

## PT-1 series – For temperatures up to +125 °C

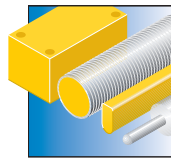


The PT1 pressure transmitters operate with ceramic measuring cells. They are cylindrically shaped, made of stainless and have no display. Depending on the type, the processed signal is output as 4...20 mA (2-wire) or 0...10 V (3-wire).

### Features

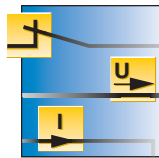
- Compact and rugged design
- Measuring range -1...600 bar relative pressure
- Temperature range - 40...+125°C
- 4...20 mA (2-wire) or 0...10 V (3-wire)
- Excellent EMC properties

### Properties



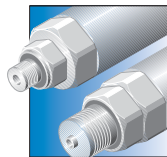
#### Design

Cylindrical design, non-rotatable, without display



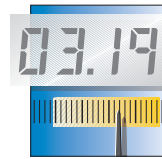
#### Electrical versions

Current output  
4...20 mA



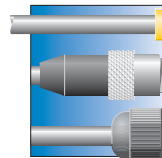
#### Mechanical connections

Female and male thread G1/4" and 1/4" NPT



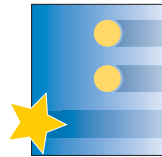
#### Measuring ranges

-1...600 bar relative pressure



#### Electrical connections

M12 x 1 plug connection, 3-pole



#### Special features

Media temperature  
-40...+125 °C, IP67

## G1/4" – Female – Current output (2-wire)



### General data

<b>Operating voltage</b>	8...33 VDC	<b>Temperature coefficient span <math>T_{KS}</math></b>	0.15% of full scale / 10 K
<b>Protection type and class</b>	IP67 / III	<b>Medium temperature</b>	-40...125 °C
<b>Operating range</b>	4...20 mA (2-wire)	<b>Ambient temperature</b>	-40...85 °C
<b>Accuracy (Lin. + Hys. + Rep.)</b>	0.3% of final value BSL	<b>Housing material</b>	stainless-steel/plastic, 1.4305 (AISI 303)/PC
<b>Calibration accuracy 0-point</b>	0.3% of final value	<b>material pressure element</b>	ceramics $Al_2O_3$
<b>Calibration accuracy, of final value</b>	0.3% of final value	<b>Sealing material</b>	FPM
<b>Response time</b>	3 ms	<b>Electrical connection</b>	connector, M12 x 1
<b>Temperature coefficient zero point <math>T_{K0}</math></b>	0.15% of full scale / 10 K	<b>Mechanical connection</b>	G 1/4" female thread

### Types and data – selection table

Type	Measuring range	Admissible overpressure	w	d
PT001R-11-LI3-H1131	0...1 bar rel.	3 bar	w098	d474
PT002R-11-LI3-H1131	0...1.6 bar rel.	5 bar	w098	d474
PT003R-11-LI3-H1131	0...2.5 bar rel.	7 bar	w098	d474
PT004R-11-LI3-H1131	0...4 bar rel.	12 bar	w098	d474
PT006R-11-LI3-H1131	0...6 bar rel.	15 bar	w098	d474
PT010R-11-LI3-H1131	0...10 bar rel.	25 bar	w098	d474
PT016R-11-LI3-H1131	0...16 bar rel.	40 bar	w098	d474
PT025R-11-LI3-H1131	0...25 bar rel.	65 bar	w098	d474
PT040R-11-LI3-H1131	0...40 bar rel.	100 bar	w098	d474
PT060R-11-LI3-H1131	0...60 bar rel.	150 bar	w098	d474
PT100R-11-LI3-H1131	0...100 bar rel.	250 bar	w098	d474
PT160R-11-LI3-H1131	0...160 bar rel.	400 bar	w098	d474
PT250R-11-LI3-H1131	0...250 bar rel.	625 bar	w098	d474
PT400R-11-LI3-H1131	0...400 bar rel.	900 bar	w098	d474
PT600R-11-LI3-H1131	0...600 bar rel.	900 bar	w098	d474

