



8314

- 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  
TOP Control



Type 4002  
Process  
indicator



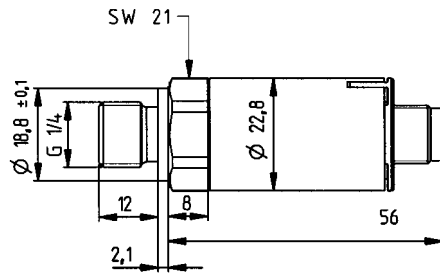
PLC

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.

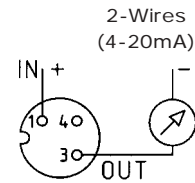
Technical Data	
Measurement principle	Ceramic technology
Pressure ranges	0 up to 1 bar 0 up to 4 bar 0 up to 10 bar 0 up to 40 bar 0 up to 100 bar
Pressure connections	G1/4 external to DIN 3852 Form E
Electrical connection	M12 x 1 plug
Overload	3.0 x full scale at -1...4 bar 2.5 x full scale at 6...100 bar
Bursting pressure	3.0 x full scale at -1...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 ( $\geq 4$ bar nominal pressure)
Measurement procedure	Relative pressure measurement
Accuracy	Sum of linearity, hysteresis and reproducibility $\leq 0.3\%$ FS (full scale) Balancing accuracy of zero point and full scale $\leq 0.3\%$ FS
Dynamic response	Suitable for static and measurements Response time < 2 ms, typ. 1 ms
Operating voltage U	8 up to 33 VDC, unregulated
Output signal (two-wire)	Standard 4 up to 20 mA signal
Load in $\Omega$	< (U-8V) / 0.02 A
Interference emission	Acc. to EN 50081-1 and EN 55022
Interference stability	Acc. to EN 50082-2
Connection	Short-circuit proof & protected against reverse polarity
Protection class	IP67
Body material	Stainless steel 1.4305 AISI 303
Media-contracting parts	Ceramic Al <sub>2</sub> O <sub>3</sub> , Stainless steel 1.4305
Media temperature	-15 up to +125°C
Ambient temperature	-15 up to +85°C
Temperature coefficient	
T <sub>coef.</sub> zero point	<0.015% v. FS/°C
T <sub>coef.</sub> sensitivity	$\leq 0.015\%$ v. FS/°C
Installation	as required, preferably with pressure connection in downward position
Weight	Version outside thread 95 grams

Other pressure ranges on request

## Dimensions [mm]



## Electrical connection



## Ordering chart for 8314 and Accessories

Pressure range [bar]	Item-No.	
	Process connection G1/4"	NPT1/4"
0 to 1	550 364	on request
0 to 4	550 365	on request
0 to 10	550 366	on request
0 to 40	550 367	on request
0 to 100	550 368	on request

On request:

other measuring ranges, electrical outputs, electrical connectors...

Description	Item-No (standard)
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...1000 Mz	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 / 30A/m, 50Hz	No effects
Surge voltage	EN 61000-4-5 / Line-Line, Line-Case 500V, 12 Ohm, 9µF / 1kV, 42 Ohm, 0.5 µF Radiometric Line-Line 500 V, 2 Ohm, 18µF	No failure
Insulation voltage	500 VDC (optional 1000 VDC) 350 VAC (optional 700 VAC)	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 / Zulassungen

Shock acc. IEC 68-2-27	75G, 11 ms hal sin wave, all three directions. Free fall from 1 m on concrete (6x)
Constant shock acc. IEC 68-2-29	40G for 6ms, 1000x all three directions
Vibration acc. IEC 68-2-6	20G, 9...200Hz, 2...9Hz with amplit. +/- 15 mm, 1 Octave/min all three directions, 50 constant load.