

DS05

Variable Area Flowmeter And Switch, Mounting Independent

- any mounting position without recalibration
- small mounting dimensions
- materials brass or stainless steel
- high switching accuracy
- very small switch hysteresis
- measuring glass with burnt-in scale



Description:

The flowmeter and switch model DS05 works according to a modified variable area principle. The float is guided in a cylindrical measuring glass by means of a spring. The flowing medium moves the float in the flow direction. The upper edge of the float shows the momentary flow via a burnt-in scale on the measuring glass. A Reed contact is mounted outside the meter in a sealed housing. When the float reaches the position of the Reed contact the switch will close. With higher flows the float moves further upward until it reaches a built-in float stop, still keeping the switch closed. This ensures a bistable switch function at any time. The Reed contact is adjustable over the full switching range of the meter.

Mounting Position and Reliability:

The built-in spring and the magnetic float guarantee an absolute reliability of the meter. This spring, which pushes the float back towards its zero position against the flow makes it possible to use the meter in any mounting position. The spring is artificially aged, thus eliminating the need for recalibration to the different mounting positions.

Application:

The variable area flowmeter and switch model DS05 is used for measuring and monitoring the flow of low viscosity liquids, i. e. in cooling circuits of welding machines and laser systems, for pump monitoring, compressors and many other applications.

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Measuring Ranges:

3.0-63 GPH ... 9.0-66 GPM water
0.2 - 4 l/min ... 35 - 250 l/min water

Materials: brass or stainless steel

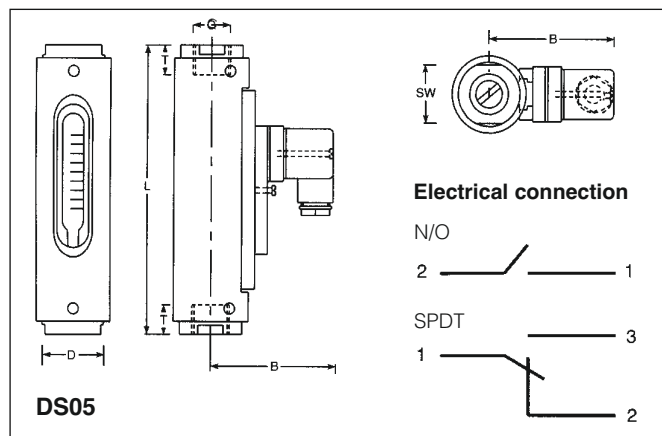
Contacts:

N/O: 250 V, 3 A, 100 VA
SPDT : 250 V, 1.5 A, 30 VA
Ex-N/O* : 250 V, 2 A, 60 VA
Ex-SPDT*: 250 V, 1 A, 30 VA

* according to Atex 100a Ex II 2 G, EEx m II T6

Dimensions:

Model	Mounting dimensions in inch / mm						Weight (lbs / g)
	SW	D	B	NPT / G	T	L	
DS05.1.x.x.x	1.26 / 32	1.69 / 43	2.87 / 73	1/4"	0.55 / 14	5.20 / 132	1.38 / 625
DS05.2.x.x.x	1.26 / 32	1.69 / 43	2.87 / 73	1/2"	0.59 / 15	5.31 / 135	1.38 / 625
DS05.2.x.x.05	1.26 / 32	1.69 / 43	2.87 / 73	1/2"	0.59 / 15	6.42 / 163	1.43 / 650
DS05.3.x.x.06	1.26 / 32	1.69 / 43	2.87 / 73	3/4"	0.71 / 18	6.57 / 167	1.87 / 850
DS05.3.x.x.07	1.61 / 41	1.97 / 50	2.99 / 76	3/4"	0.71 / 18	5.98 / 152	2.20 / 1000
DS05.4.x.x.07	1.61 / 41	1.97 / 50	2.99 / 76	1"	0.75 / 19	6.14 / 156	2.20 / 1000
DS05.4.x.x.08/09	1.61 / 41	1.97 / 50	2.99 / 76	1"	0.75 / 19	7.48 / 190	2.20 / 1000
DS05.5.x.x.10	1.81 / 46	2.36 / 60	3.19 / 81	1 1/4"	0.83 / 21	8.27 / 210	3.08 / 1400
DS05.5.x.x.11	1.81 / 46	2.17 / 55	3.11 / 79	1 1/4"	0.83 / 21	8.74 / 222	3.08 / 1400



Technical Specifications:

max. pressure: 145 psi / 10 bar

pressure drop: 0.15-11.6 psi / 0.01-0.8 bar

max. temperature: 212 °F / 100 °C
(320 °F / 160 °C on request)

materials: Measuring glass: Duran 50
Housing: anodized aluminium
O-rings: Buna
(optionally: Viton, EPDM)

electr. connection: plug acc. to DIN 43650
(optionally: 1 m cable connection)

accuracy: ± 5% f. s.

Ordering Code:

Order number: DS05. 3. 1. 1. 06. 1. 1. 0

Variable area flowmeter and switch

Connection:

1N = 1/4" NPT female 1 = G 1/4 female
2N = 1/2" NPT female 2 = G 1/2 female
3N = 3/4" NPT female 3 = G 3/4 female
4N = 1" NPT female 4 = G 1 female
5N = 1 1/4" NPT female 5 = G 1 1/4 female

Material:

1 = brass, spring of steel 1.4310
2 = all st. steel 1.4571

Scale:

1 = for water

Measuring ranges (water):

DS05.1 and DS05.2:

01U = 3.0 - 63 GPH 01 = 0.2 - 4 l/min
02U = 8.0 - 95 GPH 02 = 0.5 - 6 l/min
03U = 8.0 - 127 GPH 03 = 0.5 - 8 l/min
04U = 8.0 - 222 GPH 04 = 0.5 - 14 l/min

DS05.2 only:

05AU = 32 - 350 GPH 05A = 2 - 22 l/min
05U = 16 - 444 GPH 05 = 1 - 28 l/min

DS05.3 only:

06U = 40 - 710 GPH 06 = 2 - 45 l/min

DS05.3 and DS05.4:

07U = 0.5 - 21 GPM 07 = 2 - 80 l/min
07AU = 1.6 - 23.8 GPM 07A = 6 - 90 l/min.

DS05.4 only:

08U = 1.6 - 29 GPM 08 = 6 - 110 l/min

DS05.5 only:

09U = 4 - 39.5 GPM 09 = 15 - 150 l/min
10U = 8 - 58 GPM 10 = 30 - 220 l/min
11U = 9 - 66 GPM 11 = 35 - 250 l/min

No. of contacts:

0 = without contact
1 = 1 contact
2 = 2 contacts

Contact function:

0 = without contact
1 = N/O
2X = SPDT for SPS application
3S = Ex-N/O (EEx m II T6)
3U = Ex-SPDT (EEx m II T6)

Options:

0 = without
1 = please indicate

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