

Product Information

HR2VK1-032..050

Flow switch HR2VK1



- Optimized for use with oil
- Viscosity stabilised
- Solid construction

Characteristics

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

Technical data

Switch	reed switch
Nominal width	DN 32 / 40 / 50
Process connection	female thread G 1 1/4..G 2 (further process connections available on request)
Switching range	10..120 l/min
Pressure loss	~ 4..7 bar at Q _{max}
Q _{max}	up to 160 l/min
Tolerance	±10 % of full scale value at constant viscosity
Viscosity-stability	mean deviation ±7 %, max. 18 % (30-330 mm ² /s) of full scale value
Pressure resistance	PS 200 bar
Media temperature	-20..+120 °C
Ambient temperature	-20..+70 °C
Media	oil

Wiring	transformer No. 0.213 optionally transformer No. 0.282 optionally red or red/green signal lamp in the plug DIN 43650-A / ISO 4400
Switching voltage	max. 250 V AC
Switching current	max. 1.5 A
Switch performance	max. 50 VA
Protection class	2 - Safety insulation
Ingress protection	IP 65
Electrical connection	plug DIN 43650-A / ISO 44000, optionally round plug connector M12x1, 4-pole
Materials medium-contact	Brass construction: CW614N nickelled, CW614N, 1.4305, 1.4310, hard ferrite Stainless steel construction: 1.4571, 1.4310, hard ferrite
Non-medium-contact materials	CW614N nickelled, PC, PA, NBR, 1.4301, CW508L nickelled,
Weight	see table "Dimensions and weights"
Installation location	Standard: horizontal inwards flow from the left; other installation positions are possible; the installation position affects the switching point and range.

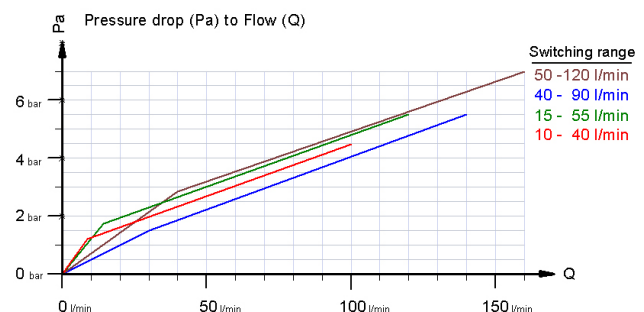
Ranges

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.

Switching range l/min oil 30-330 mm ² /s	Display range l/min oil 30-330 mm ² /s	Q _{max} . Recom- mended l/min	Pressure loss bar at Q _{max} . oil
10 - 40	10 - 60	100	4
15 - 55	20 - 100	120	5
40 - 90	40 - 120	140	5
50 - 120	50 - 150	160	7

Special ranges are available.

Reference Data:

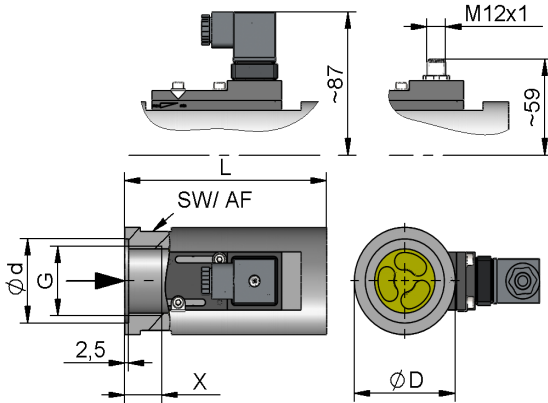


Product Information

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Dimensions and weights

DN	G	Types	L	ØD	SW	Ød	X	Weight kg
32	G 1 ¹ / ₄	HR2VK1-032GM	130	65	60	51	23	2.6
40	G 1 ¹ / ₂	HR2VK1-040GM	170			56	24	3.2
50	G 2	HR2VK1-050GM	185	80	75	70	26	5.3



additional weights for options

Display O1 / Z1 0.05 kg

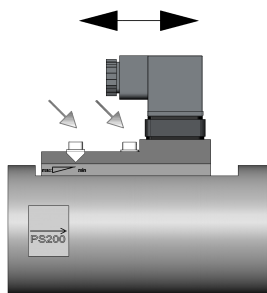
Handling and Operation

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 switched on, a load must be connected in series.
- Under unfavorable pressure conditions, e.g. with a free outlet, there is a risk of cavitation.
- The electrical details apply to ohmic loads. Capacitive, inductive and lamp loads must be operated using a protective circuit.

Adjustment

If it is necessary to set the switching value, the switching head can be adjusted lengthways. When the switching value is reached, the switching unit is fixed in place by fastening bolts.



Ordering code

HR2VK1 1. 2. 3. 4. 5. 6.
G

1. Display options	
-	no mechanical display
O1-	with measurement display at side O1
Z1-	with frontal measurement display Z1
2. Nominal width	
032	DN 32 - G 1 ¹ / ₄
040	DN 40 - G 1 ¹ / ₂
050	DN 50 - G 2
3. Process connection	
G	female thread
4. Connection material	
M	brass
K	stainless steel
5. Switching range H ₂ O for horizontal inwards flow	
040	10 - 40 l/min
055	15 - 55 l/min
090	40 - 90 l/min
120	50 - 120 l/min
6. Special switching head	
A	switching head ATEX A- H4.1 / A- H4.2 Please order the switching head for



HR2VK101-



HR2VK1Z1-



Options

- Special values
- Signal lamp red or red/green
- Connection for round plug connector M12x1
- Rhodium contact 250 V AC, 0.5 A, 30 VA
- Two to four switching heads

Ordering information

- Specify direction of flow, medium, and switching range.