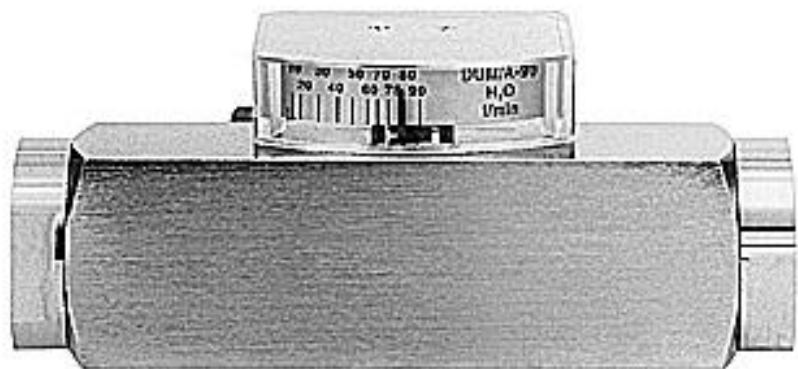




## Flow Monitor for Liquids DUM/A

Operation: float measuring principle



D-EN-DUMA-20200603

- Wide switch range
- Sturdy construction
- High operating pressure
- Installation in any orientation



## Flow Monitor for Liquids DUM/A

Operation: float measuring principle

### Features

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

### Applications

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

### Installation information

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

Operating data	
Operating pressure max.	200 bar (Brass version) 300 bar (Stainless steel version)
Pressure drop	0,02 – 0,8 bar
Temperature max.	100 °C (optional 160 °C)
Measuring accuracy	±5 % of full scale

Changed operating data apply to the device in explosion-proof design according to ATEX directive. Refer to the Operating Instructions for DUM/A Module ATEX.

For UL approved devices, changed operating data apply. Refer to the Operating Instructions for DUM/A Module BASICS.



## Flow Monitor for Liquids DUM/A

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Measuring ranges			
Type	Switch range for H <sub>2</sub> O at 20°C <sup>(1)</sup>		
	l/min	gph	gpm
DUM/A-4	0,2 - 4	3,0 – 63,5	
DUM/A-5	0,6 – 5	9,5 – 79	
DUM/A-8	0,5 – 8	8 – 127	
DUM/A-14	1 – 14	15 – 222	
DUM/A-28	1 – 28	15 – 445	
DUM/A-40	2 – 40	30 – 635	
DUM/A-55	4 – 55	60 - 870	
DUM/A-70	1 – 70		0,3 – 18,5
DUM/A-90	8 – 90		2,1 – 23,8
DUM/A-110	5 – 110		1,3 – 29,0
DUM/A-150	10 – 150		2,6 – 39,5
DUM/A-220	35 – 220		9 – 58
DUM/A-250	35 - 250		9 - 66

<sup>(1)</sup> 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.



## Flow Monitor for Liquids DUM/A

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<b>Materials</b>		
<b>Wetted parts</b>	<b>Brass version</b>	<b>Stainless steel version</b>
Spring	1.4571	1.4571
Gaskets	NBR (optional FKM, EPDM) <sup>(2)</sup>	FKM (optional NBR, EPDM) <sup>(2)</sup>
Threaded rings		
only DUM/A-70 (1"), DUM/A-90 (1"), DUM/A-110 (1"), DUM/A-150, DUM/A-220, DUM/A-250	Brass	1.4571
<b>Centering disc</b>		
only DUM/A-70, DUM/A-90, DUM/A-110	Brass, nickel-plated	1.4571
All other wetted parts	Brass, nickel-plated	1.4571
<b>Non-wetted parts: display</b>		
	Makrolon®, brass, nickel-plated	Makrolon®, brass, nickel-plated

<sup>(2)</sup> Other gasket materials on request



## Flow Monitor for Liquids DUM/A

Operation: float measuring principle

Summary of types													
Type	Overall dimensions [mm]												Weight
	G	DN	SW	L1	L2	T	D1	D2	A1	A2	A3	A4	approx. [g]
DUM/A-4													
DUM/A-5	1/4"	8	27	117	131	10	30	30	47	35,5	65,5	-88	900
DUM/A-8	3/8"	10	27	117	131	15	30	30	47	35,5	65,5	-88	900
DUM/A-14	1/2"	15	27	117	131	14	30	30	47	35,5	65,5	-88	900
DUM/A-28													
DUM/A-40	1/2"	15	27	132	146	14	30	30	47	35,5	65,5	-88	950
	3/4"	20	32	132	174	15	35 <sup>(3)</sup>	30 <sup>(3)</sup>	47	35,5	65,5	-88	950
DUM/A-55	1/2"	15	27	132	146	14	30	30	47	35,5	65,5	-88	950
	3/4"	20	32	132	174	15	35 <sup>(3)</sup>	30 <sup>(3)</sup>	47	35,5	65,5	-88	950
DUM/A-70	3/8"	20	34	130	152	15	40	40	57	-	70,5	-98	1450
	1"	25	40 <sup>(4)</sup>	156 <sup>(4)</sup>	156	17	40	40	57	-	70,5	-98	1150
DUM/A-90	3/4"	20	34	130	152	15	40	40	57	-	70,5	-98	1450
	1"	25	40 <sup>(4)</sup>	156 <sup>(4)</sup>	156	17	40	40	57	-	70,5	-98	1150
DUM/A-110	3/4"	20	34	130	152	15	40	40	57	-	70,5	-98	1450
	1"	25	40 <sup>(4)</sup>	156 <sup>(4)</sup>	156	17	40	40	57	-	70,5	-98	1150
DUM/A-150	1 1/4"	32	50 <sup>(4)</sup>	200 <sup>(4)</sup>	200	20	50	50	67	-	75,5	-108	2800
DUM/A-220	1 1/4"	32	50 <sup>(4)</sup>	200 <sup>(4)</sup>	200	20	50	50	67	-	75,5	-108	3050
	1 1/2"	40	60 <sup>(4)</sup>	200 <sup>(4)</sup>	200	20	60	60	70,8	-	80,5	-116	3850
DUM/A-250	1 1/4"	32	50 <sup>(4)</sup>	200 <sup>(4)</sup>	200	20	50	50	67	-	75,5	-108	3050
	1 1/2"	40	60 <sup>(4)</sup>	200 <sup>(4)</sup>	200	20	60	60	70,8	-	80,5	-116	3850

