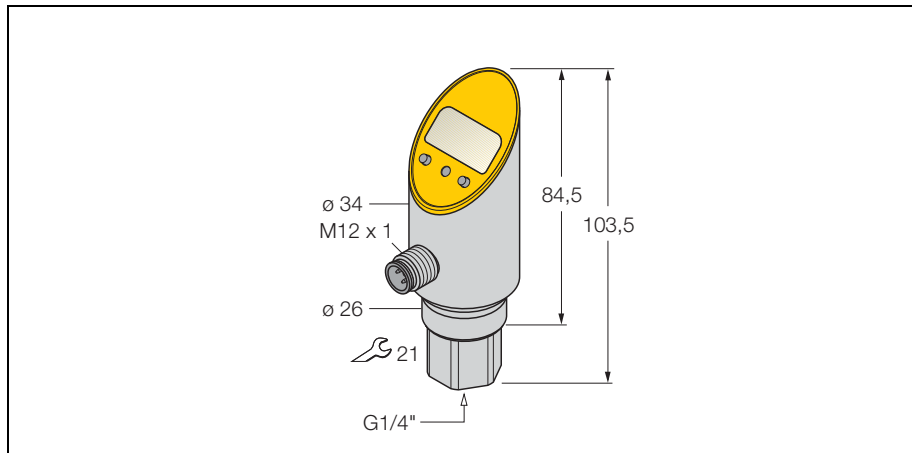


Pressure transmitter

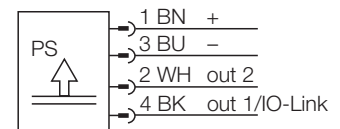
2 PNP/NPN transistor switching outputs

PS010V-301-2UPN8X-H1141



- Rigid process connection, non-rotatable body
- Reading of adjusted values without tools
- Secure programming through recessed pushbutton and keylock
- Permanent indication of pressure (bar, psi, kPa, MPa, misc)
- Peak pressure memory
- Pressure range -1 ... 10 bar rel.

Wiring diagram



Functional principle

The pressure transmitters 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.

Type	PS010V-301-2UPN8X-H1141
Ident-No.	6833316
Measuring range	-1 ... 10 bar rel.
Admissible overpressure	≤ 50bar
Burst pressure	≥ 50 bar
Power supply	
Operating voltage	15... 30 VDC
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	IP69K / III
Outputs	
Output 1 (PIN 4)	Switching output or IO-Link mode
Output 2 (PIN 2)	switching output
Switching 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	≤ 180Hz
Switching point distance	≥ 0.5%
Switch point:	1...100 % of full scale
Release point(s)	0.5...99.5 % of full scale
Switching cycles	≥ 100 mil.
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_{k5}	≤ ± 0.15% of full scale / 10 K

Pressure transmitter

2 PNP/NPN transistor switching outputs

PS010V-301-2UPN8X-H1141

Ambient conditions

Medium temperature	-40... 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
Pressure connection material	Stainless steel A2 1.4305 (AISI 303)
Pressure transducer material	Ceramics AL2O3
Sealing material	FPM
Mechanical connection	G 1/4" female thread
Wrench size pressure connection / coupling nut	21
Electrical connection	Connectors, M12 x 1

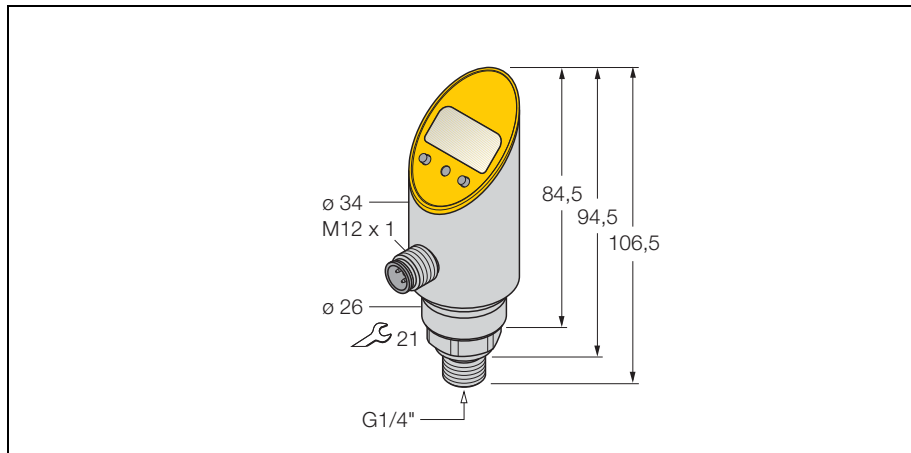
Display

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

EMC

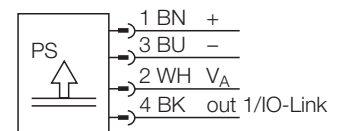
EN 61000-4-2 ESD:4 kV CD / 8 kV AD
EN 61000-4-3 HF gestrahlt:15 V/m
EN 61000-4-4 Burst:2 kV
EN 61000-4-5 Surge: 500 V, 12 Ohm
EN 61000-4-6 HF conducted:10 V

Pressure transmitter with current output and PNP/NPN transistor switching output PS010V-304-LUUPN8X-H1 141



- Rigid process connection, non-rotatable body
- Reading of adjusted values without tools
- Secure programming through recessed pushbutton and keylock
- Permanent indication of pressure (bar, psi, kPa, MPa, misc)
- Peak pressure memory
- Pressure range -1 ... 10 bar rel.

