# SSP... 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, for example, in the case of mounting from the side or using a fixing weight, for example, in case of mounting from the top.

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

**Please note the following:**

The floating switch SSP 1/K/... or SSP/S1/K/... is equipped with a gold-plated crosspoint contact. One of the characteristic properties of gold-plated contacts is that they can reliably switch the smallest voltages and smallest currents, even after extremely long standstill times.

These gold-plated contacts have the following unfavourable properties:

- The gold layer may become burnt off even after just one-off overload. If this happens, the contact loses its ability to reliably switch the smallest voltages and smallest currents.
- Extremely frequent switching actions can also impair or destroy the gold layer, leading to the same effects as outlined above.

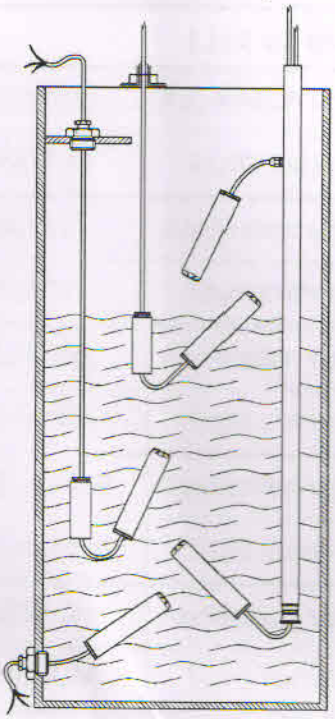
If you need to choose between an SSP 1/K/... or SSP/S1/K/... with gold-plated contact and an SSP 3/K/... or SSP/S3/K/... with AgNi contact for an AC/DC 24 V application, your choice should be based on the following criteria:

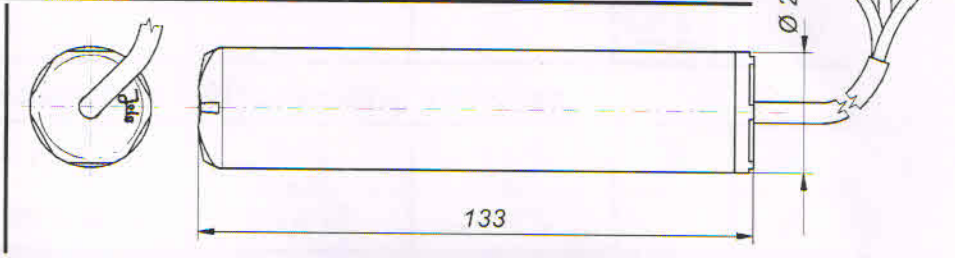
- Floating switch is seldom in operation but should continue to work reliably even after years: SSP 1/K/... or SSP/S1/K/... .
- Floating switch is frequently in operation, is permanently in action: SSP 3/K/... or SSP/S3/K/... .

| Technical data | SSP 3/K/... / SSP/S3/K/... | SSP 1/K/... / SSP/S1/K/... |
|---|---|---|
| Application | standard application | light current application |
| Switching voltage | between AC/DC 24 V and AC/DC 250 V | between AC/DC 1 V and AC/DC 42 V |
| Switching current | between AC 20 mA and AC 3 (1) A or between DC 20 mA and DC 100 mA | between AC 0.1 mA and AC 100 (50) mA or between DC 0.1 mA and DC 10 mA |
| Switching capacity | max. 350 VA | max. 4 VA |
| Operating principle | ball-operated microswitch, potential-free changeover contact | |
| Options for safety appl. | — | see page 1-1-27 |
| Recommended appl. | — | via Jola protection relay KR .. |
| Float material | PP | |
| Seal material | FPM; on request: EPDM | |
| Float protection class | IP 68 | |
| Temperature appl. range | see chart on page 1-1-13 | |
| Max. immersion depth of the float | max. 10 metres head of water at + 20°C | |
| Connecting cables | see chart on page 1-1-13 | |
| Application range of the connecting cables | • **black PVC cable:** water, used water, slightly aggressive liquids, oils without aromatic additives, fuel oil and diesel fuel with a specific gravity ≥ 0.82 g/cm³<br>• **grey A05RN-F cable:** water, used water, slightly aggressive liquids with a specific gravity ≥ 0.82 g/cm³<br>• **red-brown silicone cable:** water and certain other liquids with a specific gravity ≥ 0.82 g/cm³, with low mechanical strength<br>• **green halogen-free PUR cable:** water, used water, slightly aggressive liquids and some oils without aromatic additives with a specific gravity ≥ 0.82 g/cm³<br>• **black CM cable:** water and certain acids and lyes with a specific gravity ≥ 1 g/cm³ | |
| Connecting cable length | 1 metre, other cable lengths on request.<br>**When ordering, please always state the desired cable type and cable length.** | |
| **Optional extras** | **stuffing glands and fixing weights made of brass, stainless steel 316 Ti or PP** | |

