MASTERPIECES
MADE IN GERMANY

Flow Monitor

RVM/UM

OVERVIEW

Operation

- Float measuring principle

Application

- Cooling systems and cooling circuits
- Mechanical engineering
- Research & Development

Features

- High reliability
- High switch accuracy
- EX-version according to ATEX directive available
- UL Recognized version available
- High pressure resistance
- Threaded connection, special thread on request

Installation information

- The operating instructions for RVM/UM Module BASICS / ...ATEX must be observed!
- **Download: www.meister-flow.com**

OPERATING DATA

Operating pressure max.	100 bar (brass lead-free)
	300 bar (stainless steel)
Pressure drop	See diagram on page 5
Temperature max.	120 °C
	160 °C (stainless steel) optional
Measuring accuracy:	
Switch point > 3 l/min	±5 % of switch value
Switch point ≤ 3 l/min	± 0,1 l/min

Changed operating data apply to the device in explosion-proof design according to ATEX directive. Refer to the Operating Instructions for RVM/UM Module ATEX.

For UL Recognized devices, changed operating data apply. Refer to the Operating Instructions for RVM/UM Module BASICS.

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MEASURING RANGES

Type	**Switch point for H_2O at 20 °C** [1]		
	l/min	**gph**	**gpm**
RVM/UM			
Lowest switch point	0,7	11	
Highest switch point	20	317	

The switch point is factory adjusted.

Please specify switch point when ordering!

The recommended maximum flow is 120 l/min.

[1] The specified measuring- / switch ranges are valid for water having a density of 1.00 kg/dm³, vertical installation of the device and flow direction from bottom to top.
Other installation positions or deviation from the operating densities will increase the measurement error specified in the data sheet.
Operating density for water at 20 °C and 1.013 bar (absolute value): 1.00 kg/dm³.
Upon request, special scales for deviating media, different operating conditions and installation positions (only for devices which can be installed in any position) are available.
The specified switch values are switch-off points, i.e. switch values by decreasing flow.

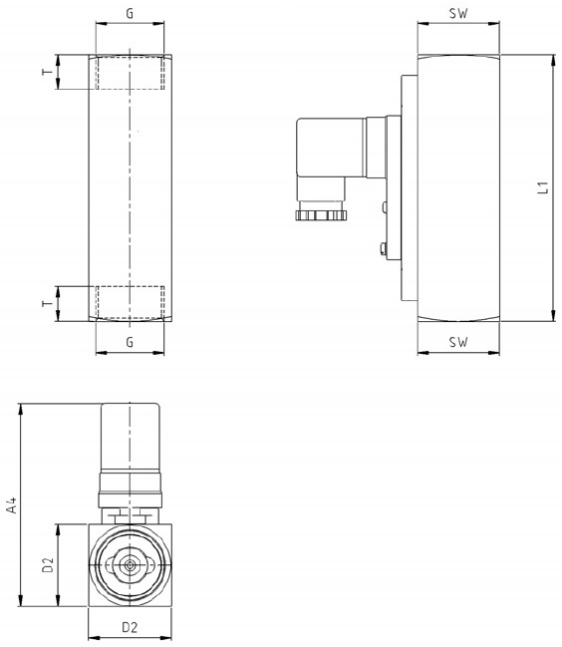
MATERIALS

Brass version, wetted parts	
Spring:	1.4571
Magnets:	Hard ferrite
Device body:	Brass, nickel-plated
all other wetted parts:	Brass

Stainless steel version, wetted parts	
Spring:	1.4571
Magnets:	Hard ferrite
Device body:	1.4571
all other wetted parts:	1.4571

TECHNICAL DRAWING

Stainless steel version (4-sided)



SUMMARY OF TYPES

Stainless steel version (4-sided)

Type	Overall dimensions [mm]												Weight approx.
	G	DN	SW	L1	L2	T	D1	D2	A1	A2	A3	A4	ca. [g]
RVM/UM	1"	25	40	130	–	17	–	40	–	–	–	~98	1150