Wiring diagram



Functional principle

The pressure transmitters 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.

Type	PS010V-304-LUUPN8X-H1 141
Ident-No.	6833466
Measuring range	-1... 10 bar rel.
Admissible overpressure	≤ 50bar
Burst pressure	≥ 50 bar
Power supply	
Operating voltage	18... 30 VDC
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	IP69K / III
Outputs	
Output 1 (PIN 4)	Switching output or IO-Link mode
Output 2 (PIN 2)	analogue output
Switching 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	≤ 180Hz
Switching point distance	≥ 0.5%
Switch point:	1...100 % of full scale
Release point(s)	0.5...99.5 % of full scale
Switching cycles	≥ 100 mil.
Analogue output	
Voltage output, programmable	0...10 V/0...5 V/1...6 V/10...0 V/5...0 V/6...1 V
Load	≥ 2kΩ
Accuracy (Lin. + Hys. + Rep.)	< ± 0.5 % of final value BSL
Response time	< 3ms
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

Pressure transmitter with current output and PNP/NPN transistor switching output PS010V-304-LUUPN8X-H1141

Temperature behaviour

Temperature coefficient zero point T_{k0}	$\leq \pm 0.15\%$ of full scale / 10 K
Temperature coefficient span T_{kS}	$\leq \pm 0.15\%$ of full scale / 10 K

Ambient conditions

Medium temperature	-40... 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
Pressure connection material	Stainless steel A2 1.4305 (AISI 303)
Pressure transducer material	Ceramics AL2O3
Sealing material	FPM
Mechanical connection	G 1/4" male thread
Wrench size pressure connection / coupling nut	21
Electrical connection	Connectors, M12 x 1

Display

Display	4-digit 7-segment display, rotatable by 180°, disengageable
Switching state	LED 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)

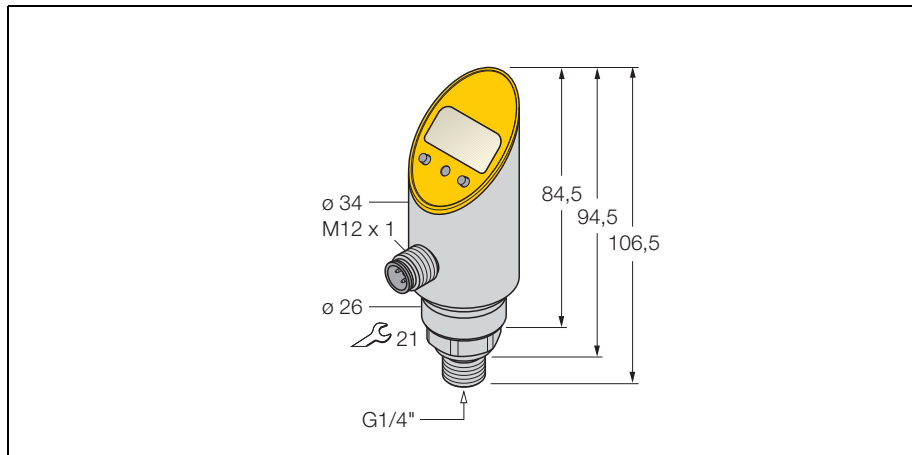
EMC

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

Pressure transmitter

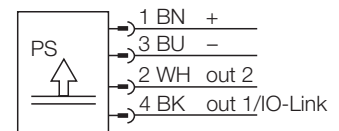
2 PNP/NPN transistor switching outputs

PS010V-304-2UPN8X-H1141



- Rigid process connection, non-rotatable body
- Reading of adjusted values without tools
- Secure programming through recessed pushbutton and keylock
- Permanent indication of pressure (bar, psi, kPa, MPa, misc)
- Peak pressure memory
- Pressure range -1 ... 10 bar rel.

Wiring diagram



Functional principle

The pressure transmitters 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.

Type	PS010V-304-2UPN8X-H1141
Ident-No.	6833454
Measuring range	-1... 10 bar rel.
Admissible overpressure	≤ 50bar
Burst pressure	≥ 50 bar
Power supply	
Operating voltage	15... 30 VDC
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	IP69K / III
Outputs	
Output 1 (PIN 4)	Switching output or IO-Link mode
Output 2 (PIN 2)	switching output
Switching 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	≤ 180Hz
Switching point distance	≥ 0.5%
Switch point:	1...100 % of full scale
Release point(s)	0.5...99.5 % of full scale
Switching cycles	≥ 100 mil.
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_{k5}	≤ ± 0.15% of full scale / 10 K

