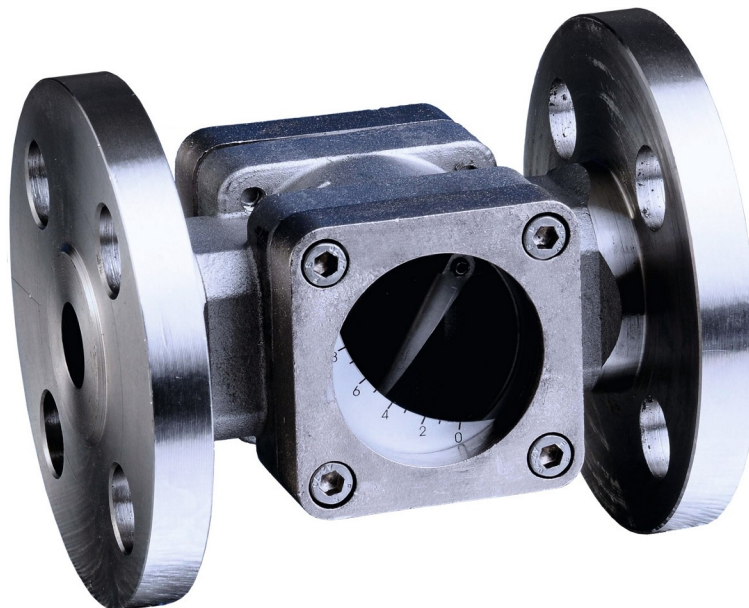




Instruction Manual

DG04

***Sight Flow Indicator
with flap and scale***



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

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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 devices of the DG06 series are used for the optical control monitoring of liquids. 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 DG06 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 DG06 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 DG06 is used for the optical control of flows and liquid media. A stainless steel flap arranged in the flow chamber is lifted by the media flow.

Attention:

The DG06 is not a flow meter. It only indicates the presence of a flow. The numbers on the scale cannot be assigned to a flow value. They only serve to indicate a certain flow trend.

Maintenance and care

Due to the small number of moving parts, the units require very little maintenance. However, regular functional checks and maintenance not only increase the service life and functional reliability of the device, but also that of the entire system.

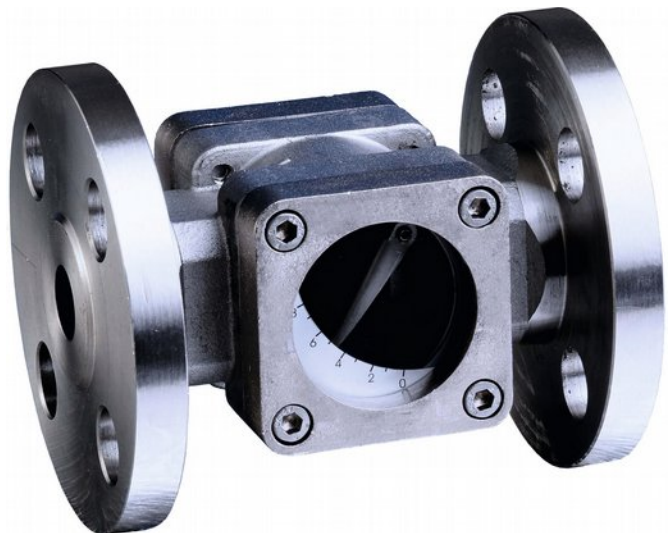
The maintenance intervals depend on:

- contamination of the medium
- environmental conditions (e.g. vibrations)

DG06

Sight Flow Indicator with Flap and Scale

- for liquids
- robust design
- cast steel or stainless steel version
- for nominal sizes from 1/4" to 4" , with threaded fitting or flange
- available with PN 16 or PN 40 pressure ratings
- externally attached numerical scale indicates approximate flow volume



Description:

The DG06 flow indicator allows visual and quantitative monitoring of liquid flows. The device has two large glass panes – one on each side – and each with a scale attached.

A stainless steel flap mounted in the flow chamber is lifted when there is flow and the current flow rate is displayed on the scale. The flap is mounted on a stainless steel shaft; it is raised by flow and lowered by gravity. The DG06 can be installed both horizontally and vertically (with flow from bottom to top) and deployed in a wide variety of applications – not least because it is not adversely affected by high temperatures.

