

## 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

Version: 25.04.2016

# Technical Specifications

## Pressure measuring range (mH<sub>2</sub>O)

	1 ... 5	> 5 ... 20	> 20 ... 250
<b>Overpressure</b>	3 bar	3 x FS (≥ 3 bar)	3 x FS
<b>Burst pressure, (1)</b>	> 200 bar	> 200 bar	> 200 bar
<b>Accuracy, (2), (± % FS)</b>	≤ 2.0	≤ 1.0	≤ 0.5
<b>Accuracy, (2), (3), (± % FS)</b>	< 0.5%	< 0.5%	< 0.5%
<b>Thermal shift, (± % FS/°C)</b>			
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
<b>Long term stability, (4)</b>	< 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

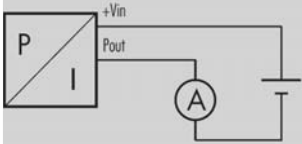
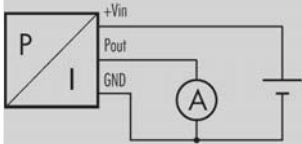
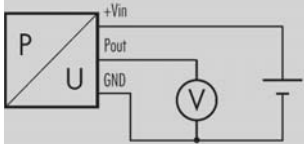
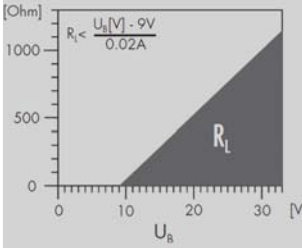
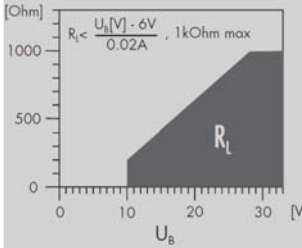
(3) Only if diaphragm is made in titanium

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

## Temperature range

<b>Operating temperature</b>	-5...80 °C
<b>Process temperature</b>	-5...80 °C
<b>Storage temperature</b>	-10...80 °C

## Electrical specifications

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

## Qualifications

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

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## Physical specifications

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

(1) Specification for a ATM/NC, copen, cable

## Equipment

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### Overview

<b>10.00.0091</b>	Accessories overview

## Additional documents

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### Operating and safety instructions

	Article number
<b>10.88.0092</b>	DMM029

## 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...20mA 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 (allowed process temperature: -5...50 °C)				4
	-5...80 °C compensated (allowed process temperature: -5...80 °C), (5), (6)				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)  $< \pm 0.5$  % FS if diaphragm is made in titanium

(5) Only if diaphragm is made in titanium

(6) Available only with FEP cable

# Technical drawings

## Dimensions

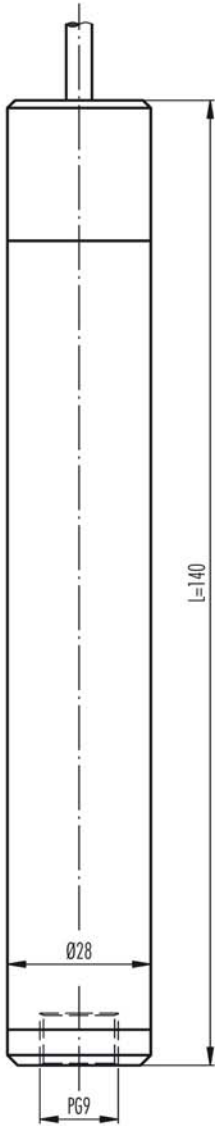


Fig. 1

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

Specifications may change without notice.

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