Pressure transmitter

2 PNP/NPN transistor switching outputs

PS010V-304-2UPN8X-H1141

Ambient conditions

Medium temperature	-40... 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
Pressure connection material	Stainless steel A2 1.4305 (AISI 303)
Pressure transducer material	Ceramics AL2O3
Sealing material	FPM
Mechanical connection	G 1/4" male thread
Wrench size pressure connection / coupling nut	21
Electrical connection	Connectors, M12 x 1

Display

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

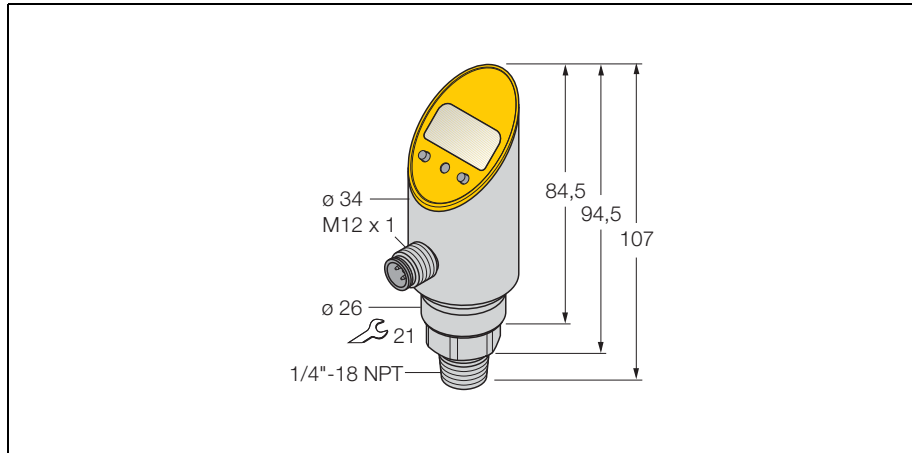
EMC

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

Pressure transmitter

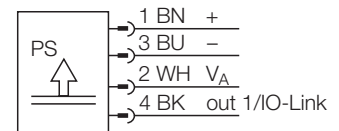
with current output and PNP/NPN transistor switching output

PS010V-303-LUUPN8X-H1141



- Rigid process connection, non-rotatable body
- Reading of adjusted values without tools
- Secure programming through recessed pushbutton and keylock
- Permanent indication of pressure (bar, psi, kPa, MPa, misc)
- Peak pressure memory
- Pressure range -1 ... 10 bar rel.

Wiring diagram



Functional principle

The pressure transmitters 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.

Type	PS010V-303-LUUPN8X-H1141
Ident-No.	6833430
Measuring range	-1... 10 bar rel.
Admissible overpressure	≤ 50bar
Burst pressure	≥ 50 bar
Power supply	
Operating voltage	18... 30 VDC
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	IP69K / III
Outputs	
Output 1 (PIN 4)	Switching output or IO-Link mode
Output 2 (PIN 2)	analogue output
Switching 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	≤ 180Hz
Switching point distance	≥ 0.5%
Switch point:	1...100 % of full scale
Release point(s)	0.5...99.5 % of full scale
Switching cycles	≥ 100 mil.
Analogue output	
Voltage output, programmable	0...10 V/0...5 V/1...6 V/10...0 V/5...0 V/6...1 V
Load	≥ 2kΩ
Accuracy (Lin. + Hys. + Rep.)	< ± 0.5 % of final value BSL
Response time	< 3ms
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

Pressure transmitter with current output and PNP/NPN transistor switching output PS010V-303-LUUPN8X-H1141

Temperature behaviour

Temperature coefficient zero point T_{k0}	$\leq \pm 0.15\%$ of full scale / 10 K
Temperature coefficient span T_{kS}	$\leq \pm 0.15\%$ of full scale / 10 K

Ambient conditions

Medium temperature	-40... 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
Pressure connection material	Stainless steel A2 1.4305 (AISI 303)
Pressure transducer material	Ceramics AL2O3
Sealing material	FPM
Mechanical connection	NPT 1/4" - 18 male thread
Wrench size pressure connection / coupling nut	21
Electrical connection	Connectors, M12 x 1

Display

Display	4-digit 7-segment display, rotatable by 180°, disengageable
Switching state	LED 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)

