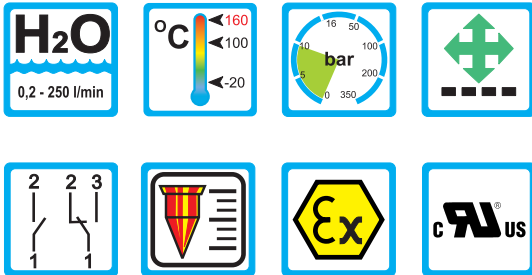


# Flow monitor Flow indicator

## DUG



### Range of Applications

#### Operation

- Float measuring principle

#### Application

- Mechanical Engineering e.g. Weldingmachinery, Laserplants
- Medicine technology
- Pharma industry
- Chemical industry
- Research and development

#### Features

- Universal orientation
- High switch accuracy
- Wide switch range
- Infinitely variable switchpoint adjustment through user
- EX-version to ATEXavailable
- Scales are burned into to the sightglass
- Threaded connection, Special threads on request

#### Installation hints

- The operating instructions for DUG must be observed!
- Download: [www.meister-flow.com](http://www.meister-flow.com)

### Operating Data

Operating pressure max.	10 bar
Pressure drop	0,02 to 0,8 bar
Maximum temperature	100 °C (optional 160 °C)
Accuracy	±5 % of full scale

### Measuring Ranges

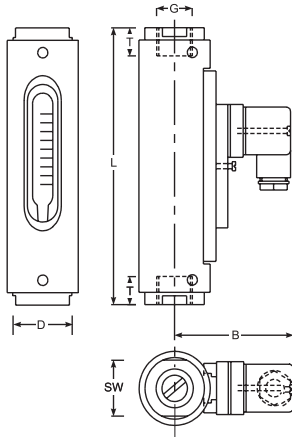
Type	Switch range for H <sub>2</sub> O at 20 °C <sup>(1)</sup>		
	[l/min]	[gph]	[gpm]
DUG-4	0,2 - 4	3,0 - 63,0	
DUG-6	0,5 - 6	8,0 - 95,0	
DUG-8	0,5 - 8	8,0 - 127,0	
DUG-14	0,5 - 14	8,0 - 222,0	
DUG-22	2 - 22	32,0 - 350,0	
DUG-28	1 - 28	16,0 - 444,0	
DUG-45	1 - 45	15,0 - 710,0	
DUG-80	2 - 80		0,5 - 21,0
DUG-90	6 - 90		1,6 - 23,8
DUG-110	6 - 110		1,6 - 29,0
DUG-150	15 - 150		4,0 - 39,5
DUG-220	30 - 220		8,0 - 58,0
DUG-250	35 - 250		9,0 - 66,0

<sup>(1)</sup> The specified data are switch-off points, other switch ranges on request.

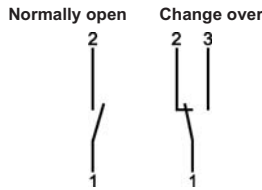


# Technical Data

## Mechanical drawing



## Connection diagram



## Summary of types

Type:	Overall dimensions [mm]							Weight approx. [g]
	SW	D	B	G	DN	T	L	
<b>DUG-4</b>								
<b>DUG-6</b>				1/4"	8	14	132	625
<b>DUG-8</b>	32	43	73	3/8"	10	14	132	
<b>DUG-14</b>				1/2"	15	15	135	
<b>DUG-22</b>								
<b>DUG-28</b>				1/2"	15	15	135	650
<b>DUG-45</b>	32	43	73	3/4"	20	18	167	850
<b>DUG-80</b>				3/4"	20	18	164	1000
<b>DUG-90</b>	41	50	76	1"	25	19	184	
<b>DUG-110</b>	41	50	76	1"	25	19	184	1000
<b>DUG-150</b>	50	55	79	1 1/4"	32	21	216	1300
<b>DUG-220</b>	55	60	81	1 1/4"	32	21	210	1700
<b>DUG-250</b>	50	55	79	1 1/4"	32	21	222	1400

## Electrical Data

**Change over** 250V • 1,5A • 50VA <sup>(2)</sup>

**Normally open** 250V • 3A • 100VA

**ATEX II 2 G Ex mb II T6 & ATEX II 2 D Ex tD A21 IP67 T80 °C**

**ATEX II 2 G Ex mb II T5 & ATEX II 2 D Ex tD A21 IP67 T100 °C**

**Change over** 250V • 1A • 30VA

**Normally open** 250V • 2A • 60VA

**Change over M 12x1 (-20 °C - 85 °C)** 250V • 1,5A • 50VA <sup>(2)</sup>

**Normally open M 12x1 (-20 °C - 85 °C)** 250V • 3A • 100VA

**Change over SPS** 250V • 1A • 60VA

### Ingress Protection:

IP65: plug connection DIN 43650 Form A

IP67: 1 m sealed in cable, (with EEx-version 2 m)  
or Plug connection M 12x1

### Output signal

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

### Power supply

Not required (potentialfree reed contacts)

### Plug types

Other plug types oder cable lengths on request

<sup>(2)</sup> Minimum load 3 VA

## Material

### Brass version

#### Wetted parts:

Spring: 1.4571  
Gaskets: NBR  
(optional FKM, EPDM) <sup>(3)</sup>  
Sight glass: Duran® 50  
All other wetted parts: Brass nickel-plated

#### Non wetted parts:

Housing: Aluminium anodized

### Stainless steel version

#### Wetted parts:

Spring: 1.4571  
Gaskets: FKM  
(optional NBR, EPDM) <sup>(3)</sup>  
Sight glass: Duran® 50  
All other wetted parts: 1.4571

#### Non wetted parts:

Housing: Aluminium anodized

<sup>(3)</sup> Other gasket materials on request

