



## Pressure Transmitter

- Ceramic/thick film measurement cell
- Two-wire version for 4... 20 mA output
- Compact, stable construction for the highest operational reliability

Type 8316 can be combined with...



**Type 8611**

Universal Controller  
eControl



**Type 8802-GD**

Continuous  
SideControl system



**Type 8619**

Multifunction  
transmitter/controller




**PLC**

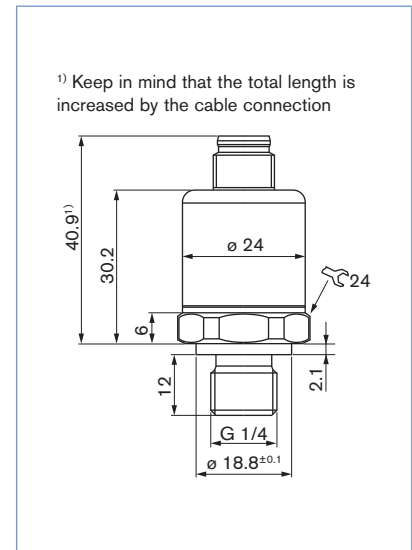
The compact Type 8316 pressure transmitter meets the highest requirements with regard to mechanical loading, EMC characteristics and operational reliability and is particularly suitable for demanding industrial applications.

General data	
<b>Body material</b>	Stainless steel 1.4305 AISI 303
<b>Wetted parts materials</b>	Ceramics (Al <sub>2</sub> O <sub>3</sub> ), stainless steel 1.4305, FKM seal (for pressure 0 - 100 bar, only stainless steel 1.4305, no FKM seal, no ceramics)
<b>Electrical connection</b>	Round male connector M12x1
<b>Process connection</b>	G 1/4" external to DIN 3852 Form E NPT 1/4" external
<b>Installation</b>	As required, preferably with pressure connection in downward position
<b>Measurement technology</b>	Ceramic or thick film
<b>Measurement procedure</b>	Relative pressure measurement
<b>Measuring range</b>	0 to 1, 4, 6, 10, 16, 40 or 100 bar (0 to 14.51, 58.04, 87.06, 145.1, 232.16, 580.4, 1451 PSI)
<b>Overload, bursting pressure</b>	3 x full scale at 0... 4 bar (0... 58.04 PSI) 2.5 x full scale at 6... 100 bar (87.06... 1451 PSI)
<b>Fluid temperature</b>	-15 to +125°C (5 to 257°F)
<b>Accuracy</b>	Sum of linearity, hysteresis and reproducibility, balancing accuracy of zero point and full scale: ≤ 0.5% of F.S.*
<b>Resolution</b>	0.1% of F.S.
<b>Dynamic response</b>	Suitable for static and dynamic measurements response time < 2 ms, typ. 1 ms



\* F.S. = full scale

Electrical data	
<b>Operating voltage (U)</b>	7 to 33 V DC, unregulated
<b>Output signal</b>	Standard 4... 20 mA (two-wire) or 0... 10 V DC (three-wire) signal
<b>Load in <math>\Omega</math></b>	$< (U - 7 \text{ V}) / 0.02 \text{ A}$
<b>Protected connection</b>	Short-circuit proof & protected against reverse polarity
Environment	
<b>Ambient temperature</b>	-15 to + 85°C (5 to 185 °F)
<b>Temperature coefficient</b>	< 0.2% of F.S.* / 10K
Standard and approvals	
<b>Protection class</b>	IP67
<b>EMC</b>	EN 61326-2-3
<b>Approval</b>	CE; UL-Recognized for US and Canada (61010-1 + CAN/CSA-C22 No.61010-1) 
Test/Admissions	
<b>Shock acc. EN 60068-2-27</b>	25g, 6 ms half sine wave, all three directions.
<b>Drop test acc. EN 60068-2-23</b>	from 1 m on concrete
<b>Vibration acc. EN 60770-1</b>	50m/s, 10... 1000 Hz, 1 Octave/min, 20 constant load per axis

## Dimensions [mm]





## Ordering chart for pressure transmitter Type 8316


Process connection	Pressure range	Operating voltage	Output signal	Electrical connection	Item no.
G 1/4" UL-Recognized for US and Canada 	0 - 1.00 bar	7... 33 V DC	4... 20 mA	M12 male connector	563 777
	0 - 4.00 bar	7... 33 V DC	4... 20 mA	M12 male connector	563 778
	0 - 6.00 bar	7... 33 V DC	4... 20 mA	M12 male connector	563 779
	0 - 10.0 bar	7... 33 V DC	4... 20 mA	M12 male connector	563 780
			0... 10 V DC	M12 male connector	563 784
	0 - 16.0 bar	7... 33 V DC	4... 20 mA	M12 male connector	563 781
	0 - 40.0 bar	7... 33 V DC	4... 20 mA	M12 male connector	563 782
	0 - 100.0 bar	7... 33 V DC	4... 20 mA	M12 male connector	563 783
NPT 1/4" UL-Recognized for US and Canada 	0 - 60 PSI	7... 33 V DC	4... 20 mA	M12 male connector	564 466
	0 - 150 PSI	7... 33 V DC	4... 20 mA	M12 male connector	564 467
	0 - 300 PSI	7... 33 V DC	4... 20 mA	M12 male connector	564 468


 Further versions on request

 **Pressure**  
other measuring ranges

 **Port connection**  
NPT 1/4", ...

 **Electrical connection**  
connectors: mini DIN, DIN ...

 **Additional**  
electrical outputs: 0 - 10 V DC, 0 - 5 V DC

 **Materials**  
EPDM seal, stainless steel 1.4404 AISI 316L

## Ordering chart 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

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In case of special application conditions,  
please consult for advice.

Subject to alteration.  
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