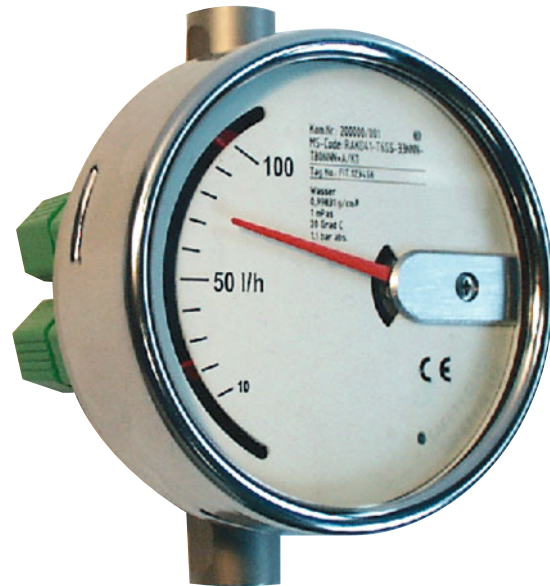


DS20

Float-Type Flow Meter For low flow volumes Compact construction

- For liquids and gases
- Maximum process pressure: 160 bar,
Maximum operating temperature: 200°C
- Scales for all operating conditions
designed as required
- Local display, min./max. contacts
or analog output
- Measuring tube completely
of stainless steel 1.4571
- Optionally available with valve



Description

Model series DS20 flow meters work according to the suspended-float principle of measurement. The device has a cone-shaped float that moves within a cylindrical measuring tube. The flowing gas or liquid moves the float in the direction of flow. The movement of the float is transmitted magnetically to a dial indicator mounted outside the measuring tube. The indicator is fitted with a scale appropriate for the operating range encountered. If necessary, the indicator can also be fitted with contacts or an analog output.

Applications

Model series DS20 flow meters are intended to measure and monitor gases or low-viscosity liquids, such as those found in applications like cooling systems for welding machines, laser and tube systems, pump monitoring, compressors, etc. Since all parts coming in contact with the medium being monitored are made of high-quality stainless steel 1.4571, this device is also suitable for use with caustic/corrosive media.

Versions

- Flow meter with local dial indicator display
- Dial indicator display, 1 MIN contact
- Dial indicator display, 1 MAX contact
- Dial indicator display, 1 MIN contact, 1 MAX contact
- Dial indicator display, analog output: 4 to 20 mA

Process connections

Version without needle valve (connection at top/bottom):

All threaded connections as per model coding, PN 100 (standard) or PN 160, all flange connections

Version with needle valve (connection at back):

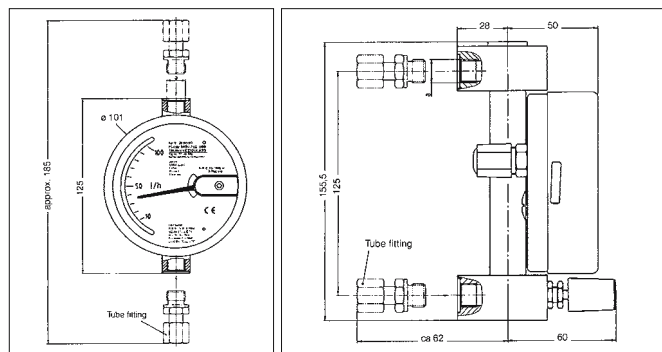
All threaded connections as per model coding, PN 40 (standard) or PN 100, flange connections not possible

Measuring Ranges and Process Connection

Measuring Range Number	Water, 20°C (l/h)	Air, 0°C, 1,013 bar abs. (NI/h)	Pressure loss (mbar)
1	0.1...1	4...40	6
2	0.16...1.6	6...60	6
3	0.25...2.5	10...100	6
4	0.4...4	15...150	6
5	0.6...6	20...200	6
6	1...10	32.5...325	8
7	1.6...16	50...500	8
8	2.5...25	80...800	8
9	4...40	140...1400	11
10	6...60	200...2000	11
11	10...100	325...3250	11
12	16...160	500...5000	13
13	25...250	800...8000	13

Caution: On versions without valve, measuring ranges 12 and 13 come with 3/8" threaded connections (Code 42...)

Dimensions



Technical Details

Materials:

Parts coming in contact with media are made of stainless steel 1.4571, Housing made of stainless steel 1.4301

Maximum pressure:

20 mA (???)

PN 100 (standard), PN 10, 40, 160 as per model coding

Maximum temperature:

Local display: -80°C to +200°C (+150°C with valve)

With contacts: -40°C to +150°C

With analog output: -40°C to +150°C

Protection type: IP 65

Accuracy: ± 4% of measured range value

Model coding

Order number: DS20. 41G4. 6. 0. 1. 0

Float-type flow meter

Process connection:

41G4 = G 1/4 female thread, PN40
 41G6 = G 1/4 female thread, PN100
 41G7 = G 1/4 female thread, PN160
 41T4 = 1/4" NPT female thread, PN40
 41T6 = 1/4" NPT female thread, PN100
 41T7 = 1/4" NPT female thread, PN160
 53C4 = Tube fitting, 6 mm, PN40
 53C6 = Tube fitting, 6 mm, PN100
 53C7 = Tube fitting, 6 mm, PN160
 53P1 = Hose nipple, 6 mm, PN10
 54C4 = Tube fitting, 8 mm, PN40
 54C6 = Tube fitting, 8 mm, PN100
 54C7 = Tube fitting, 8 mm, PN160
 54P1 = Hose nipple, 8 mm, PN10
 55C4 = Tube fitting, 10 mm, PN40
 55C6 = Tube fitting, 10 mm, PN100
 55C7 = Tube fitting, 10 mm, PN160
 56C4 = Tube fitting, 12 mm, PN40
 56C6 = Tube fitting, 12 mm, PN100
 56C7 = Tube fitting, 12 mm, PN160
 01D4 = Flanges, DN15, PN40
 02D4 = Flanges, DN25, PN40
 01A1 = Flanges, ANSI 1/2", 150 lbs RF
 02A1 = Flanges, ANSI 1", 150 lbs RF
 01A2 = Flanges, ANSI 1/2", 300 lbs RF
 02A2 = Flanges, ANSI 1", 300 lbs RF

Measuring range:

1 to 13 = According to table
 99 = Special measuring range

Valve:

0 = None
 1 = Valve on input side, silver valve seat
 2 = Valve on input side, PCTFE valve seat
 3 = Valve on output side, silver valve seat
 4 = Valve on output side, PCTFE valve seat

Display:

1 = Local dial indicator display
 2 = Local dial indicator display, 1 MIN contact
 3 = Local dial indicator display, 1 MAX contact
 4 = Local dial indicator display, 1 MIN contact, 1 MAX contact
 5 = Local dial indicator display, analog output 4 to 20 mA

Options:

0 = None
 9 = Please specify in writing

Contacts

Type:

Inductive (NAMUR as defined per EN 50227)

Nominal voltage:

8 VDC

Recommended for operating the contacts: isolation and switch unit SKF (see data sheet SKF)

Analog output

Power supply: 13.5...30 VDC

Output: 4...20 mA

Load impedance: (U-13.5V)/20 mA

Electrical connection: QUIKON quick connects

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