



## 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**

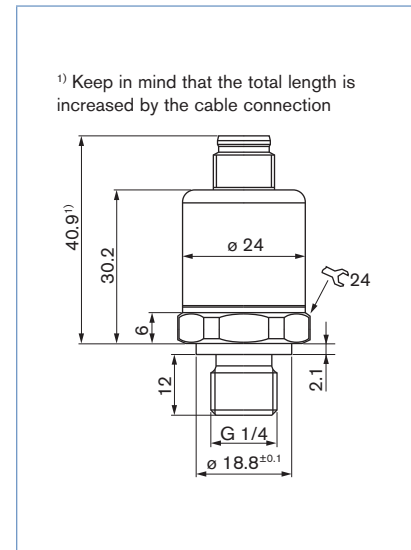
The compact Type 8316 pressure transmitter meets the highest requirements with regard to mechanical loading, EMC characteristics and operational reliability and is particularly suitable for demanding industrial applications. For aggressive fluids against stainless steel the process connection in PVDF is available.

General data	
<b>Body material</b>	Stainless steel 1.4404 (316L)
<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 + CRN/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, PVDF process connection

## 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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