

Product Information

Sensors and Instrumentation

Flow Meter UZ



- **Monitor and display**
- **Simple switching point adjustment by means of drag indicator**
- **Insensitive to dirt**
- **Suitable for media with ferritic particles.**

Characteristics

With the UZ paddle flow display, the flow strength of the medium presses the paddle against a spring force. Hermetically separated by the bellows, the paddle's deflection is transmitted to a display movement, and may optionally be monitored with an adjustable micro switch. There is no magnet in the area of flow.

Technical data

Switch	optionally micro switch	
Nominal width	DN 15..50	
Process connection	female thread G 1/2..G 2	
Metering range	2..500 l/min	for details see table "Ranges"
Q_{max.}	to 600 l/min	
Tolerance	±3 % of full scale value	
Pressure resistance	Dynamic PN 6 bar	Static PN 16 bar
Medium temperature	-20..+100 °C	
Ambient temperature	-20..+70 °C	
Media	water (oils and aggressive media available on request)	
Wiring	changeover no. 0.342	
Switching voltage	max. 250 V AC	
Switching current	max. 5 A	
Protection class	2	
Ingress protection	IP 65	

Electrical connection	plug DIN 43650-A / ISO 4400
Materials medium-contact	<i>Brass construction:</i> CW614N nickelled, 1.4571, 1.4305 <i>Stainless steel construction:</i> 1.4571, 1.4305
Non-medium-contact materials	CW614N chromed, steel chromed, acrylic, FKM
Weight	see table "Dimensions and weights"
Installation location	Standard: horizontal inwards flow; display downwards not recommended; other installation positions are possible; the installation position affects the switching point and display range.

Ranges

Details in the table correspond to horizontal inwards flow with increasing flow rate.

Flow from the left.

G	Nominal width	Metering range l/min H ₂ O	Q _{max.} recommended	Type
G 1/2	DN 15	3 - 50	60	UZ-015G.050
G 3/4	DN 20	4 - 60	100	UZ-020G.060
G 1	DN 25		200	UZ-025G.060
G 1 1/4	DN 32	10 - 100	300	UZ-025G.100
		20 - 200		UZ-032G.100
G 1 1/2	DN 40	10 - 300	400	UZ-032G.200
				UZ-040G.200
G 2	DN 50	20 - 300	600	UZ-040G.300
		30 - 500		UZ-050G.300
				UZ-050G.500

Special ranges are available

Optional: Flow from the right (please specify when ordering)

G	Nominal width	Metering range l/min H ₂ O	Q _{max.} recommended	Type
G 1/2	DN 15	2 - 35	60	UZ-015G.035
G 3/4	DN 20	4 - 45	100	UZ-020G.045
		6 - 70		UZ-020G.070
G 1	DN 25	4 - 50	200	UZ-025G.050
		10 - 100		UZ-025G.100
G 1 1/4	DN 32	20 - 200	300	UZ-032G.100
				UZ-032G.200
G 1 1/2	DN 40	10 - 300	400	UZ-040G.200
				UZ-040G.300
G 2	DN 50	60 - 300	600	UZ-050G.300
		100 - 500		UZ-050G.500

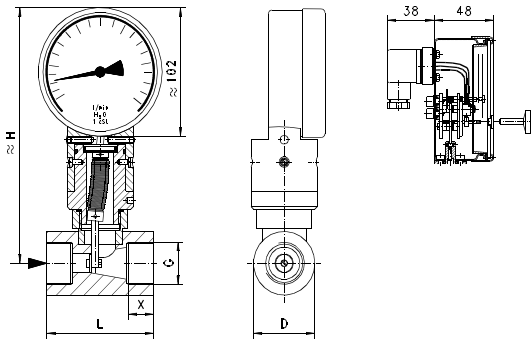
Special ranges are available

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Dimensions and weights

G	Types	H	L	SW	X	Weight kg
G 1/2	UZ-015G.	201	70	30	16	2.0
G 3/4	UZ-020G.	206	74	36	18	
G 1	UZ-025G.	201	87	46	19	2.5
G 1 1/4	UZ-032G.	209	104	55	22	3.0
G 1 1/2	UZ-040G.	215	111	65	24	4.5
G 2	UZ-050G.	227	130	70	28	5.0