ELECTRICAL DATA

Change over (COC)	250V · 1,5A · 50VA [2]
Normally open (NOC)	250V · 3A · 100VA
Change over M12x1 (-20 °C – 85 °C)	250V · 1,5A · 50VA [2]
Normally open M12x1 (-20 °C – 85 °C)	250V · 3A · 100VA
Change over PLC	250V · 1A · 60VA

EX-version in compliance with ATEX directive

ATEX II 2 G Ex mb IIC T6 Gb & ATEX II 2 D Ex tb IIIC T80 °C Db	
ATEX II 2 G Ex mb IIC T5 Gb & ATEX II 2 D Ex tb IIIC T100 °C Db	
Change over	250V · 1A · 30VA [2]
Normally open	250V · 2A · 60VA

UL Recognized switch contacts

Change over	240V · 1,5A · 50VA [2]
Normally open	250V · 3A · 100VA

[2] Minimum load 3VA

ELECTRICAL CONNECTION

- Connector in compliance with EN 175301-803, Form A (DIN 43650, Form A)
- Connector M12x1
- Cable (1 m)

EX-version in compliance with ATEX directive

- Cable (2 m)

UL Recognized switch contacts

- Connector in compliance with EN 175301-803, Form A
- Cable (1 m)

Ingress Protection

IP65: Connector in compliance with EN 175301-803, Form A
IP67: Cable or connector M12x1

Output signal

The contact opens / changes when the flow decreases below the set point.

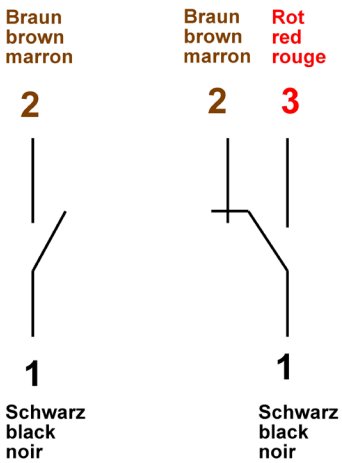
Power supply

Not required (potential-free reed contacts)

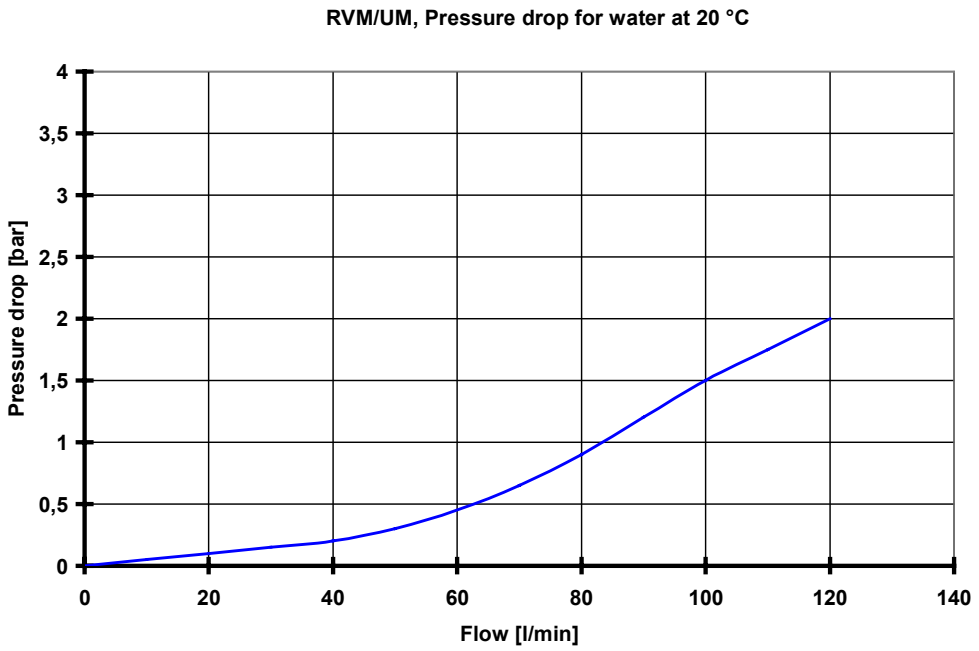
Connector types

Other connector types or cable lengths on request

CONNECTION DIAGRAM



PRESSURE DROP



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