



## Flow Monitor DWM-L

Flow monitor for gases operating with the float measuring principle



D-EN-DWM-L-20200528

- Wide switch range
- Sturdy construction
- High operating pressure
- High switch accuracy



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### Installation instructions

The device must be installed vertically in the system. The flow is from bottom to top.

The flow switch may not be used as a supporting part in pipe constructions!

The medium must not have any solid bodies with it! We recommend installing type SFD or SFM strainers.

External magnetic fields influence the switch contact. Keep a sufficient distance from magnetic fields (e.g. electric motors)!

The operating instructions for DWM must be observed!

### Applications

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

### Characteristics

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

Operating data	
Operating pressure max.	200 bar (brass version)
	300 bar (stainless steel version)
Pressure drop	0,02 – 0,4 bar
Temperature max.	80 °C
Measuring accuracy	± 10 % of full scale
Changed operating data apply to devices in explosion-proof design according to the ATEX directive. For UL recognized devices, changed operating data apply.	

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Measuring ranges			
Type	Switching range for air at 20 °C (1)		
	NI/min	SCFH	SCFM
DWM-L1,5	1 – 28	2 – 59	
DWM-L3	4 – 60	8 – 127	
DWM-L8	6 – 160	15 – 340	
DWM-L12	20 – 240	40 – 510	
DWM-L18	40 – 360	80 - 760	
DWM-L35	60 – 700		2 – 24,5
DWM-L50	200 - 1450		7 - 51

(1) The specified measuring / switching ranges are valid for air having a density of 1.205 kg/m<sup>3</sup>, with vertical installation of the device and flow 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: 1.2050 kg/m<sup>3</sup>.  
Standard density for air at 0 °C and 1.013 bar absolute: 1.293 kg/m<sup>3</sup>.

Special scales for different media, operating conditions and installation positions (only for devices that are independent of position) are available on request.

The specified switching values are switch-off points, i.e. switching values with falling flow. Other measuring / switching ranges are available on request.



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Material		
Wetted parts	Brass version	Stainless steel version
Float	POM	POM
Gaskets (2)	NBR (optional FKM, EPDM)	FKM (optional NBR, EPDM)
Threaded rings only DWM-L50 (1"), DWM-L100 (1")	brass	1.4571
Centering disk only DWM-35, DWM-L50	brass, nickel-plated	1.4571
Process connections not for DWM-L50 (1"), DWM-L100 (1")	brass, nickel-plated	1.4571
All other wetted parts	brass, nickel-plated	1.4571
(2) Other gasket materials on request.		

Type	Dimensions (mm)												Weight
	G	DN	SW	L1	L2	T	D1	D2	A1	A2	A3	A4	
DWM-L1,5													800
DWM-L3	1/4"	8	27	117	131	10	30	30	-	-	-	~88	800
DWM-L8	3/8"	10	27	117	131	15	30	30	-	-	-	~88	800
DWM-L12	1/2"	15	27	117	131	14	30	30	-	-	-	~88	800
DWM-L18	1/2"	15	27	132	146	14	30	30	-	-	-	~88	800
	3/4"	20	32	132	174	15	35	30	-	-	-	~88	960
DWM-L50	3/4"	20	34	130	152	15	40	40	-	-	-	~98	1450
	1"	25	40	156	-	17	40	40	-	-	-	~98	1450
DWM-L100	1"	25	40	200	-	17	40	40	-	-	-	~98	1450

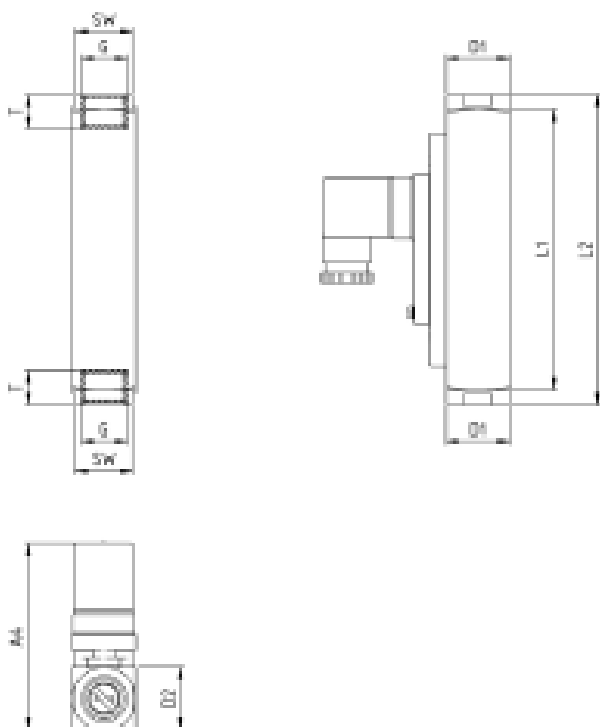
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### Technical drawing



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

Change over (COC)

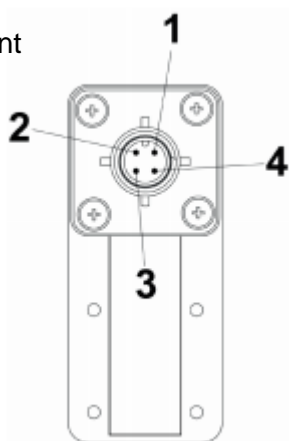


Normally open (NOC)



### M12x1

Pin assignment



Change over (COC)



Normally open (NOC)



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<b>Electrical Data</b>	
Change over (COC)	250 V • 1,5A • 50 VA <sup>(3)</sup>
Normally open (NOC)	250 V • 3A • 100 VA
Change over M 12x1 (-20 °C – 85 °C)	250 V • 1,5A • 50 VA <sup>(3)</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>(3)</sup>
Normally open	250 V • 3A • 100 VA
(3) Minimum load 3 VA	



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<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).