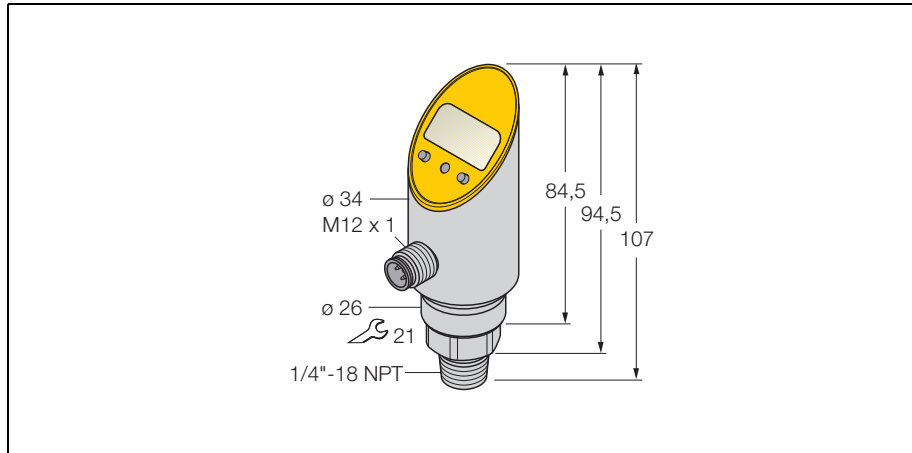
EMC

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

Pressure transmitter

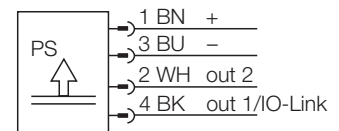
2 PNP/NPN transistor switching outputs

PS010V-303-2UPN8X-H1141



- Rigid process connection, non-rotatable body
- Reading of adjusted values without tools
- Secure programming through recessed pushbutton and keylock
- Permanent indication of pressure (bar, psi, kPa, MPa, misc)
- Peak pressure memory
- Pressure range -1 ... 10 bar rel.

Wiring diagram



Functional principle

The pressure transmitters 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.

Type	PS010V-303-2UPN8X-H1141
Ident-No.	6833418
Measuring range	-1 ... 10 bar rel.
Admissible overpressure	≤ 50 bar
Burst pressure	≥ 50 bar
Power supply	
Operating voltage	15 ... 30 VDC
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	IP69K / III
Outputs	
Output 1 (PIN 4)	Switching output or IO-Link mode
Output 2 (PIN 2)	switching output
Switching 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:	1 ... 100 % of full scale
Release point(s)	0.5 ... 99.5 % of full scale
Switching cycles	≥ 100 mil.
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_{k5}	≤ ± 0.15% of full scale / 10 K

Pressure transmitter

2 PNP/NPN transistor switching outputs

PS010V-303-2UPN8X-H1141

Ambient conditions

Medium temperature	-40... 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
Pressure connection material	Stainless steel A2 1.4305 (AISI 303)
Pressure transducer material	Ceramics AL2O3
Sealing material	FPM
Mechanical connection	NPT 1/4" - 18 male thread
Wrench size pressure connection / coupling nut	21
Electrical connection	Connectors, M12 x 1

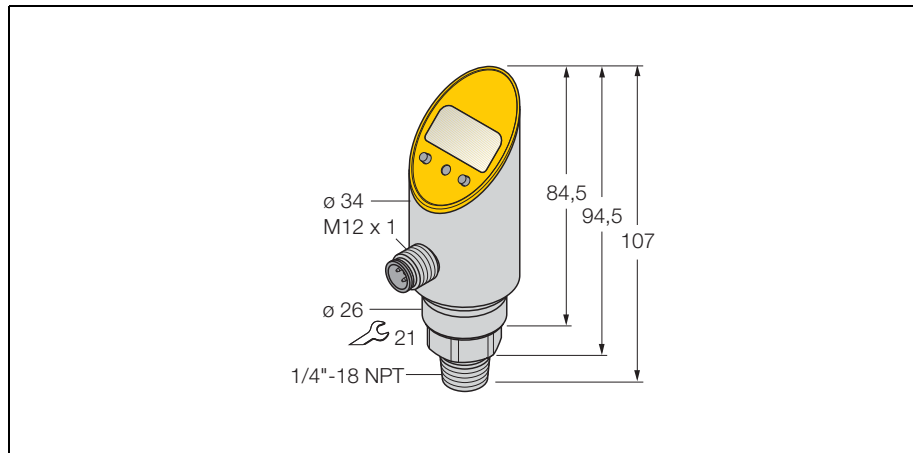
Display

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

EMC

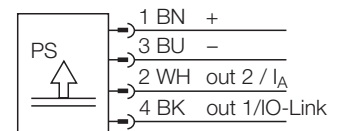
EN 61000-4-2 ESD:4 kV CD / 8 kV AD
EN 61000-4-3 HF gestrahlt:15 V/m
EN 61000-4-4 Burst:2 kV
EN 61000-4-5 Surge: 500 V, 12 Ohm
EN 61000-4-6 HF conducted:10 V

Pressure transmitter with current output and PNP/NPN transistor switching output output 2 reprogrammable as switching output PS010V-303-LI2UPN8X-H1141



- Rigid process connection, non-rotatable body
- Reading of adjusted values without tools
- Secure programming through recessed pushbutton and keylock
- Permanent indication of pressure (bar, psi, kPa, MPa, misc)
- Peak pressure memory
- Pressure range -1 ... 10 bar rel.

Wiring diagram



Functional principle

The pressure transmitters 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.

