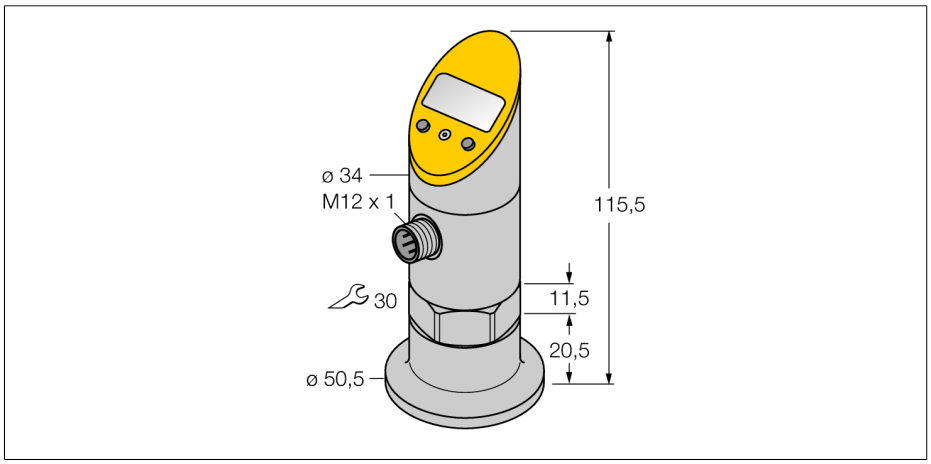
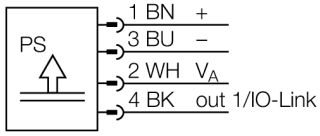
Pressure transmitter (front-flush)
with voltage output and PNP/NPN transistor switching output
PS016V-607-LUUPN8X-H1141



Type	PS016V-607-LUUPN8X-H1141
Ident-No.	6833081
Relative pressure	-1…16bar rel.
Admissible overpressure	≤ 40 bar
Burst pressure	≥ 40 bar
Operating voltage	18…30VDC
No-load current I_0	≤ 50 mA
Protective measure	SELV; PELV according to EN 50178
Short-circuit/reverse polarity protection	yes/ yes
Protection type and class	IP67/ III
Output 1	Switching output or IO-Link mode
Output 2	analogue output
Output function	NO/NC , PNP/NPN
Switching point accuracy	± 0.5 % of full scale
Repeatability	± 0.1 % of full scale
Voltage drop at I_e	≤ 2 V
Rated operational current	0.2 A
Switching frequency	≤ 180 Hz
Switching point distance	≥ 0.5 %
Switch point:	(min + 0.005 x range) up to 100% f.s.
Release point(s)	min up to (SP - 0.005 x range)
Switching cycles	≥ 100 mil.
Analogue output	
Operating range	0…10V, 0…5V, 1…6V (3-wire)
Voltage output, programmable	0…10 V/0…5 V/1…6 V/10…0 V/5…0 V/6…1 V
Load	≥ 2 kΩ
Accuracy LHR analog output	± 0.5 % of final value BSL
Response time	< 3 ms
IO-Link	
Communication	specified acc. to version 1.0
Parameterization	FDT / DTM
Transmission physics	corresponds to 3-wire physics (PHY2)
Transmission rate	COM 2 / 38.4 kbps
Process data width	16 bit
Measured value information	14 bit
Switchpoint information	2 bit
Frame type	2.3
Temperature behaviour	
Temperature coefficient zero point T_{k0}	± 0.15 % of full scale / 10 K
Temperature coefficient span T_{ks}	± 0.15 % of full scale / 10 K

- **Front-flush mounted diaphragm**
- **Reading of adjusted values without tools**
- **Secure programming through recessed pushbutton and keylock**
- **Permanent indication of pressure (bar, psi, kPa, MPa…)**
- **Peak pressure memory**
- **Pressure range -1 … 16 bar rel.**

Wiring diagram



Functional principle

The pressure sensors of the PS series operate with piezo-resistive ceramic measuring cells. The ceramic diaphragm is unbalanced in proportion to the pressure applied. Depending on the sensor type, the voltage produced is made available either as switching or analog output signal. Non-rotatable and rotatable sensors, numerous thread types, front-flush or dead-zone free diaphragms and an accuracy of 0.5% of full scale guarantee highest flexibility and safe process interfacing.

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Ambient conditions	
Medium temperature	-10…85 °C
Ambient temperature	-40…80 °C
Storage temperature	-40…+80°C
Vibration resistance	20 g (9…2000 Hz), according to IEC 68-2-6
Shock resistance	50 g (11 ms) , according to IEC 61508

Housing	
Housing material	Stainless-steel/plastic, 1.4305 (AISI 303)/PC
material pressure connection	Stainless steel A4 1.4435 (AISI 316L)
Mechanical connection	Tri-Clamp 1 1/2"
Wrench size pressure connection / coupling nut	30/ 30
Connection	connector, M12 x 1

Display	4-digit 7-segment display, rotatable by 180°, disengageable
Switching state	2 x LEDs yellow
Programming options	Start/end value analog output; switch/release point; PNP/NPN; NO/NC contact; hysteresis/window mode; damping; pressure unit; peak pressure memory
Unit display	5 x LEDs green (bar, psi, kPa, MPa, misc)

EMC	EN 61000-4-2 ESD:4 kV CD / 8 kV AD EN 61000-4-3 HF gestrahlt:15 V/m EN 61000-4-4 Burst:2 kV EN 61000-4-5 Surge: 500 V, 12 Ohm EN 61000-4-6 HF conducted:10 V

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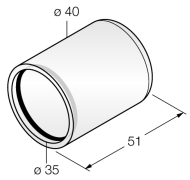
Accessories

Type code	Ident-No.	Short text	Dimension drawing
PTS-Cover	6907410	Protective cap	

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