



Type SMW-02

Standard-Version

basic @ level

Limit switch of the fill level for the food industry

Basic features

- ▶ Limit switch of the fill level for liquids DK>1
- ▶ Two switching outputs for various media e.g. Foam & Water / CIP & Product / etc .
- ▶ Teaching input for teaching the media
- ▶ Advanced settings, live process monitoring via PC and programming adapter (Optional)
- ▶ Welding socket system with modular process connections and pressure screw connection
- ▶ defined position of the gland
- ▶ Aseptic measuring point
- ▶ Wetting parts made of peek
- ▶ Partly moulded
- ▶ EHEDG certified, FDA-conformal

Technical features

- ▶ High-grade steel connecting head. Nr. 1.4305
- ▶ Electr. Connection: M16 screwing or M12 plug 5-pole
- ▶ Thread G 1/2" elastomer-free sealing system
- ▶ Sensor heads made of Peek (HPC-Tip No.5)
- ▶ Supply voltage 18...32 VDC
- ▶ Output signal 2 x PNP (standard), NPN or Push-Pull switchable NC / NO invertable via PC
- ▶ Permissible load, 00hm, 24VDC, 100mA
- ▶ Response timet < 0,3s
- ▶ ON / OFF delay 0..99.9 sec
- ▶ Ambient temperature -10...+70°C
- ▶ Medium temperature durable 0...+100°C (with neck pipe durable up top 150°C)
- ▶ CIP-/SIP cleaning 0... + 150°C (30 min)
- ▶ Storage temperature -20...+70°C
- ▶ Working pressure 10 bar max (Higher pressures on request)
- ▶ Protection IP68 / IP69K
- ▶ EMC radiation / immunity, EN 6132623 (in closed container)
- ▶ Torque max.: 20 Nm

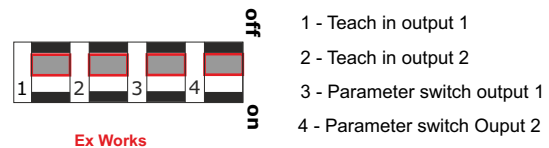
Favoured fields of application are e.g:

The smw is a micro-processor controlled limit switch for liquids or paste-like and adhesive medias.

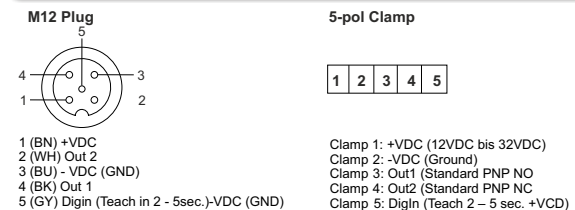
- ▶ Low- / high alarm in containers
- ▶ Media registration in pipes as pump protection
- ▶ Fill level detection of liquids in containers pipes



Configurations switch + Pin Assignment



Electrical Connection



Approvals

EHEDG, Hygienic Peek Connect G 1/2" (HPC)
Certificate Number 21/2017 *

Visualization via PC-USB interface Software incl. for readout and parametrization of SMW





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Structure and mode of action

The limit switch SMW is a micro-processor unit with an integrated interface. With this interface it's possible to adjust the sensitivity of the unit to the particular device. Adherence and passing-off characteristics of medias, are visualizable with the software. Process images are visible and adjustable. Turn on and turn off points and first of all the thereby severed adjustment of hysteresis to each other are operative characteristics for the regulation in the process.

The adjustet value is reproducable by taking additional measures, e.g. a dynamic temperature compensation. A further essential advantage to optimize the current processes is the ability to document and to watch processes during a longer period.

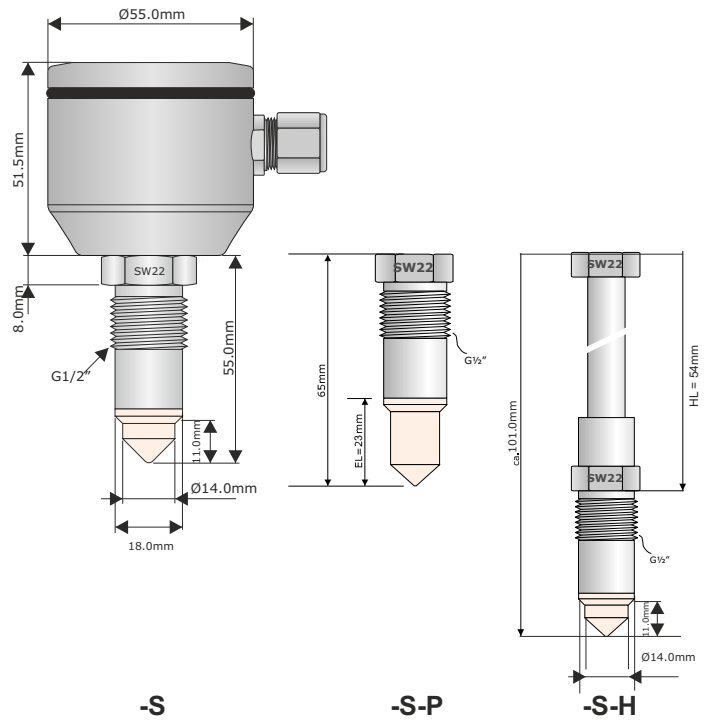
The measuring will be made by contact the smw with the medium. This happens by coupling a high frequency alternating field

This will be brought in to the process by a peek pipe end which is isolated to the process.

By those dielectric characteristic of the medium (DK-Wert / ϵ^r), the coupled alternating field changes.

This leads to a change in the evaluation of the sensor, and thus to the desired registration of the medium by switching an output.

The integration of the equipment into the process is made by welding sleeves or modular process adaptation.



Installation Notes

Torque PEEK-Tip (HPTC-Tip) with sleeve (HPC-Sleeve): 20Nm



Notice

Suitable for media (in the appropriate configuration) with $\epsilon_r > 2$, so also chocolate, honey, vegetable oil etc and all watery media.

At sour and watery media faulty measurements are possible because of adhesions or film formations.

OrderCode SMW

SMW 02- [] - [] - [] - []

High Grade Steel Connecting Head

With screwing M16x1,5 Protection class IP68

With M12-plug Protection class IP69K

5

6

Version

Standard-Version

Version with Longer Peek-Tip

Neck-Pipe version

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S P H

Accessories

PC-USB-Interface incl. Software for reading out and parameterization of SMW units

Suitable plug adapter

ST-PA-M12

ST-M12-miniUSB

Additional accessories see at our data sheet process connections

modular @ process