Type	PS010V-303-LI2UPN8X-H1141
Ident-No.	6833406
Measuring range	-1 ... 10 bar rel.
Admissible overpressure	≤ 50bar
Burst pressure	≥ 50 bar
Power supply	
Operating voltage	18... 30 VDC
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	IP69K / III
Outputs	
Output 1 (PIN 4)	Switching output or IO-Link mode
Output 2 (PIN 2)	Analog or switching output
Switching 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	≤ 180Hz
Switching point distance	≥ 0.5%
Switch point:	1...100 % of full scale
Release point(s)	0.5...99.5 % of full scale
Switching cycles	≥ 100 mil.
Analogue output	
Operating range	4...20/ 0...20/ 20...4/ 20... 0 mA
Load	≤ 0.5kΩ
Accuracy (Lin. + Hys. + Rep.)	< ± 0.5 % of final value BSL
Response time	< 3ms
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

**Pressure transmitter
with current output and PNP/NPN transistor switching output
output 2 reprogrammable as switching output
PS010V-303-LI2UPN8X-H1141**

Temperature behaviour

Temperature coefficient zero point T_{k0}	$\leq \pm 0.15\%$ of full scale / 10 K
Temperature coefficient span T_{kS}	$\leq \pm 0.15\%$ of full scale / 10 K

Ambient conditions

Medium temperature	-40... 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
Pressure connection material	Stainless steel A2 1.4305 (AISI 303)
Pressure transducer material	Ceramics AL2O3
Sealing material	FPM
Mechanical connection	NPT 1/4" - 18 male thread
Wrench size pressure connection / coupling nut	21
Electrical connection	Connectors, M12 x 1

Display

Display	4-digit 7-segment display, rotatable by 180°, disengageable
Switching state	LED yellow
Programming options	Start/end value analog output; switch/release points; 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)

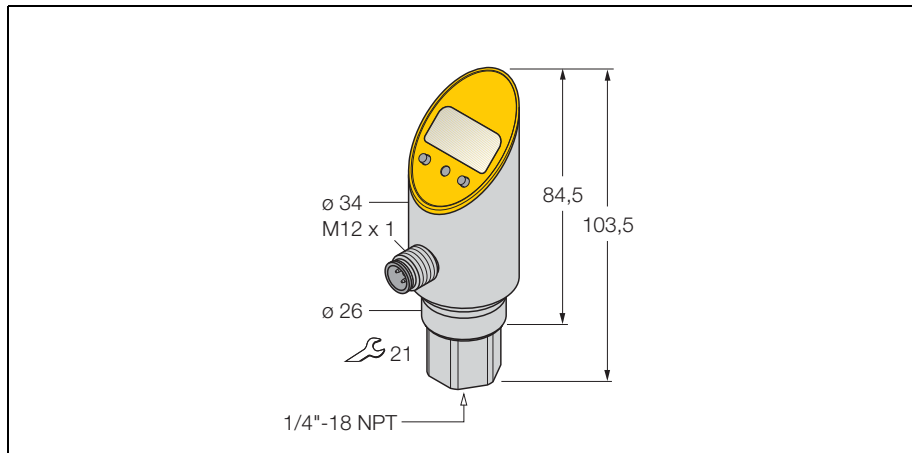
EMC

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

Pressure transmitter

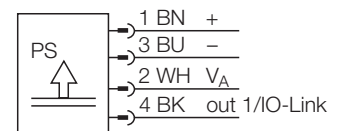
with current output and PNP/NPN transistor switching output

PS010V-302-LUUPN8X-H1141



- Rigid process connection, non-rotatable body
- Reading of adjusted values without tools
- Secure programming through recessed pushbutton and keylock
- Permanent indication of pressure (bar, psi, kPa, MPa, misc)
- Peak pressure memory
- Pressure range -1 ... 10 bar rel.

Wiring diagram



Functional principle

The pressure transmitters 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.

Type	PS010V-302-LUUPN8X-H1141
Ident-No.	6833364
Measuring range	-1... 10 bar rel.
Admissible overpressure	≤ 50bar
Burst pressure	≥ 50 bar
Power supply	
Operating voltage	18... 30 VDC
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	IP69K / III
Outputs	
Output 1 (PIN 4)	Switching output or IO-Link mode
Output 2 (PIN 2)	analogue output
Switching 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	≤ 180Hz
Switching point distance	≥ 0.5%
Switch point:	1...100 % of full scale
Release point(s)	0.5...99.5 % of full scale
Switching cycles	≥ 100 mil.
Analogue output	
Voltage output, programmable	0...10 V/0...5 V/1...6 V/10...0 V/5...0 V/6...1 V
Load	≥ 2kΩ
Accuracy (Lin. + Hys. + Rep.)	< ± 0.5 % of final value BSL
Response time	< 3ms
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

Pressure transmitter with current output and PNP/NPN transistor switching output PS010V-302-LUUPN8X-H1141

Temperature behaviour

Temperature coefficient zero point T_{k0}	$\leq \pm 0.15\%$ of full scale / 10 K
Temperature coefficient span T_{kS}	$\leq \pm 0.15\%$ of full scale / 10 K

Ambient conditions

Medium temperature	-40... 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
Pressure connection material	Stainless steel A2 1.4305 (AISI 303)
Pressure transducer material	Ceramics AL2O3
Sealing material	FPM
Mechanical connection	NPT1/4" - 18 female threads
Wrench size pressure connection / coupling nut	21
Electrical connection	Connectors, M12 x 1

Display

Display	4-digit 7-segment display, rotatable by 180°, disengageable
Switching state	LED 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)

