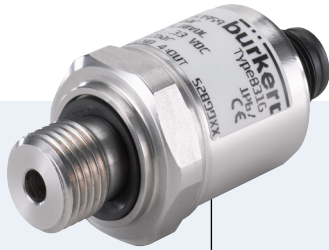


Pressure measuring device



- 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 8802
ELEMENT continuous
control valve systems



Type 8611
Universal controller
eControl



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.

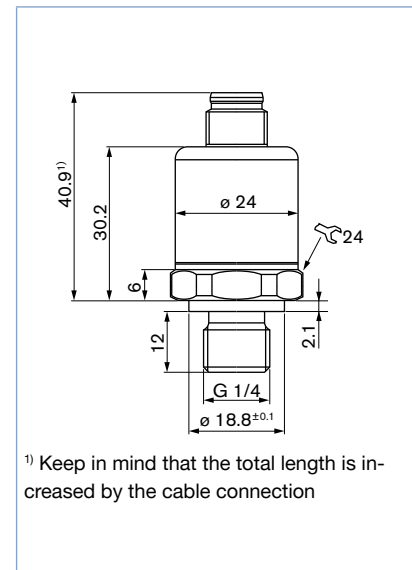
For aggressive fluids against stainless steel the process connection is available in PVDF.

General data	
Body material	Stainless steel 1.4404 (316L)
Wetted parts materials	Ceramics (Al ₂ O ₃), stainless steel 1.4404, FKM seal (for pressure 0...100 bar, only stainless steel 1.4404, no FKM seal, no ceramics)
Electrical connection	Round male connector M12 × 1
Process connection	G 1/4" external to DIN 3852 Form E NPT 1/4" external
Installation	As required, preferably with pressure connection in downward position
Measurement technology	Ceramic or thick film
Measurement procedure	Relative pressure measurement
Measuring range	0...1, 4, 6, 10, 16, 40 or 100 bar (0...14.51, 58.04, 87.06, 145.1, 232.16, 580.4, 1451 PSI)
Overload, bursting pressure	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)
Fluid temperature	-15...+125 °C (+5...+257 °F)
Accuracy	Sum of linearity, hysteresis and reproducibility, balancing accuracy of zero point and full scale: ≤0.5% of F.S.*
Resolution	0.1% of F.S.*
Dynamic response	Suitable for static and dynamic measurements response time <2 ms, typ. 1 ms













* F.S. = full scale

Electrical data	
Operating voltage (U)	7...33 V DC, unregulated
Output signal	Standard 4...20 mA (two-wire) or 0...10 V DC (three-wire) signal
Load in Ω	$<(U - 7 \text{ V})/0.02 \text{ A}$
Protected connection	Short-circuit proof & protected against reverse polarity
Environment	
Ambient temperature	-15...+85 °C (+5...+185 °F)
Temperature coefficient	$<0.2\%$ of F.S.* /10K
Standards, directives and certifications	
Protection class	IP67
EMC	EN 61326-2-3
Standard and directives CE	The applied standards, which verify conformity with the EU Directives, can be found on the EU Type Examination Certificate and/or the EU Declaration of conformity (if applicable)
Certifications UL-Listed for USA and Canada	 Process Control Equipment E312665 UL 61010-1 + CAN/CSA-C22.2 No.61010-1
Test/Admissions	
Shock acc. EN 60068-2-27	25g, 6 ms half sine wave, all three directions.
Drop test acc. EN 60068-2-23	from 1 m on concrete
Vibration acc. EN 60770-1	50 m/s, 10...1000 Hz, 1 Octave/min, 20 constant load per axis


Dimensions [mm]





Ordering chart for pressure measuring device, Type 8316


Process connection	Pressure range	Operating voltage	Output signal	Electrical connection	Article no.
G 1/4" UL-Listed for USA and Canada 	0...1.00 bar	7...33 V DC	4...20 mA	M12 male connector	563777 
	0...4.00 bar	7...33 V DC	4...20 mA	M12 male connector	563778 
	0...6.00 bar	7...33 V DC	4...20 mA	M12 male connector	563779 
	0...10.0 bar	7...33 V DC	4...20 mA	M12 male connector	563780 
				0...10 V DC	M12 male connector
	0...16.0 bar	7...33 V DC	4...20 mA	M12 male connector	563781 
	0...40.0 bar	7...33 V DC	4...20 mA	M12 male connector	563782 
0...100.0 bar	7...33 V DC	4...20 mA	M12 male connector	563783 	
NPT 1/4" UL-Listed for USA and Canada 	0...60 PSI	7...33 V DC	4...20 mA	M12 male connector	564466 
	0...150 PSI	7...33 V DC	4...20 mA	M12 male connector	564467 
	0...300 PSI	7...33 V DC	4...20 mA	M12 male connector	564468 

 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	Article no.
5 pin M12 female cable connector with plastic threaded locking ring	917116 
5 pin M12 female connector moulded on cable (2 m, shielded)	438680 

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