

# Flow switch HR2K1



- Optimized for use with water
- Low pressure loss
- 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

<b>Switch</b>	reed switch	
<b>Nominal width</b>	DN 32 / 40 / 50	
<b>Process connection</b>	female thread G 1 <sup>1</sup> / <sub>4</sub> ..G 2 (further process connections available on request)	
<b>Switching range</b>	10..150 l/min	for details see table "Ranges"
<b>Pressure loss</b>	~ 1 bar at Q <sub>max</sub>	
<b>Q<sub>max.</sub></b>	up to 300 l/min	
<b>Tolerance</b>	±10 % of full scale value	
<b>Pressure resistance</b>	PS 200 bar	
<b>Media temperature</b>	-20..+120 °C	
<b>Ambient temperature</b>	-20..+70 °C	
<b>Media</b>	water	
<b>Wiring</b>	transformer No. 0.213	
	optionally transformer No. 0.282	
	optionally red or red/green signal lamp in the plug DIN 43650-A / ISO 4400	
<b>Switching voltage</b>	max. 250 V AC	
<b>Switching current</b>	max. 1.5 A	
<b>Switch performance</b>	max. 50 VA	
<b>Protection class</b>	2 - Safety insulation	
<b>Ingress protection</b>	IP 65	

<b>Electrical connection</b>	plug DIN 43650-A / ISO 44000, optionally round plug connector M12x1, 4-pole	
<b>Materials medium-contact</b>	<i>Brass construction:</i> CW614N nickelled, CW614N, 1.4305, 1.4310, hard ferrite	<i>Stainless steel construction:</i> 1.4571, 1.4310, hard ferrite
<b>Non-medium-contact materials</b>	CW614N nickelled, PC, PA, NBR, 1.4301, CW508L nickelled,	
<b>Weight</b>	see table "Dimensions and weights"	
<b>Installation location</b>	Standard: horizontal inwards flow from the left; other installation positions are possible; the installation position affects the switching point and range.	

## Ranges

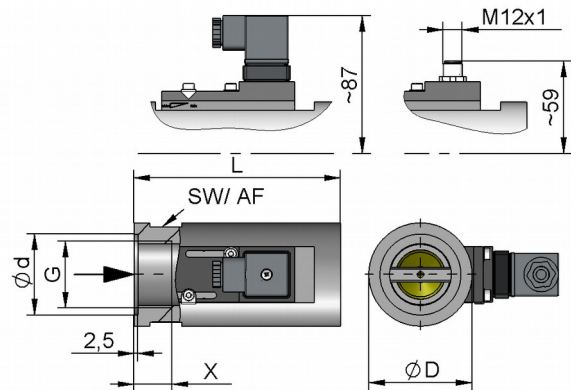
For switching ranges, the details in the table correspond to horizontal inwards flow and decreasing flow rate; for display ranges they correspond to horizontal inwards flow and increasing flow rate.

Switching range l/min H <sub>2</sub> O	Display range l/min H <sub>2</sub> O	Q <sub>max.</sub> recommended
10 - 40	10 - 60	300
15 - 60	15 -100	300
20 - 90	20 -200	300
25 -150	30 -300	300

Special ranges are available.

## Dimensions and weights

DN	G	Types	L	ØD	SW	Ød	X	Weight kg
32	G 1 <sup>1</sup> / <sub>4</sub>	HR2K1-032GM	130	65	60	51	23	2.6
40	G 1 <sup>1</sup> / <sub>2</sub>	HR2K1-040GM	170			56	24	3.2
50	G 2	HR2K1-050GM	185	80	75	70	26	5.3



## additional weights for options

Display O1 / Z1 0.05 kg

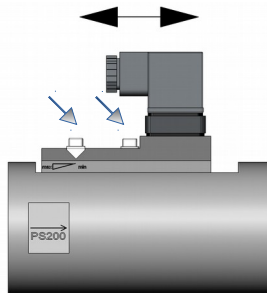
## Handling and Operation

### 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.
- 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

HR2K1  1.  2.  3.  4.  5.

<b>1. Display options</b>	
-	no mechanical display
O1-	with measurement display at side O1
Z1-	with frontal measurement display Z1
<b>2. Nominal width</b>	
032	DN 32 - G 1 <sup>1</sup> / <sub>4</sub>
040	DN 40 - G 1 <sup>1</sup> / <sub>2</sub>
050	DN 50 - G 2
<b>3. Process connection</b>	
G	female thread
<b>4. Connection material</b>	
M	brass
K	stainless steel
<b>5. Switching range H<sub>2</sub>O for horizontal inwards flow</b>	
040	10 - 40 l/min
060	15 - 60 l/min
090	20 - 90 l/min
150	25 -150 l/min



HR2K101-



HR2K1Z1-

### 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
- ATEX switching heads A-H4.1 and A-H4.2

### Ordering information

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