

**Product Information**

**Sensors and Instrumentation**

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

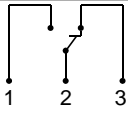
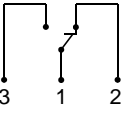


- Threaded connection
- Micro switch
- Low pressure loss
- Compact design
- Threaded connection
- Plug DIN 43650-A / ISO 4400

**Characteristics**

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

**Technical data**

<b>Switch/sensor</b>	micro switch	
<b>Nominal width</b>	DN 10..50	
<b>Process connection</b>	female thread G 3/8..G 1 (further process connections available on request)	
<b>Switching range</b>	4..93 l/min	for details see table "Ranges"
<b>Q<sub>max.</sub></b>	to 150 l/min	
<b>Tolerance</b>	±15 % of full scale value	
<b>Pressure resistance</b>	PN 25 bar	
<b>Medium temperature</b>	-20..+110 °C	
<b>Ambient temperature</b>	-20..+70 °C	
<b>Media</b>	water (oils, gases and aggressive media available on request)	
<b>Wiring</b>	changeover no. 0.371   optionally changeover no. 0.282   optionally red or red / green diode in the DIN 43650-A plug	
<b>Switching voltage</b>	max. 250 V AC	
<b>Switching current</b>	max. 5 A (round plug connector max. 4 A)	
<b>Protection class</b>	2 - safety insulation	
<b>Ingress protection</b>	IP 65	

<b>Electrical connection</b>	plug DIN 43650-A / ISO 4400, optionally for round plug connector M12x1, 4-pole	
<b>Materials medium-contact</b>	<i>Brass construction:</i> CW617N nickelled, CW614N nickelled, 1.4310, 1.4301, hard ferrite, NBR	<i>Stainless steel construction:</i> 1.4305, 1.4571, 1.4301, 1.4310, hard ferrite PTFE-coated, FKM
<b>Non-medium contact materials</b>	ABS, PA, NBR	
<b>Weight</b>	see table "Dimensions and weights"	
<b>Installation location</b>	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 3/8	DN 10	4.0 - 5.5	UM3K-010G.055	10
G 1/2	DN 15	5.5 - 7.0	UM3K-015G.070	20
G 3/4	DN 20	7.5 - 10.0	UM3K-020G.100	40
G 1	DN 25	14.0 - 18.0	UM3K-025G.180	60
G 1 1/4	DN 32	22.0 - 30.0	UM3K-032G.300	80
G 1 1/2	DN 40	37.0 - 50.0	UM3K-040G.500	100
G 2	DN 50	67.0 - 93.0	UM3K-050G.930	150

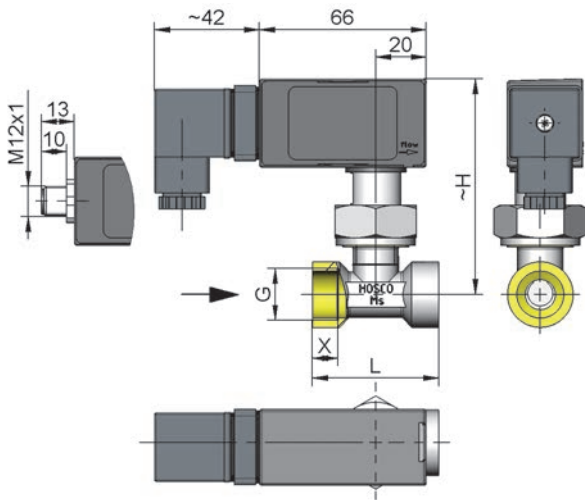
Special ranges are available.

**Dimensions and weights**

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

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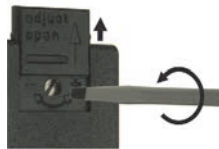
**Handling and operation**

**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.  
     
 G

**1. Nominal width**

010	DN 10 - G 3/8
015	DN 15 - G 1/2
020	DN 20 - G 3/4
025	DN 25 - G 1
032	DN 32 - G 1 1/4
040	DN 40 - G 1 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 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).