MASTERPIECES
MADE IN GERMANY

Flow Monitor

RVM/UA-L2



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-L2 Module BASICS / ...ATEX must be observed!
– **Download: www.meister-flow.com**

RVM/UA-L2 1 0001 01-20 E M

OPERATING DATA

Operating pressure max.	160 bar (brass lead-free)
	350 bar (stainless steel)
Pressure drop	0,02 – 0,3 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-L2 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-L20010	2,5 – 10	5,5 – 21	
RVM/UA-L20020	5,5 – 20	12 – 42	
RVM/UA-L20030	8 – 30	17 – 64	
RVM/UA-L20035	10 – 35	21 – 74	
RVM/UA-L20090	45 – 90	95 – 190	
RVM/UA-L20220	55 – 220	115 – 465	
RVM/UA-L20240	65 – 240	140 – 510	
RVM/UA-L20300	80 – 300	170 – 640	
RVM/UA-L20525	140 – 525		5 – 18,5

[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

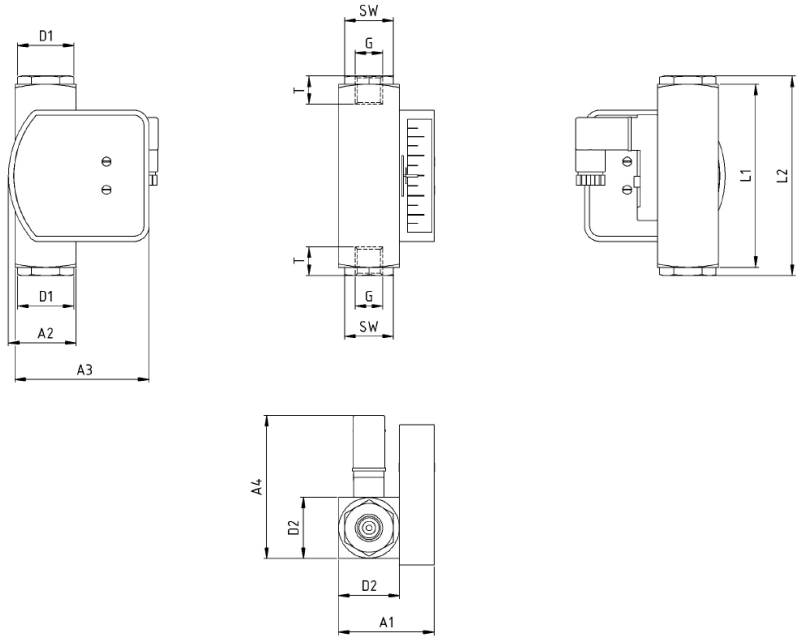
Stainless steel version, wetted parts	
Spring:	1.4571
Gaskets [2]:	FKM (optional NBR, EPDM) [3]
Magnets:	Hard ferrite
Threaded rings:	1.4571
Float:	1.4571
Device body:	1.4571
all other wetted parts:	1.4571
Stainless steel version, non-wetted parts	
Display:	Makrolon® / 1.4301

[2] Only with process connections

[3] Other gasket materials on request

TECHNICAL DRAWING

For devices with switch contact 15x50



SUMMARY OF TYPES

For devices with switch contact 15x50

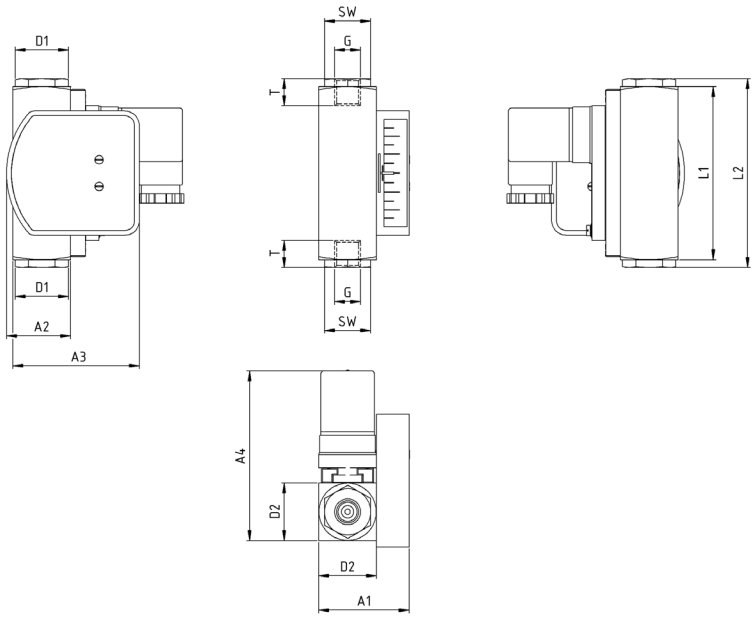
Type	Overall dimensions [mm]												Weight
	G [4]	DN	SW	L1	L2	T	D1	D2	A1	A2	A3	A4	approx. [g] [5]
RVM/UA-L20010													
RVM/UA-L20020													
RVM/UA-L20030													
RVM/UA-L20035													
RVM/UA-L20090	1/2"	15	–	90	–	14	–	30	47	33	66	≈70	570
RVM/UA-L20220													
RVM/UA-L20240													
RVM/UA-L20300													
RVM/UA-L20525													