## G1/4" – Female – Voltage output (3-wire)



### General data

<b>Operating voltage</b>	11.4...33 VDC	<b>Temperature coefficient span <math>T_{KS}</math></b>	0.15% of full scale / 10 K
<b>Protection type and class</b>	IP67 / III	<b>Medium temperature</b>	-40...125 °C
<b>Operating range</b>	0...10 V (3-wire)	<b>Ambient temperature</b>	-40...85 °C
<b>Accuracy (Lin. + Hys. + Rep.)</b>	0.3% of final value BSL	<b>Housing material</b>	stainless-steel/plastic, 1.4305 (AISI 303)/PC
<b>Calibration accuracy 0-point</b>	0.3% of final value	<b>material pressure element</b>	ceramics Al <sub>2</sub> O <sub>3</sub>
<b>Calibration accuracy, of final value</b>	0.3% of final value	<b>Sealing material</b>	FPM
<b>Response time</b>	3 ms	<b>Electrical connection</b>	connector, M12 x 1
<b>Temperature coefficient zero point <math>T_{K0}</math></b>	0.15% of full scale / 10 K	<b>Mechanical connection</b>	G 1/4" female thread

### Types and data – selection table

Type	Measuring range	Admissible overpressure	w	d
PT001R-11-LU2-H1131	0...1 bar rel.	3 bar	w099	d474
PT01VR-11-LU2-H1131	-1...0 bar rel.	3 bar	w099	d474
PT002R-11-LU2-H1131	0...1.6 bar rel.	5 bar	w099	d474
PT003R-11-LU2-H1131	0...2.5 bar rel.	7 bar	w099	d474
PT004R-11-LU2-H1131	0...4 bar rel.	12 bar	w099	d474
PT006R-11-LU2-H1131	0...6 bar rel.	15 bar	w099	d474
PT010R-11-LU2-H1131	0...10 bar rel.	25 bar	w099	d474
PT016R-11-LU2-H1131	0...16 bar rel.	40 bar	w099	d474
PT025R-11-LU2-H1131	0...25 bar rel.	65 bar	w099	d474
PT040R-11-LU2-H1131	0...40 bar rel.	100 bar	w099	d474
PT060R-11-LU2-H1131	0...60 bar rel.	150 bar	w099	d474
PT100R-11-LU2-H1131	0...100 bar rel.	250 bar	w099	d474
PT160R-11-LU2-H1131	0...160 bar rel.	400 bar	w099	d474
PT250R-11-LU2-H1131	0...250 bar rel.	625 bar	w099	d474
PT400R-11-LU2-H1131	0...400 bar rel.	900 bar	w099	d474
PT600R-11-LU2-H1131	0...600 bar rel.	900 bar	w099	d474

## 1/4" NPT – Male – Current output (2-wire)



### General data

<b>Operating voltage</b>	8...33 VDC	<b>Temperature coefficient span <math>T_{KS}</math></b>	0.15% of full scale / 10 K
<b>Protection type and class</b>	IP67 / III	<b>Medium temperature</b>	-40...125 °C
<b>Operating range</b>	4...20 mA (2-wire)	<b>Ambient temperature</b>	-40...85 °C
<b>Accuracy (Lin. + Hys. + Rep.)</b>	0.3% of final value BSL	<b>Housing material</b>	stainless-steel/plastic, 1.4305 (AISI 303)/PC
<b>Calibration accuracy 0-point</b>	0.3% of final value	<b>material pressure element</b>	ceramics Al <sub>2</sub> O <sub>3</sub>
<b>Calibration accuracy, of final value</b>	0.3% of final value	<b>Sealing material</b>	FPM
<b>Response time</b>	3 ms	<b>Electrical connection</b>	connector, M12 x 1
<b>Temperature coefficient zero point <math>T_{K0}</math></b>	0.15% of full scale / 10 K	<b>Mechanical connection</b>	NPT 1/4" - 18 male thread

