

## Flow Monitor & Flow Indicator

# DKG-2



## OVERVIEW

### Operation

- Float measuring principle

### Application

- Mechanical engineering
- Central lubrication
- Circulation lubrication
- Transformers

### Features

- Universal orientation
- High reliability
- Viscosity compensated
- Infinitely variable switch point adjustment by operator
- EX-version according to ATEX directive available
- Scales are burned onto the sight glass
- Threaded connection, special thread on request

### Installation information

- The operating instructions for DKG-2 Module BASICS / ...ATEX must be observed!
- **Download: [www.meister-flow.com](http://www.meister-flow.com)**

## OPERATING DATA

|                                 |                          |
|---------------------------------|--------------------------|
| <b>Operating pressure, max.</b> | 16 bar                   |
| <b>Pressure drop</b>            | 0,02 – 0,2 bar           |
| <b>Viscosity range</b>          | 30 cSt to 600 cSt        |
| <b>Temperature, max.</b>        | 120 °C (optional 160 °C) |
| <b>Measuring accuracy</b>       | ±10 % of full scale      |

Changed operating data apply to the devices in explosion-proof design according to ATEX directive. Refer to the Operating Instructions for DKG-2 Module ATEX.

Download: [www.meister-flow.com](http://www.meister-flow.com)

## MEASURING RANGES

| Type    | Switch range for Oil, density 0,9 kg/dm <sup>3</sup> <sup>(1)</sup> |          |     |
|---------|---|----------|-----|
|         | l/min   | gph      | gpm |
| DKG-2/2 | 0,5 – 1,7   | 8 – 27   |     |
| DKG-2/3 | 0,8 – 2,5   | 13 – 40  |     |
| DKG-2/4 | 1,3 – 4   | 21 – 63  |     |
| DKG-2/8 | 2,5 – 8   | 40 – 127 |     |

<sup>(1)</sup> The specified measuring- /switch ranges are valid for oils having a density of 0.9 kg/dm<sup>3</sup> and a kinematic viscosity of 30 to 600 cSt, vertical installation of the device and flow direction from bottom to top.

Other installation positions or deviation from the operating densities and operating viscosities will increase the measurement error specified in the data sheet. Excessive operating viscosities will influence or may prevent function of the device.

Upon request, special scales for deviating media, different operating conditions and installation positions (only for devices which can be installed in any position) are available.

The specified switch values are switch-off points, i.e. switch values by decreasing flow.

Other measuring- /switch ranges are available upon request.

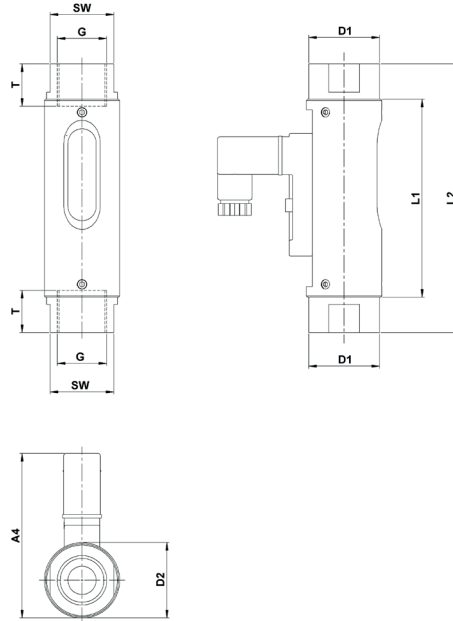
## MATERIALS

| Brass version, wetted parts     |   |
|---------------------------------|---|
| Spring:                         | 1.4571                                  |
| Sight glass:                    | DURAN® 50                               |
| Gaskets:                        | FKM (optional NBR, EPDM) <sup>(2)</sup> |
| Magnets:                        | Hard ferrite                            |
| all other wetted parts:         | Brass, nickel-plated                    |
| Brass version, non-wetted parts |   |
| Device housing:                 | Aluminium, anodized                     |

| Stainless steel version, wetted parts     |   |
|---|---|
| Spring:                                   | 1.4571                                  |
| Sight glass:                              | DURAN® 50                               |
| Gaskets:                                  | FKM (optional NBR, EPDM) <sup>(2)</sup> |
| Magnets:                                  | Hard ferrite                            |
| all other wetted parts:                   | 1.4571                                  |
| Stainless steel version, non-wetted parts |   |
| Device housing:                           | Aluminium, anodized                     |

