Zertifiziertes QM-System
DIN EN ISO 9001
Zertifikat-Nr. 01017

All-Metal Flow Switches

for liquids

measuring • monitoring • analysing

DSS

- Measuring range: 0.05 - 1.0 ... 10 - 110 l/min water
- Accuracy: ±5 % of full scale
- p_{max}: 350 bar; t_{max}: 100 °C
- Connection: G ¼ ... G 1 ¼ female ¼ ... 1 ¼" NPT female
- Material: brass or stainless steel

S2

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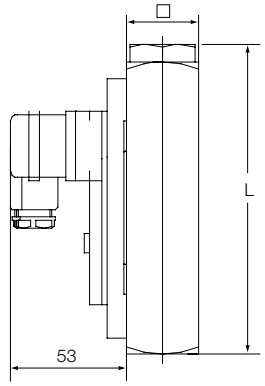
Description

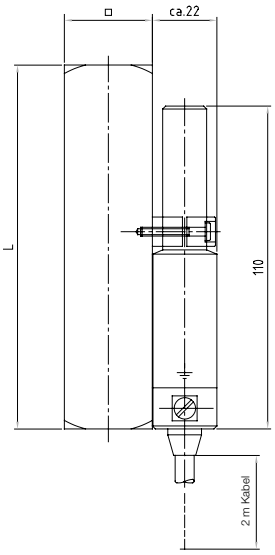
The flow switches model DSS operate on the suspended float principle, however not with a tapering measuring tube, but with a cylindrical float and a slotted conical nozzle. This technology allows a very much more compact construction and offers considerable price advantages.

Dimensions [mm]



Model	Square [mm]	Thread G	L [mm]	Weight [kg]
DSS-..01H	30 x 30	¼ (½)	132 (136)	0.9
DSS-..03H	30 x 30	¼ (½)	132 (136)	0.9
DSS-..05H	30 x 30	¼ (½)	132 (136)	0.9
DSS-..07H	30 x 30	¼ (½)	132 (136)	0.9
DSS-..09H	30 x 30	¼ (½)	132 (136)	0.9
DSS-..11H	30 x 30	¼ (½)	132 (136)	0.9
DSS-..13H	30 x 30	¼ (½)	132 (136)	0.9
DSS-..15H	40 x 40	¾ (1)	156 (150)	1.7
DSS-..17H	40 x 40	¾ (1)	156 (150)	1.7
DSS-..19H	50 x 50	1 ¼	165	2.9

DSS-..F0..



Technical Details

Housing:	DSS-11...: brass, Ms 58 DSS-12...: stainless steel, 1.4301
Connections:	DSS-11...: brass, Ms 58 DSS-12...: stainless steel, 1.4301
Float:	DSS-11...: brass, Ms 58 DSS-1101: PP DSS-12...: stainless steel, 1.4301 DSS-1201: PVDF
Nozzle:	DSS-11...: brass, Ms 58 DSS-12...: stainless steel, 1.3955
Seals:	DSS-11...: NBR DSS-12...: FPM
Max. temperature:	100 °C DSS-1101... / DSS-1201..: 70 °C
Max. pressure:	DSS-1101... / DSS-1201..: 16 bar DSS-11...: 250 bar DSS-12...: 350 bar
Installation position:	vertical, upward flow
Accuracy:	± 5 % of full scale
Repeatability:	≤ 1 %
Contact:	bistable reed contact
Electr. connection:	2 m cable (DSS-...F0...) for all other models: connector DIN EN 175301-803
Electrical switching values:	N/O contact max. 250 $V_{AC/DC}$ / 1.5 A / 100 W / 100 VA changeover contact max. 250 $V_{AC/DC}$ / 1 A / 30 W / 60 VA N/O contact and changeover contact (cCSAus) max. 230 V_{DC} / 0.26 A / 60 W, 60 V_{DC} / 1 A / 60 W, max. 240 V_{AC} / 0.42 A / 100 W, 100 V_{AC} / 1 A / 100 W
Protection:	IP 65

Application in hazardous areas

Mechanics: The apparatus can be used as follows in explosive atmospheres in accordance with the applicable erection regulations on machines, devices and plants, such as e.g. EN 1127-1, EN 60079-14 etc.:

a) In Zone 1 (gas hazard, category 2G) in the explosion groups IIA, IIB and IIC

b) In Zone 2 (gas hazard, category 3G) in the explosion groups IIA, IIB and IIC

c) In Zone 21 (dust hazard, category 2D) in the explosion groups IIIA and IIIB

d) In Zone 22 (dust hazard, category 3D) in the explosion groups IIIA and IIIB

No responsibility taken for errors;
subject to change without prior notice.

