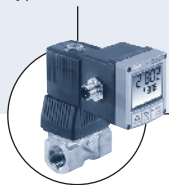


Pressure transmitter



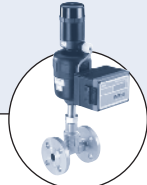
- Ceramic measurement cell
- Two-wire version
- Compact, stable construction for the highest operational reliability
- Media stop system if bursting pressure exceeded

Type 8314 can be combined with...



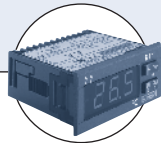
Type 8624

PI controller



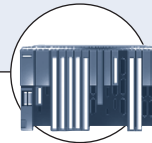
Type 2712

Continuous control valve



Type 0911

Process indicator



PLC

The compact pressure transmitter Type 8314 meets the highest requirements with regard to mechanical loading, EMC characteristics and operational reliability and is particularly suitable for demanding industrial applications.

General data	
Body material	Stainless steel 1.4305 AISI 303
Wetted parts materials	Ceramics (Al ₂ O ₃), stainless steel 1.4305 (1.4404 AISI 316L on request), FKM seal, PPS
Electrical connection	M12 x 1 plug
Process connection	G 1/4" external to DIN 3852 Form E
Installation	as required, preferably with pressure connection in downward position
Measurement principle	Ceramic technology
Measurement procedure	Relative pressure measurement
Measuring range	0 up to 1, 4, 6, 10, 16, 40 or 100 bar
Overload	3 x full scale at 0 ... 4 bar 2.5 x full scale at 6 ... 100 bar
Bursting pressure	3 x full scale at 0 ... 4 bar 2.5 x full scale at 6 ... 100 bar patented media stop system to prevent escape of media if the bursting pressure range is exceeded (≥ 4 bar nominal pressure)
Fluid temperature	5°F up to 257°F (-15°C up to +125°C)
Accuracy	Sum of linearity, hysteresis and reproductibility: ≤ 0.3% of F.S.* Balancing accuracy of zero point and full scale: ≤ 0.3% of F.S.*
Long term stability	0.5% of F.S. / 10 year
Dynamic response	Suitable for static and dynamic measurements response time < 2 ms, typ. 1ms

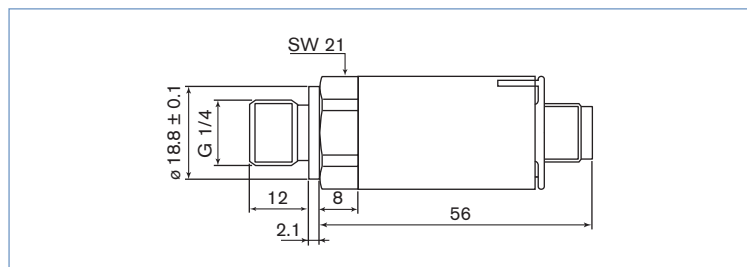
Electrical data	
Power supply (U)	8 up to 33 V DC, unregulated
Output signal (two-wire)	Standard 4 up to 20 mA signal
Load in Ω	< (U - 8 V) / 0.02 A
Protected connection	Short-circuit proof & protected against reversal polarity

Environment	
Ambient temperature	5°F up to 185°F (-15°C up to +85°C)
Temperat. coefficient	< 0.015% of F.S.* / C° (Coef. zero point and sensitivity)

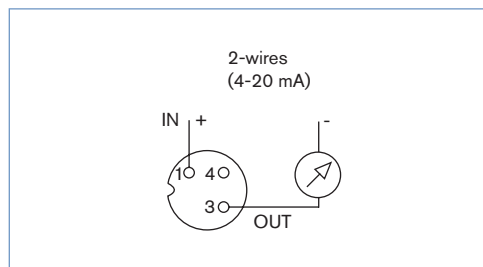
Standard and approvals	
Protection class	IP67
Interference emission	Acc. to EN 50081-1 and EN 55022
Interference stability	Acc. to EN 50082-2

* F.S. = full scale

Dimensions [mm]



Electrical connections



Ordering chart transmitter Type 8314 and accessories

Transmitter

Process connection	Pressure range [bar]	Item no.
G 1/4	0 to 1	550 364
	0 to 4	550 365
	0 to 6	552 954
	0 to 10	550 366
	0 to 16	552 955
	0 to 40	550 367
	0 to 100	550 368

i Further versions on request

- Pressure**
Other measuring ranges
- Port connection**
NPT 1/4"
- Electrical connection**
connectors
- Additional**
electrical outputs

Accessories

Description	Item no.
5-pin M12 female cable connector with plastic threaded locking ring	917 116
5-pin M12 female connector moulded on cable (2 m, shielded)	438 680

EMC acc. to harmonised standards for interference resistance EN 50082-2, IEC 61000-6-2 and EN 61326-1, interference radiation EN 50081-1, EN 55022, CISPR 22, EN 61326-1

Interference stability	Test Norm / Test condition	Effects
Electro-static discharge ESD	EN 61000-4-2 15 kV air, 89 kV contact discharge	No effects
High frequency electro-magnetic irradiation	EN 61000-4-3 200 V/m, 80 ... 100 MHz	No effects
Line related high frequency coupling	EN 61000-4-6 30 V, 0.15 ... 80 MHz	No effects
Fast transients (Bursts)	EN 61000-4-4 / 4 kV	No effects
Magnetic fields	EN 61000-4-8 / 30 A/m, 50 Hz	No effects
Surge voltage	EN 61000-4-5 / Line-Line, Line-Case 500V, 12 Ohm, 9 µF Radiometric Line-Line 500V, 2 Ohm, 18 µF	No failure
Insulation voltage	500 V DC (optional 1000 V DC) 350 V AC (optional 700 V AC)	No effects
Interference transmitted	Test standard / Test condition	Effects
Line - related interference	EN 55022	
Interference	0.15 ... 30 MHz	No emission
Radiation from body	30 ... 1000 MHz, 10 meter	No emission
Test / Admissions		
Shock acc. IEC 28-2-27	75G, 11 ms half sine wave, all three directions. Free fall from 1 m on concrete (6x)	
Constant shock acc. IEC 68-2-29	40G for 6 ms, 1000 x all three directions	
Vibration acc. IEC 68-2-6	20G, 9...200 Hz, 2...9 Hz with ampl. +/- 15 mm, 1 Octave/min all three directions, 50 constant load	

DTS 1000082477 EN Version: A Status: RL (released | freigegeben | valide) printed: 19.04.2013