DATA SHEET

T 3991 EN

Type 7491 Pressure Transmitter

With threaded connection

Application

The Type 7491 Pressure Transmitter is suitable for measuring the relative pressure of gases, vapors and liquids.

Function

The Type 7491 Pressure Transmitter is suitable for measuring the relative pressure of gases, vapors and liquids.

The SAMSON Type 7491 Pressure Transmitter is used in applications in the chemical and petrochemical industries as well as for use in mechanical and plant engineering and general process engineering.

Special features

- Digital pressure transmitter with threaded connection
- Housing and wetted parts made of stainless steel, degree of protection IP65
- Measuring ranges from 0 to 1 through 0 to 40 bar
- 4 to 20 mA output signal for two-wire connection
- Accuracy ≤0.5 %
- Simple zero adjustment using magnets
- Process medium temperature –40 to 120 °C

Fig. 1: *Type 7491 Pressure Transmitter with threaded connection*

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Table 1: Technical data

Construction/housing		
	Version	Compact housing design with a high IP rating
	Material	Stainless steel 1.4301 (304)
	Degree of protection acc. to EN 60529	IP65
	Pressure compensation	Ventilation in the electrical connection
	Electrical connection	Male angle connector DIN EN 175301-803-A; (DIN 43650, form A)
	Weight, approx.	0.15 kg
Process connection		
	Style	G ½ B according to EN 837-1
Material for wetted parts		
	Process connection	Stainless steel 1.4301 (304), 1.4542 (630) with 1000 bar nominal range
	Diaphragm	Stainless steel 1.4542 (630)
Measuring system		
	Sensor	Thin-film sensor
Measuring accuracy		
	Terminal-based conformity	According to DIN 16086
	Reference condition	According to DIN EN 60770-1
	Calibration position	Vertical mounting position
	Accuracy	≤0.5 % of adjusted measuring range
	Long-term drift	≤0.1 %/year of the nominal range
	Temperature influence (transmitter)	≤0.2 %/10 K of the nominal range
Output		
	Signal	4 to 20 mA (20 to 4 mA) for two-wire connection
	Damping	12 ms
	Measuring rate	80 Hz
	Current range	3.7 to 22 mA
	Resolution	6 µA
	Output load R_B	R_B ≤(UV-10 V)/0.022 A [Ω]
Supply		
	Functional area	10 to 32 V DC
Temperature ranges		
	Ambient	–40 to 85 °C
	Process medium	–40 to 120 °C[1)]
	Storage	–40 to 85 °C
Tests and certificates		
	EMC	According to DIN EN 61326-2-3:2013-07; DIN EN 61326-1:2013

1) At a max. ambient temperature of 40 °C

Table 2: Indicating ranges

Nominal range [bar]	Standard measuring ranges[1] [bar]	Measuring spans		Overpressure limit [bar]	Vacuum resistance
		Min. [bar]	Max. [bar]		
3	0 to 1 0 to 2.5	1	3	6	–1 bar
10	0 to 4 0 to 6 0 to 10	3	12	20	
50	0 to 16 0 to 25 0 to 40	12.5	50	100	

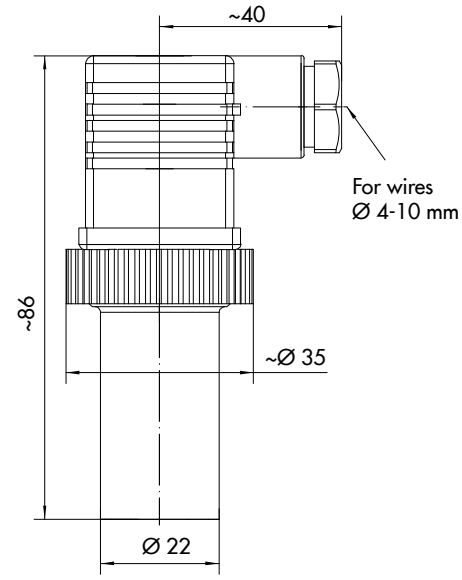
1) Other measuring ranges and units on request

Table 3: Version

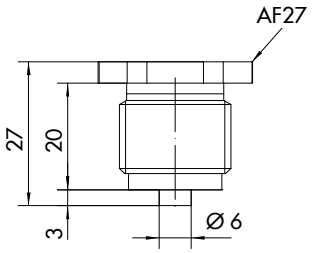
Type	Measuring range	Material number
7491-01	0 to 1 bar	6455749
7491-02	0 to 2.5 bar	100186893
7491-03	0 to 4 bar	100186878
7491-04	0 to 6 bar	100186894
7491-05	0 to 10 bar	100186895
7491-06	0 to 16 bar	100186900
7491-07	0 to 25 bar	100186879
7491-08	0 to 40 bar	100186896

Table 4: Dimensions and connection diagram

Dimensions

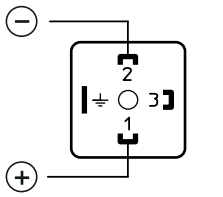


Male angle connector according to DIN EN 175301-803-A;
(DIN 43650, form A), degree of protection IP65



G ½ B according to DIN EN 837

Electrical connection of angle connector



Do not connect 3 and ⏚ with one another!

Grounding over process connection

RFQ Form for Type 7491 Pressure Transmitter

Customer data	
Company	
Address	
Name	
Phone number	
E-mail	

Send your inquiry to your regional SAMSON contact or e-mail it to ▶ systems-de@samsongroup.com

Assorted versions			
	☐ 7491-01	(0 to 1 bar)	Qty.
	☐ 7491-02	(0 to 2.5 bar)	Qty.
	☐ 7491-03	(0 to 4 bar)	Qty.
	☐ 7491-04	(0 to 5 bar)	Qty.
	☐ 7491-05	(0 to 10 bar)	Qty.
	☐ 7491-06	(0 to 16 bar)	Qty.
	☐ 7491-07	(0 to 25 bar)	Qty.
	☐ 7491-08	(0 to 40 bar)	Qty.

Notes