1/01 - 2024

Technical Details (continued)

Electrical contacts

ATEX contact ...F0: ⟨Ex⟩ II 2 G Ex mb IIC T6 Gb
⟨Ex⟩ II 2 D Ex mb IIC T80 °C Db
max. 250 V_{AC}/1,5 A/100 VA
IECEx BVS 07.0007X

ATEX N/O contact type 41R57 ...G0 and GG:
⟨Ex⟩ II 3 G Ex ic IIC T4 Gc
⟨Ex⟩ II 3 D Ex ic IIIC T125 °C Dc
-20 °C ≤ Ta ≤ 80 °C
max. 250 $V_{AC/DC}$/1,5 A/100 W/100 VA

ATEX changeover contact type 41R57U ...H0 and HH:
⟨Ex⟩ II 3 G Ex ic IIC T4 Gc
⟨Ex⟩ II 3 D Ex ic IIIC T125 °C Dc
-20 °C ≤ Ta ≤ 80 °C
max. 250 $V_{AC/DC}$/1 A/30 W/60 VA

Hysteresis: approx. 3.5 mm float movement
6 - 10 mm with ATEX contact

Protection: IP 65 electr. contacts

Order Details (Example: **DSS-1101H R0 R08**)

Measuring range water [l/min]	Pressure loss Δ P [bar]	Float according to device version		Brass	Stainless steel	Contact[1]	Connection	
		Brass	St. steel				Standard	Special
0.05…1	0.02	PP	PVDF	**DSS-1101H...**	**DSS-1201H...**	**..R0..** = 1 N/O contact **..U0..** = 1 changeover contact **..F0..** = 1 Ex N/O contact **..C0..** = 1 N/O contact (cCSAus) **..D0..** = 1 changeover contact (cCSAus) **..G0..** = 1 ATEX N/O contact (model 41R57) **..H0..** = 1 ATEX changeover contact (model 41R57U) **..RR..** = 2 N/O contact **..UU..** = 2 changeover contact **..CC..** = 2 N/O contact (cCSAus) **..DD..** = 2 changeover contact (cCSAus) **..GG..** = 2 ATEX N/O contact (model 41R57) **..HH..** = 2 ATEX changeover contact (model 41R57U)	**..R08** = G ¼ **..R15** = G ½	**..N08** = ¼" NPT **..N15** = ½" NPT
0.15…1.7	0.04	brass, nickel-pl.	st. steel	**DSS-1103H...**	**DSS-1203H...**			
1…4.5	0.04	st. steel	st. steel	**DSS-1105H...**	**DSS-1205H...**			
1…7	0.11	brass, nickel-pl.	st. steel	**DSS-1107H...**	**DSS-1207H...**			
1…9	0.12	st. steel	st. steel	**DSS-1109H...**	**DSS-1209H...**			
2…14	0.18	st. steel	st. steel	**DSS-1111H...**	**DSS-1211H...**			
2.5…18	0.06	brass, nickel-pl.	st. steel	**DSS-1113H...**	**DSS-1213H...**			
3…45	0.22	brass, nickel-pl.	st. steel	**DSS-1115H...**	**DSS-1215H...**		**..R20** = G ¾ **..R25** = G 1	**..N20** = ¾" NPT
3.5…50	0.4	brass, nickel-pl.	st. steel	**DSS-1117H...**	**DSS-1217H...**			
10…110[3]	0.3	st. steel	st. steel	**DSS-1119H...**	**DSS-1219H...**		**..R32** = G 1 ¼	**..N32** = 1 ¼" NPT

[1] This instrument is also available with 2 contacts. Please specify in writing.
[3] Not possible with »F0«

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