

## Flow Monitor & Flow Indicator

# RVM/UA-1



## OVERVIEW

### Operation

- Float measuring principle

### Application

- Cooling systems and cooling circuits
- Mechanical engineering
- Pharmaceutical industry
- Chemical industry
- Research & Development

### Features

- Universal orientation
- High reliability
- High switch accuracy
- Infinitely variable switch point adjustment by operator
- 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/UA-1 Module BASICS / ...ATEX must be observed!

## OPERATING DATA

<b>Operating pressure, max.</b>	250 bar (Brass version)
	300 bar (Stainless steel version)
<b>Pressure drop</b>	0,02 – 0,4 bar
<b>Temperature, max.</b>	100 °C (optional 160 °C)
<b>Measuring accuracy</b>	±10 % of full scale

Changed operating data apply to the device in explosion-proof design according to ATEX directive. Refer to the Operating Instructions for RVM/UA-1 Module ATEX.

For UL Recognized devices, changed operating data apply. Refer to the Operating Instructions for RVM/UA-1 Module BASICS.

Download: [www.meister-flow.com](http://www.meister-flow.com)

## MEASURING RANGES

Type	Switch range for H <sub>2</sub> O at 20 °C <sup>(1)</sup>		
	l/min	gph	gpm
RVM/UA-1/30	10 – 30	160 – 480	
RVM/UA-1/45	15 – 45	240 – 710	
RVM/UA-1/60	20 – 60	320 – 950	
RVM/UA-1/90	30 – 90		8 – 24
RVM/UA-1/150	60 – 150		16 – 40

<sup>(1)</sup> The specified measuring- / switch ranges are valid for water having a density of 1.00 kg/dm<sup>3</sup>, vertical installation of the device and flow direction from bottom to top.

Other mounting 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/dm<sup>3</sup>.

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.

Other measuring- /switch ranges are available upon request.

## MATERIALS

### Brass version, wetted parts

Spring:	1.4571
Gaskets <sup>(2)</sup> :	NBR (optional FKM, EPDM) <sup>(3)</sup>
Magnets:	Hard ferrite
Threaded rings:	Brass
Float:	Brass
Device body:	Brass, nickel-plated
all other wetted parts:	Brass

### Brass version, non-wetted parts

Display:	Makrolon® / 1.4301
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### Stainless steel version, wetted parts

Spring:	1.4571
Gaskets <sup>(2)</sup> :	FKM (optional NBR, EPDM) <sup>(3)</sup>
Magnets:	Hard ferrite
Threaded rings:	1.4571
Float:	1.4571
Device body:	1.4571
all other wetted parts:	1.4571

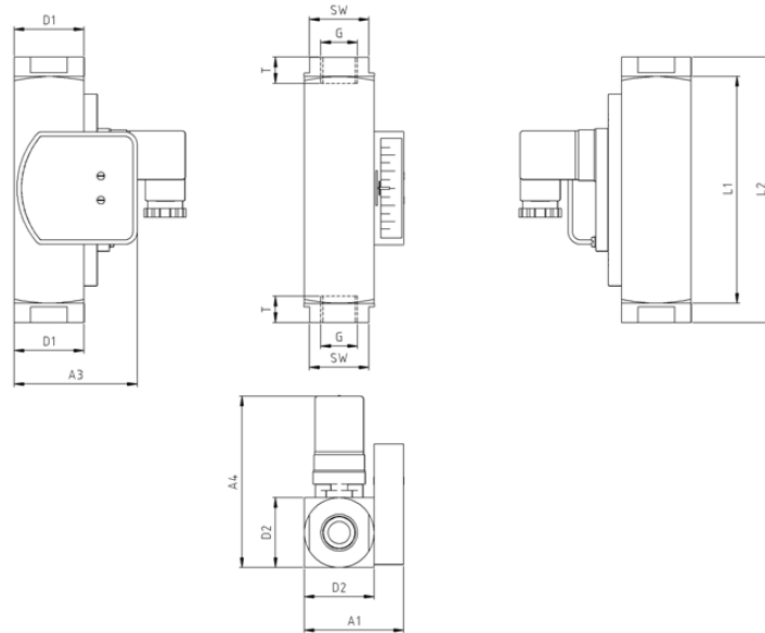
### Stainless steel version, non-wetted parts

Display:	Makrolon® / 1.4301
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<sup>(2)</sup> Only with process connections

<sup>(3)</sup> Other gasket materials on request

## TECHNICAL DRAWING



## SUMMARY OF TYPES

Type	Overall dimensions [mm]												Weight approx. [g] <sup>(5)</sup>
	G <sup>(4)</sup>	DN	SW	L1	L2	T	D1	D2	A1	A2	A3	A4	
RVM/UA-1/30	3/4"	20	34	130	152	15	40	40	57	-	71	~98	1340
	1"	25	40	130	130	17	40	40	57	-	71	~98	1160
RVM/UA-1/45	3/4"	20	34	130	152	15	40	40	57	-	71	~98	1340
	1"	25	40	130	130	17	40	40	57	-	71	~98	1160
RVM/UA-1/60	3/4"	20	34	130	152	15	40	40	57	-	71	~98	1340
	1"	25	40	130	130	17	40	40	57	-	71	~98	1160
RVM/UA-1/90	1"	25	40	130	130	17	40	40	57	-	71	~98	1160
RVM/UA-1/150	1"	25	40	130	130	17	40	40	57	-	71	~98	1160

<sup>(4)</sup> NPT thread on request

<sup>(5)</sup> Connection cable weight, 2 m approx. 80 g

## ELECTRICAL DATA

<b>Change over (COC)</b>	250V · 1,5A · 50VA <sup>(6)</sup>
<b>Normally open (NOC)</b>	250V · 3A · 100VA
<b>Change over M12x1 (-20 °C – 85 °C)</b>	250V · 1,5A · 50VA <sup>(6)</sup>
<b>Normally open M12x1 (-20 °C – 85 °C)</b>	250V · 3A · 100VA
<b>Change over PLC</b>	250V · 1A · 60VA

### EX-version in compliance with ATEX directive

<b>ATEX II 2 G Ex mb IIC T6 Gb &amp; ATEX II 2 D Ex tb IIIC T80 °C Db</b>	
<b>ATEX II 2 G Ex mb IIC T5 Gb &amp; ATEX II 2 D Ex tb IIIC T100 °C Db</b>	
<b>Change over</b>	250V · 1A · 30VA <sup>(6)</sup>
<b>Normally open</b>	250V · 2A · 60VA

### UL Recognized switch contacts

<b>Change over</b>	240V · 1,5A · 50VA <sup>(6)</sup>
<b>Normally open</b>	250V · 3A · 100VA

<sup>(6)</sup> 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