### Types and data – selection table

Type	Measuring range	Admissible overpressure	w	d
PT004R-13-LI3-H1131	0...4 bar rel.	12 bar	w098	d475
PT010R-13-LI3-H1131	0...10 bar rel.	25 bar	w098	d475
PT016R-13-LI3-H1131	0...16 bar rel.	40 bar	w098	d475
PT025R-13-LI3-H1131	0...25 bar rel.	65 bar	w098	d475
PT040R-13-LI3-H1131	0...40 bar rel.	100 bar	w098	d475
PT060R-13-LI3-H1131	0...60 bar rel.	150 bar	w098	d475
PT100R-13-LI3-H1131	0...100 bar rel.	250 bar	w098	d475
PT160R-13-LI3-H1131	0...160 bar rel.	400 bar	w098	d475
PT250R-13-LI3-H1141	0...250 bar rel.	625 bar	w098	d475
PT400R-13-LI3-H1141	0...400 bar rel.	900 bar	w098	d475
PT600R-13-LI3-H1141	0...600 bar rel.	900 bar	w098	d475

## 1/4" NPT – Male – Voltage output (3-wire)



### General data

<b>Operating voltage</b>	11.4...33 VDC	<b>Temperature coefficient span <math>T_{KS}</math></b>	0.15% of full scale / 10 K
<b>Protection type and class</b>	IP67 / III	<b>Medium temperature</b>	-40...125 °C
<b>Operating range</b>	0...10 V (3-wire)	<b>Ambient temperature</b>	-40...85 °C
<b>Accuracy (Lin. + Hys. + Rep.)</b>	0.3% of final value BSL	<b>Housing material</b>	stainless-steel/plastic, 1.4305 (AISI 303)/PC
<b>Calibration accuracy 0-point</b>	0.3% of final value	<b>material pressure element</b>	ceramics Al <sub>2</sub> O <sub>3</sub>
<b>Calibration accuracy, of final value</b>	0.3% of final value	<b>Sealing material</b>	FPM
<b>Response time</b>	3 ms	<b>Electrical connection</b>	connector, M12 x 1
<b>Temperature coefficient zero point <math>T_{K0}</math></b>	0.15% of full scale / 10 K	<b>Mechanical connection</b>	NPT 1/4" - 18 male thread

### Types and data – selection table

Type	Measuring range	Admissible overpressure	w	d
PT001R-13-LU2-H1141	0...1 bar rel.	3 bar	w099	d475
PT01VR-13-LU2-H1131	-1...0 bar rel.	3 bar	w099	d475
PT002R-13-LU2-H1131	0...1.6 bar rel.	5 bar	w099	d475
PT003R-13-LU2-H1131	0...2.5 bar rel.	7 bar	w099	d475
PT004R-13-LU2-H1131	0...4 bar rel.	12 bar	w099	d475
PT006R-13-LU2-H1131	0...6 bar rel.	15 bar	w099	d475
PT010R-13-LU2-H1131	0...10 bar rel.	25 bar	w099	d475
PT060R-13-LU2-H1131	0...60 bar rel.	150 bar	w099	d475
PT100R-13-LU2-H1131	0...100 bar rel.	250 bar	w099	d475
PT160R-13-LU2-H1131	0...160 bar rel.	400 bar	w099	d475
PT250R-13-LU2-H1131	0...250 bar rel.	625 bar	w099	d475
PT600R-13-LU2-H1131	0...600 bar rel.	900 bar	w099	d475
PT400R-13-LU2-H1131	0...400 bar rel.	900 bar	w099	d475

## G1/4" – Male – Current output (2-wire)



### General data

<b>Operating voltage</b>	8...33 VDC	<b>Temperature coefficient span <math>T_{KS}</math></b>	0.15% of full scale / 10 K
<b>Protection type and class</b>	IP67 / III	<b>Medium temperature</b>	-40...125 °C
<b>Operating range</b>	4...20 mA (2-wire)	<b>Ambient temperature</b>	-40...85 °C
<b>Accuracy (Lin. + Hys. + Rep.)</b>	0.3% of final value BSL	<b>Housing material</b>	stainless-steel/plastic, 1.4305 (AISI 303)/PC
<b>Calibration accuracy 0-point</b>	0.3% of final value	<b>material pressure element</b>	ceramics $Al_2O_3$
<b>Calibration accuracy, of final value</b>	0.3% of final value	<b>Sealing material</b>	FPM
<b>Response time</b>	3 ms	<b>Electrical connection</b>	connector, M12 x 1
<b>Temperature coefficient zero point <math>T_{K0}</math></b>	0.15% of full scale / 10 K	<b>Mechanical connection</b>	G 1/4" male thread