Handling and operation

Note

- Include straight calming section of 5 x DN in inlet and outlet
- If the media are dirty, install a filter.
- 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

The micro switch (optional) is adjusted by means of the knurled adjusting screw provided. The screw allows the drag indicator to be set to the desired switching value. The value displayed corresponds to a switching point for a decreasing flow rate.



Ordering code

1. 2. 3. 4. 5.
UZ
G

○=Option

1. Additional devices					
-	only analog display				
M-	with integrated micro switch				
P-	○ with potentiometer				
M2-	○ with 2 x normally open (n.o.)				see „Additional devices for UZ“
M3-	○ with 2 x normally closed (n.c.)				
2. Nominal width					
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				
3. Process connection					
G	female thread				
4. Connection material					
M	brass				
K	stainless steel				
5. Metering range H ₂ O for horizontal inwards flow					
035	from the right	2 - 35 l/min			●
045	from the right	4 - 45 l/min			●
050	from the left	3 - 50 l/min			●
	from the right	4 - 50 l/min		●	
060	from the left	4 - 60 l/min		●	●
070	from the right	6 - 70 l/min			●
100	from left/right	10 - 100 l/min		●	●
	from left/right	20 - 200 l/min		●	●
300	from left/right	10 - 300 l/min		●	
	from the left	20 - 300 l/min		●	
500	from the left	60 - 300 l/min		●	
	from the right	30 - 500 l/min		●	
	from the right	100 - 500 l/min		●	

Options

- Metering ranges for oil or gas
- Special values
- Gold contact 125 V AC / 30 V DC, 100 mA
- Special Harting plug

Ordering information

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

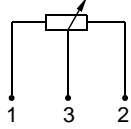
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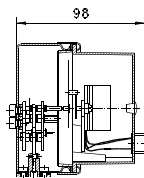
Additional Devices For UZ

UZP - 10 kOhm potentiometer

Technical data

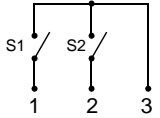
Switch/sensor	potentiometer
Wiring	no. 0.269 
Switching voltage	max. 50 V DC
Switching current	max. 100 mA
Switching capacity	max. 1.5 W
Protection class	2 - safety insulation
Additional Tolerance	±3 %
Resistance tolerance	±1 %
Linearity tolerance	±0,3 %
Ingress protection	IP 60
Electrical connection	plug Hirschmann G 4
Additional Weight	0.3 kg

Dimensions

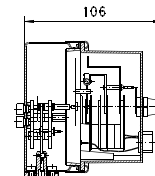


UZM2 - 2-pole normally open (n.o.)

Technical data

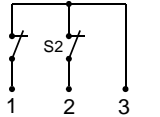
Switch/sensor	micro switch
Wiring	2 x normally open (n.o.) no. 0.268 
Switching voltage	max. 250 V AC
Switching current	max. 0.6 A
Switching capacity	max. 50 VA
Protection class	2 - safety insulation
Ingress protection	IP 60
Electrical connection	plug Hirschmann G 4
Additional Weight	0.3 kg

Dimensions



UZM3 - 2-pole normally open (n.o.)

Technical data

Switch/sensor	micro switch
Wiring	2 x normally closed (n.c.) wiring 0.285 
Switching voltage	max. 250 V AC
Switching current	max. 0.6 A
Switching capacity	max. 50 VA
Protection class	2 - safety insulation
Ingress protection	IP 60
Electrical connection	plug Hirschmann G 4
Additional Weight	0.3 kg

Dimensions

