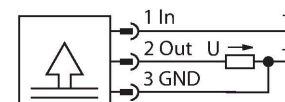
## Pressure Transmitter – With Voltage Output (3-Wire)



### Features

- Ceramic measuring cell
- Compact and robust design
- Excellent EMC properties
- Pressure range 0...10 bar rel.
- 7...33 VDC
- Analog output 0...5 V
- Process connection 1/8"-27 NPT male thread
- Plug-in device, M12 × 1

### Wiring diagram



### Technical data

|   |  |
|---|--|
| Type                                      | PT10R-1014-U3-H1141                    |
| Ident. no.                                | 6837737                                |
| <b>Pressure range</b>                     |  |
| Relative pressure                         | 0...10 bar rel.                        |
|   | 0...145 psi                            |
|   | 0...1 MPa                              |
| Admissible overpressure                   | ≤ 30 bar                               |
| Burst pressure                            | ≥ 30 bar                               |
| Response time                             | < 2 ms, typ. 1 ms                      |
| Long-term stability                       | 0.25 % FS, according to IEC EN 60770-1 |
| <b>Power supply</b>                       |  |
| Operating voltage                         | 7...33 VDC                             |
| Current consumption                       | ≤ 7 mA                                 |
| Short-circuit/reverse polarity protection | yes / yes                              |
| Protection type and class                 | IP67 / III                             |
| Insulation voltage                        | 750 VDC                                |
| <b>Outputs</b>                            |  |
| Output 1                                  | Analog output                          |
| Output function                           | Analog output voltage                  |
| <b>Analog output</b>                      |  |
| Voltage output                            | 0...5 V                                |
| Load                                      | ≤ 100 nF / > 10 kΩ                     |
| Resolution                                | < 0.1 % FS                             |

### Functional principle

The pressure sensors of the PT ...-1000 series operate with a ceramic measuring cell. Depending on the sensor variant, the processed signal is available as an analog output signal via 4...20 mA (2-wire), 0...10 V, 0...5 V and 1...6 V (3-wire) or as an IO-Link process parameter. The IO-Link sensor versions also have two independently configurable switching outputs.

## Technical data

|   |  |
|---|--|
| Genauigkeit LHR                                 | ± 0.3 % FS BSL   |
| <b>Temperature behaviour</b>                    |  |
| Medium temperature                              | -40...+125 °C  |
| Temperature coefficient                         | ± 0.2 % of full scale/10 K   |
| <b>Ambient conditions</b>                       |  |
| Ambient temperature                             | -30...+85 °C   |
| Storage temperature                             | -50...+100 °C  |
| Vibration resistance                            | 20 g, 15...2000 Hz, 15...25 Hz with amplitude +/- 15 mm, 1 octave/minute all 3 directions, 50 continuous loads, acc. to IEC 68-2-6 |
| Shock resistance                                | 100 g, 11 ms, half sinusoidal curve, all 6 directions, free fall from 1 m onto concrete (6x), acc. to IEC 68-2-27                  |
| <b>Housing</b>                                  |  |
| Housing material                                | Stainless-steel/Plastic, 1.4404 (316L)/Polyarylamide 50 % GF UL 94 V-0   |
| Pressure connection material                    | Stainless steel 1.4404 (AISI 316L)   |
| Pressure transducer material                    | Ceramic Al <sub>2</sub> O <sub>3</sub>   |
| Sealing material                                | FPM spez.  |
| Process connection                              | NPT ¼" male thread   |
| Wrench size pressure connection / coupling nut  | 24   |
| Electrical connection                           | Connector, M12 × 1   |
| Max. tightening torque housing nut              | 20 Nm  |
| <b>Reference conditions acc. to IEC 61298-1</b> |  |
| Temperature                                     | 15...+25 °C  |
| Atmospheric pressure                            | 860...1060 hPa abs.  |
| Humidity  | 45...75 % rel.   |
| Auxiliary power                                 | 24 VDC   |
| MTTF  | 1238 years acc. to SN 29500 (Ed. 99) 40 °C   |