OPERATION MANUAL

Industrial pressure transmitter with voltage or current output

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, medium resistant models
- Simple assembly
- Water and oil resistant
- Enclosure IP65

Typical areas of application

- Food technology
- Pneumatics
- High pressure
- Fuel pumps
- Gases
- Fuel cells

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 IP 67 is made of anodised aluminium and is provided with a 1/4" internal 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!

In general the B+B pressure sensors are medium resistant. However we recommend to prove the media compatibility with critical mediums such as electroplating applications (iron trichloride) or oils with undefined additives .

Technical Data

Industrial pressure transmitter	
Measuring range	0...+100 bar, 6 types
Bursting pressure	See table
Residual error linearity / hysteresis	< ±0,2 % FS
Temperature coefficient	TCO < ±0,015 % FS / K TCG < ±0,010 % FS / K
Operating temperature range	-20...+80 °C
Sensor material	Ceramics, Al2O3
Housing material	Aluminium AlMgPbCu, blue anodised
Seal	Viton
Pressure connection	¼" female thread
Dimensions	30 x 30 x 89 mm
Connection	4-pole industrial connection, DIN 43650
Protection	IP65
Model 4...20 mA	
Output signal	4…20 mA, Two-Wire
Permissible load	$Ra[\Omega]=(Uv[V]-10V)/0,02\ A$
Model 0...10 V	
Output signal	0...10 V, Three-Wire
Auxiliary power	12...30 V DC / 5 mA

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Available Models

Measuring range	Burst pressure	Order no. current output	Order no. voltage output
-1…0 bar	4 bar	DRTR-AL-20MA-RV0	DRTR-AL-10V-RV0
-1…1 bar	4 bar	RTR-AL-20MA-RV1	DRTR-AL-10V-RV1
0…1,6 bar	4 bar	DRTR-AL-20MA-R1B6	DRTR-AL-10V-R1B6
0…2,5 bar	6,25 bar	DRTR-AL-20MA-R2B5	DRTR-AL-10V-R2B
0…4 bar	10 bar	DRTR-AL-20MA-R4B	DRTR-AL-10V-R4B
0…6 bar	15 bar	DRTR-AL-20MA-R6B	DRTR-AL-10V-R6B
0…10 bar	25 bar	DRTR-AL-20MA-R10B	DRTR-AL-10V-R10B
0…16 bar	40 bar	DRTR-AL-20MA-R16B	DRTR-AL-10V-R16B
0…25 bar	62,5 bar	DRTR-AL-20MA-R25B	DRTR-AL-10V-R25B
0…40 bar	100 bar	DRTR-AL-20MA-R40B	DRTR-AL-10V-R40B
0…60 bar	150 bar	DRTR-AL-20MA-R60	DRTR-AL-10V-R60B
0…100 bar	175 bar	DRTR-AL-20MA-R100B	DRTR-AL-10V-R100B

Relativdruckmessung, 0 bar entspricht Umgebungsdruck!
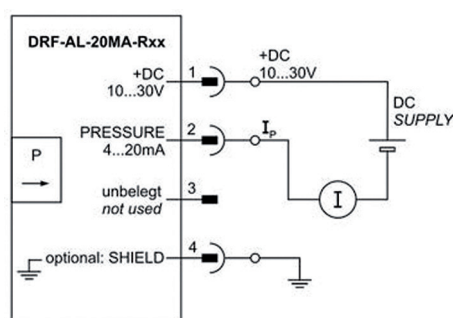
Connection layout

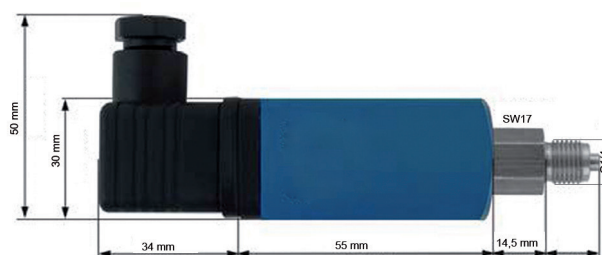| Pin	Voltage output	Current output
1	+DC 12…30 V	+DC 10…30 V
2	GND 0 V	PRESSURE 4…20 mA
3	U PRESSURE 0…10 V	…
4	SHIELD	SHIELD

Connection diagram
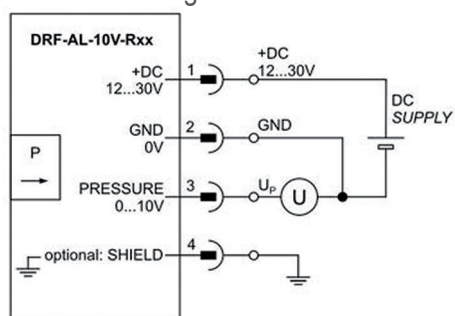
Voltage output 0...10 V

Current output 4...20 mAA

Dimensions

With ¼" manometer connection

Attention

Please avoid extreme mechanical and inappropriate exposure.

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

For further information, visit our website: www.bb-sensors.com