KS-03

Compact
Conductive Level Switch

Features

/ With integrated electronics

/ 24 V DC supply

/ One switching point or MIN/MAX control

/ Adjustable sensitivity

/ Electrode material SS, Titanium, Hastelloy or Tantalum

/ Plastic or stainless steel head

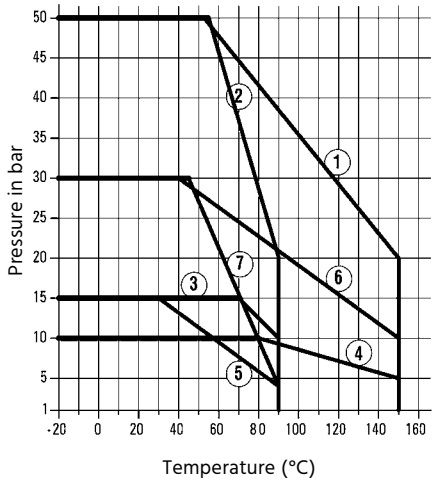
Description:

Inside the connector head of the KS-03 compact conductive switch is an electronic unit that is supplied with 24 V DC to provide a weak AC voltage to the switch's electrode rods. Whenever a conductive fluid establishes a connection between two of the electrodes, it results in an AC current which is recognized by the electronic components; subsequently it activates at the output an NO contact either as a limit switch or as MIN-MAX control. In this way, any excess or shortfall of allowed fill level can be monitored, or a particular level between two predefined levels (emptying or filling) can be maintained.

Application:

The compact conductive switch KS-03 is unbeatable in its versatility. The connector head and the screw joints can be made of plastics or stainless steel; the electrode rods can be made of Hastelloy, Titanium, Tantalum or stainless steel where the rods can be insulated partially or fully using different materials. The electronic component in the connector head of KS-03 offers the option of four different settings of sensitivity which enable under circumstances also capturing interfaces between two fluids with KS-03 if the fluids are adequately different in their conductivity. The attractive pricing and compact design of KS-03 make the device an ideal choice for a number of applications in practically every type of automation in the industry.

Pressure & Temp.-Curves:



Curve 1: stainless steel screw fitting with PTFE-coated electrodes

Curve 2: stainless steel screw fitting with PA-coated electrodes

Curve 3: PPH-screw fitting with PTFE-coated electrodes

Curve 4: PTFE-screw fitting with PTFE-coated electrodes

Curve 5: PA or PVDF-screw fitting (special design)

Curve 6: stainless steel screw fitting (special design) with PTFE-coated electrodes

Curve 7: stainless steel screw fitting (special design) with PA-coated electrodes

Technical Specifications:

Operating temp. /	see Pressure-Temperature curves
Connection thread /	G1"-male, G1 ¼"-male, G1 ½"-male or G2 ¾"-swivel nut
Screw con. material /	PPH, PTFE, PVDF, stainless steel 1.4571
Electrode material /	stainless steel 1.4571, Titanium, Hastelloy B, Hastelloy C or Tantalum
Coating material /	polyamide or PTFE
Coating length /	full (entire rod, 10 mm at the end blank) or partial (up to approx. 250 mm from top)
Rod diameter /	4 mm or 6 mm
Rod length /	max. 6000 mm
Spacer /	one spacer every 1000 mm required

Electrical Specifications:

Supply voltage /	20. . .30 VDC, potential-free (ungrounded)
Power consumption /	max. 2 W
Switching voltage /	max. 230 V AC / DC, min. 5 VDC (CMOS-Relay)
Switching current /	max. 0.1 A AC / DC, min. < 1 mA
Switching load /	max. 25 VA / W
Sensitivity /	3 k. . .100 kΩ kΩ in four levels (3, 10, 30, 100 selectable)
Operating temp. electronics /	-20. . .+85°C
Storage temp. electronics /	-30. . .+85°C
Protection class /	IP65

Ordering Codes:

Order no.	**KS-03.**	**PP.**	**3.**	**1.**	**2.**	**VA.**	**6.**	**TI.**	**1.**	**2**

KS-03 Compact Level Switch

Connector head /
PP = polypropylene
VA = stainless steel

No. of electrodes /
2 = 2 electrodes
3 = 3 electrodes

Screw fitting /
1 = standard (PPH for PP-head, VA for SS-head)
2 = PTFE (Polytetrafluorethylene)

Connecting thread /
1 = G 1"-male (only for 2 electrodes)
2 = G 1 ¼"-male
3 = G 1 ½"-male
4 = G 2 ¾"-swivel nut

Rod material /
VA = stainless steel 1.4571
HB = Hastelloy B
HC = Hastelloy C
TI = Titanium
TA = Tantalum
HB/TA = Tantalum tip 100 mm, basic rod Hastelloy B

Rod diameter /
4 = 4 mm
6 = 6 mm

Coating /
PA = Polyamide (only for VA rod)
TI = partially insulated PTFE
VI = fully insulated PTFE

Sealing /
1 = Viton (standard)
2 = Kalrez

Electronic components /
0 = none
1 = 1 limit value (NC, opening when the level reachs the setpoint)
2 = MIN-MAX control (connecting thread ≥ G 1 ¼")

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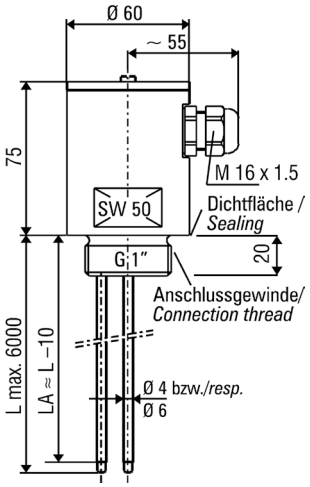
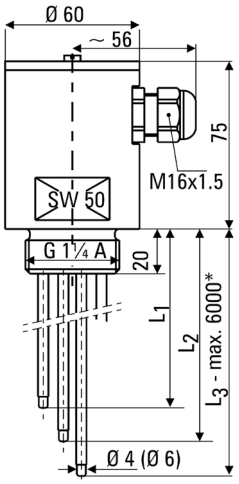
fax +49 (0)471 98 24 152 | **mail** info@profimess.de | **web** profimess.com

Dimensions in mm:

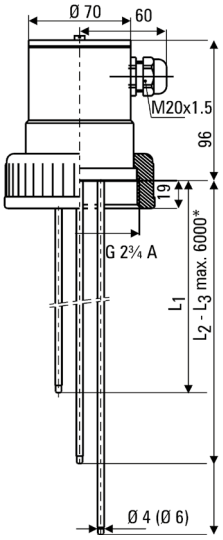
Dim. KS-03.PP.2.x.1



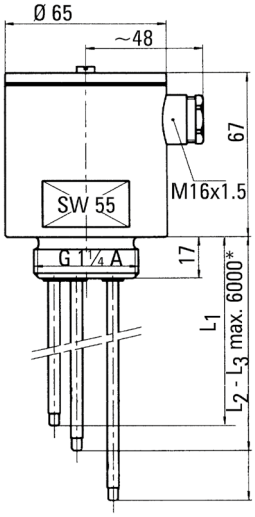
Dim. KS-03.PP.3.x.2



Dim. KS-03.PP.3.x.4



Dim. KS-03.VA.3.x.2



*greater lengths on request

Electrical Connection:

Switch 1	Switch 2	Measuring range
OFF	OFF	up to 3 kΩ
ON	OFF	up to 10 kΩ
OFF	ON	up to 30 kΩ
ON	ON	up to 100 kΩ

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