



Flow meter / flow monitor RVO/U-L1

Flow meter / flow monitor according to the float principle for monitoring air



- Thread connection G 1 "(G ¾")
- High functional safety
- High switching accuracy
- Ex-version according to ATEX

D-EN_RVOU-L1-20200529



Flow meter / flow monitor RVO/U-L1

Flow meter / flow monitor according to the float principle for monitoring air

Application

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

Installation information

- The operating instructions for RVO/U-L1 Module BASICS / ...ATEX must be observed!

Features

- Universal orientation
- High reliability
- High switch accuracy
- Infinitely variable switch point adjustment by operator
- EX-version according to ATEX directive available
- UL Recognized version available
- Scales are burned onto the sight glass
- Threaded connection, special thread on request

Operating data	
Operating pressure max.	10 bar
Pressure loss	0,02 – 0,4 bar
Temperature max.	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-L1 Module ATEX.	
For UL Recognized devices, changed operating data apply. Refer to the Operating Instructions for RVO/U-L1 Module BASICS	



Flow meter / flow monitor RVO/U-L1

Flow meter / flow monitor according to the float principle for monitoring air

Measuring ranges			
Type	Switch range for air at 1 bar abs. and 20 °C (1)		
	[Nlmin]	[SCFH]	[SCFM]
RVO/U-L 10080	22,5 – 80	48,0 – 170,0	
RVO/U-L 10130	50 – 130	105,0 – 275,0	
RVO/U-L 10420	130 – 420		4,6 – 14,8
RVO/U-L 10625	200 - 625		7,0 – 22,0

(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		
Wetted parts	Brass version	Stainless steel version
Sight glass:	Duran® 50	Duran® 50
Spring:	1.4571	1.4571
Gaskets (2):	NBR (optional FKM, EPDM) (2)	FKM (optional NBR, EPDM) (2)
Magnets:	Hard ferrite	Hard ferrite
All other wetted parts:	Brass, nickel-plated	1.4571
Non-wetted parts Device housing	Aluminium, anodized	Aluminium, anodized

(2) Other gasket materials on request

D-EN_RVOU-L1-20200529



Flow meter / flow monitor RVO/U-L1

Flow meter / flow monitor according to the float principle for monitoring air

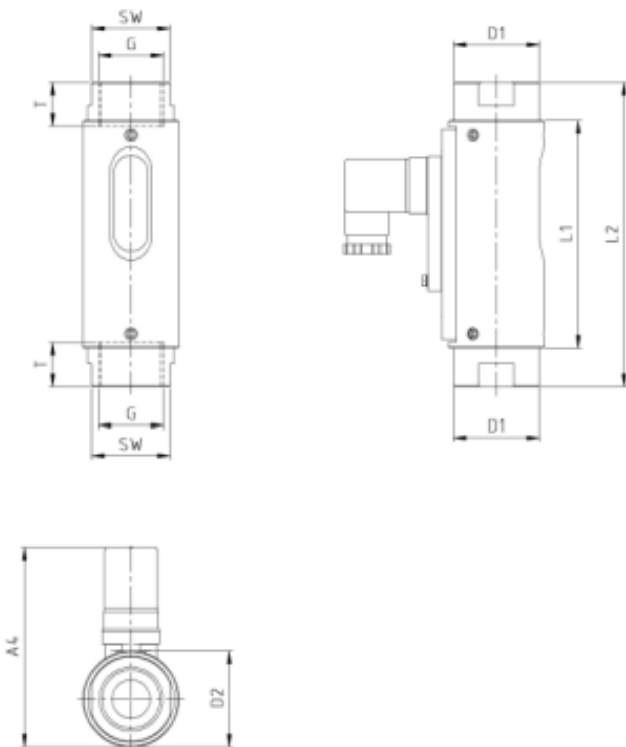
Summary of Types													
Type	Overall dimensions (mm)												Weight (approx. g)
	G	DN	SW	L1	L2	T	D1	D2	A1	A2	A3	A4	
RVO/U-L10080	¾"	20	41	118,5	144,5	15	45	50	-	-	-	~104	850
	1"	25	41	118,5	158,5	17	45	50	-	-	-	~104	900
RVO/U-L10130	¾"	20	41	118,5	144,5	15	45	50	-	-	-	~104	850
	1"	25	41	118,5	158,5	17	45	50	-	-	-	~104	900
RVO/U-L10420	¾"	20	41	118,5	144,5	15	45	50	-	-	-	~104	850
	1"	25	41	118,5	158,5	17	45	50	-	-	-	~104	900
RVO/U-L10625	¾"	20	41	118,5	144,5	15	45	50	-	-	-	~104	850
	1"	25	41	118,5	158,5	17	45	50	-	-	-	~104	900



Flow meter / flow monitor RVO/U-L1

Flow meter / flow monitor according to the float principle for monitoring air

Technical drawing



Connector in compliance with EN 175301-803 Form A and cable

Change over (COC)

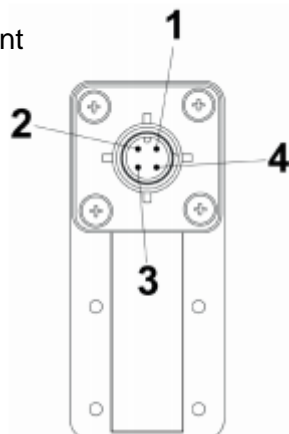


Normally open (NOC)



M12x1

Pin assignment



Change over (COC)



Normally open (NOC)



D-EN_RVOU-L1-20200529



Flow meter / flow monitor RVO/U-L1

Flow meter / flow monitor according to the float principle for monitoring air

Electrical Data	
Change over (COC)	250 V • 1,5A • 50 VA ⁽³⁾
Normally open (NOC)	250 V • 3A • 100 VA
Change over M 12x1 (-20 °C – 85 °C)	250 V • 1,5A • 50 VA ⁽³⁾
Normally open M 12x1 (-20 °C – 85 °C)	250 V • 3A • 100 VA
EX-version in compliance with ATEX directive	
ATEX II 2G Ex mb IIC T6 Gb & ATEX II 2 D Ex tb IIIC T80 °C Db	
ATEX II 2G Ex mb IIC T5 Gb & ATEX II 2 D Ex tb IIIC T100 °C Db	
Change over	250 V • 1A • 30 VA
Normally open	250 V • 2A • 60 VA
UL recognized switch contacts	
Change over	240 V • 1,5A • 50 VA ⁽³⁾
Normally open	250 V • 3A • 100 VA
(3) Minimum load 3 VA	



Flow meter / flow monitor RVO/U-L1

Flow meter / flow monitor according to the float principle for monitoring air

Electrical connection
<ul style="list-style-type: none">• 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
<ul style="list-style-type: none">• Cable (2 m)
UL recognized switch contacts
<ul style="list-style-type: none">• Connector in compliance with EN 175301-803, Form A• Cable (1 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)
Plug types Other connector types or cable lengths on request

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.