Flow Monitor / Flow Indicator RVO/U-2

Float measuring principle for liquids

- Tread G ½“
- Universal orientation
- High switch accuracy
- Infinitely variable switchpoint adjustment through user
- Threaded connection, special threads on request

D-EN-RVOU2-20200526

Fon 0 67 32 - 91 91 20 Fax 0 67 32 - 96 24 42 info@schmidt-messtechnik.de

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Float measuring principle for liquids

Areas of Application
- Mechanical engineering
- Medical technology
- Pharmaceutical industry
- Chemical industry
- Research and development
- Cooling systems and cooling circuits

Features
- Universal orientation
- High switch accuracy
- Infinitely variable switch point adjustment by operator
- Threaded connection, special threads on request

Installation information
The operating instructions for RVO/U-2 Module Basics / …ATEX must be observed!

Operating Data	
Operating pressure max.	16 bar
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 devices in explosion-proof design according to ATEX directive. Refer to the Operating Instructions for RVO/U-2 Module ATEX.	

Materials		
Wetted parts	**Brass version**	**Stainless steel version**
Sight glass	Duran® 50	Duran® 50
Spring	1.4571	1.4571
Gaskets (1):	NBR (optional FKM, EPDM) (1)	FKM (optional NBR, EPDM (1)
Magnets	Hard ferrite	Hard ferrite
All other wetted parts	Brass, nickel-plated	1.4571
Non wetted parts: housing	Aluminum, anodized	Aluminum, anodized
(1) Other gasket materials on request		

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Measuring Ranges			
Type	**Operating Range (for H_2O, 20 °C (2)**		
	[l/min]	**[gph]**	**[gpm]**
RVO/U-2/05	0.2 – 0.5	3.2 – 8	
RVO/U-2/1	0.3 – 1.0	4.8 – 16	
RVO/U-2/2	0.7 – 2.0	11 - 32	
RVO/U-2/4	1.6 – 4.0		0.4 – 1.05
RVO/U-2/8	3.0 – 8.0		0.8 – 2.15
RVO/U-2/12	4.5 – 12.0		1.2 – 3.15
RVO/U-2/15	6.0 – 15		1.6 – 4.0
RVO/U-2/20	8.0 – 20		2.1 – 5.3
RVO/U-2/24	9.5 – 24		2.5 – 6.3
RVO/U-2/28	12 - 28		3.2 – 7.4

(2) The specified measuring- / switch ranges are valid for water having a density of 1.00 kg/dm³, 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 1013 bar (absolute value): 1.00 kg/dm³.
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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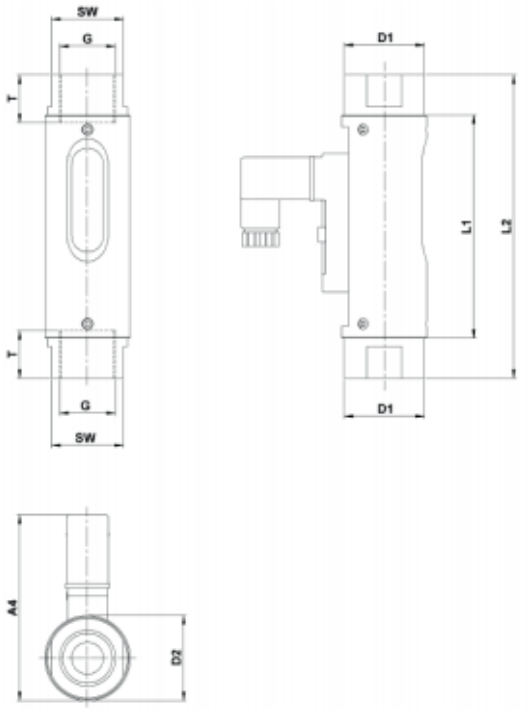
Technical drawing



Summary of Types

Type	Overall dimensions (mm)												Weight approx. (g)
	G	DN	SW	L1	L2	T	D1	D2	A1	A2	A3	A4	
RVO/U-2/05	½”	15	27	84	114	14	30	32	-	-	-	~70	300
RVO/U-2/1													
RVO/U-2/2													
RVO/U-2/4													
RVO/U-2/8													
RVO/U-2/12													
RVO/U-2/15													
RVO/U-2/20													
RVO/U-2/24													
RVO/U-2/28													

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Float measuring principle for liquids

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 • 100 VA
Change over M 12x1 (-20 °C – 85 °C)	125 V • 1,5 A • 50 VA (3)
Normally open M 12x1 (-20 °C – 85 °C)	125 V • 3 A • 60 VA
Change over PLC	250 V • 1 A • 60 VA
(3) Minimum load 3 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**
<12,1 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
II 2G Ex ib IIC
II 2D Ex ib IIIC

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Float measuring principle 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)(4)

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) (4)

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

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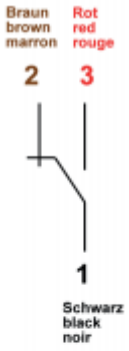
Connection diagram

Connector in compliance with EN 175301-803 and cable

Change over (COC)



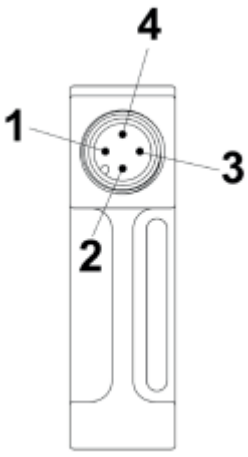
Normally open (NOC)

M12x1

Change over (COC)

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.

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