MASTERPIECES
MADE IN GERMANY

Flow Monitor & Flow Indicator

DUM/A

OVERVIEW

Operation

– Float measuring principle

Application

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

Features

– Universal orientation
– High reliability
– High switch accuracy
– Wide measuring 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 DUM/A Module BASICS / ...ATEX must be observed!
– **Download: www.meister-flow.com**

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.

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MEASURING RANGES

Type	**Switch range for H_2O at 20 °C** [1]		
	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

[1] The specified measuring- / switch ranges are valid for water having a density of 1.00 kg/dm³, 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/dm³.
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.

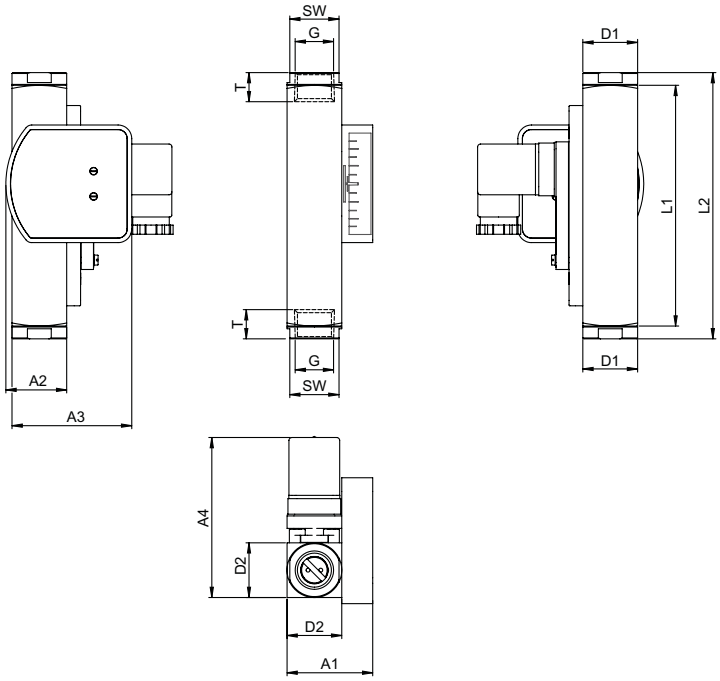
MATERIALS

Brass version, wetted parts	
Spring:	1.4571
Gaskets:	NBR (optional FKM, EPDM) [2]
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
Centering disc: only DUM/A-70, DUM/A-90, DUM/A-110	Brass, nickel-plated
all other wetted parts:	Brass, nickel-plated
Brass version, non-wetted parts	
Display:	Makrolon® / 1.4301

Stainless steel version, wetted parts	
Spring:	1.4571
Gaskets:	FKM (optional NBR, EPDM) [2]
Threaded rings: only DUM/A-70 (1"), DUM/A-90 (1"), DUM/A-110 (1") DUM/A-150, DUM/A-220, DUM/A-250	1.4571
Centering disc: only DUM/A-70, DUM/A-90, DUM/A-110	1.4571
all other wetted parts:	1.4571
Stainless steel version, non-wetted parts	
Display:	Makrolon® / 1.4301

[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]
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 (3)	30 (3)	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 (3)	30 (3)	47	35,5	65,5	~88	950
DUM/A-70	3/4"	20	34	130	152	15	40	40	57	–	70,5	~98	1450
	1"	25	40 (4)	156 (4)	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 (4)	156 (4)	156	17	40	40	57	–	70,5	~98	1150
DUM/A-110	3/4"	20	34	152	152	15	40	40	57	–	70,5	~98	1450
	1"	25	40 (4)	156 (4)	156	17	40	40	57	–	70,5	~98	1150
DUM/A-150	1 1/4"	32	50 (4)	200 (4)	200	20	50	50	67	–	75,5	~108	2800
DUM/A-220	1 1/4"	32	50 (4)	200 (4)	200	20	50	50	67	–	75,5	~108	3050
	1 1/2"	40	60 (4)	200 (4)	200	20	60	60	70,8	–	80,5	~116	3850
DUM/A-250	1 1/4"	32	50 (4)	200 (4)	200	20	50	50	67	–	75,5	~108	3050
	1 1/2"	40	60 (4)	200 (4)	200	20	60	60	70,8	–	80,5	~116	3850

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

(4) no process connection

ELECTRICAL DATA

Change over (COC)	250V · 1,5A · 50VA [5]
Normally open (NOC)	250V · 3A · 100VA
Change over M12x1 (-20 °C – 85 °C)	250V · 1,5A · 50VA [5]
Normally open M12x1 (-20 °C – 85 °C)	250V · 3A · 100VA
Change over PLC	250V · 1A · 60VA [6]

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 [5]
Normally open	250V · 2A · 60VA

UL Recognized switch contacts

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

[5] Minimum load 3VA

[6] Not available with DUM/A-150, DUM/A-220 und DUM/A-250

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.

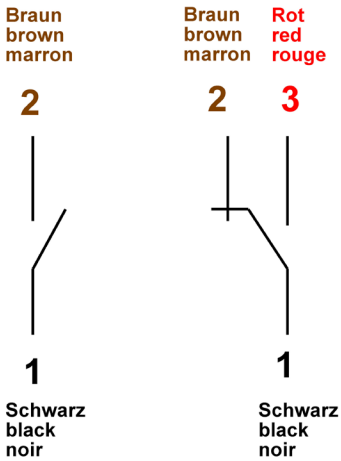
Power supply

Not required (potential-free reed contacts)

Connector types

Other connector types or cable lengths on request

CONNECTION DIAGRAM



Meister Strömungstechnik GmbH • Im Gewerbegebiet 2 • 63831 Wiesen / Germany
Tel. +49 (0) 6096 9720-0 • Fax +49 (0) 6096 9720-30 • sales@meister-flow.com • www.meister-flow.com