



Instruction Manual

DG02

Sight Flow Indicator with rotor



PKP Prozessmesstechnik GmbH
Borsigstraße 24
D-65205 Wiesbaden-Nordenstadt
Tel.: ++49-(0)6122-7055-0
Fax: ++49-(0)6122-7055-50
Email: info@pkp.de

Table of Contents

Safety Information.....	2
Functional Description.....	3

Safety Information

General Instructions

To ensure safe operation, the device should only be operated according to the specifications in the instruction manual. The requisite Health & Safety regulations for a given application must also be observed. This statement also applies to the use of accessories. Every person who is commissioned with the initiation or operation of this device must have read and understood the operating instructions and in particular the safety instructions!

The liability of the manufacturer expires in the event of damage due to improper use, non-observance of this operating manual, use of insufficiently qualified personnel and unauthorized modification of the device.

Proper Usage

The flow indicators of the series DG02 are used for the optical control of flows of liquids and gases which do not attack the materials used. Any other use of the device is prohibited and outside the scope of application.

In particular, applications in which shock loads occur (for example, pulsed operation) should be discussed and checked in advance with our technical staff.

The devices of the DG02 series should not be used as sole monitoring devices in order to detect or even avoid dangerous operating states in plants and machines. The plant or machine itself must be planned and constructed in such a way that critical conditions which pose a danger to man and the environment are excluded from the outset

Dangerous substances

For dangerous media such as e.g. Oxygen, Acetylene, flammable or toxic substances as well as refrigeration systems, compressors, etc. must comply with the relevant regulations beyond the general rules.

Qualified Personnel

The devices of the DG02 may only be installed by trained, qualified personnel who are able to mount the devices correctly. Qualified personnel are persons, who are familiar with assembling, installation, placing in service and operating these devices and who are suitably trained and qualified.

Inward Monitoring

Please check directly after delivery the device for any transport damages and deficiencies. Additional with reference to the accompanying delivery note the number of parts must be checked.

Claims for replacement or goods which relate to transport damage can only be considered valid if the delivery company is notified without delay.

Functional Description

The mechanical flow indicator DG02 is used for the qualitative flow indication of liquids and gases. A rotor is driven by the liquid flow. The rotation of the rotor is proportional to the flow rate. The curved glass dome ensures a constant view of the rotor.

Attention: The device is only conditionally suitable for a mounting position from top to bottom, otherwise the mounting position is arbitrary.

DG02

Rotor-Type Flow Indicator

- for liquids and gases
- robust stainless steel design
- max. pressure 16 bar, max. temperature 200 °C
- good rotor visibility through glass dome
- for pipe sizes G ¼ to G 1 ½



Description:

The DG02 mechanical flow indicator is used for visual verification of liquids and gases.

The rotational speed of the rotor is proportional to the liquid flow rate. The domed sight glass allows the rotor to be easily seen at any time.

These devices are made of high-quality materials, allowing them to be used with a great variety of media.

Typical applications:

DG02 mechanical flow indicators are used to monitor the flow of liquids of low to medium viscosity and gases in pipe systems.

Models:

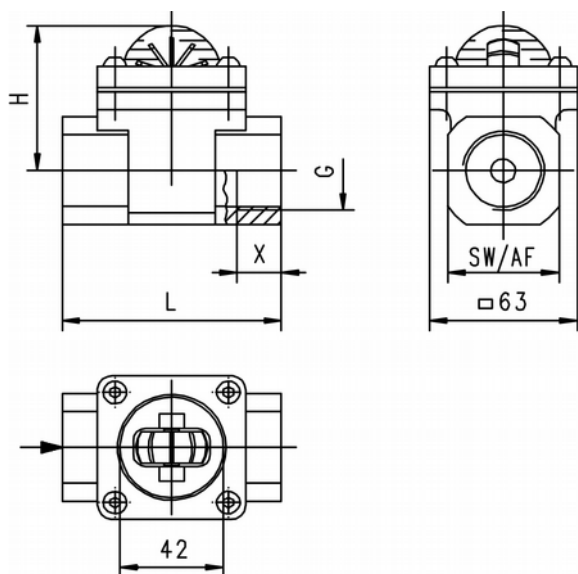
Material: stainless steel

Flow rates:

G	PN [bar]	Qmax recom. [l/min] water	Rotor start-up		Decrease of pressure V=2 m/s
			Water [l/min]	Air [l/min]	
G 1/4	16	30	0,7	25	0,14
G 3/8	16	40	0,8	30	0,16
G 1/2	16	55	1	40	0,22
G 3/4	16	90	1,2	120	0,19
G 1	16	140	1,5	125	0,50
G 1 1/4	16	180	4	110	0,80
G 1 1/2	16	200	4	130	1,85

Dimensions:

G	L [mm]	H [mm]	X [mm]	Weight [kg]
G 1/4	76	53	12	0,7
G 3/8	76	53	16	0,65
G 1/2	76	53	14	0,65
G 3/4	89	66	18	1,25
G 1	89	66	18	1,2
G 1 1/4	115	73	25	2,7
G 1 1/2	116	95	26	2,5



Order Code:

Order number: DG02. E. 10. 0.

Rotor-type flow indicator

Material:

E = stainless steel

Connection:

08 = G 1/4 female thread 08N = 1/4" NPT
10 = G 3/8 female thread 10N = 3/8" NPT
15 = G 1/2 female thread 15N = 1/2" NPT
20 = G 3/4 female thread 20N = 3/4" NPT
25 = G 1 female thread 25N = 1" NPT
32 = G 1 1/4 female thread 32N = 1 1/4" NPT
40 = G 1 1/2 female thread 40N = 1 1/2" NPT

Options:

0 = without
1 = please specify in plain text

Technical Data:

Max. pressure: 16 bar (20 °C)

Max. Medium-

Temperature: 200 °C

Installation position: for the flow direction from top to bottom suitable to only a limited extend, otherwise any

Materials:

DG02.E:

Housing:

stainless steel 1.4408, ASME 316,
ASTM - A - 351 CF8M

Housing cover:

stainless steel

Sight glass:

borosilicate glass

Pins:

stainless steel

Rotor:

PPS

O-Ring:

FKM

Gasket:

Klingsil C-4400

(not in contact with the medium)

Maximum flow velocity with liquids should not be more than 3 m/s.