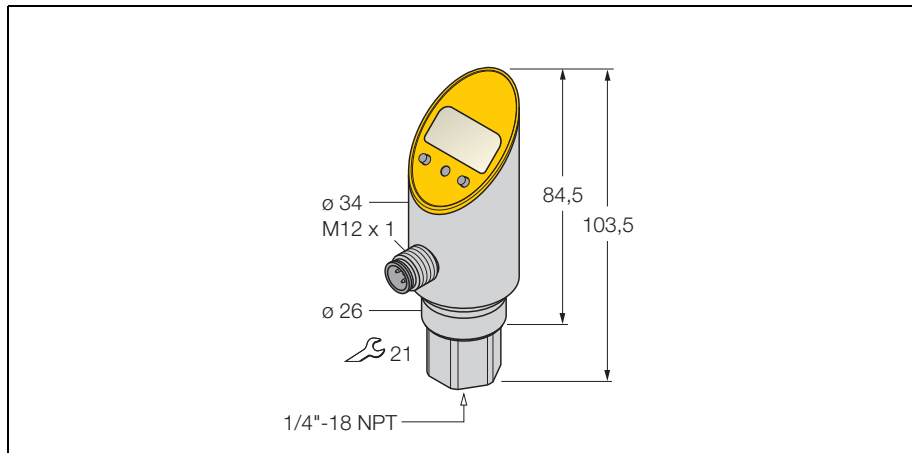
EMC

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

Pressure transmitter

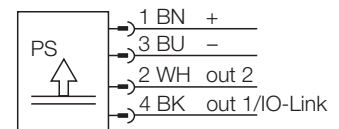
2 PNP/NPN transistor switching outputs

PS010V-302-2UPN8X-H1141



- Rigid process connection, non-rotatable body
- Reading of adjusted values without tools
- Secure programming through recessed pushbutton and keylock
- Permanent indication of pressure (bar, psi, kPa, MPa, misc)
- Peak pressure memory
- Pressure range -1 ... 10 bar rel.

Wiring diagram



Functional principle

The pressure transmitters 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.

Type	PS010V-302-2UPN8X-H1141
Ident-No.	6833352
Measuring range	-1 ... 10 bar rel.
Admissible overpressure	≤ 50bar
Burst pressure	≥ 50 bar
Power supply	
Operating voltage	15... 30 VDC
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	IP69K / III
Outputs	
Output 1 (PIN 4)	Switching output or IO-Link mode
Output 2 (PIN 2)	switching output
Switching 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	≤ 180Hz
Switching point distance	≥ 0.5%
Switch point:	1...100 % of full scale
Release point(s)	0.5...99.5 % of full scale
Switching cycles	≥ 100 mil.
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_{k5}	≤ ± 0.15% of full scale / 10 K

Pressure transmitter

2 PNP/NPN transistor switching outputs

PS010V-302-2UPN8X-H1141

Ambient conditions

Medium temperature	-40... 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
Pressure connection material	Stainless steel A2 1.4305 (AISI 303)
Pressure transducer material	Ceramics AL2O3
Sealing material	FPM
Mechanical connection	NPT1/4" - 18 female threads
Wrench size pressure connection / coupling nut	21
Electrical connection	Connectors, M12 x 1

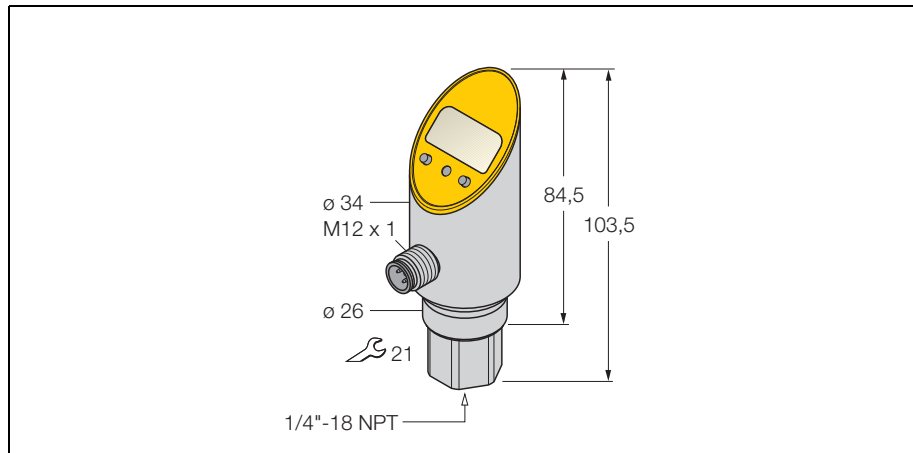
Display

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

EMC

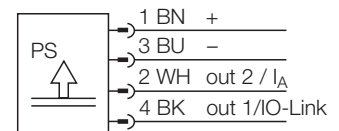
EN 61000-4-2 ESD:4 kV CD / 8 kV AD
EN 61000-4-3 HF gestrahlt:15 V/m
EN 61000-4-4 Burst:2 kV
EN 61000-4-5 Surge: 500 V, 12 Ohm
EN 61000-4-6 HF conducted:10 V

Pressure transmitter with current output and PNP/NPN transistor switching output output 2 reprogrammable as switching output PS010V-302-LI2UPN8X-H1141



- Rigid process connection, non-rotatable body
- Reading of adjusted values without tools
- Secure programming through recessed pushbutton and keylock
- Permanent indication of pressure (bar, psi, kPa, MPa, misc)
- Peak pressure memory
- Pressure range -1 ... 10 bar rel.