[4] NPT thread on request

[5] Connection cable weight, 2 m approx. 80 g

TECHNICAL DRAWING

For devices with switch contact 30x70



SUMMARY OF TYPES

For devices with switch contact 30x70

Type	Overall dimensions [mm]												Weight
	G [6]	DN	SW	L1	L2	T	D1	D2	A1	A2	A3	A4	approx. [g] [7]
RVM/UA-L20010													
RVM/UA-L20020													
RVM/UA-L20030													
RVM/UA-L20035													
RVM/UA-L20090	1/2"	15	–	90	–	14	–	30	47	33	66	≈88	570
RVM/UA-L20220													
RVM/UA-L20240													
RVM/UA-L20300													
RVM/UA-L20525													

[6] NPT thread on request

[7] Connection cable weight, 2 m approx. 80 g

ELECTRICAL DATA

For devices with switch contact 15x50

Change over (COC)	230V · 1,5A · 50VA [8]
Normally open (NOC)	230V · 1,5A · 60VA
Change over M12x1 (-20 °C – 85 °C)	125V · 1,5A · 50VA [8]
Normally open M12x1 (-20 °C – 85 °C)	125V · 1,5A · 60VA
Change over PLC	230V · 1A · 60VA

EX-version in compliance with ATEX directive

EC-Type examination

EPS 13 ATEX 1 596 U

Connection to certified intrinsically safe circuits

Li = 0 Ci = 0

Gas			Dust		
Ui	**Ii**	**Pi**	**Ui**	**Ii**	**Pi**
< 12,1 V	1,0 A	3,0 W	< 12,1 V	0,25 A	0,75 W
< 20 V	0,309 A	1,55 W	< 20 V	0,25 A	0,75 W
< 25 V	0,158 A	0,99 W	< 25 V	0,25 A	0,75 W
< 30 V	0,101 A	0,76 W	< 30 V	0,25 A	0,75 W

Operating temperature

-5 °C < $T_{Service}$ < 45 °C

Marking

[8] Minimum load 3VA

ELECTRICAL CONNECTION

For devices with switch contact 15x50

- Connector in compliance with EN 175301-803, Form C (DIN 43650, Form C)
- Connector M12x1
- Cable (1 m) [9]

EX-version in compliance with ATEX directive

- Connector in compliance with EN 175301-803, Form C (DIN 43650, Form C)
- Connector M12x1
- Cable (1 m) [9]

Ingress Protection

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

Output signal

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

Power supply

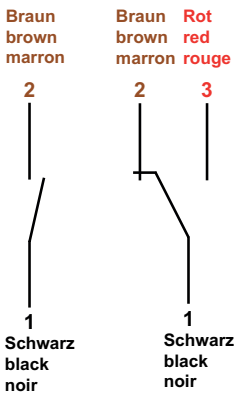
Not required (potential-free reed contacts)

Connector types

Other connector types or cable lengths on request

[9] Available as Normally Open Contact (NOC) only

CONNECTION DIAGRAM



ELECTRICAL DATA

For devices with switch contact 30x70

Change over (COC)	250V · 1,5A · 50VA [10]
Normally open (NOC)	250V · 3A · 100VA
Change over M12x1 (-20 °C – 85 °C)	250V · 1,5A · 50VA [10]
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 [10]
Normally open	250V · 2A · 60VA

[10] Minimum load 3VA

ELECTRICAL CONNECTION

For devices with switch contact 30x70

- 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)

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.

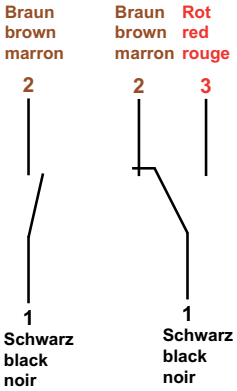
Power supply

Not required (potential-free reed contacts)

Connector types

Other connector types or cable lengths on request

CONNECTION DIAGRAM



Meister Strömungstechnik GmbH • Im Gewerbegebiet 2 • 63831 Wiesen / Germany
Tel. +49 (0) 6096 9720-0 • Fax +49 (0) 6096 9720-30 • sales@meister-flow.com • www.meister-flow.com
The general business terms of Meister Strömungstechnik GmbH are valid • All rights reserved