

DK04

Flap Flowmeter and switch for low viscosity liquids

- **sturdy, robust design**
- **measuring range up to 1...80 l/min**
- **output signal 4-20 mA, 0-10 V, frequency or limit switch**
- **highly resistant to overload**
- **low pressure drop**
- **complete metal design of brass or stainless steel**
- **optional up to bis 150 °C heat resistant and 100 bar pressure**



Description:

The DK04 flap type flowmeter consists of a thin flexible flap which covers the complete cross section of the flow. This flap is moved by the liquid changing the position of a magnet. The magnet's position is detected by a Hall-sensor and the attached electronic unit generates a linearised electrical signal proportional to the flow.

Due to the flexible flap and a special designed thrust bearing even heavy hydraulic shocks will not damage the device. Because of the small number of wetted parts the DK04 flowmeter assures high reliable operation and it is very insensitive to particles in the flow.

Applications:

The flowmeters type DK04 are applied to monitor and supervise water or liquids similar to water up to a viscosity of 20 cSt. All applications where a high reproducibility is required the DK04 flowmeters can be applied with success.

Versions:

DK04.x.1:	voltage output 0–10 V
DK04.x.2:	current output 0(4)–20 mA
DK04.x.3:	frequency output 10...2000 Hz
DK04.x.4:	programmable switch PNP and NPN

Electrical Data:

Supply: 10...30 V DC
 Plug: round plug M12 x 1, 4 pin

Protection: IP 67

Current and voltage output:

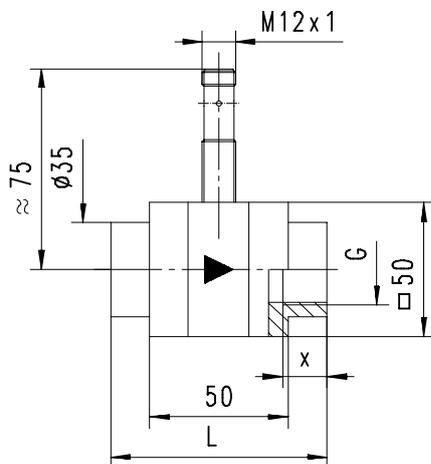
Standby current: 100 mA

Frequency output / programmable switch

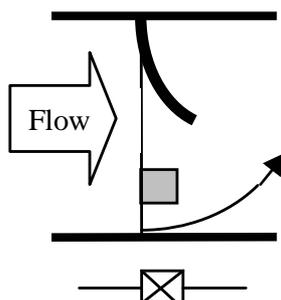
Ruhestromaufnahme: < 20 mA (ohne Last)

Dimensions and Qmax:

Connection	L/mm	X/mm	Qmax l/min
G 1/4	74	12	20
G 3/8	74	12	40
G 1/2	78	14	80
G 3/4	82	16	100
G 1	82	18	100



Mode of Operation:



Ordering Code:

Order number: **DK04. 10. 1. 0. 0**

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Process connection and measuring range:

08L	= G 1/4,	0,4–6 l/min
08	= G 1/4,	1–15 l/min
10	= G 3/8,	1–25 l/min
15	= G 1/2,	1–50 l/min
20	= G 3/4,	1–80 l/min
25	= G 1,	1–80 l/min
32	= G 1 1/4,	1–100 l/min

Output:

- 1 = analogue signal 0...10 V
- 2 = analogue signal 4...20 mA
- 3 = frequency (**please indicate fmax**)
- 4 = programmable switch (push Pull PNP and NPN) (**please indicate switching point**)

Electrical connection

- 1 = round plug (M12x1) 4 pin with 2 m cable
- 2 = round plug (M12x1) 4 pin with 5 m cable
- 3 = round plug (M12x1) 4 pin with 10 m cable
- 4 = mate connector without cable

Options:

- 0 = without (housing PPS, connection brass)
- 1 = housing PPS, connection POM
- 2 = housing PPS, connection stainless steel
- 3 = housing + connection brass (Pmax. = 100 bar)
- 4 = housing + connection stainless steel (Pmax. = 100 bar)
- 5 = housing + connection brass (Pmax. = 100 bar, high temperature version up to 150 °C)
- 6 = housing + connection stainless steel (Pmax. = 100 bar, high temperature version up to 150 °C)
- 9 = please indicate

Technical Data:

Max. Pressure: 16 bar (100 bar for all metal design options 3–6)
 Max. temperature: 70 °C (150 °C for options 5+6)
 Accuracy: 3 % FS, min. 0,25 l/min
 Pressure drop: 0,5 bar at full scale, 1 bar bei Qmax.

Materials:

Housing: PPS (optional brass or stainless steel 1.4404)
 Connection: brass nickel plated (optional POM or stainless steel 1.4305)
 Flap: stainless steel 1.4031 k
 Flap bearing: PVDF
 Indicator: samarium cobalt
 Seal: Viton