



## Flow Monitor RVM/U-L2

Flow monitor according to the float principle for monitoring air / gases



- Universal orientation
- High reliability
- High switch accuracy
- EX-version according to ATEX directive available

D-EN-RVMUL2-20200526



## Flow Monitor RVM/U-L2

Flow monitor according to the float principle for monitoring air / gases

### Features

- Universal orientation
- High reliability
- High switch accuracy
- Infinitely variable switch point adjustment by operator
- EX-version according to ATEX directive available
- High pressure resistance
- Threaded connection, special thread on request

### Application

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

### Installation information

The operating instructions for RVM/U-L2 Module BASICS / ...ATEX must be observed! Download: [www.schmidt-messtechnik.de](http://www.schmidt-messtechnik.de)

Operating data	
Operating pressure, max.	300 bar (brass version) 350 bar (stainless steel version)
Pressure drop	0,02 – 0,3 bar
Temperature, max.	120°C (optional 160°C)
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/U-L2 Module ATEX.	

Materials		
Wetted parts	Brass version	Stainless steel version
Spring:	1.4571	1.4571
Magnets:	Hard ferrite	Hard ferrite
Device body:	Brass, nickel-plated	1.4571
All other wetted parts:	Brass	1.4571

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Measuring ranges			
Type	Switch range for air at 1 bar abs., 20 °C (1)		
	[NI/min]	[SCFH]	[SCFM]
RVM/U-L20010	2,5 - 10	5,50 – 21,0	
RVM/U-L20020	5,5 - 20	12,0 – 42,0	
RVM/U-L20030	8 - 30	17,0 – 64,0	
RVM/U-L20035	10 - 35	21,0 – 74,0	
RVM/U-L20090	45 - 90	50,0 – 190,0	
RVM/U-L20220	55 - 220	115,0 – 465,0	
RVM/U-L20240	65 - 240	140,0 – 510,0	
RVM/U-L20300	80 - 300	170,0 – 640,0	
RVM/U-L20525	140 - 525		5,0 – 18,5

(1) The specified measuring- / switch ranges are valid for air having a density of 1.205 kg/m<sup>3</sup>, 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/m<sup>3</sup>

Standard density for air (at 0 °C and 1.013 bar (absolute value): 1.293 kg/m<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.

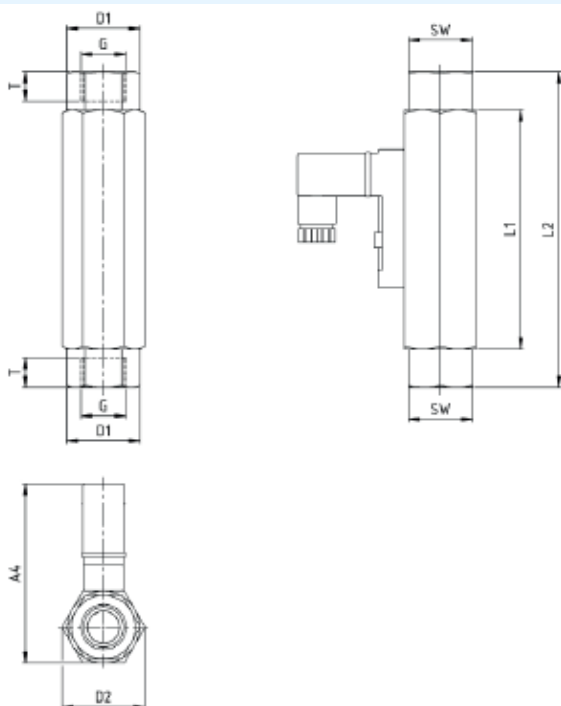
Other measuring- /switch ranges are available upon request.



## Flow Monitor RVM/U-L2

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**Technical drawing**  
For devices with switch contact 15x50



**Summary of types (For devices with switch contacts 15x50)**

Type	Overall dimensions [mm]												Weight approx. [g] <sup>(3)</sup>
	G <sup>(2)</sup>	DN	SW	L1	L2	T	D1	D2	A 1	A2	A 3	A4	
RVM/U-L20010	½"	15	27	90	-	14	-	31,2	-	-	-	~67	350
RVM/U-L20020													
RVM/U-L20030													
RVM/U-L20035													
RVM/U-L20090													
RVM/U-L20220													
RVM/U-L20240													
RVM/U-L20300													
RVM/U-L20525													

