

## Submersible pressure transmitter for water level measurement series EDN.363



all st. steel housing of wetted parts  
with Declaration of Conformity, CE

### General features

- Piezosistive Silicon Pressure Transmitters for industrial applications
- Pressure range from 0...20 mbar to 0...20 bar
- Ingress protection IP68 certified
- Housing parts of stainless steel

### Application area

- Hydrostatic pressure measurement
- Level measurement in vessel and storage systems
- Measurement of water or fuel storage tank level
- Sea water desalinization plants

### General specification

#### Pressure ranges

From 0...20 mbar to 0...20 bar

#### Accuracy

± 0.25% FS

included Linearity+Hysteresis+Repeatability

\*\* measuring pressure less 1 bar, ≤ 0.35%

#### Non-linearity / BFSL

less than ± 0.15% FS

#### Overpressure

1.3 X pressure range

#### Output type

4...20mA, 2-wire system

0...10V, 3-wire system

0...5V, 3-wire system

1...5V, 3-wire system

#### Power supply

Ref. power: DC 24V

Available power: DC 12...30V

#### Response time

≤ 5ms

#### Isolation

> 100MΩ at 100 VDC

#### Materials

Wetted parts: st. steel 316L

Sensor sealing: FKM

Body: st. steel 316L



### Submersible pressure transmitter, EDN.363

#### Temperature range

Compensated temperature range: 0...70 °C

Operating: -20...80 °C

-40...+125 °C / option

Ambient:

-20...85 °C

Storage:

-20...85 °C

#### Thermal error

Zero thermal error: ±0.75%FS @ 25 °C, typical

Span thermal error: ±0.75%FS @ 25 °C, typical

#### Electrical connection

IP68 cable gland, st. steel

#### Pressure connection

End cap, st. steel

#### Protection

IP68 with cable gland

including atmosphere compensation tube inside

#### Cable

Polyethylene, PE cable

Polyethylene, PUR cable

#### End cap

4 holes on the side and 4 holes on the floor

connecting screw thread M12

#### Weight

Approx. 130g without cables



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## Technical specifications

### Input pressure range

Norminal pressure:

From 0...20 mbar up to 0...20 bar

Permissible static pressure:

1.3 x pressure range, max.13 bar

### Output signal / Supply

Current:

2-wire 4...20mA Vs=12...30 VDC

Voltage:

3-wire 0...10V, 0...5V, 1...5V Vs=12...30 VDC

### Performance

<sup>1</sup>Accuracy:  $\leq \pm 0.25\% \text{FSO} @ 25^\circ\text{C}$

<sup>1</sup> accuracy according to IEC 60770 - limit point adjustment including non-linearity, hysteresis as well as repeatability

\*\* measuring pressure less 1 bar,  $\leq 0.35\%$

Permissible load /  $R_L$

Current: 2-wire,  $R_L \text{ max} = [(V_s - V_s \text{ min}) / 0.02 \text{ A}] \Omega$

Voltage: 3-wire,  $R_L \text{ min} = 10 \text{ k}\Omega$

Influence effects:

Supply: 0.05%FSO/10V

Longterm stability:  $\leq \pm 0.5\% \text{FS} / \text{year}$

Response time:  $< 5 \text{ ms}$

### Thermal effects (Offset and Span)

#### / Permissible temperatures

FS thermal error:  $\pm 0.75\% \text{FS} @ 25^\circ\text{C}$ , typical

Zero thermal error:  $\pm 0.75\% \text{FS} @ 25^\circ\text{C}$ , typical

Operating temperature:  $-20 \dots 80^\circ\text{C}$

$-40 \dots +125^\circ\text{C} / \text{option}$

Compensated tempearture:  $0 \dots 70^\circ\text{C}$

### Electrical protection

Electromagnetic compatibility:

Emission and immunity according to

EN 61326-2-3:20B CCISPR II Group 1, Class A

EN IEC 61000-3-2:2019

Insulation: the transmitter is grounded via the process connection

### Mechanical stability

Vibration: No change at 10 g RMS (20...2000) Hz

Shock: 0.1 g (1m/s) Max.

