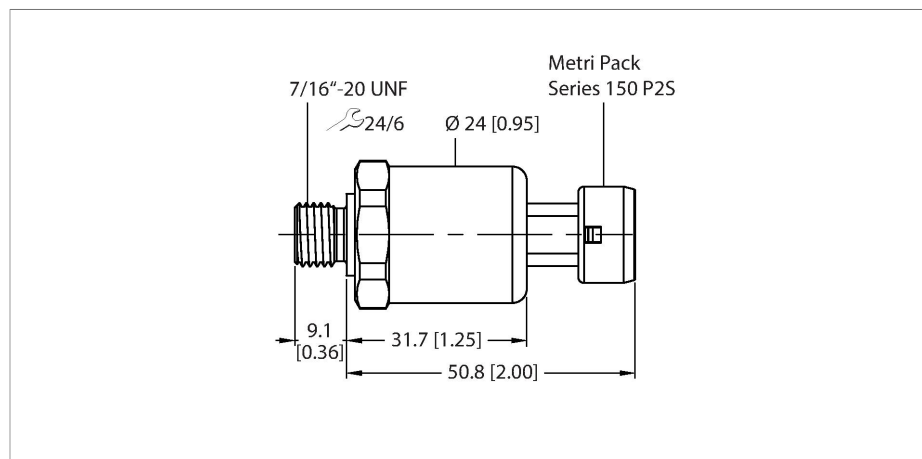


PT300PSIG-1105-U3-MP11

Pressure Transmitter – With Voltage Output (3-Wire)



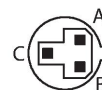
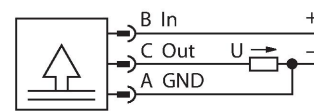
Features

- For mobile hydraulic applications
- Ceramic measuring cell
- Compact and robust design
- Excellent EMC properties
- Excellent accuracy and long-term stability
- Complies with ISO 16750-2
- Pressure range 0...300 psi rel.
- 7...33 VDC
- Analog output 0...5 V
- Process connection 7/16" UNF (SAE) male thread
- Plug-in device, Metri Pack 150 P2S series

Technical data

Type	PT300PSIG-1105-U3-MP11
ID no.	100006158
Medium temperature	-40...+125 °C
Pressure range	
Relative pressure bar	0...20.68 bar rel.
	0...300 psi
	0...2.07 MPa
Admissible overpressure	≤ 62.5 bar
Burst pressure	≥ 62.5 bar
Response time	< 2 ms, typ. 1 ms
Long-term stability	± 0.3 % FS, acc. to IEC EN 61298-2
Power supply	
Operating voltage	7...33 VDC
Current consumption	≤ 7 mA
Short-circuit/reverse polarity protection	yes / yes
Insulation class	III
Output 1	Analog output
Output function	Analog output voltage
Analog output	
Voltage output	0...5 V
Load	≤ 100 nF/>10 kΩ
Accuracy LHR	± 0.5 % FS BSL
Housing material	Stainless-steel/Plastic, 1.4404 (AISI 316L)/polyacrylamide 50 % GF UL 94 V-0

Wiring diagram



Functional principle

The pressure sensors in the PT...-1100 product series are designed specifically for demanding mobile hydraulic applications. They operate with a ceramic measuring cell in different pressure ranges of up to 0...60 bar in 2- or 3-wire technology. Depending on the sensor variant, the processed signal is available as an analog output signal (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 a wide range of applications.

Technical data

Process connection	7/16"-20 UNF male thread
Pressure connection material	Stainless steel 1.4404 (AISI 316L)
Pressure transducer material	Ceramics Al ₂ O ₃
Sealing material	FPM spez.
Wrench size pressure connection / coupling nut	24
Max. tightening torque of housing nut	10 Nm
Electrical connection	Connector, Metri Pack 150 P2S series
Protection class	IP67
Ambient temperature	-40...+100 °C
Storage temperature	-50...+100 °C
Shock resistance	50 g, 11 ms, half sine curve, 1000x/axis , acc. to ISO 16750-3
Vibration resistance	Test VI (12 g, sinusoidal 18 g random vibration)
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 Motor vehicle directive ECE R10 Motor vehicle directive 2004/104/EC 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, ±8 kV contact, ±15 kV air ISO 7637-2, pulses 1, 2a, 2b, 3a, 3b (test level 4) ISO 16750-2, load dump, 155 V (1 Ω, 300 ms) Interference Emission Motor Vehicle Directive CISPR25
Reference conditions acc. to IEC 61298-1	
Temperature	15...+25 °C
Atmospheric pressure	860... 1060 hPa abs.
Humidity	45 % rel.
Auxiliary power	24 VDC
Temperature behaviour	
MTTF	1238 years acc. to SN 29500 (Ed. 99) 40 °C
Included in delivery	FKM O-ring special (1 pc)

Technical data

Type	PT300PSIG-1105-U3-MP11
ID no.	100006158
Pressure range	
Relative pressure bar	0...20.68 bar rel.
	0...300 psi
	0...2.07 MPa
Admissible overpressure	≤ 62.5 bar
Burst pressure	≥ 62.5 bar
Response time	< 2 ms, typ. 1 ms
Long-term stability	0.3 % FS, acc. to IEC EN 61298-2
Power supply	
Operating voltage	7...33 VDC
Current consumption	≤ 7 mA
Short-circuit/reverse polarity protection	yes / yes
Protection type and class	IP67 / III
Insulation voltage	500 VDC
Outputs	
Output 1	Analog output
Output function	Analog output voltage
Analog output	
Voltage output	0...5 V
Load	≤ 100 nF/>10 kΩ
Accuracy LHR	± 0.5 % FS BSL
Temperature behaviour	
Medium temperature	-40...+125 °C
Temperature coefficient	± 0.2 % of full scale/10 K
Ambient conditions	
Ambient temperature	-40...+100 °C
Storage temperature	-50...+100 °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 Motor vehicle directive ECE R10 Motor vehicle directive 2004/104/EC Immunity Motor Vehicle Directive

Technical data

ISO 11452-2, HF (Field), 100 V/m (200...
2000 MHz)
ISO 11452-4, HF (BCI), 100 mA (20...
400 MHz)
ISO 10605, ESD, ± 8 kV contact, ± 15 kV
air
ISO 7637-2, pulses 1, 2a, 2b, 3a, 3b (test
level 4)
ISO 16750-2, load dump, 155 V (1 Ω ,
300 ms)
Interference Emission Motor Vehicle
Directive
CISPR25

Housing	
Housing material	Stainless-steel/Plastic, 1.4404 (AISI 316L)/polyacrylamide 50 % GF UL 94 V-0
Pressure connection material	Stainless steel 1.4404 (AISI 316L)
Pressure transducer material	Ceramics Al_2O_3
Sealing material	FPM spez.
Process connection	7/16"-20 UNF male thread
Wrench size pressure connection / coupling nut	24
Electrical connection	Connector, Metri Pack 150 P2S series
Max. tightening torque of housing nut	10 Nm
Reference conditions acc. to IEC 61298-1	
Temperature	15...+25 °C
Atmospheric pressure	860...1060 hPa abs.
Humidity	45 % rel.
Auxiliary power	24 VDC
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