DR20B

Paddle Wheel Flow Transmitter



- for low viscosity liquids
- large measuring range
- high quality bearings
- high accuracy
- essentially temperature-independent
- linear output signal
- small mounting dimensions
- measuring ranges: 2,5...50 l/min up to 35...580 l/min
- max. temperature: 100 °C, max. pressure: 25 bar

Description:

The flow transmitter model series DR20B work acc. to the paddle wheel principle. The medium flows unilaterally against the paddle wheel and puts it into rotation. This leads to a low response sensitivity combined with a high turndown ratio up to 1:20. The devices are in the version with a T-fitting for nominal sizes of DN 15 until DN 50 available. Therefore measuring ranges of initially 2,5 l/min up to 580 l/min can be covered.
In principle a weld on version can be used for many different pipe diameters. The analogue output is proportional to the flow rate and covers the range 0,3 until 5 m/s.

Typical applications:

The paddle wheel flowmeter of the type series DR20B can be used for flow measuring of all low viscous liquids that are not aggressive to the used materials.
Because of the high quality bearings the devices work very reliably.

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Subject to technical changes

Technical Data:

Connection: weld on nozzle (Type A)
or T-fitting with R-thread

Sensor: Hall-Sensor / magnet

Temperature range:
Sensor: -40...+100 °C (130°C on request)
Electronic: -10… +60 °C

Max. pressure:
T-fitting version: 10 bar
weld on version: 25 bar

Accuracy: ± 2% of FS

Electrical Data:

Power supply: 12...26 V_{DC}
(shunt resistance < 400 Ω)
15...26 V_{DC}
(400 Ω < shunt resistance < 500 Ω)

Analogue output: analogue output 4...20 mA
(3-wire source)

Pulse output: NPN (142...151 Hz), not linearised
PNP, Push Pull

Power consumption: 50 mA max.

Electr. connection: cable 3,0 m (4 x 0,14 LiYCY)

Protecton class: IP65

Materials:

Housing: stainless steel 1.4571

Paddle wheel: POM

Bearings: Sapphire / ruby

Shaft: Hard ferrite

O-ring: FKM

Measuring ranges:

DN	R	Measuring range[1] [l/min]	K-Factor [Pulses/l]	Frequency[2] [Hz]
15	1/2“	2,5...50	170,4...181	142...151
20	3/4“	5,5...92	92,6...99,5	142...151
25	1“	8...145	58,8...62,5	142...151
32	1 1/4“	14...240	35,5...37,8	142...151
40	1 1/2“	22...375	22,7...24,2	142...151
50	2“	35...580	14,7...15,6	142...151
A		0,3...5 m/s	/	142...151

[1] The output signal can be factory-set to a value other than the measuring range end value.
Please specify when ordering.

[2] The exact frequency at maximum flow or at a maximum speed of 5 m/s is measured individually and indicated on the type plate.

Order Code:

Order number: **DR20B.** | **15.** | **Axxx.** | **0**

Paddle wheel flow transmitter

Connection and measuring range:
15 = T-fitting, 1/2“, 2,5...50 l/min
20 = T- fitting, 3/4“, 5,5...92 l/min
25 = T- fitting, 1“, 8...145 l/min
32 = T- fitting, 1 1/4“, 14...240 l/min
40 = T- fitting, 1 1/2“, 22...375 l/min
50 = T- fitting, 2“, 35...580 l/min
A = weld on version for flow rates of 0,3...5 m/s

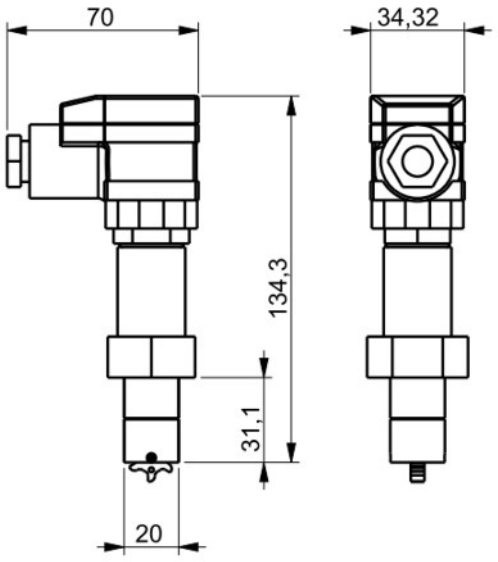
Output:
Axxx = 4...20 mA, xxx = adjustment 20 mA, electronic plug
W = Pulse output NPN, cube plug
K = Pulse output NPN, cable output
S = Pulse output PNP, Push Pull, electronic plug

Options:
0 = without
1 = please specify in plain text

In the enquiry or order please indicate the following informations:

- Media viscosity, if different from water
- Pressure and temperature
- Mounting position and direction of flow

Dimensions:



Nominal size	Length A [mm]	Length B [mm]
DN 15	80	43
DN 20	55	43
DN 25	58	51
DN 32	65	62
DN 40	67	68
DN 50	78	81

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