### Materials

Pressure port: Stainless steel 316L

Housing / body: Stainless steel 316L

Sensor diaphragm: Stainless steel 316L

Wetted parts: Stainless steel 316L

### Miscellaneous

Current consumption

Signal output current max. 25mA

Current

4...20mA, 2-wire system

Signal output voltage max. 7mA

### [Option]

If necessary, it will be supplied signal output, voltage as follows.

Voltage:

0...10V, 3-wire system

0...5V, 3-wire system

1...5V, 3-wire system

Ingress protection per IEC 60529:

IP68 Cable gland

## Ordering information

### Model code

EDN.363 · [ ] · [ ] · [ ] · B [ ] · [ ]

#### Output signal

|    |                          |
|----|--------------------------|
| O1 | 4...20mA / 2-wire system |
| O2 | 0...10V / 3-wire system  |
| O3 | 0...5V / 3-wire system   |
| O4 | 1...5V / 3-wire system   |

#### Electrical connection

|     |           |
|-----|-----------|
| PE  | PE Cable  |
| PUR | PUR Cable |

#### Cable length / standard 5m

|     |                            |
|-----|----------------------------|
| ? m | Standard 5m + additionally |
|-----|----------------------------|

#### Pressure range code, unit bar

| Code | Range       |
|------|-------------|
|      | 0...20 mbar |
|      | :           |
| R36  | 0...20 bar  |
| RYY  | on request  |

#### Option code

| Code | Description                            |
|------|----------------------------------------|
| T4   | Operating temperature -40...+125 °C    |
| TP   | St. steel tag plate, 60 x 20 x 0.5t    |
| DMCC | Manufacture calibration certificate    |
| KC   | KOLAS Ilac-MRA calibration certificate |
| CC   | Certificate of conformance / origin    |

### ※ Information

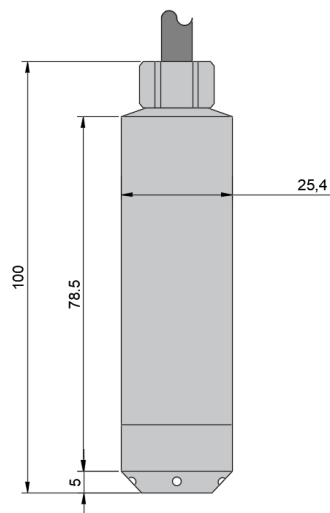
- EDN.363 제품은 기본적으로 사용자의 요구 사양에 따라 제작 공급되어지는 제품이다. 따라서, 케이블 길이는 기본 5m를 공급하며 추가 길이와 측정 압력 범위는 사용자의 요구에 의해 제작 공급한다.
- 케이블 길이는 사용자 요구 사양에 따라 길이가 정해지며, 케이블은 대기압 보상도선이 있는 특수 케이블로 제작된다. 제작 완료 후 또는 나중에 이미 공급된 케이블에 추가적인 연결이 불가능하므로 최초에 전체 길이를 정확하게 판단되어야 한다.
- 물이나 기름(비중)의 수심 깊이 또는 탱크 높이를 고려하여 측정 압력 범위를 정해야 하며, 이와 함께 케이블의 길이는 최종 연결지점까지의 전체 길이를 고려되어야 한다.

### How to order

EDN.363.O1.PE 20m.0...1bar

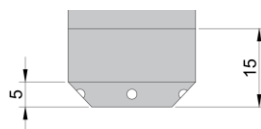
EDN.363, 4...20mA, PE cable 20m, 0...1 bar

## Outline drawing



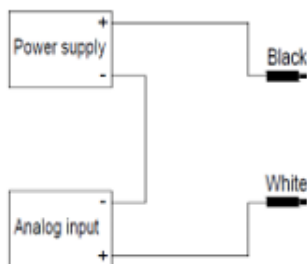
Cable gland Type

## Process connection

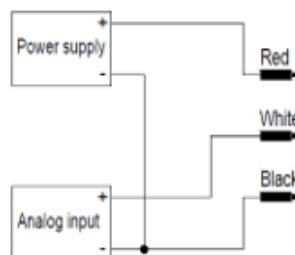


End cap

## Pin assignment



2-wire / current



3-wire / voltage



|       | 2-Wire     | 3-Wire      |
|-------|------------|-------------|
| White | Output(mA) | Output(VDC) |
| Red   |            | +Vcc        |
| Black | +Vcc       | GND         |