<sup>(2)</sup> Other gasket materials on request

## TECHNICAL DRAWING



## SUMMARY OF TYPES

| Type    | Overall dimensions [mm] |    |    |    |     |    |    |    |    |    |    |     | Weight approx. [g] |
|---------|-------------------------|----|----|----|-----|----|----|----|----|----|----|-----|--------------------|
|         | G                       | DN | SW | L1 | L2  | T  | D1 | D2 | A1 | A2 | A3 | A4  |                    |
| DKG-2/2 |                         |    |    |    |     |    |    |    |    |    |    |     |                    |
| DKG-2/3 |                         |    |    |    |     |    |    |    |    |    |    |     |                    |
| DKG-2/4 | 1/2"                    | 15 | 27 | 84 | 114 | 14 | 30 | 32 | -  | -  | -  | ~70 | 300                |
| DKG-2/8 |                         |    |    |    |     |    |    |    |    |    |    |     |                    |

## ELECTRICAL DATA

### For devices with switch contact 15x50

|   |                                   |
|---|-----------------------------------|
| <b>Change over (COC)</b>                    | 250V · 1,5A · 50VA <sup>(3)</sup> |
| <b>Normally open (NOC)</b>                  | 230V · 3A · 60VA                  |
| <b>Change over M12x1 (-20 °C – 85 °C)</b>   | 125V · 1,5A · 50VA <sup>(3)</sup> |
| <b>Normally open M12x1 (-20 °C – 85 °C)</b> | 125V · 3A · 60VA                  |
| <b>Change over PLC</b>                      | 250V · 1A · 60VA                  |

### EX-version in compliance with ATEX directive

#### EC-Type examination

EPS 13 ATEX 1 596 U

### Connection to certified intrinsically safe circuits

Li = 0

Ci = 0

| Gas      |         |        | Dust     |        |        |
|----------|---------|--------|----------|--------|--------|
| Ui       | Ii      | Pi     | Ui       | Ii     | Pi     |
| < 12,1 V | 1,0 A   | 3,0 W  | < 12,1 V | 0,25 A | 0,75 W |
| < 20 V   | 0,309 A | 1,55 W | < 20 V   | 0,25 A | 0,75 W |
| < 25 V   | 0,158 A | 0,99 W | < 25 V   | 0,25 A | 0,75 W |
| < 30 V   | 0,101 A | 0,76 W | < 30 V   | 0,25 A | 0,75 W |

#### Operating temperature

-5 °C < T<sub>Service</sub> < 45 °C

<sup>(3)</sup> Minimum load 3VA

#### Marking

⊕ II 2G Ex ib IIC  
⊕ II 2D Ex ib IIIC

## ELECTRICAL CONNECTION

### For devices with switch contact 15x50

- Connector in compliance with EN 175301-803, Form C (DIN 43650, Form C)
- Connector M12x1
- Cable (1 m) <sup>(4)</sup>

### EX-version in compliance with ATEX directive

- Connector in compliance with EN 175301-803, Form C (DIN 43650, Form C)
- Connector M12x1
- Cable (1 m) <sup>(4)</sup>

### Ingress Protection

IP65: Connector in compliance with EN 175301-803, Form C or Connector M12x1

IP67: Cable

### Output signal

The contact opens / changes when the flow decreases below the set point.

### Power supply

Not required (potential-free reed contacts)

### Connector types

Other connector types or cable lengths on request

<sup>(4)</sup> Available as Normally Open Contact (NOC) only

## CONNECTION DIAGRAM

