

# Submersible Transmitter

Type RTC28...

## for Liquid Level Measurement of 0,2 ... 10 bar

The Submersible Transmitter Type RTC28... is designed to measure and monitor liquid levels in industrial and municipal hydrostatic applications.

- Excellent long term stability
- Very low temperature drift
- Measuring ranges from 0,2 ... 10 bar
- Compact design
- Relative or absolute pressure
- Long service life
- High accuracy
- Conformity to CE standards

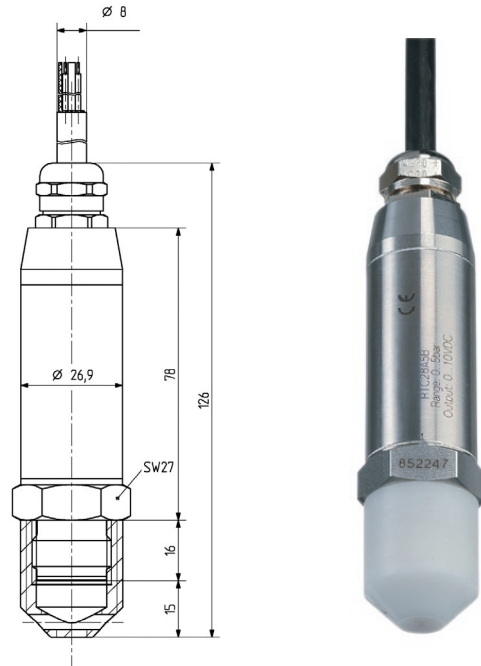
### Description

The built-in silicon element designed in-house offers great accuracy, excellent long term stability and very low temperature drift. The compact transmitter design allows versatile application.

The transmitters are available as relative or absolute pressure types, and as 2-wire 4 ... 20 mA current output or as 3-wire 0 ... 10 V voltage output models with 12 or 16 ... 30 VDC power supply.

### Application

The transmitters can be used for a wide range of applications in the area of liquid level and general level measurement, monitoring and control.



### Examples

- Liquid level measurement in storage tank installations without lateral access
- Ground water monitoring in both the municipal and industrial applications
- Water and waste water treatment
- Water reservoirs
- Trenches
- Well and borehole probe
- Marine research

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## Technical Data

### Relative Pressure Transmitter

Type RTC28R...		...0,2...	...0,5...	...1...	...2...	...5...	...10...
Range	bar rel.	0 ... 0,2	0 ... 0,5	0 ... 1	0 ... 2	0 ... 5	0 ... 10
Overload	bar rel.	2,5	3	4	7	15	30

### Absolute Pressure Transmitter<sup>1)</sup>

Type RTC28A...		...1...	...2...	...5...	...10...
Range	bar abs.	0 ... 1	0 ... 2	0 ... 5	0 ... 10
Overload	bar abs.	4	7	15	30

		Current Output	Voltage Output
Full scale output	mA / V	20 ±0,5 %	10 ±0,5 %
Zero	mA / V	4 ±0,05	0 ±0,05
Electrical connection	–	2-wire	3-wire
Power supply	VDC	12 ... 30	16 ... 30
Burden resistance	Ω	0 ... 900	–
Load resistance	kΩ	–	>500
Linearity, Hysteresis and Repeatability at 25 °C (BSL)	%FSO <sup>2)</sup>	≤±0,25	
Thermal sensitivity shift (0 ... 85 °C)	% <sup>3)</sup>	≤±1,0	
Thermal zero shift (0 ... 85 °C)	%FSO <sup>3)</sup>	≤±1,0	
Reference temperature	°C	25	
Cutoff frequency (-3 dB)	kHz	3 ... 4	
Operating temperature range	°C	-20 ... 85	
Storage temperature range	°C	-40 ... 85	
Emission	–	fulfills EN 61000-6-3	
Immunity	–	fulfills EN 61000-6-2	
Protection	–	IP68	
Materials (media contacting)	–	Case, Diaphragm and Cable gland : Stainless steel DIN 1.4435 (AISI316L), Protective cap: POM, Cable: PE	
Terminology:	–	ANSI/ISA-Standard, ST 37.1-1975 (R1982)	

<sup>1)</sup> on request

<sup>2)</sup> Transmitters at 0,2 bar and 0,5 bar ±0.5%FSO

<sup>3)</sup> only for ranges ≥1 bar

### Electrical Connection

Integral PE-cable with venting tube

Cable diameter: ø8 mm

Weight per meter: ≈73g

The basic submersible transmitter includes the cable length specified

4 ... 20 mA (2-wire)	0 ... 10 V (3-wire)
blue: + Signal	blue: + Supply (16 ... 30 VDC)
yellow: – Signal	red: + Signal
Shield: Case	yellow: GND
	Shield: Case

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**Accessories Included**

- None

**Optional Accessories**

- None

**Ordering Key**

Type RTC28

**Measuring principle**

Absolute pressure <sup>1)</sup>	<b>A</b>
Relative pressure	<b>R</b>

<sup>1)</sup> on request

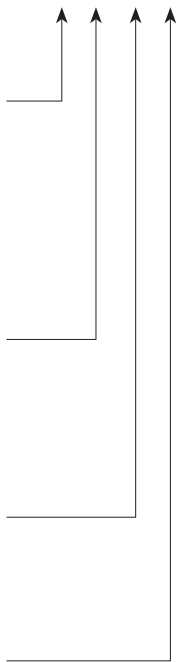
**Measuring range/Cable length**

0,2 bar, Cable length 7 m	<b>0,2</b>
0,5 bar, Cable length 10 m	<b>0,5</b>
1 bar, Cable length 20 m	<b>1</b>
2 bar, Cable length 30 m	<b>2</b>
5 bar, Cable length 60 m	<b>5</b>
10 bar, Cable length 120 m	<b>10</b>
Other measuring ranges on request	<b>xxx</b>

Range in bar	<b>B</b>
Other engineering units on request	<b>x</b>

**Output**

Current output 4 ... 20 mA	<b>C1</b>
Voltage output 0 ... 10 V	<b>V1</b>
Other output signals on request	<b>xx</b>



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