



Flow Monitor RVM/U-L4

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-RVMUL4-20200526



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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-L4 Module BASICS / ...ATEX must be observed! Download: www.schmidt-messtechnik.de

Operating data	
Operating pressure, max.	300 bar (brass version) 350 bar (stainless steel version)
Pressure drop	0,02 – 0,2 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-L4 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-L40002	0,6 – 2,2	1,3 – 4,7	
RVM/U-L40006	1,7 - 6	3,5 – 12,7	
RVM/U-L40008	2,5 - 8	5,3 – 17,0	
RVM/U-L40012	3 – 12	6,5 – 25,5	
RVM/U-L4/06	3 – 22	6,0 – 47,0	
RVM/U-L40024	7 – 24	15,0 – 51,0	
RVM/U-L40034	12 – 34	25,0 – 72,0	
RVM/U-L4/2	16 - 56	34,0 – 119,0	
RVM/U-L4/3	20 - 80	42,0 – 170,0	5,0 – 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.

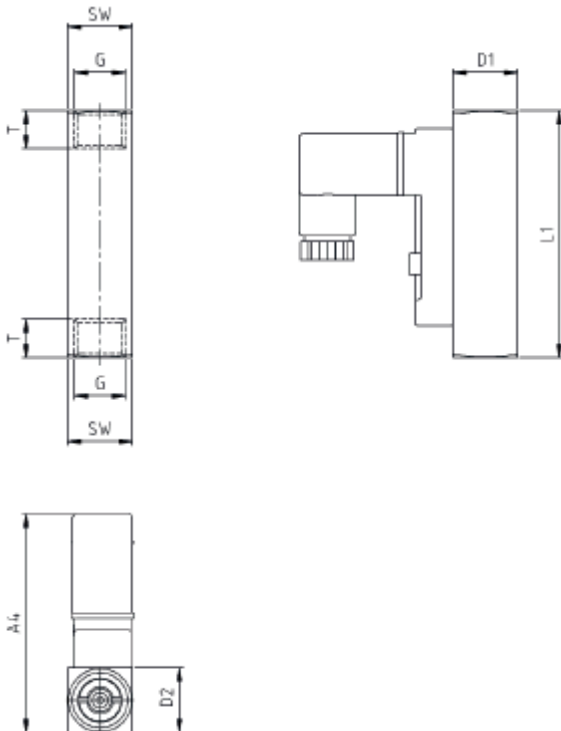
Other measuring- /switch ranges are available upon request.



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Technical drawing



Summary of types													
Type	Overall dimensions [mm]												Weight approx. [g] ⁽³⁾
	G ⁽²⁾	DN	SW	L1	L2	T	D1	D2	A1	A2	A3	A4	
RVM/U-L40002	1/4"	8	17	65	-	10	17	17	-	-	-	~57	140
RVM/U-L40006													
RVM/U-L40008													
RVM/U-L40012													
RVM/U-L4/06													
RVM/U-L40024													
RVM/U-L40034													
RVM/U-L4/2													
RVM/U-L4/3													

(2) NPT thread on request

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

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Electrical data (for devices with switch contact 15x50)					
Change over (COC) (4)			150 AC/DC • 1 A • 20 VA		
Normally open (NOC)			140 AC • 0,7 A • 20 VA 200V • 1A • 20 VA		
Change over M12x1 (-20 °C – 85 °C) (5)			125 AC/DC • 1 A • 20 VA		
Normally open M12x1 (-20 °C – 85 °C) (5)			125 AC • 0,7 A • 20 VA 125 DC • 1 A • 20 VA		
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	Li	Pi	Ui	Li	Pi
<12,1V	1,0A	3,0W	<12,1V	0,25A	0,75W
<20V	0,309A	1,55W	<20V	0,25A	0,75W
<25V	0,158A	0,99W	<25V	0,25A	0,75W
<30V	0,101A	0,76W	<30V	0,25A	0,75W
Operating temperature -5 °C < T _{Service} < 45 °C					
II 2G Ex ib IIC II 2D Ex ib IIIC					

(4) Available with connector only
(5) -20 °C – 85 °C

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Electrical connection

- Connector in compliance with EN 175301-803, Form C (DIN 43650, Form C)
- Connector M12x1
- Cable (1 m) ⁽⁶⁾

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) ⁽⁶⁾

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

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



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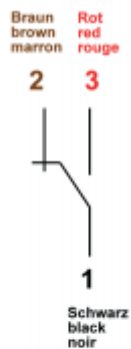
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Connection diagram

Connector in compliance with EN 175301-803 and cable

M12x1

Change over (COC)



Change over (COC)



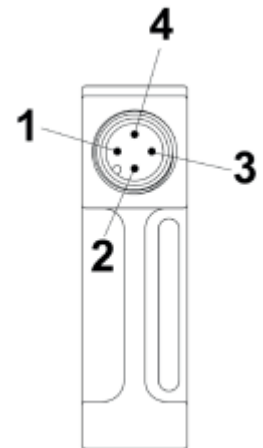
Normally open (NOC)



Normally open (NOC)



Pin-assignment



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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.