MASTERPIECES
MADE IN GERMANY

Flow Monitor & Flow Indicator

DWM/A-L

AIR

OVERVIEW

Operation

– Float measuring principle

Application

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

Features

– 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

Installation information

– The operating instructions for DWM/A-L Module BASICS / ...ATEX must be observed!
– **Download: www.meister-flow.com**

DWM/A-L 1 0005 12-15 E M

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 the device in explosion-proof design according to ATEX directive. Refer to the Operating Instructions for DWM/A-L Module ATEX.

For UL Recognized devices, changed operating data apply. Refer to the Operating Instructions for DWM/A-L Module BASICS.

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MEASURING RANGES

Type	**Switch range for Air at 1 bar abs. & 20 °C** [1]		
	Nl/min	**SCFH**	**SCFM**
DWM/A-L1,5	1 – 28	2 – 59	
DWM/A-L3	4 – 60	8 – 127	
DWM/A-L8	6 – 160	15 – 340	
DWM/A-L12	20 – 240	40 – 510	
DWM/A-L18	40 – 360	80 – 760	
DWM/A-L50	60 – 700		2 – 24,5
DWM/A-L100	200 – 1450		7 – 51

[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 at decreasing flow.
Other measuring- /switch ranges are available upon request.

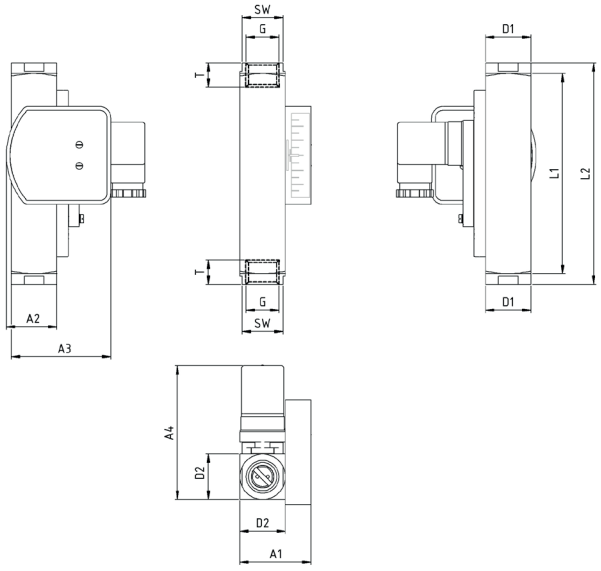
MATERIALS

Brass version, wetted parts	
Float:	POM
Gaskets:	NBR (optional FKM, EPDM) [2]
Threaded rings:	
only DWM/A-L50 (1“), DWM/A-L100 (1“)	Brass
Centering disc:	
only DWM/A-L50	Brass, nickel-plated
Process connections:	
not for DWM/A-L50 (1“), DWM/A-L100 (1“)	Brass, nickel-plated
all other wetted parts:	Brass, nickel-plated
Brass version, non-wetted parts	
Display:	Makrolon®
	Brass, nickel-plated

Stainless steel version, wetted parts	
Float:	POM
Gaskets:	FKM (optoinal NBR, EPDM) [2]
Threaded rings:	
only DWM/A-L50 (1“), DWM/A-L100 (1“)	1.4571
Centering disc:	
only DWM/A-L50	1.4571
Process connections:	
not for DWM/A-L50 (1“), DWM/A-L100 (1“)	1.4571
all other wetted parts:	1.4571
Stainless steel version, non-wetted parts	
Display:	Makrolon®
	Brass, nickel-plated

[2] Other gasket materials on request

TECHNICAL DRAWING



SUMMARY OF TYPES

Type	Overall dimensions [mm]												Weight approx.
	G	DN	SW	L1	L2	T	D1	D2	A1	A2	A3	A4	[g]
DWM/A-L1,5													850
DWM/A-L3	1/4"	8	27	117	131	10	30	30	47	33,5	65,5	~88	850
	3/8"	10	27	117	131	11	30	30	47	33,5	65,5	~88	
DWM/A-L8	1/2"	15	27	117	131	14	30	30	47	33,5	65,5	~88	850
DWM/A-L12													850
DWM/A-L18	1/2"	15	27	132	146	14	30	30	47	33,5	65,5	~88	850
	3/4"	20	32	132	174	15	35	30	47	33,5	65,5	~88	1010
DWM/A-L50	3/4"	20	34	130	152	15	40	40	57	–	70,5	~98	1500
	1"	25	40	156	–	17	40	40	57	–	70,5	~98	1500
DWM/A-L100	1"	25	40	200	–	17	40	40	57	–	70,5	~98	1500

ELECTRICAL DATA

Change over (COC)	250V · 1,5A · 50VA [3]
Normally open (NOC)	250V · 3A · 100VA
Change over M12x1 (-20 °C – 85 °C)	250V · 1,5A · 50VA [3]
Normally open M12x1 (-20 °C – 85 °C)	250V · 3A · 100VA
Change over PLC	250V · 1A · 60VA

EX-version in compliance with ATEX directive	
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	250V · 1A · 30VA [3]
Normally open	250V · 2A · 60VA

UL Recognized switch contacts	
Change over	240V · 1,5A · 50VA [3]
Normally open	250V · 3A · 100VA

[3] Minimum load 3VA

ELECTRICAL CONNECTION

- 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)

UL Recognized switch contacts

- 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.

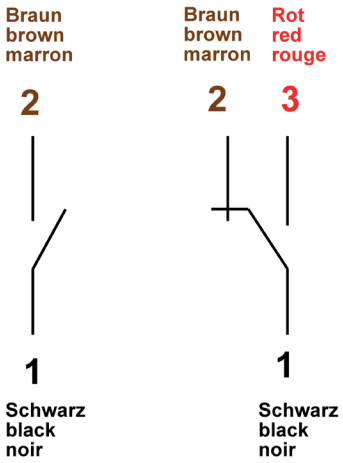
Power supply

Not required (potential-free reed contacts)

Connector types

Other connector types or cable lengths on request

CONNECTION DIAGRAM



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