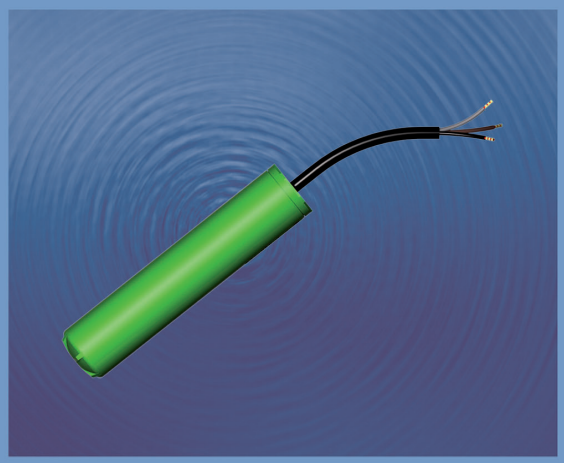
SSP ./R/V2/...
floating switches

Controlling devices with reed contact activated by a magnetic sliding weight, for automatic control, regulation and signalling of liquid levels



Jola Spezialschalter GmbH & Co. KG
Klostergartenstr. 11 • 67466 Lambrecht • Germany
Tel. +49 6325 188-100 • Fax +49 6325 6396
sales@jola-info.de • www.jola-info.de

Jola Spezialschalter GmbH & Co. KG sells only business-to-business (B2B).

The units described in this documentation may only be installed, connected, started up, serviced and replaced by suitably qualified personnel!

Subject to deviations from the diagrams and technical data.

The details in this brochure are product specification descriptions and do not constitute assured properties in the legal sense.

SSP ./R/V2/... floating switches

SSP ./R/V2/... floating switches

Application area

SSP ./R/V2/... floating switches are binary contact devices used for the control of liquids.

They serve as individual switches for signalling a liquid level at a defined point (e.g. high-level alarm or low-level alarm).

The combination of 2 floating switches serves very often to control a pump (ON-OFF via a suitable external downstream pump controller) or a solenoid valve (OPEN-CLOSE via a suitable external downstream solenoid valve controller).

The use of more than 2 SSP ./R/V2/... floating switches allows to perform more complex switching tasks (e.g. overflow protection, high-level alarm, pump ON, pump OFF, low-level alarm, run-dry protection).

The SSP ./R/V2/... floating switches are designed for mounting from the side and/or from above.

Available electrical versions

Depending on the application, it is possible to choose between the versions SSP 3/R/V2/... and SSP 1/R/V2/...

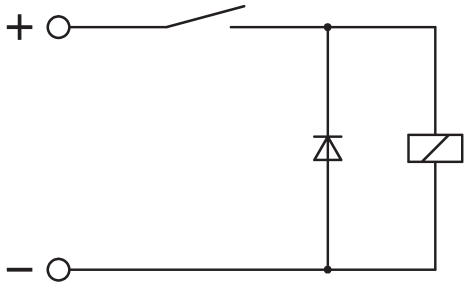
	SSP 3/R/V2/...	**SSP 1/R/V2/...**
Switching voltage	between **AC/DC 24 V** and **250 V**	between **AC/DC 1 V** and **42 V**
Switching current	between **AC 100 mA** and **2 (0,4) A**	between **AC 1 mA** and **500 mA**
Switching capacity	**max. 100 VA**	**max. 20 VA**

Specification for working with capacitive or inductive load

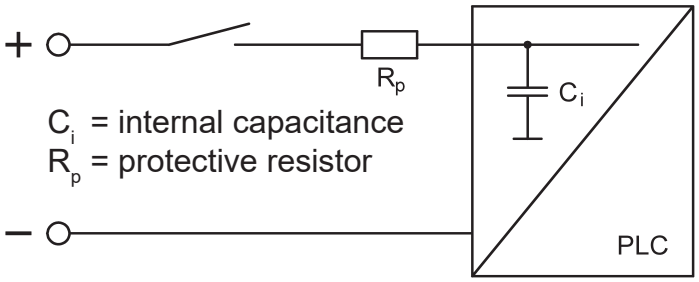
A protective circuit adapted to the electrical installation has to be provided for working with inductive or capacitive loads.

