

Flow Monitor & Flow Indicator

DWM/A-L



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**

■ OPERATING DATA

Operating pressure max.	100 bar (brass lead-free) 300 bar (stainless steel)
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.

Download: www.meister-flow.com

■ 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® 1.4301
----------	---------------------

⁽²⁾ Other gasket materials on request

■ MEASURING RANGES

Type	Switch range for Air at 1 bar abs. & 20 °C ⁽¹⁾		
	NI/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.

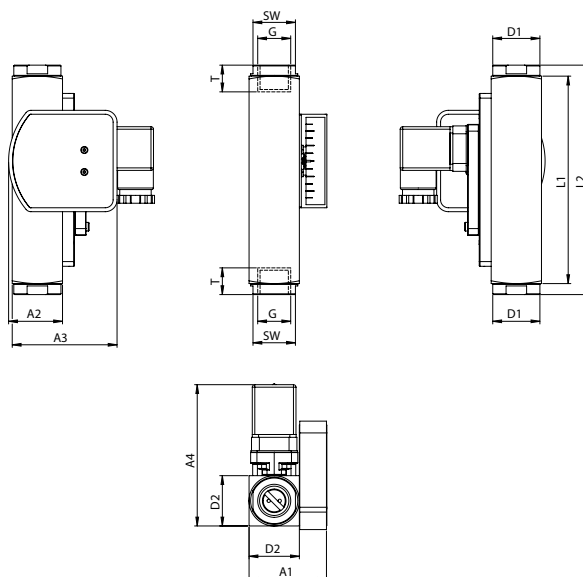
Stainless steel version, wetted parts

Float:	POM
Gaskets:	FKM (optional 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® 1.4301
----------	---------------------

■ 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	1/4"	8	27	117	131	10	30	32	47	34,5	65,5	~90	850
DWM/A-L3	3/8"	10	27	117	131	15	30	32	47	34,5	65,5	~90	850
DWM/A-L8	1/2"	15	27	117	131	14	30	32	47	34,5	65,5	~90	850
DWM/A-L12	1/2"	15	27	117	131	14	30	32	47	34,5	65,5	~90	850
DWM/A-L18	3/4"	20	32	132	174	15	35	32	47	34,5	65,5	~90	1010
DWM/A-L50	3/4"	20	34	156	182	15	40	40	57	–	70,5	~98	1500
DWM/A-L100	1"	25	40	156	–	17	40	40	57	–	70,5	~88	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 IIC T6 Gb & ATEX II 2 D Ex tb IIIC T80 °C

ATEX II 2 G Ex mb IIC T5 Gb & ATEX II 2 D Ex tb IIIC 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

