MASTERPIECES
MADE IN GERMANY

Flow Monitor

RVM/UA-L1



AIR

OVERVIEW

Operation

– Float measuring principle

Application

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

Features

– Universal orientation
– High reliability
– High switch accuracy
– Infinitely variable switch point adjustment by the operator
– EX version according to ATEX directive available
– High pressure resistance
– Thread connection, special threads on request

Installation information

– The operating instructions for RVM/UA-L1 Module BASICS / ...ATEX must be observed!
– **Download: www.meister-flow.com**

RVM/UA-L1 1 0001 01-20 E M

OPERATING DATA

Operating pressure max.	100 bar (brass lead-free)
	300 bar (stainless steel)
Pressure drop	0,02 – 0,4 bar
Temperature max.	120 °C
	160 °C (stainless steel) optional
Measuring accuracy	±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-L1 Modul ATEX!

Download: www.meister-flow.com

MEASURING RANGES

Type	**Switch range for Air at 1 bar abs. & 20 °C** [1]		
	Nl/min	**SCFH**	**SCFM**
RVM/UA-L10180	60 – 180	125 – 380	–
RVM/UA-L10300	100 – 300	210 – 640	–
RVM/UA-L10650	200 – 650	–	7 – 23

[1] The specified measuring- / switch ranges are valid for air having a density of 1.205 kg/m³, 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 air at 20 °C and 1.013 bar (absolute value): 1.205 kg/m³
Standard density for air (at 0 °C and 1.013 bar (absolute value): 1.293 kg/m³
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

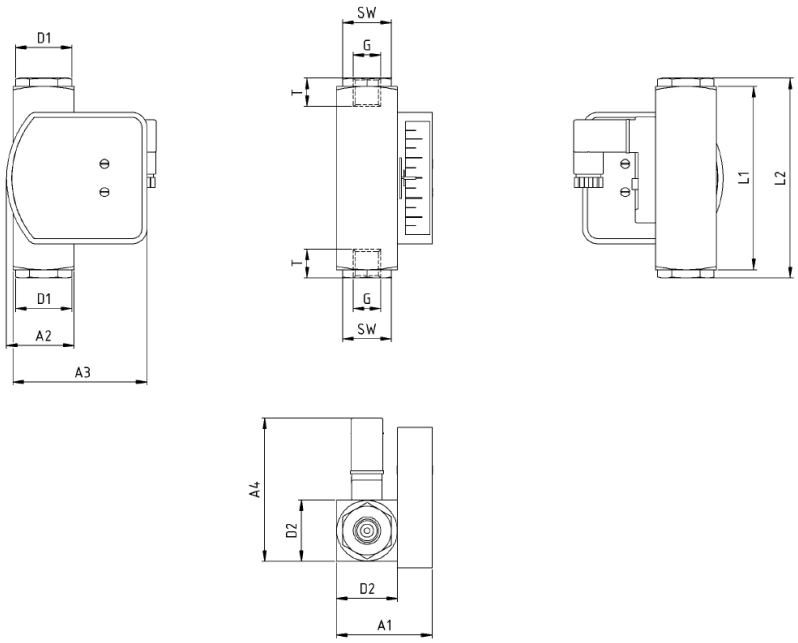
Brass version, wetted parts	
Spring:	1.4571
Gaskets [2]:	NBR (optional FKM, EPDM) [3]
Magnets:	Hard ferrite
Threaded rings:	Brass
Float:	Brass
Device body:	Brass, nickel-plated
all other wetted parts:	Brass
Brass version, non-wetted parts	
Display:	Makrolon® / 1.4301

Stainless steel version, wetted parts	
Spring:	1.4571
Gaskets [2]:	FKM (optional NBR, EPDM) [3]
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

[2] Only with process connections

[3] Other gasket materials on request

TECHNICAL DRAWING



SUMMARY OF TYPES

Type	Overall dimensions [mm]												Weight
	G	DN	SW	L1	L2	T	D1	D2	A1	A2	A3	A4	approx. [g]
RVM/UA-L10180	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-L10300	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-L10650	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

ELECTRICAL DATA

Change Over (COC)	250V · 1,5A · 50VA [4]
Normally open (NOC)	250V · 3A · 100VA
Change over M12x1 (-20 °C – 85 °C)	250V · 1,5A · 50VA [4]
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 [4]
Normally open	250V · 2A · 60VA

[4] Minimum load 3VA

ELECTRICAL CONNECTION

- Connector in compliance with EN 175301-803, Form A (DIN 43650, Form A)
- Connector M12x1
- Cable (1 m) [3]

EX-version in compliance with ATEX-directove

- Cable (1 m) [3]

Ingress protection

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

Output signal

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

Power supply

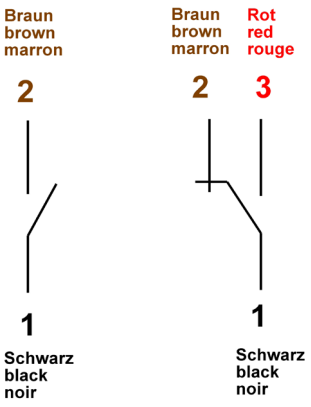
Not required (potential-free reed contacts)

Connector types

Other connector types or cable lengths on request

[3] Only available with normally open switch contact

CONNECTION DIAGRAM



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