Examples:

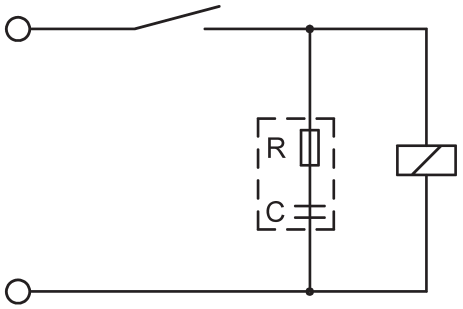
with inductive load (DC)



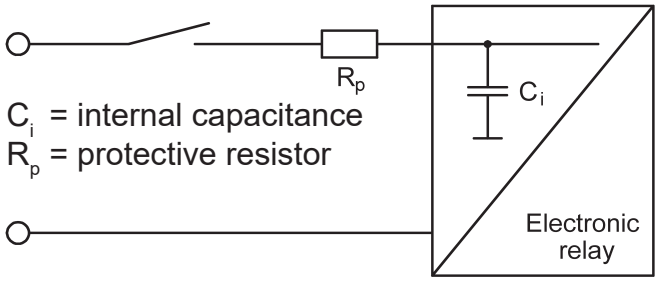
with capacitive load (DC) (PLC inputs)



with inductive load (AC)



with capacitive load (AC) (electronic relay)



Safety regulation

If SSP ./R/V2/... floating switches are supplied with a voltage **that is not a safety extra-low voltage (SELV) in accordance with the applicable standards for the application in question, the tank and the liquid must be connected to the corresponding protective earth (PE). In addition, suitable ground fault circuit interrupters (RCD) must be integrated in the installation.**

Alternatively, the floating switches can be operated using safety extra-low voltage (SELV) in accordance with the applicable standards for the application in question.

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

SSP ./R/V2/... floating switches

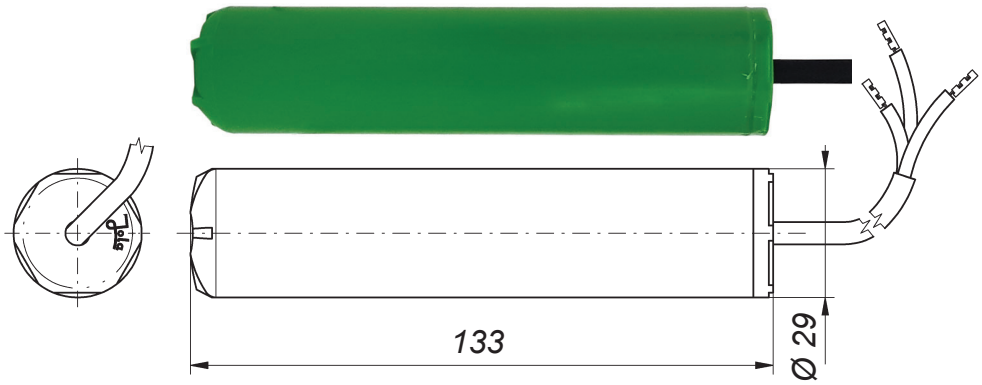
These floating switches are designed for mounting **from the side** or **from the top**.

To ensure a correct switching the cable must be fixed at the required height using a
- stuffing gland in case of mounting from the side
- fixing weight or mounting tube in case of mounting from the top

