



## Float-Type Flow Meters and Switches in a Glass Protecting Tube



measuring  
•  
monitoring  
•  
analysing



- Measuring range:  
Water  
0.0025-0.025 to 1600-16000 L/h  
Air  
0.19-1.9 to 10000-100000 L/h
- Accuracy: class 1.6
- $p_{max}$  16 bar,  $t_{max}$  80°C
- Connection:  
G 1/2... G 2 1/2 female thread
- Material:  
Measuring tube in borosilicate  
glass



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**Model:**  
KHN



**Description**

The KOBOLD flow meters and switches model KHN operate on the suspended float principle. The direction of flow is upwards and the instrument is installed vertically. Due to its special design this type of flow meter is very suitable for applications where only very low inlet pressures are available. The very large 220 mm long indicator glass is another advantage.

**Applications**

- Gas metering with minimum pressure losses
- Water metering with very good resolution

**Technical Details**

Installation position: Vertical, upward flow  
 Accuracy class: 1.6  
 Max. temperature: 80 °C (130 °C upon request)  
 Max. pressure: 16 bar to range no. 18  
 10 bar to range no. 22  
 8 bar to range no. 26  
 6 bar to range no. 30

**Materials**

Fitting (glass protecting tube): Steel 50 or st. steel 1.4571  
 Seal: NBR or FPM  
 Measuring tube: Duran 50  
 Inserts: steel or stainless steel  
 Float: Depending on measuring range titanium, corundum, st. steel or PP (polypropylene)

**Option**

Bistable reed contact (upon request, depending on measuring range)  
 Max. temperature: -10 to +70 °C  
 Max. power: 12 VA / W; 0.6 A; 45 V<sub>AC/DC</sub>  
 Protection: IP 65  
 Cable length: 1 m

*The transistor relay REL-6000 is recommended for higher switch capacities.*

**Order Details** (Example: KHN-1119 W K1)

Connection	Order number	Meas. range	Medium	Option
Internal thread steel	KHN-11...	see table (Range No.)	..W..=Water ..L..=Air ..A.=other medium	...00= without contact ...K1= Max. contact ...K2= Min. contact ...K3= Max. and min. contact
Hose connector	KHN-21...			
Hose connector mounted at base	KHN-31...			
Flange	KHN-41...			
Valve brass	KHN-51...			
Internal thread stainless steel	KHN-...			
Int. thread and protecting tube st. st.	KHN-72...			

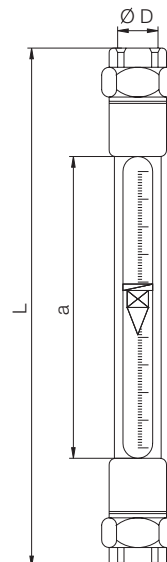
**Measuring ranges**

(see table for range factor 10:1, full scale value)

Connection G	Water L/h*	Pressure drop mbar	Air L/h**	Pressure drop mbar	MB-No.
1/2	0.025	1	1.9	1	01
1/2	0.04	1	3	1	02
1/2	0.063	2	4.4	2	03
1/2	0.1	2	6.5	2	04
1/2	0.16	3	10	3	05
1/2	0.25	4	14	4	06
1/2	0.4	1	23	1	07
1/2	0.63	1	33	1	08
1/2	1	2	50	2	09
1/2	1.6	3	70	3	10
1/2	2.5	4	100	4	11
1/2	4	2	160	2	12
1/2	6.3	2	250	2	13
1/2	10	3	400	3	14
1/2	16	4	630	4	15
1/2	25	5	1000	5	16
1/2	40	5	1600	5	17
1/2	63	10	2400	10	18
1/2	40	10	400	2	19
1/2	63	12	630	2	20
1/2	100	16	1000	3	21
1/2	160	24	1600	3	22
1	250	15	2500	2	23
1	400	16	4000	2	24
1	630	18	6300	3	25
1	1000	26	10000	3	26
1 1/2	1600	25	16 m³ <sub>N</sub> /h	3	32
1 1/2	2500	30	25 m³ <sub>N</sub> /h	4	27
2 1/2	4000	40	40 m³ <sub>N</sub> /h	5	28
2 1/2	6300	44	63 m³ <sub>N</sub> /h	6	29
2 1/2	10000	53	100 m³ <sub>N</sub> /h	7	30

Special measuring ranges float made of PP (polypropylene) - upon request to 400 m³/h air  
 \*Water at 20 °C \*\*air at 1 bar abs. and 20 °C

**Dimensions**



D Nominal size [Inches]	L Overall length [mm]	a Indicator glass [mm]
1/2	356	224
1	360	224
1 1/2	386	224
2 1/2	394	212