

Product Information

HM1K / HM2K-008..025GM / K

**Flow Switch
HM1K / HM2K**

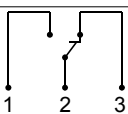
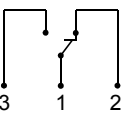


- High switching power
- Compact design

Characteristics

Mechanical flow switch, for fluid or gaseous media, with spring-supported piston and magnetic triggering of a microswitch. Robust construction in brass or stainless steel.

Technical data

Switch	microswitch	
Nominal width	DN 8..25	
Process connection	female thread G 1/4..G 1 (further process connections available on request)	
Switching range	0.1..74 l/min	for details see table "Ranges"
Pressure loss	0.4..3.5 bar at Q _{max.}	
Q_{max.}	to 100 l/min	
Tolerance	±5 % of full scale value	
Pressure resistance	PN 200 bar	
Media temperature	-20..+70 °C	
Ambient temperature	-20..+70 °C	
Media	water, oil (gases and aggressive media available on request)	
Wiring	changeover No. 0.371  optionally changeover No. 0.282 	
Switching voltage	max. 250 V AC	
Switching current	max. 5 A (round plug connector max. 4A)	
Protection class	2 - safety insulation	
Ingress protection	IP 65	
Electrical connection	plug DIN 43650-A / ISO 4400 optionally for round plug connector M12x1, 4-pole	

Materials medium-contact	Brass construction: CW614N nickelled, CW614N, 1.4310, hard ferrite, NBR	Stainless steel construction: 1.4571, 1.4404, 1.4310, hard ferrite PTFE-coated, FKM
Non-medium-contact materials	PA, CW614N, NBR	
Weight	see table "Dimensions and weights"	
Installation location	horizontal inwards flow; switching head on top.	

Ranges

For switching ranges, the details in the table correspond to horizontal inwards flow and decreasing flow rate; for display ranges they correspond to horizontal inwards flow and increasing flow rate.

Standard type HM1K

Switching range l/min H ₂ O	Optionally Display range l/min H ₂ O	Q _{max.} recommended	Pressure loss bar at Q _{max.} H ₂ O
0.1 - 0.8	0.1 - 1.2	6	0,4
0.5 - 4.0	0.5 - 6.0	10	0,5
1.0 - 8.0	1.0 - 12.0	20	0,6
2.0 - 16.0	2.0 - 23.0	30	0,4
3.0 - 26.0	3.0 - 34.0	40	
4.0 - 36.0	4.0 - 45.0	60	0,8
6.0 - 55.0	6.0 - 65.0	80	1,4
20.0 - 74.0	20.0 - 85.0	100	1,6

Special ranges are available.

Viscosity compensated HM2K

Switching range l/min oil 30..330 mm ² /s	Optionally Display range	Q _{max.} recommende d	Pressure loss bar at Q _{max.} oil mm ² /s					Viscosity stability
			30	60	100	205	330	
0.5 - 0.6	0.5 - 10	12	1.1	1.4	1.6	2.8	3.5	±8 % min. ±0.3 l/min
1.5 - 12.0	1.5 - 20	22	2.2	2.3	2.4			±0.5 l/min
2.5 - 22.0	2.5 - 30	35	1.9	2.0	2.1	2.3	2.9	±0.8 l/min
6.0 - 36.0	6.0 - 45	60					2.6	±2.7 l/min
12.0 - 55.0	12.0 - 65	80	2.1	2.3	2.4	2.6	2.8	±3 l/min

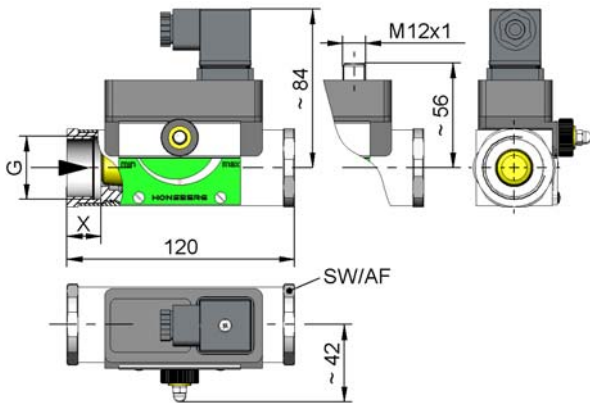
Special ranges are available.

Product Information

HM1K / HM2K-008..025GM / K

Dimensions and weights

	G	Types	SW	X	Weight kg
Brass	G 1/4	...-008GM	40	15	1.4
	G 3/8	...-010GM			
	G 1/2	...-015GM		18	1.3
	G 3/4	...-020GM			
Stainless steel	G 1	...-025GM	41	15	1.2
	G 1/4	...-008GK			
	G 3/8	...-010GK			
	G 1/2	...-015GK		18	1.3
	G 3/4	...-020GK			
	G 1	...-025GK			1.2



Handling and operation

Note

- Include straight calming section of 5 x DN in inlet and outlet
- If the media are dirty, install a filter (use magnetic filter for ferritic components).
- It must be ensured that the values given for voltage, current, and power are not exceeded.
- When switch on, a load must be connected in series.
- The electrical details apply to ohmic loads. Capacitive and inductive loads must be operated using a protective circuit.

Adjustment

If it is necessary to set the switching value, the switching head can be adjusted by adjustment of a pinion. When the switching value is reached, the switching unit is fixed in place by a fastening bolt (SW 8).



Ordering code

HM 1. 2. 3. 4. 5. 6.

1. Construction		
1K	standard	
2K	viscosity compensated	
2. Display options		
-	no mechanical display	
O1-	with measurement display at side O1	
O-	with measurement display at side O	
3. Nominal width		
008	DN 8 - G 1/4	
010	DN 10 - G 3/8	
015	DN 15 - G 1/2	
020	DN 20 - G 3/4	
025	DN 25 - G 1	
4. Process connection		
G	female thread	
5. Connection material		
M	brass	
K	stainless steel	
6. HM1K - switching range H₂O for horizontal inwards flow		
001	0.1 - 0.8 l/min	●
004	0.5 - 4.0 l/min	●
008	1.0 - 8.0 l/min	●
016	2.0 - 16.0 l/min	●
026	3.0 - 26.0 l/min	●
036	4.0 - 36.0 l/min	●
055	6.0 - 55.0 l/min	●
074	20.0 - 74.0 l/min	●
HM2K - switching range oil 30..330 mm²/s for horizontal inwards flow		
006	0.5 - 6.0 l/min	●
012	1.5 - 12.0 l/min	●
022	2.5 - 22.0 l/min	●
036	6.0 - 36.0 l/min	●
055	12.0 - 55.0 l/min	●



HM.KO1-



HM.KO-

Options

- Signal lamp red or red / green in the plug DIN 43650-A
- Gold contact
- Reinforced piston (only if made of brass)
- Connection for round plug connector M12x1
- Switching head with metal cap
- Adjustment scale with markings in l/min
- Switching values for oil or gas
- Special values
- Temperature display 0..120 °C

Ordering information

- Specify direction of flow, medium, and switching range.
- For viscous media specify viscosity, temperature, and medium (e.g. ISO VG 68) (enquire about switching range).
- For gases, state pressure (relative or absolute), temperature and medium (e.g. air) (request switching range).