### Types and data – selection table

Type	Measuring range	Admissible overpressure	w	d
PT01VR-14-LI3-H1131	-1...0 bar rel.	3 bar	w098	d476
PT001R-14-LI3-H1131	0...1 bar rel.	3 bar	w098	d476
PT002R-14-LI3-H1131	0...1.6 bar rel.	5 bar	w098	d476
PT003R-14-LI3-H1131	0...2.5 bar rel.	7 bar	w098	d476
PT004R-14-LI3-H1131	0...4 bar rel.	12 bar	w098	d476
PT006R-14-LI3-H1131	0...6 bar rel.	15 bar	w098	d476
PT010R-14-LI3-H1131	0...10 bar rel.	25 bar	w098	d476
PT016R-14-LI3-H1131	0...16 bar rel.	40 bar	w098	d476
PT025R-14-LI3-H1131	0...25 bar rel.	65 bar	w098	d476
PT040R-14-LI3-H1131	0...40 bar rel.	100 bar	w098	d476
PT060R-14-LI3-H1131	0...60 bar rel.	150 bar	w098	d476
PT100R-14-LI3-H1131	0...100 bar rel.	250 bar	w098	d476
PT160R-14-LI3-H1131	0...160 bar rel.	400 bar	w098	d476
PT250R-14-LI3-H1131	0...250 bar rel.	625 bar	w098	d476
PT400R-14-LI3-H1131	0...400 bar rel.	900 bar	w098	d476
PT600R-14-LI3-H1131	0...600 bar rel.	900 bar	w098	d476

## G1/4" – Male – Voltage output (3-wire)



### General data

<b>Operating voltage</b>	11.4...33 VDC	<b>Temperature coefficient span <math>T_{KS}</math></b>	0.15% of full scale / 10 K
<b>Protection type and class</b>	IP67 / III	<b>Medium temperature</b>	-40...125 °C
<b>Operating range</b>	0...10 V (3-wire)	<b>Ambient temperature</b>	-40...85 °C
<b>Accuracy (Lin. + Hys. + Rep.)</b>	0.3% of final value BSL	<b>Housing material</b>	stainless-steel/plastic, 1.4305 (AISI 303)/PC
<b>Calibration accuracy 0-point</b>	0.3% of final value	<b>material pressure element</b>	ceramics $Al_2O_3$
<b>Calibration accuracy, of final value</b>	0.3% of final value	<b>Sealing material</b>	FPM
<b>Response time</b>	3 ms	<b>Electrical connection</b>	connector, M12 x 1
<b>Temperature coefficient zero point <math>T_{K0}</math></b>	0.15% of full scale / 10 K	<b>Mechanical connection</b>	G 1/4" male thread

### Types and data – selection table

Type	Measuring range	Admissible overpressure	w	d
PT01VR-14-LU2-H1131	-1...0 bar rel.	3 bar	w099	d476
PT001R-14-LU2-H1131	0...1 bar rel.	3 bar	w099	d476
PT002R-14-LU2-H1131	0...1.6 bar rel.	5 bar	w099	d476
PT003R-14-LU2-H1131	0...2.5 bar rel.	7 bar	w099	d476
PT004R-14-LU2-H1131	0...4 bar rel.	12 bar	w099	d476
PT006R-14-LU2-H1131	0...6 bar rel.	15 bar	w099	d476
PT010R-14-LU2-H1131	0...10 bar rel.	25 bar	w099	d476
PT016R-14-LU2-H1131	0...16 bar rel.	40 bar	w099	d476
PT025R-14-LU2-H1131	0...25 bar rel.	65 bar	w099	d476
PT040R-14-LU2-H1131	0...40 bar rel.	100 bar	w099	d476
PT060R-14-LU2-H1131	0...60 bar rel.	150 bar	w099	d476
PT100R-14-LU2-H1131	0...100 bar rel.	250 bar	w099	d476
PT160R-14-LU2-H1131	0...160 bar rel.	400 bar	w099	d476
PT250R-14-LU2-H1131	0...250 bar rel.	625 bar	w099	d476
PT400R-14-LU2-H1131	0...400 bar rel.	900 bar	w099	d476
PT600R-14-LU2-H1131	0...600 bar rel.	900 bar	w099	d476

**w** Wiring diagrams on page 832 ff

**d** Dimension drawings on page 842 ff

**a** Accessories on page 772 ff

