

# Flow Monitor Flow Indicator

## DUM/A



### Operation

The flow monitors and indicators type DUM/A operate with the float measuring principle

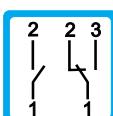
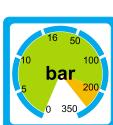


### Application

The flow monitors and indicators type DUM/A are used for measuring and monitoring volumeflow of liquid media.

#### Areas of application:

- Coolingsystems and cooling circuits
- Mechanical Engineering e.g. Weldingmachinery and Laserplants
- Medicine technology
- Pharma industry
- Chemical industry
- Research and development



### Features

The DUM/A series proves itself through reliable function and easy handling. Further characteristics of this sturdy type are:

- universal orientation
- high reliability
- high switch accuracy
- wide measuring range
- infinitely variable switchpoint adjustment through user
- EX-version to ATEX available
- high pressure resistance
- Threaded connection  
Special threads on request

### Installation hints

The installation of the instrument can be done in any way in the system. The flow direction must be observed.

The instrument must not be used as a supporting part in a pipeconstruction!

The medium must not contain any solid particles! We recommend the installation of strainers type SFD or SFM.

External magnetic fields influence the switch contact. Keep adequate distance to those magnetic fields (e.g. electromotors)!

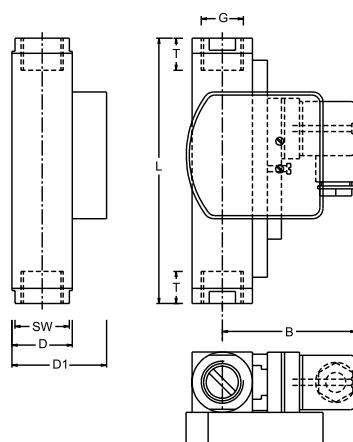
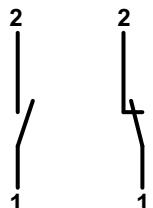
The operating instruction for DUM/A must be observed under any circumstances!



# Measuring Ranges, Technical Data

## Connection diagram

Normally open      Change over



## Summary of types DUM/A

Type	Switch range* H <sub>2</sub> O [l/min]	Overall dimensions mm								Weight approx. [g]		
		SW	D	D1	B	G	DN	T	L			
DUM/A - 4	0,2 - 4	27	30	47	71	1/4"	8	14	130	900		
DUM/A - 5	0,6 - 5					3/8"	10					
DUM/A - 8	0,5 - 8	27	30	47	71	1/2"	15	16	148	950		
DUM/A - 14	1 - 14					3/4"	20					
DUM/A - 28	1 - 28	27	30	47	71	1 1/4"	32	21	200	2800		
DUM/A - 40	2 - 40					1 1/2"	40					
DUM/A - 55	4 - 55	34	40	57	76	3/4"	20	18	152	1450		
DUM/A - 70	1 - 70					1"	25					
DUM/A - 90	8 - 90	40	40	57	76	1 1/4"	32	21	200	3050		
DUM/A - 110	5 - 110					1 1/2"	40					
DUM/A - 150	10 - 150	40	40	57	76					2800		
DUM/A - 220	35 - 220	50	50	67	81					3850		
DUM/A - 250	35 - 250											

\* Other media on request

Operating data		DUM/A		
Operating pressure:		PN 200 bar (Brass)		PN 300 bar (Stainless Steel)
Pressure drop:		0,02 - 0,8 bar		
Maximum temperature:		100 °C (optional 160 °C)		
Accuracy:		± 5% of full scale		
Electrical data		Normally open		Change over
IP 65 (plug connection DIN 43650)		max. 250V • 3A • 100VA		max. 250V • 1,5A • 50VA
IP 67 (1 m sealed in cable)				
Atex II 2G EEx m II T6 (2 m sealed in cable)		max. 250V • 2A • 60VA		max. 250V • 1A • 30VA
EEx m II T6 (2 m sealed in cable)		max. 250V • 2A • 60VA		max. 250V • 1A • 30VA
EEx ia IIC T6 (2 m sealed in cable)		max. 45V • 1A		max. 45V • 1A
Output signal:		The contact opens / changes, when the flow falls below the set point.		
Power supply:		Not required (potentialfree reed contact)		
Other plug types or cable lengths on request				
Material		Brass		Stainless Steel
Wetted parts:		Brass nickel-plated		1.4571
Spring: (wetted part)		1.4571		1.4571
Gaskets: (wetted part)		Perbunan (optional Viton, EPDM)*		Viton (optional Perbunan, EPDM)*
Display:		Makrolon / Brass nickel plated		

\* Other gasket materials on request

DUM/A 2 0008 10-04 EM