



# FS ... and SI/FS 1/K/... Variant 0 I M2 / II 2 GD EEx ia I / IIC T6 floating switches

with built-in weight for fixing of switching point

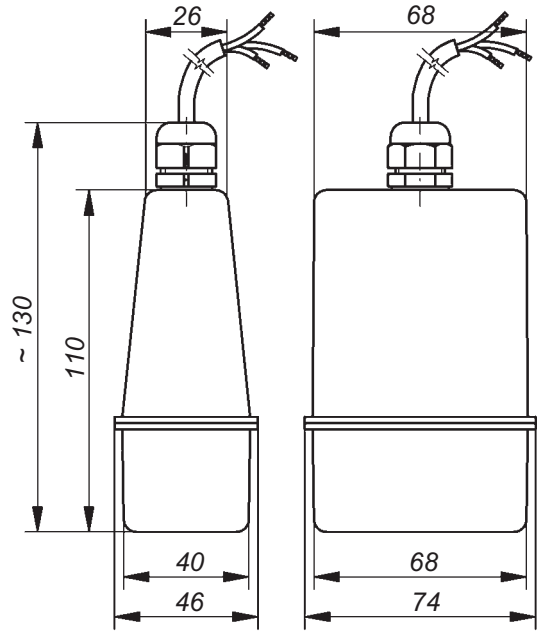
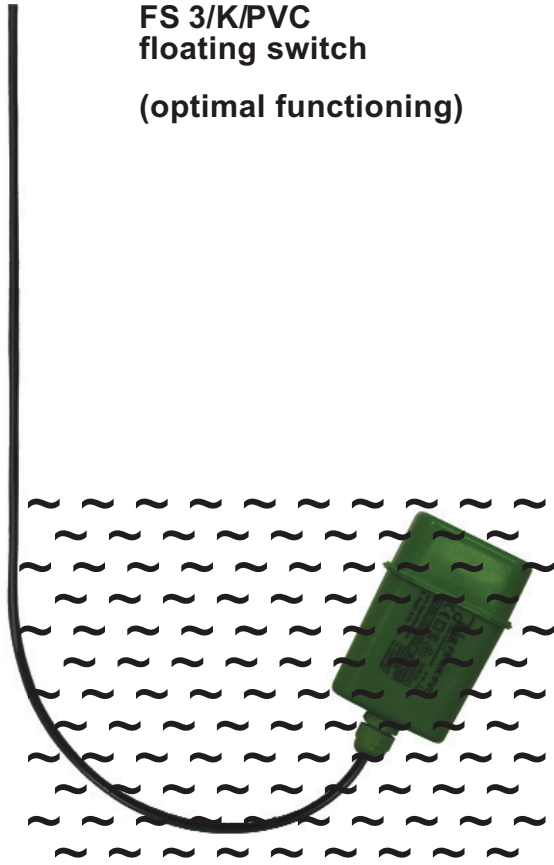
These floating switches are designed for mounting **from the top**.

They are fitted with a **built-in weight for fixing the switching point** at the desired height; this renders **additional fastening** of the switch at the height of the switching point **unnecessary**. This weight is dimensioned in such a way that the switch tilts around its own axis when the liquid level rises and then follows the rising liquid level (see function diagram on page 1-1-8). This tilting action of the float activates the switching process.

