



## Flow Monitor RVM/U-2

Flow monitor operating on the principle of the float type indicator for liquids



- Universal orientation
- High pressure resistance
- Infinitely switchpoint adjustment through user,
- EX-version to ATEX available

D-EN-RVMU2-20200603



## Flow Monitor RVM/U-2

Flow monitor operating on the principle of the float type indicator for liquids

### Features

- Universal orientation
- High reliability
- High switch accuracy
- Infinitely variable switchpoint adjustment through user
- EX-version to ATEX available
- High pressure resistance
- Threaded connection, special threads on request

### Application

- Mechanical engineering
- Medicine technology
- Pharma industry
- Chemical industry
- Research and development
- Cooling systems and cooling circuits

### Installation Information

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

Operating data	
Operating pressure max.	300 bar (brass) 350 bar (stainless steel)
Pressure drop	0,02 – 0,3 bar
Maximum temperature	100°C (optional 160°C)
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-2 Module ATEX.	



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Measuring ranges			
Type	Flow ranges for H <sub>2</sub> O at 20°C (1)		
	[l/min]	[gph]	[gpm]
RVM/U-2/02	0,02 – 0,2	0,3 – 3,35	
RVM/U-2/06	0,2 – 0,6	3,2 – 9,5	
RVM/U-2/1	0,4 – 1,8	6,5 – 28,5	
RVM/U-2/3	0,8 – 3,2	13,0 – 51,0	
RVM/U-2/7	2 - 7	32,0 – 111,0	
RVM/U-2/13	3 - 13	48,0 – 205,0	
RVM/U-2/20	4 - 20	65,0 – 315,0	
RVM/U-2/30	8 - 30	130,0 – 480,0	

(1) 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 installation 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		
Wetted parts	Brass version	Stainless steel version
Spring	1.4571	1.4571
Gaskets	NBR (optional FKM, EPDM) <sup>2</sup>	FKM (optional NBR, EPDM) <sup>2</sup>
Magnets	Hard ferrite	Hard ferrite
Housing	Brass nickel-plated	1.4571
All other wetted parts	Brass	1.4571
(2) Other gasket materials on request		

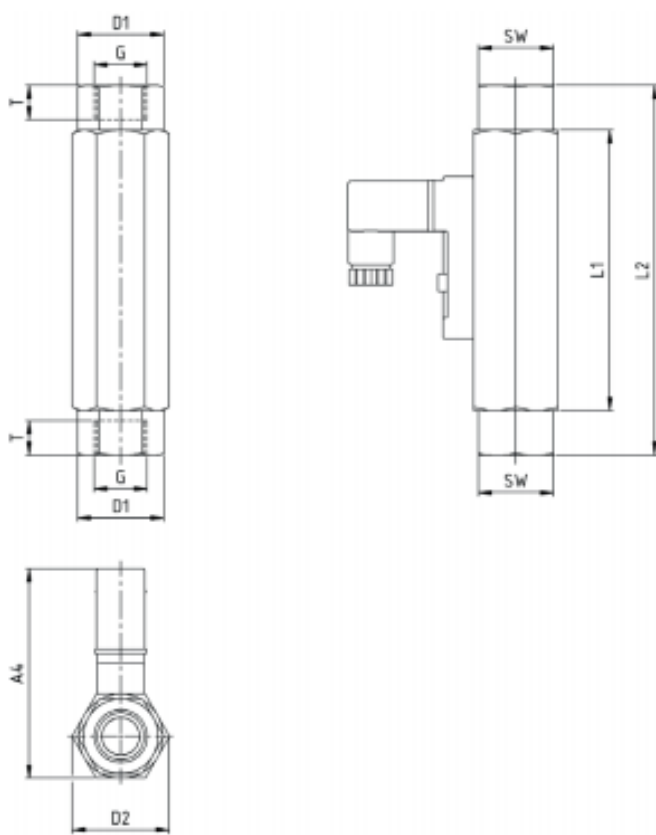
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### Technical drawing





## Flow Monitor RVM/U-2

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Electrical data (for devices with switch contact 15x50)					
Change over (COC)			250 V • 1,5 A • 50 VA (3)		
Normally open (NOC)			250 V • 3 A • 60 VA		
Change over M12x1 (-20 °C – 85 °C)			125 V • 1,5 A • 50 VA (3)		
Normally open M12x1 (-20 °C – 85 °C)			125 V • 3 A • 60 VA		
Change over PLC			250 V • 1 A • 60 VA		
<b>EX-version in compliance with ATEX directive</b>					
<b>EC-Type examination</b> EPS 13 ATEX 1 596 U					
<b>Connection to certified intrinsically safe circuits</b> Li = 0 <span style="float: right;">Ci = 0</span>					
<b>Gas</b>			<b>Dust</b>		
<b>Ui</b>	<b>Li</b>	<b>Pi</b>	<b>Ui</b>	<b>Li</b>	<b>Pi</b>
<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
<b>Operating temperature</b> -5 °C < T <sub>Service</sub> < 45 °C					
<b>Marking</b>  II 2G Ex ib IIC  II 2D Ex ib IIIC					

(3) Minimum load 3 VA

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## Flow Monitor RVM/U-2

Flow monitor operating on the principle of the float type indicator for liquids

### 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>(4)</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

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



## Flow Monitor RVM/U-2

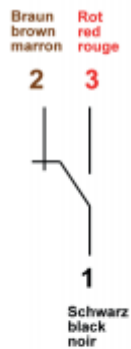
Flow monitor operating on the principle of the float type indicator for liquids

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

Connector in compliance with EN 175301-803 and cable

M12x1

Change over (COC)



Change over (COC)



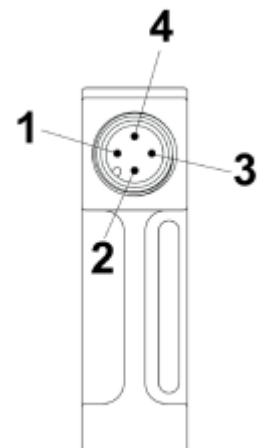
Normally open (NOC)



Normally open (NOC)



Pin-assignment





## Flow Monitor RVM/U-2

Flow monitor operating on the principle of the float type indicator for liquids

<b>Electrical data (for devices with switch contact 30x70)</b>	
Change over (COC)	250 V • 1,5 A • 50 VA (5)
Normally open (NOC)	250 V • 3 A • 100 VA
Change over M12x1 (-20 °C – 85 °C)	250 V • 1,5 A • 50 VA (5)
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 (5)
Normally open	250 V • 2 A • 60 VA (5)

(5) Minimum load 3 VA





## Flow Monitor RVM/U-2

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### 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-2

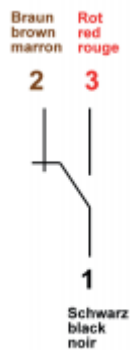
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### Connection diagram (for devices with switch contact 30x70)

Connector in compliance with EN 175301-803 and cable

M12x1

Change over (COC)



Change over (COC)



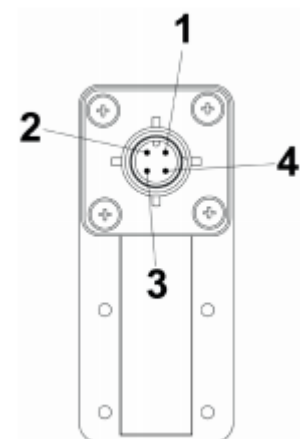
Normally open (NOC)



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).