Wiring diagram



Functional principle

The pressure transmitters 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.

Type	PS010V-302-LI2UPN8X-H1141
Ident-No.	6833340
Measuring range	-1... 10 bar rel.
Admissible overpressure	≤ 50bar
Burst pressure	≥ 50 bar
Power supply	
Operating voltage	18... 30 VDC
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	IP69K / III
Outputs	
Output 1 (PIN 4)	Switching output or IO-Link mode
Output 2 (PIN 2)	Analog or switching output
Switching 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	≤ 180Hz
Switching point distance	≥ 0.5%
Switch point:	1...100 % of full scale
Release point(s)	0.5...99.5 % of full scale
Switching cycles	≥ 100 mil.
Analogue output	
Operating range	4...20/ 0...20/ 20...4/ 20... 0 mA
Load	≤ 0.5kΩ
Accuracy (Lin. + Hys. + Rep.)	< ± 0.5 % of final value BSL
Response time	< 3ms
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

Pressure transmitter with current output and PNP/NPN transistor switching output output 2 reprogrammable as switching output PS010V-302-LI2UPN8X-H1141

Temperature behaviour

Temperature coefficient zero point T_{k0}	$\leq \pm 0.15\%$ of full scale / 10 K
Temperature coefficient span T_{kS}	$\leq \pm 0.15\%$ of full scale / 10 K

Ambient conditions

Medium temperature	-40... 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
Pressure connection material	Stainless steel A2 1.4305 (AISI 303)
Pressure transducer material	Ceramics AL2O3
Sealing material	FPM
Mechanical connection	NPT1/4" - 18 female threads
Wrench size pressure connection / coupling nut	21
Electrical connection	Connectors, M12 x 1

Display

Display	4-digit 7-segment display, rotatable by 180°, disengageable
Switching state	LED yellow
Programming options	Start/end value analog output; switch/release points; 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)

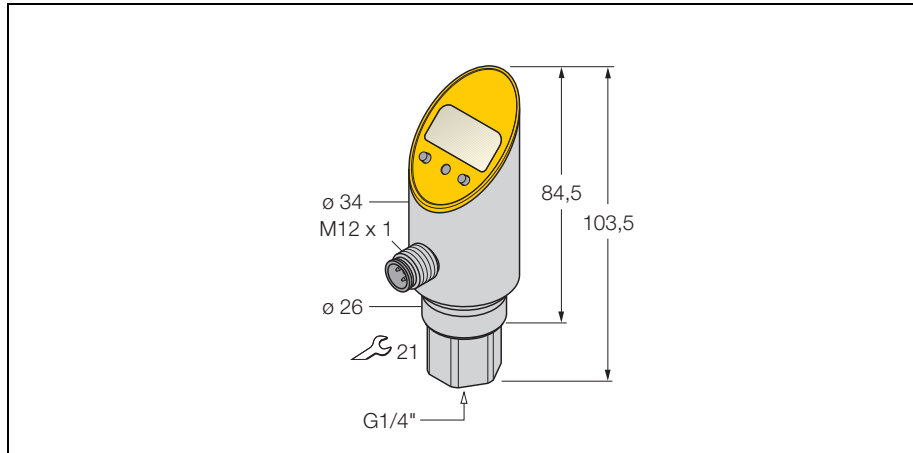
EMC

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

Pressure transmitter

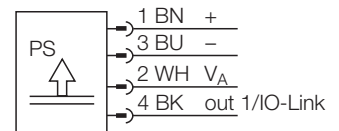
with current output and PNP/NPN transistor switching output

PS010V-301-LUUPN8X-H1 141



- Rigid process connection, non-rotatable body
- Reading of adjusted values without tools
- Secure programming through recessed pushbutton and keylock
- Permanent indication of pressure (bar, psi, kPa, MPa, misc)
- Peak pressure memory
- Pressure range -1 ... 10 bar rel.

Wiring diagram



Functional principle

The pressure transmitters 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.

Type	PS010V-301-LUUPN8X-H1 141
Ident-No.	6833328
Measuring range	-1... 10 bar rel.
Admissible overpressure	≤ 50bar
Burst pressure	≥ 50 bar
Power supply	
Operating voltage	18... 30 VDC
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	IP69K / III
Outputs	
Output 1 (PIN 4)	Switching output or IO-Link mode
Output 2 (PIN 2)	analogue output
Switching 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	≤ 180Hz
Switching point distance	≥ 0.5%
Switch point:	1...100 % of full scale
Release point(s)	0.5...99.5 % of full scale
Switching cycles	≥ 100 mil.
Analogue output	
Voltage output, programmable	0...10 V/0...5 V/1...6 V/10...0 V/5...0 V/6...1 V
Load	≥ 2kΩ
Accuracy (Lin. + Hys. + Rep.)	< ± 0.5 % of final value BSL
Response time	< 3ms
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