<sup>(3)</sup> Device body is 30 mm, 4-sided, process connection D 35 mm

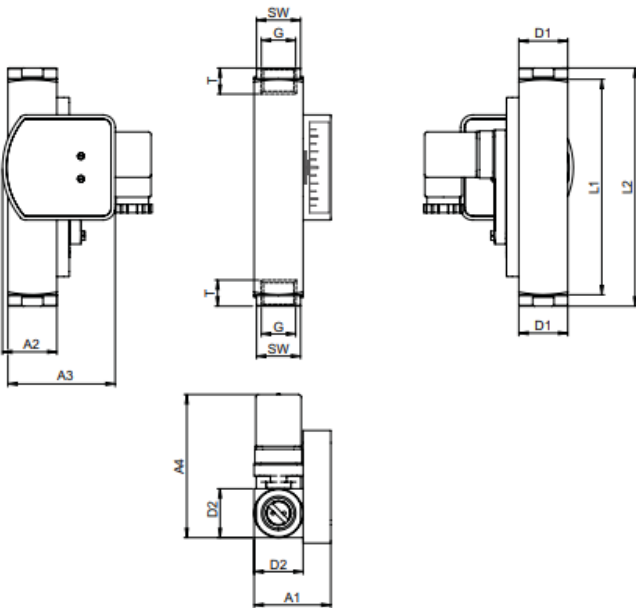
<sup>(4)</sup> no process connection



## Flow Monitor for Liquids DUM/A

Operation: float measuring principle

### Technical drawing



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

Change over (COC)

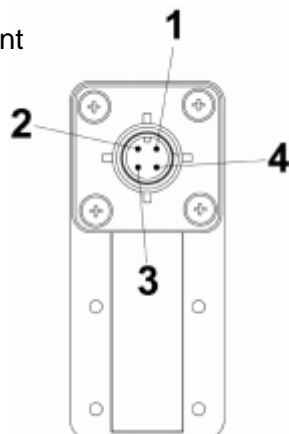


Normally open (NOC)



### M12x1

Pin assignment



Change over (COC)



Normally open (NOC)



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## Flow Monitor for Liquids DUM/A

Operation: float measuring principle

<b>Electrical Data</b>	
Change over (COC)	250 V • 1,5A • 50 VA <sup>(5)</sup>
Normally open (NOC)	250 V • 3A • 100 VA
Change over M 12x1 (-20 °C – 85 °C)	250 V • 1,5A • 50 VA <sup>(5)</sup>
Normally open M 12x1 (-20 °C – 85 °C)	250 V • 3A • 100 VA
<b>EX-version in compliance with ATEX directive</b>	
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
<b>UL recognized switch contacts</b>	
Change over	240 V • 1,5A • 50 VA <sup>(5)</sup>
Normally open	250 V • 3A • 100 VA
(5) Minimum load 3 VA	



## Flow Monitor for Liquids DUM/A

Operation: float measuring principle

<b>Electrical connection</b> <ul style="list-style-type: none"> <li>• Connector in compliance with EN 175301-803, Form A (DIN 43650, Form A)</li> <li>• Connector M12x1</li> <li>• Cable (1 m)</li> </ul>
<b>EX-version in compliance with ATEX directive</b> <ul style="list-style-type: none"> <li>• Cable (2 m)</li> </ul>
<b>UL recognized switch contacts</b> <ul style="list-style-type: none"> <li>• Connector in compliance with EN 175301-803, Form A</li> <li>• Cable (1 m)</li> </ul>
<b>Ingress protection:</b> IP65: Connector in compliance with EN 175301-803, Form A IP67: cable or connector M12x1
<b>Output signal</b> The contact opens / changes when the flow decreases below the set point.
<b>Power supply</b> Not required (potential-free reed contacts)
<b>Plug types</b> Other connector types or cable lengths on request

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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](http://www.schmidt-messtechnik.com).