(2) NPT thread on request

(3) Connection cable weight, 2 m approx. 80 g

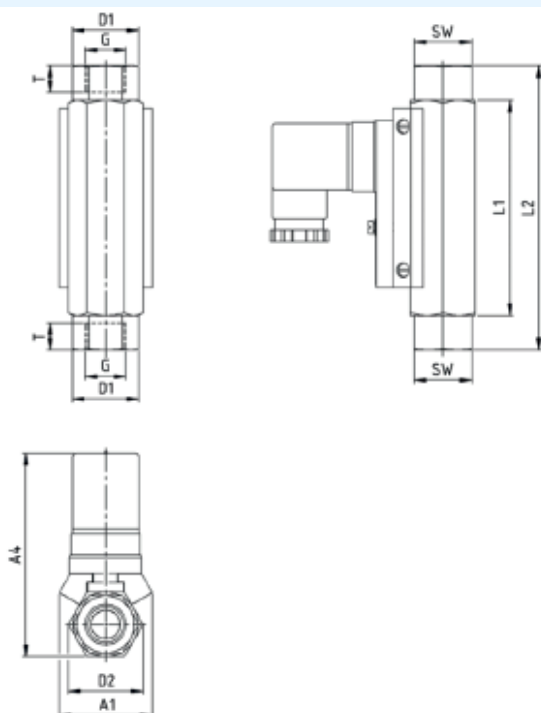
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## Flow Monitor RVM/U-L2

Flow monitor according to the float principle for monitoring air / gases

**Technical drawing**  
For devices with switch contact 30x70



**Summary of types (for devices with switch contacts 30x70)**

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/U-L20010	1/2"	15	27	90	-	14	-	31,2	38,9	-	-	~85	350
RVM/U-L20020													
RVM/U-L20030													
RVM/U-L20035													
RVM/U-L20090													
RVM/U-L20220													
RVM/U-L20240													
RVM/U-L20300													
RVM/U-L20525													

(4) NPT thread on request

(5) Connection cable weight, 2 m approx. 80 g

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## Flow Monitor RVM/U-L2

Flow monitor according to the float principle for monitoring air / gases

### 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)

### 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) <sup>(7)</sup>

### 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

(7) Available as Normally Open Contact (NOC) only



## Flow Monitor RVM/U-L2

Flow monitor according to the float principle for monitoring air / gases

Electrical data (for devices with switch contact 30x70)	
Change over (COC)	250 V • 1,5 A • 50 VA (8)
Normally open (NOC)	250 V • 3 A • 100 VA
Change over M12x1 (-20 °C – 85 °C)	250 V • 1,5 A • 50 VA (8)
Normally open M12x1 (-20 °C – 85 °C)	250 V • 3 A • 100 VA
Change over PLC	250 V • 1 A • 60 VA
<b>EX-version in compliance with ATEX directive</b> ATEX II 2 G Ex mb II T6 & ATEX II 2 D Ex tD A21 IP67 T80 °C ATEX II 2 G Ex mb II T5 & ATEX II 2 D Ex tD A21 IP67 T100 °C	
Change over	250 V • 1 A • 30 VA <sup>(8)</sup>
Normally open	250 V • 2 A • 60 VA <sup>(8)</sup>

(8) Minimum load 3 VA





## Flow Monitor RVM/U-L2

Flow monitor according to the float principle for monitoring air / gases

### 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



## Flow Monitor RVM/U-L2

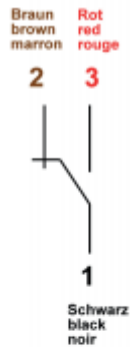
Flow monitor according to the float principle for monitoring air / gases

### Connection diagram (for devices with switch contact 15x50)

Connector in compliance with EN 175301-803 and cable

M12x1

Change over (COC)



Change over (COC)



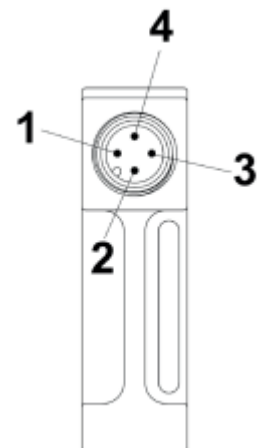
Normally open (NOC)



Normally open (NOC)



Pin-assignment





## Flow Monitor RVM/U-L2

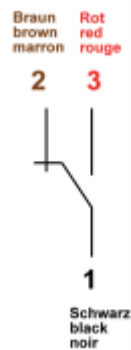
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### Connection diagram (for devices with switch contact 30x70)

Connector in compliance with EN 175301-803 and cable

M12x1

Change over (COC)



Change over (COC)



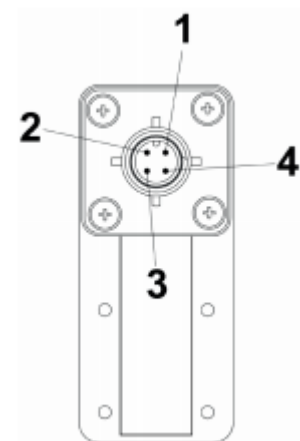
Normally open (NOC)



Normally open (NOC)



Pin-assignment



### Important instructions!

Technical changes and errors reserved.

Pictures can be similar.

The operating instructions belonging to this device must be observed! Download at [www.schmidt-messtechnik.com](http://www.schmidt-messtechnik.com).