Typical applications:

This flow indicator provides visual and quantitative monitoring of liquids. There is potential for a myriad of applications in the fields of industrial machinery and process control, as well as basic monitoring of cooling units etc.

Models:

All devices have a flap made of AISI 316 stainless steel and PTFE seals.

DG06.S: housing made of cast steel
ASTM-A-216-2000-GR-WCB

DG06.E: housing made of st. steel AISI 316

Other materials: on request

The sight flow indicator DG06 are available with borosilicate glass (PN 16) or soda-lime glass (PN 40). We supply type G or NPT threaded fittings or DIN or ANSI flanges as process couplings.

Flow rates:

Nominal sizes	Approx. flow rates [l/min] *					
	2	4	6	8	10	Max.
DN 08 / 1/4"	2,5	3,5	4,5	7	22	100
DN 10 / 3/8"	2,5	4	4,5	7	24	150
DN 15 / 1/2"	3	4,5	6	8,5	20	250
DN 20 / 3/4"	3	5	6	9	20	250
DN 25 / 1"	3,5	6	8	10	25	250
DN 32 / 1 1/4"	7	11	14	24	40	550
DN 40 / 1 1/2"	8	12	15	25	50	600
DN 50 / 2"	9	15	28	50	75	1000
DN 80 / 3"	24	32	52	128	220	-
DN 100 / 4"	46	70	100	150	220	-

* The quoted flow rates for flap positions 2–10 are approximate values only; they may vary considerably, depending on installation position and process conditions. The "Max." value is the maximum flow volume at which the flow indicators can operate (regardless of head loss) without being damaged.

Dimensions:

Nominal sizes	Length [mm]		Width [mm]	Height [mm]	Weight [kg]	
	G*	F*			G*	F*
DN 08 / 1/4"	95	140	89	66	1,9	3,7
DN 10 / 3/8"	95	140	89	66	1,9	3,8
DN 15 / 1/2"	95	140	89	66	1,85	3,9
DN 20 / 3/4"	95	140	89	66	1,85	3,9
DN 25 / 1"	95	140	89	66	1,8	3,9
DN 32 / 1 1/4"	120	180	120	89	4	7,1
DN 40 / 1 1/2"	120	180	120	89	3,9	7
DN 50 / 2"	150	220	170	110	9	14,5
DN 80 / 3"	--	258	160	165	--	19,5
DN 100 / 4"	--	258	160	165	--	23,5

*) G = threaded, F = flanged

Larger nominal sizes on request

Order Code:

Order number: **DG06. S. B. G. 15. 0**

Sight flow indicator with flap and scale

Materials:

S = cast steel
E = stainless steel

Glass / pressure rating:

B = borosilicate glass / PN 16
N = soda-lime glass / PN 40

Process connection:

G = female thread G
N = female thread NPT
F1 = DIN-flange PN 16
F4 = DIN-flange PN 40
(with soda-lime glass only)
A1 = ANSI-flange, 150 lbs., RF
A3 = ANSI-flange, 300 lbs., RF
(with soda-lime glass only)

Nominal sizes:

08 = 1/4" / DN 08
10 = 3/8" / DN 10
15 = 1/2" / DN 15
20 = 3/4" / DN 20
25 = 1" / DN 25
32 = 1 1/4" / DN 32
40 = 1 1/2" / DN 40
50 = 2" / DN 50
80 = 3" / DN 80 (flange version only)
100 = 4" / DN 100 (flange version only)

Options:

0 = without
1 = please specify in plain text

Technical Data:

Max. pressure: 16/40 bar, depending on type of glass and process connection

Max media-temperature: 150 °C

Materials

Housing: cast steel or stainless steel 1.4408, ASME 316, ASTM – 351 CF8M
Glass: borosilicate glass or soda-lime glass
Flap: stainless steel
Gasket: PTFE
Scale: Polycarbonate

Installation

position: horizontal or vertical (only with upward flow)

Flow



PKP Prozessmesstechnik GmbH

Borsigstr. 24 • D-65205 Wiesbaden

☎ +49 (0) 6122-7055-0 • 📞 +49 (0) 6122 7055-50

✉ info@pkp.de • 🌐 www.pkp.de



PKP Process Instruments Inc.

10 Brent Drive • Hudson, MA 01749

☎ +1-978-212-0006 • 📞 +1-978-568-0060

✉ info@pkp-usa.com • 🌐 www.pkp-usa.com