



## All Metal Flow Switches for liquids



measuring  
•  
monitoring  
•  
analysing

DSS



- Measuring range:  
0.05 - 1.0 ... 10 - 110 l/min water
- Accuracy:  $\pm 5\%$  of full scale
- $p_{\max}$ : 350 bar;  $t_{\max}$ : 100 °C
- Connection: G 1/4 ... G 1 1/4 female  
1/4 ... 1 1/4" NPT female
- Material: brass or stainless steel

S2



KOBOLD companies worldwide:

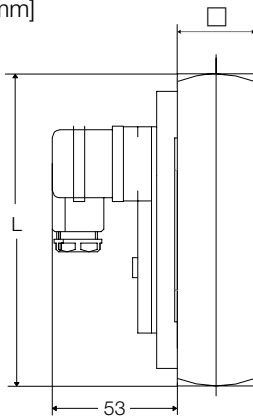
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**Description**

The KOBOLD 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]**



**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. 250V<sub>AC/DC</sub>/1.5A/100W/100VA  
 changeover contact  
 max. 250V<sub>AC/DC</sub>/1A/30W/60VA  
 N/O contact and  
 changeover contact (cCSAus)  
 max. 230V<sub>DC</sub>/0.26A/60W,  
 60V<sub>DC</sub>/1A/60W,  
 max. 240V<sub>AC</sub>/0.42A/100W,  
 100V<sub>AC</sub>/1A/100W  
 N/O contact (EX):  
 II 2G Ex mb IIC T6 Gb  
 II 2D Ex mb IIIC T80°C Db IP67  
 max. 250V<sub>AC</sub>/1.5A/100VA

**Ex-range:**

ATEX zone 1 as »simple apparatus«  
 or with N/O contact Ex

**Protection:**

IP65

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

**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 <sup>1)</sup>	Connection	
		Brass	St. steel				Standard	Special
0.05...1	0.02	PP	PVDF	DSS-1101H...	DSS-1201H...	..R0.. = 1 N/O contact	..R08 = G ¾ ..R15 = G ½	..N08 = ¼" NPT ..N15 = ½" NPT
0.15...1.7	0.04	brass, nickel-pl.	St. steel	DSS-1103H...	DSS-1203H...	..U0.. = 1 changeover contact		
1...4.5	0.04	St. steel	St. steel	DSS-1105H...	DSS-1205H...	..F0.. = 1 N/O contact Ex		
1...7	0.11	brass, nickel-pl.	St. steel	DSS-1107H...	DSS-1207H...	..C0.. = 1 N/O contact (cCSAus)		
1...9	0.12	St. steel	St. steel	DSS-1109H...	DSS-1209H...	..D0.. = 1 changeover contact (cCSAus)		
2...14	0.18	St. steel	St. steel	DSS-1111H...	DSS-1211H...	..RR.. = 2 N/O contacts		
2.5...20 <sup>2)</sup>	0.06	brass, nickel-pl.	St. steel	DSS-1113H...	DSS-1213H...	..UU.. = 2 changeover contacts		
3...45	0.22	brass, nickel-pl.	St. steel	DSS-1115H...	DSS-1215H...	..CC.. = 2 N/O contacts (cCSAus)		
3.5...50	0.4	brass, nickel-pl.	St. steel	DSS-1117H...	DSS-1217H...	..DD.. = 2 changeover contacts (cCSAus)		
10...110 <sup>3)</sup>	0.3	St. steel	St. steel	DSS-1119H...	DSS-1219H...			
							..R32 = G 1 ¼	..N32 = 1 ¼" NPT

<sup>1)</sup> This instrument is also available with 2 contacts. Please specify in writing. <sup>2)</sup> DSS-...13H...R08: Measuring range 2.5... 18 l/min water

<sup>3)</sup> Not possible with 'F0'