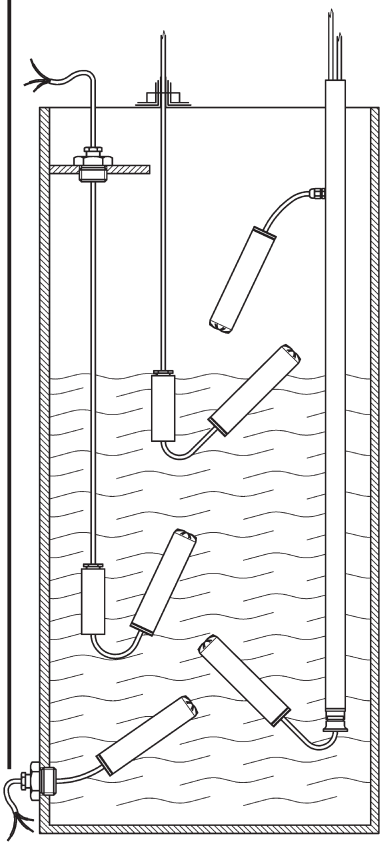
Technical data	**SSP 3/R/V2/...** | **SSP 1/R/V2/...** **...** = TPK, RN, Sil or PUR	
Switching voltage	between **AC/DC 24 V** and **250 V**	between **AC/DC 1 V** and **42 V**
Switching current	between **AC 100 mA** and **2 (0,4) A**	between **AC 1 mA** and **500 mA**
Switching capacity	**max. 100 VA**	**max. 20 VA**
Operating principle	reed contact activated by a magnetic sliding weight, potential-free changeover contact	
Float: • material • seal • protection class	 PP FKM/FPM, on request EPDM IP68	
Electrical connection	connecting cable, see table below length 1 m, longer on request **When ordering, please always state the desired cable type and cable length.**	
Pressure resistance	max. 3 bar at + 20°C, however only for hydraulic pressures and not suitable for pressures in line with the Pressure Equipment Directive 2014/68/EU	
Optional extras: • Stuffing glands • Fixing weights	 • G½ made of stainless steel 316Ti or PP (floating switch mounting only possible **from the inside** of a container) • G1 made of stainless steel 316Ti or PP (floating switch mounting possible **from the outside** of a container) • FG 28x80/E made of stainless steel 316Ti • FG 28x82/PP made of PP	

Connecting cable selection / Possible use depending on the liquid						
Type	**Material or cable designation**	**Number of cores and mm² per conductor**	**Special aspects**	**Colour**	**Required liquid density (g/cm³)**	**Temperature range (in water)**
TPK	TPK	3X0.75	—	black	≥ 0.82	+ 1°C to + 80°C
RN	A05RN-F		—	grey	≥ 1	+ 1°C to + 60°C
Sil	silicone		low mechanical strength	red-brown	≥ 0.82	+ 1°C to + 85°C
PUR	polyurethane		halogen-free + silicon-free	green	≥ 0.92	+ 1°C to + 85°C

