

# Chemical Resistant Submersible Level Transmitters

## ATM/NC



### CUSTOMER BENEFITS

- Chemical resistant level transmitter made of PVDF
- This transmitter has an excellent resistance to aggressive chemicals
- Optional overvoltage protection
- Reverse polarity and short circuit protected

# Technical Specifications

## PRESSURE MEASURING RANGE (MH<sub>2</sub>O)

	1 ... 5	> 5 ... 20	> 20 ... 250
Overpressure	3 bar	3 x FS (≥ 3 bar)	3 x FS
Burst pressure, (1)	> 200 bar	> 200 bar	> 200 bar
Accuracy, (2) (± % FS)	≤ 2.0	≤ 1.0	≤ 0.5
Accuracy, (2), (3) (± % FS)	< 0.5%	< 0.5%	< 0.5%
Thermal shift (± % FS/°C)			
Zero point 0...70°C	≤ 0.06	≤ 0.03	≤ 0.015
Zero point -25...85°C	≤ 0.08	≤ 0.04	≤ 0.02
Span 0...70°C	≤ 0.015	≤ 0.015	≤ 0.015
Span -25...85°C	≤ 0.02	≤ 0.02	≤ 0.02
Long term stability, (4)	< 0.5% FS / < 4 mbar	< 0.2% FS / < 4 mbar	< 0.1% FS / < 0.2% FS

(1) Transducer

(2) Zero based accuracy according to DIN16086, incl. hysteresis and repeatability at ambient temperature

(3) Only if diaphragm is made in titanium

(4) 1 year (typ. / max.)

## TEMPERATURE RANGE

Operating temperature	-5...80 °C
Process temperature	-5...80 °C
Storage temperature	-10...80 °C

## ELECTRICAL SPECIFICATIONS

	4 ... 20 mA	0 ... 20 mA	0 ... 5 V / 0 ... 10 V
Power supply	9...33 V DC	9...33 V DC	15...30 V DC
Supply influence	< 0.1% FS	< 0.1% FS	< 0.1% FS
Current consumption			3 mA
Circuit diagram			
Load resistance			
Load influence	< 0.1% FS	< 0.1% FS	< 0.1% FS

## QUALIFICATIONS

	Description	Level	Typical interferences
EN 61000-4-2	Electrostatic discharge	4 kV contact / 8 kV air	
EN 61000-4-3	Irradiated RF	10V/m (0.08...1 GHz)	Radio sets, wireless phones
EN 61000-4-4	Transients (burst)	2 kV	Motors, valves
EN 61000-4-6	Conducted RF	10 V (0.15...80 MHz, 3 s)	Frequency converters

## PHYSICAL SPECIFICATIONS

Materials	
Transducer	Stainless steel (316L / 1.4435) with teflon protection, titanium (Gr. 2)
Housing	PVDF
Seals	Viton (Standard), EPDM, Kalrez
Cable	PUR, FEP, PE
Weight (1)	150 g

(1) Specification for a ATM/NC, copen, without cable

# Equipment

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## OVERVIEW

10.00.0091	
	Accessories overview

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## Additional documents

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## OPERATING AND SAFETY INSTRUCTIONS

	Article number
10.88.0092	DMM029

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# Ordering information

	X.	XXXX.	XXXX.	XX.	XXX
<b>Type</b>					
	ATM/NC	30			
<b>Pressure type</b>					
	Gauge	1			
	Absolute (vacuum)	2			
<b>Pressure measuring range</b>					
	100 mbar ... 25 bar		XX		
<b>Process connection</b>					
	Open, TD in titanium (Fig. 1)		90		
	Open, TD 316L with FEP foil (Fig. 1)		91		
<b>Electrical connection</b>					
	PE cable, IP 68, black (2), (3)			13	
	PUR cable, IP 68, black (2), (3)			15	
	FEP cable, IP 68, black (2)			21	
<b>Output signal</b>					
	0 ... 5 V DC			46	
	0 ... 10 V DC			47	
	0 ... 20 mA			00	
	4 ... 20 mA			05	
	4 ... 20 mA with surge protection			08	
	0 ... 10 V DC with surge protection			49	
	0 ... 5 V DC with surge protection			50	
	Customized			99	
<b>Accuracy</b>					
	$\leq \pm 2.0$ % FS for $p < 500$ mbar (4)				6
	$\leq \pm 1.0$ % FS for $p \leq 2$ bar				5
	$\leq \pm 0.5$ % FS for $p > 2$ bar				0
<b>Temperature range</b>					
	-5 ... 50°C compensated process temperature: -5 ... 50°C	(allowed			4
	-5 ... 80°C compensated process temperature: -5 ... 80°C), (5), (6)	(allowed			5
<b>Option 1</b>					
<b>Option 2</b>					
<b>Option 3</b>					
	Seals: Viton (standard)				U
	Seals: EPDM				S
	Seals: Kalrez, (6)				T
	Protective cap in brass				W
	Protective cap in POM				W
	Humidity filter element for gauge versions (only for PUR and PE cable)				Z

(2) Please specify the required cable length and medium

(3) For operating temperature > 50°C, PE or FEP cable must be used

(4)  $\leq \pm 0.5$  % FS if diaphragm is made in titanium

(5) Only if diaphragm is made in titanium

(6) Available only with FEP cable

## Dimensions

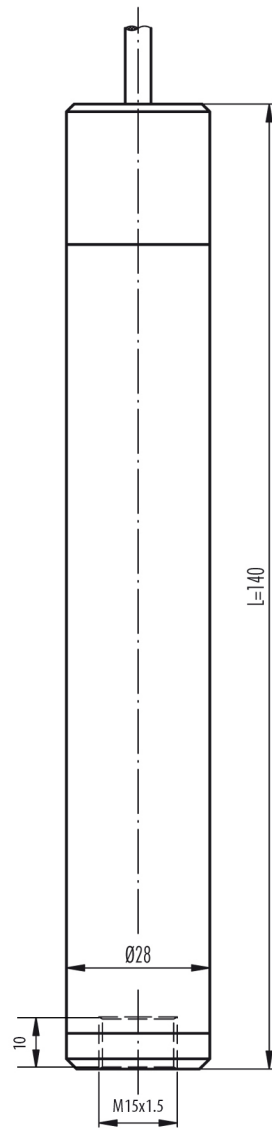


Fig. 1

Colour	2-Wire	3-Wire
white	+Vin	+Vin
yellow	Pout	GND
brown		Pout