



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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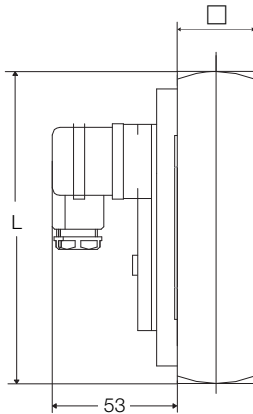
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Description

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



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

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-...FO...)
for all other models:
connector DIN EN 175301-803

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

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

Protection: IP 65

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 ..FO.. = 1 N/O contact Ex ..CO.. = 1 N/O contact (cCSAus) ..DO.. = 1 changeover contact (cCSAus) ..RR.. = 2 N/O contacts ..UU.. = 2 changeover contacts ..CC.. = 2 N/O contacts (cCSAus) ..DD.. = 2 changeover contacts (cCSAus)	..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...20 ²⁾	0.06	brass, nickel-pl.	St. steel	DSS-1113H...	DSS-1213H...			
3...45	0.22	brass, nickel-pl.	St. steel	DSS-1115H...	DSS-1215H...			
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...			

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

³⁾ not possible with 'FO'