**SSP 3/K/PVC**

## Application examples

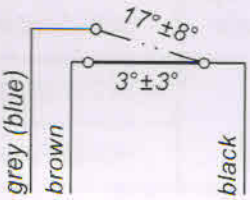


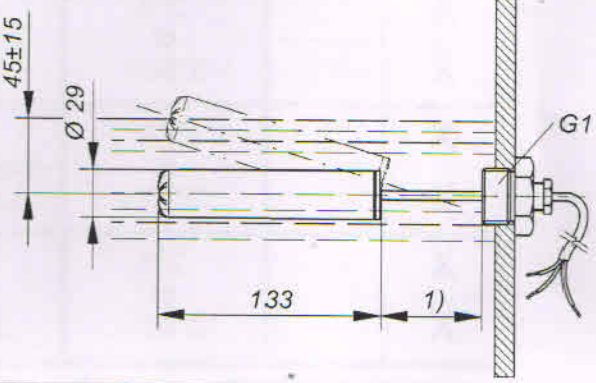



## Switching action in liquids with a specific gravity of 1 g/cm³

*1) approx. 60 mm, but approx. 100 mm for the CM cable*

*Contact switches over at*




## Optional extras:

Floating switch mounting only possible **from the inside**:
- stuffing gland G3/8, brass
- stuffing gland G1/2, brass
- stuffing gland G1/2, stainless steel 316 Ti
- stuffing gland G1/2, PP

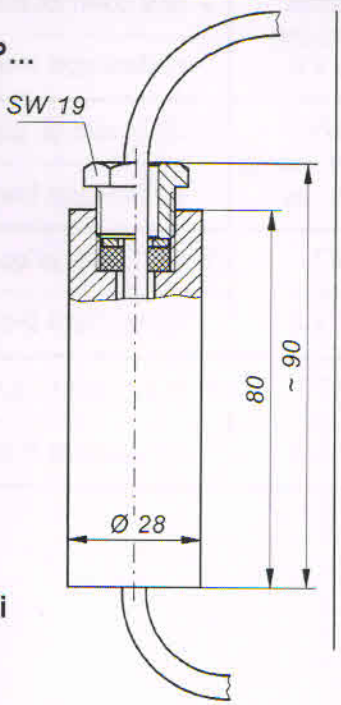
Floating switch mounting possible **from the outside**:
- stuffing gland G1, brass
- stuffing gland G1, stainless steel 316 Ti
- stuffing gland G1, PP

**Stuffing gland G1**

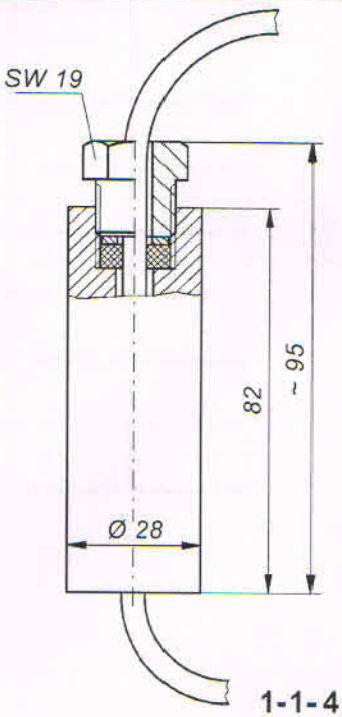
**stainless steel** **PP**

## Optional extras: fixing weight for SSP...

**stainless steel 316 Ti or brass**




**PP**



| | Application | Cable | Temperature application range | VDE mark | EMC certificate |
|---|---|---|---|---|---|
| **List of the available SSP... floating switches** | | | | | |
| SSP **3**/K/PVC | Application up to max. 250 V | PVC, black, 3 x 0.75 | + 8°C to + 60°C | X | X |
| SSP **1**/K/PVC | Light current application | | | | X |
| SSP **3**/K/RN | Application up to max. 250 V | A05RN-F, grey, 3 x 0.75 | 0°C to + 60°C | X | X |
| SSP **1**/K/RN | Light current application | | | | X |
| SSP/**S3**/K/SIL | Application up to max. 250 V | silicone, red-brown, 3 x 0.75 | 0°C to + 85°C | | X |
| SSP/**S1**/K/SIL | Light current application | | | | X |
| SSP/**S3**/K/PUR | Application up to max. 250 V | PUR, green, halogen-free, 3 x 0.5 | 0°C to + 85°C | | X |
| SSP/**S1**/K/PUR | Light current application | | | | X |
| SSP/**S3**/K/CM | Application up to max. 250 V | CM, black, 3 x 0.75 | 0°C to + 85°C | | X |
| SSP/**S1**/K/CM | Light current application | | | | X |
| **List of the available SPH... floating switches** | | | | | |
| SPH **3**/K/PVC | Application up to max. 250 V | PVC, black, 3 x 0.75 | + 8°C to + 60°C | | |
| SPH **1**/K/PVC | Light current application | | | | |
| SPH **3**/K/RN | Application up to max. 250 V | A05RN-F, grey, 3 x 0.75 | 0°C to + 60°C | | |
| SPH **1**/K/RN | Light current application | | | | |
| SPH/**S3**/K/SIL | Application up to max. 250 V | silicone, red-brown, 3 x 0.75 | 0°C to + 85°C | | |
| SPH/**S1**/K/SIL | Light current application | | | | |
| SPH/**S3**/K/PUR | Application up to max. 250 V | PUR, green, halogen-free, 3 x 0.5 | 0°C to + 85°C | | |
| SPH/**S1**/K/PUR | Light current application | | | | |
| SPH/**S3**/K/CM | Application up to max. 250 V | CM, black, 3 x 0.75 | 0°C to + 85°C | | |
| SPH/**S1**/K/CM | Light current application | | | | |
| SPH/**S3**/K/PTFE | Application up to max. 250 V | PTFE, white, 3 x 0.75 | 0°C to + 85°C | | |
| SPH/**S1**/K/PTFE | Light current application | | | | |