Pressure transmitter with current output and PNP/NPN transistor switching output PS010V-301-LUUPN8X-H1141

Temperature behaviour

Temperature coefficient zero point T_{k0}	$\leq \pm 0.15\%$ of full scale / 10 K
Temperature coefficient span T_{kS}	$\leq \pm 0.15\%$ of full scale / 10 K

Ambient conditions

Medium temperature	-40... 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
Pressure connection material	Stainless steel A2 1.4305 (AISI 303)
Pressure transducer material	Ceramics AL2O3
Sealing material	FPM
Mechanical connection	G 1/4" female thread
Wrench size pressure connection / coupling nut	21
Electrical connection	Connectors, M12 x 1

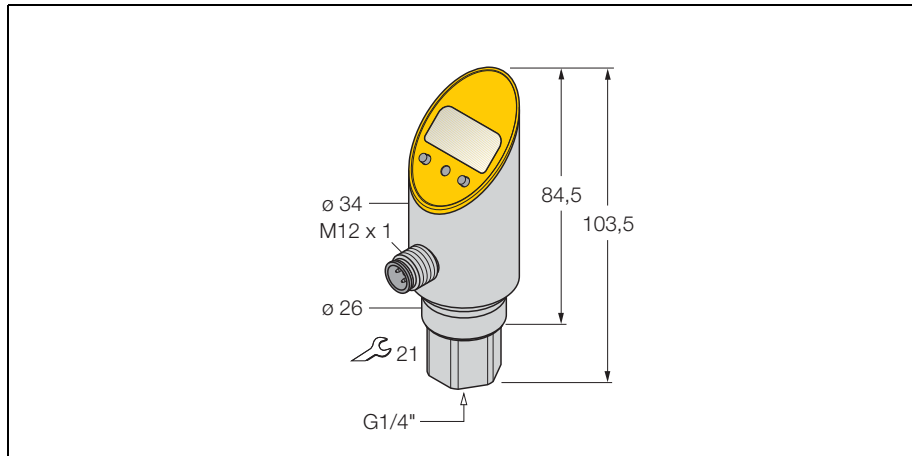
Display

Display	4-digit 7-segment display, rotatable by 180°, disengageable
Switching state	LED 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

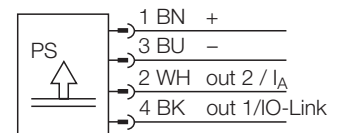
EN 61000-4-2 ESD:4 kV CD / 8 kV AD
EN 61000-4-3 HF gestrahlt:15 V/m
EN 61000-4-4 Burst:2 kV
EN 61000-4-5 Surge: 500 V, 12 Ohm
EN 61000-4-6 HF conducted:10 V

Pressure transmitter
with current output and PNP/NPN transistor switching output
output 2 reprogrammable as switching output
PS010V-301-LI2UPN8X-H1141



- Rigid process connection, non-rotatable body
- Reading of adjusted values without tools
- Secure programming through recessed pushbutton and keylock
- Permanent indication of pressure (bar, psi, kPa, MPa, misc)
- Peak pressure memory
- Pressure range -1 ... 10 bar rel.

Wiring diagram



Functional principle

The pressure transmitters 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.

Type	PS010V-301-LI2UPN8X-H1141
Ident-No.	6833304
Measuring range	-1 ... 10 bar rel.
Admissible overpressure	≤ 50bar
Burst pressure	≥ 50 bar
Power supply	
Operating voltage	18... 30 VDC
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	IP69K / III
Outputs	
Output 1 (PIN 4)	Switching output or IO-Link mode
Output 2 (PIN 2)	Analog or switching output
Switching 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	≤ 180Hz
Switching point distance	≥ 0.5%
Switch point:	1...100 % of full scale
Release point(s)	0.5...99.5 % of full scale
Switching cycles	≥ 100 mil.
Analogue output	
Operating range	4...20/ 0...20/ 20...4/ 20... 0 mA
Load	≤ 0.5kΩ
Accuracy (Lin. + Hys. + Rep.)	< ± 0.5 % of final value BSL
Response time	< 3ms
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

Pressure transmitter with current output and PNP/NPN transistor switching output output 2 reprogrammable as switching output PS010V-301-LI2UPN8X-H1141

Temperature behaviour

Temperature coefficient zero point T_{k0}	$\leq \pm 0.15\%$ of full scale / 10 K
Temperature coefficient span T_{kS}	$\leq \pm 0.15\%$ of full scale / 10 K

Ambient conditions

Medium temperature	-40... 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
Pressure connection material	Stainless steel A2 1.4305 (AISI 303)
Pressure transducer material	Ceramics AL2O3
Sealing material	FPM
Mechanical connection	G 1/4" female thread
Wrench size pressure connection / coupling nut	21
Electrical connection	Connectors, M12 x 1

Display

Display	4-digit 7-segment display, rotatable by 180°, disengageable
Switching state	LED yellow
Programming options	Start/end value analog output; switch/release points; 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