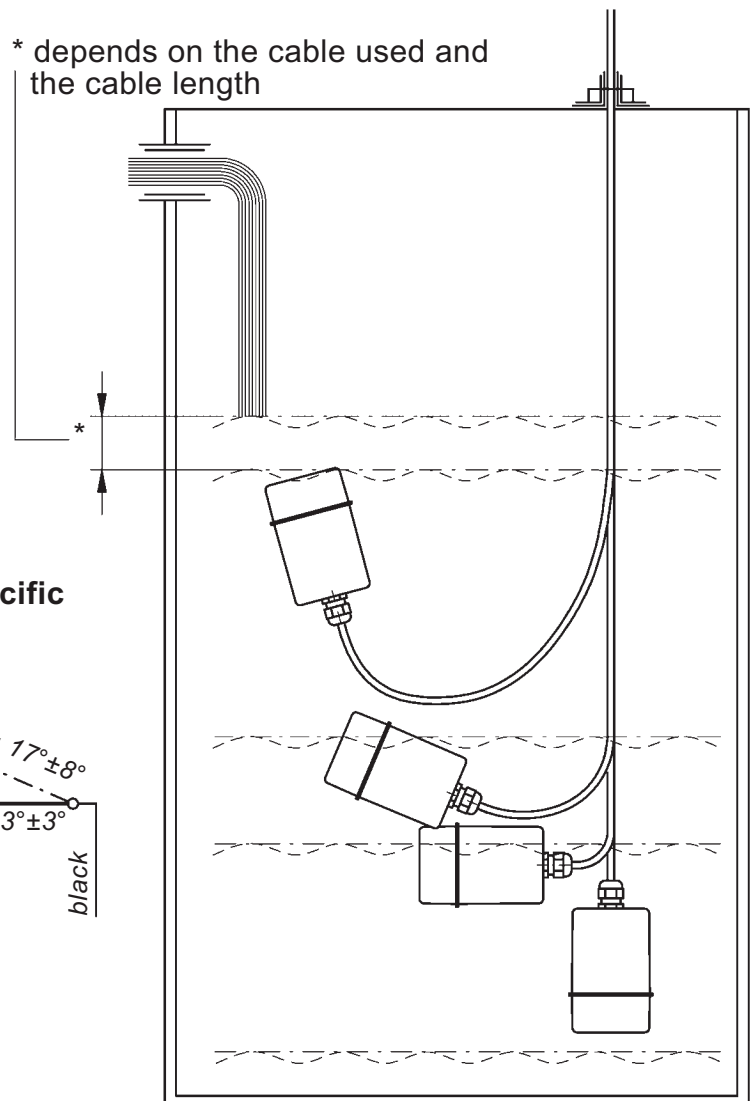
**These units are not suitable for use in turbulent liquids (e.g. in stirrer tanks).**

Technical data	FS 3/K/... FS/S3/K/...	FS 1/K/... FS/S1/K/...	SI/FS 1/K/... Variant 0 I M2 / II 2 GD EEx ia I / IIC T6
Application	for standard appl.	for light current appl.	for use in intrinsically safe circuits in mines
Switching voltage	between AC/DC 24 V and AC/DC 250 V	between AC/DC 1 V and AC/DC 42 V	susceptible to firedamp or in potentially explosive atmospheres
Switching current	between AC 20 mA and AC 3 (1) A or between DC 20 mA and DC 100 mA max. 350 VA	between AC 0.1 mA and AC 100 (50) mA or between DC 0.1 mA and DC 10 mA max. 4 VA	in categories zone 1, 21, 2 or 22. EC type examination certificate INERIS 03ATEX0149
Switching capacity			
Operating principle	ball-operated microswitch, potential-free changeover contact		
Options for safety appl.	—	diodes (= variant 1) or resistors (= variant 2), see page 1-1-21	
Recommended appl.	—	via Jola protection relay KR .. KR 5/Ex I (M1) / II (1) GD [EEx ia] I / IIC	
Float material		PP	conductive PP
Seal material		FPM; on request: EPDM	
Float protection class		IP 68	IP 68 T80°C
Temperature application range		0°C to + 85°C, depending on the type of cable	
Max. immersion depth of the float		max. 10 metres head of water at + 20°C	
<b>Application range</b>		<b>in liquids with a specific gravity between 0.95 and 1.05 g/cm<sup>3</sup></b>	
Connecting cable		see chart on page 1-1-11	
Application range of the connecting cable		<ul style="list-style-type: none"> <li>– <b>black or blue PVC cable:</b> water, used water and slightly aggressive liquids</li> <li>– <b>grey A05RN-F cable:</b> water, used water and slightly aggressive liquids</li> <li>– <b>red-brown silicone cable:</b> water and certain other liquids, with low mechanical strength</li> <li>– <b>black CM cable:</b> water and certain acids and lyes</li> </ul>	
Connecting cable length		1 metre, other cable lengths on request. <b>When ordering, please always state the desired cable length and cable type.</b>	

**FS 3/K/PVC  
floating switch**  
(optimal functioning)



**Function diagram of the  
FS ... or SI/FS 1/K/... floating  
switch**  
(optimal functioning)



**Switching action in liquids with a specific  
gravity of 1 g/cm<sup>3</sup>**

Contact switches  
over at

