

## Flow Switch UM3K-...G / A

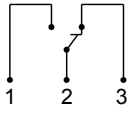
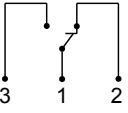


- Threaded connection
- Micro switch
- Low pressure loss
- Compact design
- Threaded connection
- Plug DIN 43650-A / ISO 4400

### Characteristics

The devices function via the principle of a spring-supported paddle, and the magnetic triggering of a micro switch.

### Technical data

Switch/sensor	micro switch	
Nominal width	DN 10..50	
Process connection	female thread G <sup>3/8</sup> ..G 1 (further process connections available on request)	
Switching range	4..93 l/min	for details see table "Ranges"
Q <sub>max.</sub>	to 150 l/min	
Tolerance	±15 % of full scale value	
Pressure resistance	PN 25 bar	
Medium temperature	-20..+110 °C	
Ambient temperature	-20..+70 °C	
Media	water (oils, gases and aggressive media available on request)	
Wiring	changeover no. 0.371  optionally changeover no. 0.282  optionally red or red / green diode in the DIN 43650-A plug	
Switching voltage	max. 250 V AC	
Switching current	max. 5 A (round plug connector max. 4 A)	
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: CW617N nickelled, CW614N nickelled, 1.4310, 1.4301, hard ferrite, NBR	Stainless steel construction: 1.4305, 1.4571, 1.4301, 1.4310, hard ferrite PTFE-coated, FKM
Non-medium contact materials	ABS, PA, NBR	
Weight	see table "Dimensions and weights"	
Installation location	Standard: horizontal inwards flow; switching head not recommended underneath; other installation positions are possible; the installation position affects the switching point and range.	

### Ranges

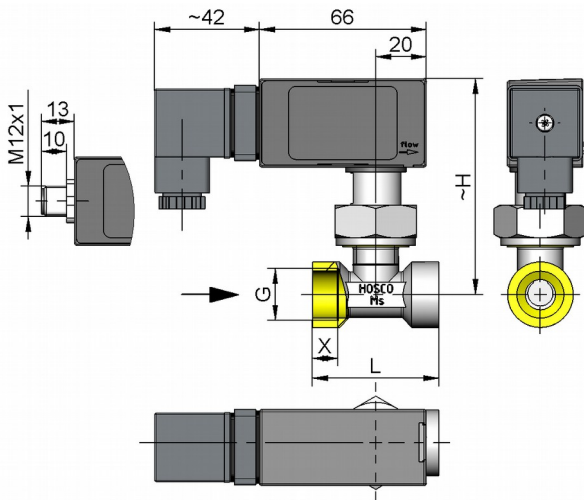
Details in the table correspond to horizontal inwards flow with decreasing flow rate

G	DN	Switching range l/min H <sub>2</sub> O	Types	Q <sub>max.</sub> recommended
G <sup>3/8</sup>	DN 10	4.0 - 5.5	UM3K-010G.055	10
G <sup>1/2</sup>	DN 15	5.5 - 7.0	UM3K-015G.070	20
G <sup>3/4</sup>	DN 20	7.5 - 10.0	UM3K-020G.100	40
G 1	DN 25	14.0 - 18.0	UM3K-025G.180	60
G <sup>1 1/4</sup>	DN 32	22.0 - 30.0	UM3K-032G.300	80
G <sup>1 1/2</sup>	DN 40	37.0 - 50.0	UM3K-040G.500	100
G 2	DN 50	67.0 - 93.0	UM3K-050G.930	150

Special ranges are available.

### Dimensions and weights

G	Types	H	L	X	Weight kg
G <sup>3/8</sup>	UM3K-010GM	87	50	10	0.45
	UM3K-010GK				0.50
G <sup>1/2</sup>	UM3K-015GM	88	50	10	0.40
	UM3K-015GK				0.45
G <sup>3/4</sup>	UM3K-020GM	92	50	12	0.50
	UM3K-020GK				
G 1	UM3K-025GM	96	50	12	0.60
	UM3K-025GK				
G <sup>1 1/4</sup>	UM3K-032GM	99	50	12	0.75
	UM3K-032GK				
G <sup>1 1/2</sup>	UM3K-040GM	108	50	12	0.85
	UM3K-040GK				
G 2	UM3K-050GM	108	50	12	1.05
	UM3K-050GK				



## Handling and operation

### Note

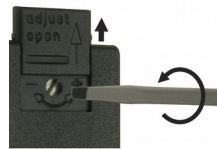
- Include straight calming section of 5 x DN in inlet and outlet
- When tightening the union nut, the connection piece must be countered using an open-ended spanner (SW 19).
- If the media are dirty, install a filter (use magnetic filter for ferritic components).
- It must be ensured that the values 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 and inductive loads must be operated using a protective circuit.

### Adjustment

To adjust, open the slider. Adjustment is made using the adjustment screw with a lengthways slot; this is located under the valve.

Turn clockwise for a lower switching point; turn anticlockwise for a higher switching point.

After adjustment, close the slider again.



Example: The adjustment range 20 to 27 l/min corresponds to 7 l/min Adjustment option in 7 revolutions. Adjustment is therefore 1 l/min for each revolution.

## Ordering code

UM3K -  1.  2.  3.  4.

1. Nominal width	
010	DN 10 - G $\frac{3}{8}$
015	DN 15 - G $\frac{1}{2}$
020	DN 20 - G $\frac{3}{4}$
025	DN 25 - G 1
032	DN 32 - G $1\frac{1}{4}$
040	DN 40 - G $1\frac{1}{2}$
050	DN 50 - G 2
2. Process connection	
G	female thread
3. Connection material	
M	brass
K	stainless steel
4. Switching range H <sub>2</sub> O for horizontal inwards flow	
055	4.0 - 5.5 l/min
070	5.5 - 7.0 l/min
100	7.5 - 10.0 l/min
180	14.0 - 18.0 l/min
300	22.0 - 30.0 l/min
500	37.0 - 50.0 l/min
930	67.0 - 93.0 l/min

## Options

- Connection for round plug-in connector
- Signal lamp red or red/green in the plug DIN 43650-A
- Gold contact 125 V AC / 30 V DC, 100 mA
- Protective bellows
- Switching ranges for oil or gas
- Special values
- Soldered copper fitting
- Adhesive PVC fitting
- Male thread G  $\frac{1}{2}$  A - brass

## Ordering information

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