

OPERATION MANUAL



Industrial pressure transmitter with voltage or current output - DRTR-ED-XX-R

Description



Characteristic features

- Product variants from vacuum to 100 bar FS
- For measurement of relative pressure
- Output standard signal of 0...10 V or 4...20 mA
- Temperature compensated
- Robust, media-resistant models
- Simple assembly
- Water and oil resistant
- Enclosure IP65

Areas of application

- Pneumatics
- Hydraulics
- Industrial applications
- Machines and equipment manufacture
- Automatic control systems

Technical data

DRTR-ED-R	
Measuring range	-1...+100 bar, 12 Types
Overload	See table
Residual error Linearity/ Hysteresis	< ±0.2 % FS
Temperature coefficient	TCO < ±0.015 % FS / K TCG < ±0.010 % FS / K
Application temp. range	-20...+80 °C
Sensor material	Ceramic, Al ₂ O ₃
Housing material	Stainless steel 1.4305
Gasket	Viton
Pressure connection	G1/4" external threads
Dimensions	(LxWxH) 89x50x30 mm
Power supply connection	4-pin Industrial plug, DIN 43650
Enclosure	IP65
CE-Conformance	2014/30/EU
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	$R_a[\Omega] = (U_v[V] - 10V) \cdot 0.02 A$
Model 0 ... 10 V	
Output signal	0...10 V, 3-wire
Power supply	12...30 V DC / 5 mA

Features

The pressure probe of series DRTR convert the measured values in the form of calibrated and temperature compensated standard signal of 0...10 V or 4...20 mA. The delivery spectrum covers a wide pressure range from vacuum to 100 bar FS with 12 variants of different measuring ranges (see table).

Through a precise calibration at 7 measuring points, an outstanding accuracy and a very low temperature residual error is achieved.

The probes are ideally suitable for measurement of static and dynamic relative pressure in liquids or gases. Typical areas of application are in the field of pneumatics, hydraulics and other industrial applications.

The robust probe housing with enclosure type IP65 is made of stainless steel and is provided with a G1/4" external thread for connection to the medium.

The electric connection is done with an industrial plug as per DIN 43650. The model with current signal is connected through a current loop. The model with voltage output requires an auxiliary supply.

Besides the standard variants, customer specific models for absolute pressure with other type of calibration, ratio metric voltage output and also with digital output signal are also available. Further information on OEM-models can be obtained on request!



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Delivery spectrum

Measuring range	Bursting pressure	Ordering No. for current output	Ordering No. for voltage output
-1...0 bar	4 bar	DRTR-ED-20MA-RV0	DRTR-ED-10V-RV0
-1...1 bar	4 bar	DRTR-ED-20MA-RV1	DRTR-ED-10V-RV1
0...1,6 bar	4 bar	DRTR-ED-20MA-R1B6	DRTR-ED-10V-R1B6
0...2,5 bar	6,25 bar	DRTR-ED-20MA-R2B5	DRTR-ED-10V-R2B5
0...4 bar	10 bar	DRTR-ED-20MA-R4B	DRTR-ED-10V-R4B
0...6 bar	15 bar	DRTR-ED-20MA-R6B	DRTR-ED-10V-R6B
0...10 bar	25 bar	DRTR-ED-20MA-R10B	DRTR-ED-10V-R10B
0...16 bar	40 bar	DRTR-ED-20MA-R16B	DRTR-ED-10V-R16B
0...25 bar	62,5 bar	DRTR-ED-20MA-R25B	DRTR-ED-10V-R25B
0...40 bar	100 bar	DRTR-ED-20MA-R40B	DRTR-ED-10V-R40B
0...60 bar	150 bar	DRTR-ED-20MA-R60B	DRTR-ED-10V-R60B
0...100 bar	175 bar	DRTR-ED-20MA-R100B	DRTR-ED-10V-R100B

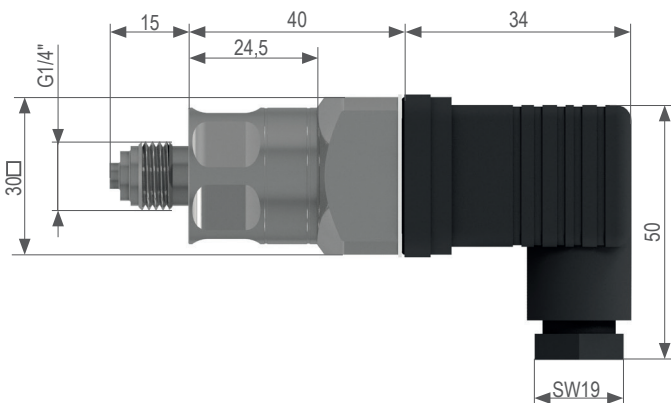
The relative pressure measurement, 0 bar corresponds to atmospheric pressure!

Connection layout

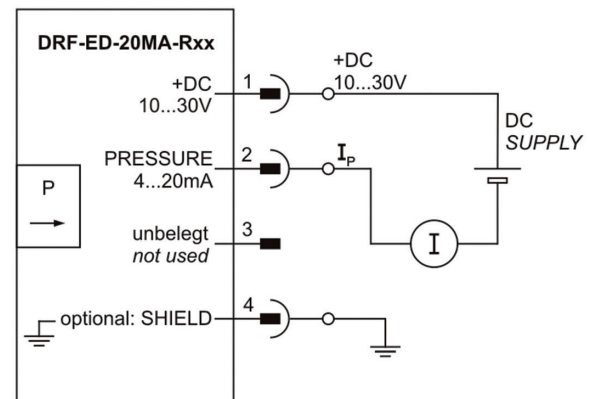
Pin	Voltage output	Current output
1	+DC 12...30 V	+DC 10...30 V
2	GND 0 V	I PRESSURE 4...20 mA
3	U PRESSURE 0...10V	---
4	SHIELD	SHIELD



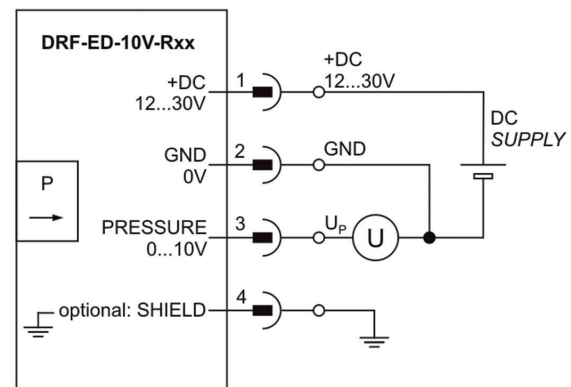
Dimensions



Connection diagramm



Current output 4...20 mA



Voltage output 0...10 V