SSP ./R/V2/TPK

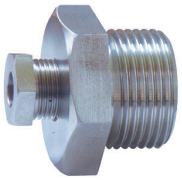


Application examples



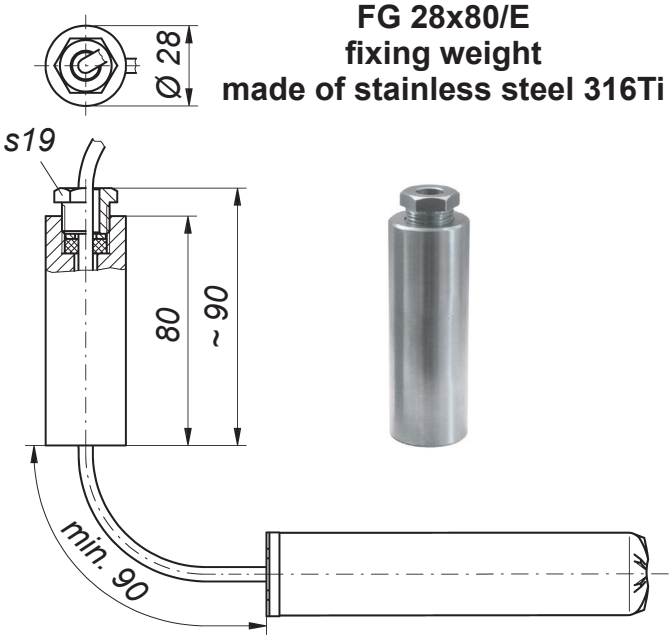
Stuffing glands

G1
made of stainless steel 316Ti

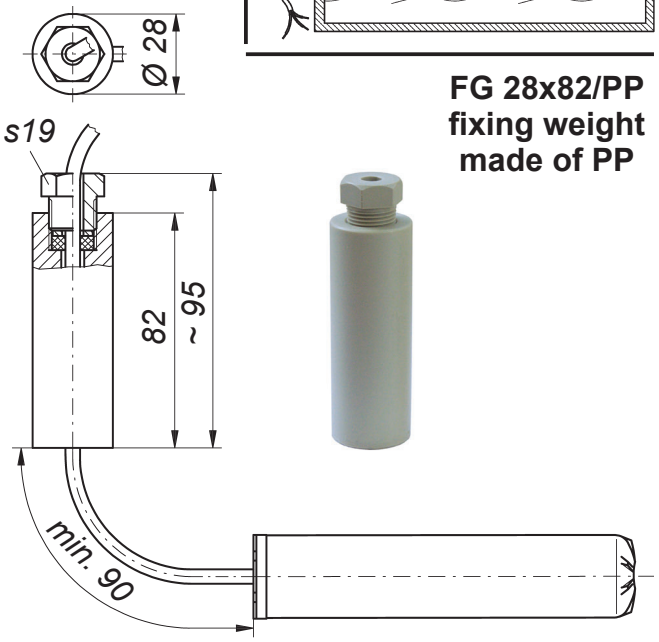


G1
made of PP

FG 28x80/E
fixing weight
made of stainless steel 316Ti

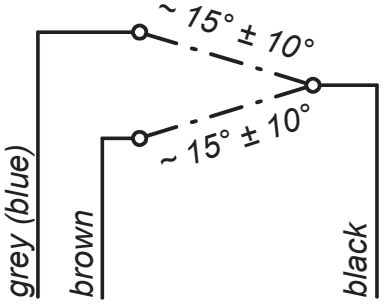


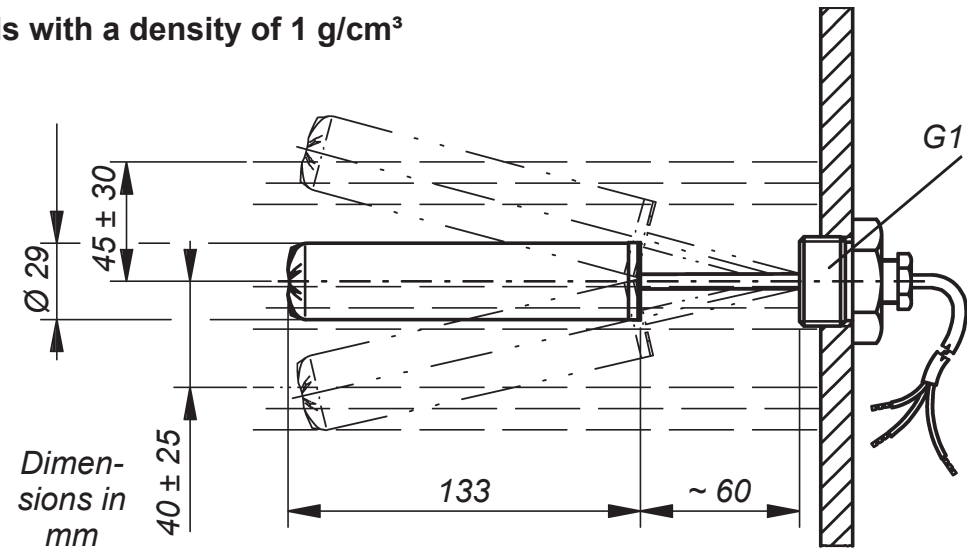
FG 28x82/PP
fixing weight
made of PP



Switching action in liquids with a density of 1 g/cm³

Contact switches over at





Dimen-sions in mm