

# OPERATION MANUAL



## Industrial pressure transmitter for measuring absolute pressure DRTR-ED-XX\_A

### Description



### Characteristic features

- Variants from vacuum to 50 bar FS
- For measuring absolute pressure
- Output standard signal 0...10 V or 4...20 mA
- High-quality industrial design in stainless steel
- Robust, media-resistant design
- Temperature compensated
- Easy to install
- Water and oil resistant
- IP65 protection

### Areas of application

- Pneumatics
- Hydraulics
- Industrial applications
- Machinery and plant technology
- Automation technology

### Technical data

DRTR-ED-R	
Measuring range	1...+50 bar, 6 Types
Overload	See table
Residual error Linearity/Hyst.	< ±0.4 % FS
Temperature coefficient	TCO < ±0.015 % FS / K TCG < ±0.010 % FS / K
Application temp. range	-40...+80 °C
Sensor material	Ceramics, Al <sub>2</sub> O <sub>3</sub>
Housing material	Stainless steel 1.4305 optional 1.4571
Seal	Viton
Pressure connection	G $\frac{1}{4}$ male thread, adapters available as accessories
Dimensions	(LxWxH) 89x50x30 mm
Power supply connection	4-pole industrial plug, DIN 43650
Protection	IP65
CE-conformance	2004/108/EG
EMV-noise emission	EN 61000-6-3:2011
EMV-noise withstanding	EN 61000-6-1:2007
Model 4...20 mA	
Output signal	4...20 mA, 2-wire
Permissible load	Ra[Ω]=(Uv[V]-10V) 0.02 A
Model 0...10 V	
Output signal	0...10 V, 3-wire
Power supply	12...30 V DC / 5 mA

### Features

The stainless steel series pressure sensor DRTR-ED transfer the measured value as a calibrated and temperature compensated standard signal 0...10 V or 4...20 mA. The product range covers 6 graded measuring range variants of the pressure range from vacuum to 50 bar Full Scale (FS) (See table).

From a precise calibration of 7 measurement points at 3 different temperatures, an excellent precision and a very low temperature residual error is achieved. The sensors are ideal for measuring both static and dynamic absolute pressure in liquids and gases. Typical applications for this sensor is in the field of pneumatics, hydraulics and other industrial applications.

The robust housing of the sensor with IP65 protection is made out of stainless steel and has a  $\frac{1}{4}$ " male thread media port.

Using the connection adapter which is available as an accessory, the pressure sensor can be used with different gauge connections from  $\frac{1}{8}$ " to  $\frac{1}{2}$ ".

The electrical connection is an industrial plug according to DIN 43650. The version which needs current signal gets this through the power loop. The version with voltage output requires a separate power supply. In addition to the versions with 4...20 mA and 0...10 V variants with digital output signal and stainless steel case, relative pressure versions are also available.



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### Delivery spectrum

Measuring range	Bursting pressure	Ordering No. for current output	Ordering No. for voltage output
1 bar abs	4 bar	DRTR-ED-20MA-A1B	DRTR-ED-10V-A1B
2 bar abs	5 bar	DRTR-ED-20MA-A2B	DRTR-ED-10V-A2B
5 bar abs	12 bar	DRTR-ED-20MA-A5B	DRTR-ED-10V-A5B
10 bar abs	25 bar	DRTR-ED-20MA-A10B	DRTR-ED-10V-A10B
20 bar abs	50 bar	DRTR-ED-20MA-A20B	DRTR-ED-10V-A20B
50 bar abs	120 bar	DRTR-ED-20MA-A50B	DRTR-ED-10V-A50B

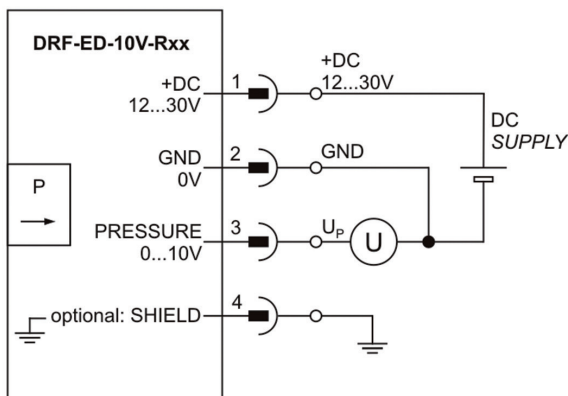
With absolute pressure measurement, 0 bar corresponds to vacuum.

### Connection layout

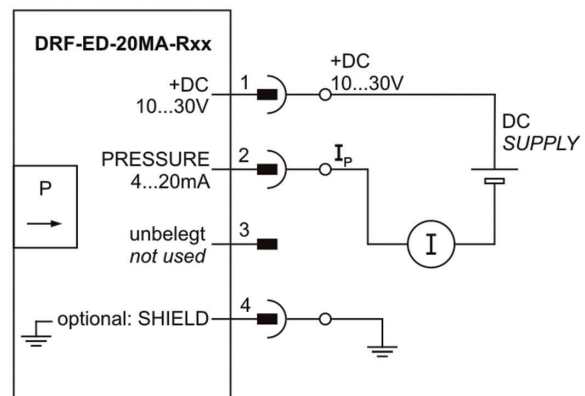
Pin	Voltage output	Current output
1	+DC 12...30 V	+DC 10...30 V
2	GND 0 V	I PRESSURE 4...20 mA
3	U PRESSURE 0...10V	---
4	SHIELD	SHIELD



### Connection diagramm

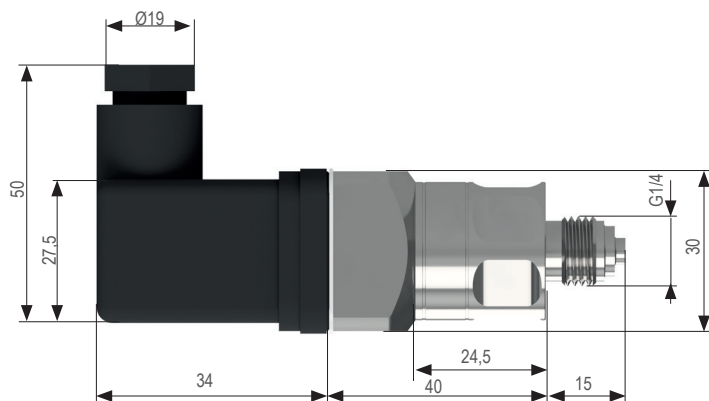


Voltage output 0...10 V



Current output 4...20 mA

### Dimensions



For more information, please visit our website: [www.bb-sensors.com](http://www.bb-sensors.com)

### Attention

Please avoid extreme mechanical and inappropriate exposure.

The device/product is not suitable for potential explosive areas and medical-technical applications.

