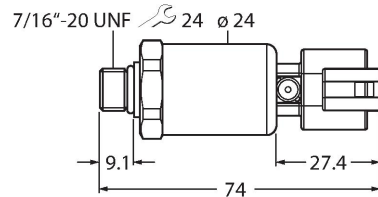


PT160R-2105-I2-DT043P

Pressure Transmitter – With Current Output (2-Wire)



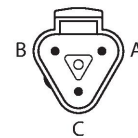
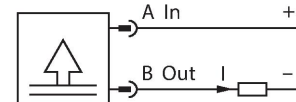
Features

- For mobile hydraulic applications
- Fully welded metal measuring cell
- Sealless
- With pressure tip orifice
- Compact and robust design
- Excellent EMC properties
- Excellent accuracy and long-term stability
- Kfz-Norm ISO 16750
- Pressure range 0...160 bar rel.
- 7.5...33 VDC
- Analog output 4...20 mA
- Process connection 7/16" UNF (SAE) male thread
- Plug-in device, Deutsch DT04-3P

Technical data

Type	PT160R-2105-I2-DT043P
ID	100026702
Pressure type	Relative pressure
Pressure range	0...160 bar
	0...2320.6 psi
	0...16 MPa
Admissible overpressure	≤ 480 bar
Burst pressure	≥ 960 bar
Response time	< 2 ms, typ. 1 ms
Long-term stability	0.3 % FS, acc. to IEC EN 61298-2
Power supply	
Operating voltage U_s	7.5...33 VDC
Current consumption	≤ 23 mA
Short-circuit/reverse polarity protection	yes / yes
Protection class	IP69K
Insulation class	III
Insulation voltage	500 VDC
Outputs	
Output 1	Analog output
Output function	Analog output current
Analog output	
Current output	4...20 mA
Load	≤ (supply voltage - 7.5)/20 kΩ

Wiring diagram



Functional principle

The pressure sensors in the PT...-2100 product series are designed specifically for demanding mobile hydraulic applications. They operate with a fully welded metal measuring cell in different pressure ranges of up to 0...600 bar in 2- or 3-wire technology. Depending on the sensor variant, the processed signal is available as an analog output (4...20 mA, 0...10 V, 0...5 V, ratiometric). A wide range of process connections and electrical connections offer a high degree of flexibility in many different applications.

Technical data

Accuracy LHR $\pm 0.5\%$ FS (under EMC interference max. $\pm 1.5\%$ FS)

Temperature behaviour

Medium temperature $-40...+125\text{ }^{\circ}\text{C}$

Temperature coefficient $\pm 0.2\%$ of full scale/10 K

Environmental conditions

Ambient temperature $-40...+100\text{ }^{\circ}\text{C}$

Storage temperature $-50...+100\text{ }^{\circ}\text{C}$

Vibration resistance Test VI (12 g, sinusoidal 18 g random vibration)

Shock resistance 50 g, 11 ms, half sine curve, 1000x/axis acc. to ISO 16750-3

EMV
Interference Immunity/Interference Emission
EN 61326-2-3 - Pressure transducer
ISO 13766 - Earthmoving machinery
DIN EN 13309 - Construction machinery
DIN ISO 14982 - Forestry and agriculture
CISPR11
Immunity Motor Vehicle Directive
ISO 11452-2, HF (Field), 100 V/m (200... 2000 MHz)
ISO 11452-4, HF (BCI), 100 mA (20... 400 MHz)
ISO 10605, ESD, $\pm 15\text{ kV}$ contact, $\pm 15\text{ kV}$ air
ISO 7637-2 3), pulses 1, 2a, 2b, 3a, 3b (test level 4)
ISO 16750-2, load dump, 155 V (1 Ω , 300 ms)
Motor vehicle directive ECE R10
Motor vehicle directive 2004/104/EC

Mechanical data

Housing material Stainless-steel/Plastic, 1.4404 (AISI 316L)/polyarylamide 50 % GF UL 94 V-0

Pressure connection material Stainless steel 1.4404 (AISI 316L)

Material pressure transducer Stainless steel 1.4404 (AISI 316L)

Process connection 7/16"-20 UNF male thread

Wrench size pressure connection / coupling nut 24

Electrical connection Connector, Deutsch DT04-3P

Max. tightening torque of housing nut 10 Nm

Reference conditions acc. to IEC 61298-1

Temperature $15...+25\text{ }^{\circ}\text{C}$

Atmospheric pressure 860...1060 hPa abs.

Humidity 45 % rel.

Technical data

Auxiliary power	24 VDC
Tests/approvals	
MTTF	1189 years acc. to SN 29500 (Ed. 99) 40 °C
Included in delivery	FKM O-ring special (1 pc)