FISCHER MESS- UND REGELTECHNIK

NS01 || Level Switch

Application

The NS01 is a microprocessor controlled level switch for liquid or paste-like and adhesive media.

Typical applications:

- Full / empty monitoring in vessels
- Pump / dry running protection
- Detection of liquid level in vessels and pipes

Construction and Operation

The NS01 is a microprocessor device with integrated interface. In addition to its integrated change-over function it suits sensitivity of the device to dielectric quality of the media. Formation of crusts and drainage behaviour can be visualized and controlled by using the software process diagram. Key features are switching points and - especially - therefore separated setting of hysteresis to suit process.

The adjusted value is reproducible by additional actions like dynamic compensation of temperature. To optimize active processes take advantage of the ability of documentation and process monitoring over a larger period.

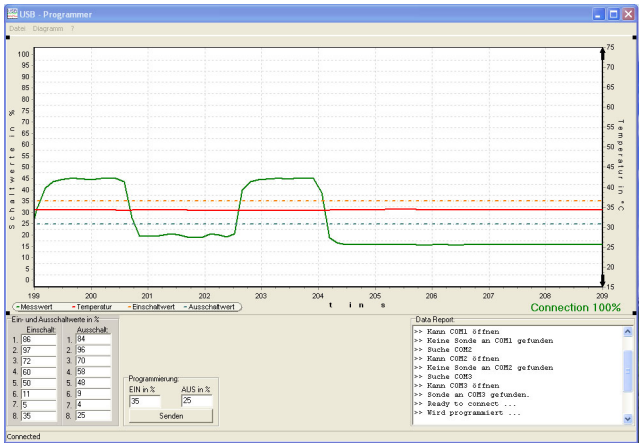
When the NS01 comes in contact with the medium level measurement is done by a high frequency alternating field. It is brought to process through an on media side isolated PEEK-socket. The device is integrated into process through socket welding or modular adaption.

The alternating field launched into process is changed by dielectric qualities of the medium (dielectric constant / ε^r). This causes a changement in interpretation of sensor. Medium detection is performed by switching an electric output.

Main Features

- socket welding system with modular process adaption
- measuring point free of dead space
- adjustable for various media
- materials with contact to media from PEEK
- comply with FDA, EHEDG
- defined mounting position of screwed cable gland

NS01 Software for Parametrising



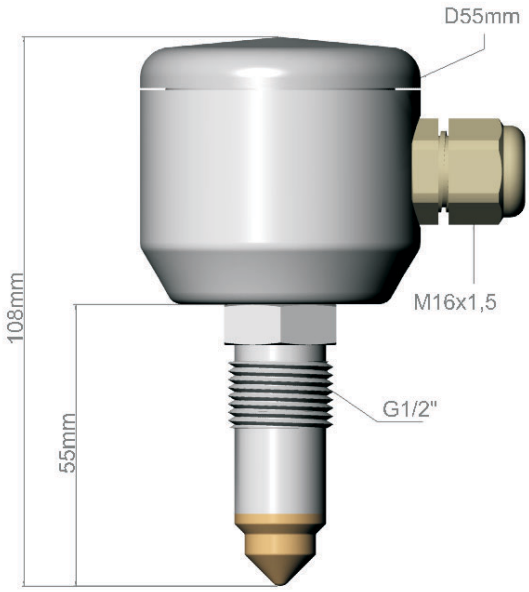
With NS01 Software for Parametrising the level measurement limit switch can be adapted easily and steadily for use with nearly all appropriate media.

Parameters determined can be stored on PC and reproduced to handle parametrising of other level measurement limit switches even more simple.

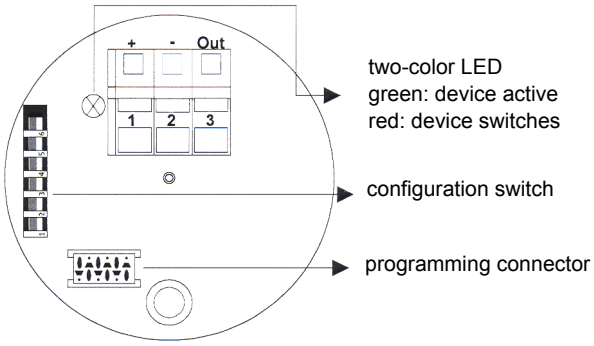
Specifications

General	
max. operating pressure	10 bar
perm. temperature (media)	0...+100°C (permanent)
perm. temperature (ambient)	-10...+70°C
perm. temperature (storage)	-20...+70°C
protection class	IP69K
response time	< 0.2 s
max. tightening torque	5...10 Nm
cleaning / sterilisation	+150°C (max. 30 minutes)
Electrical	
supply voltage	18...32 V DC
output signal	max. 50 mA (active)
output	reversible (inverting)
Connections	
electrical connection	M16x1.5 screwed cable gland or M12 connection
pressure connection	G½ thread
Materials	
connection housing	stainless steel 1.4305
tip of sensor	PEEK
gasket	free from elastomer

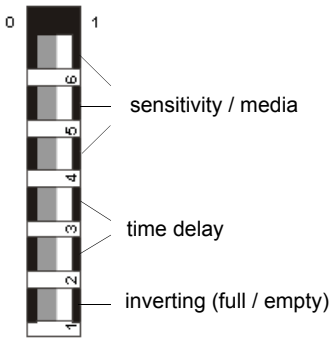
Dimensions



Electrical connection



Configuration Switch



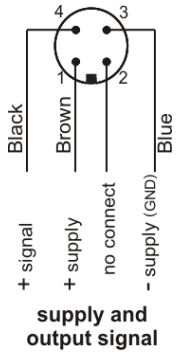
Adjustment of Sensitivity

Switch			Sensitivity
6	5	4	0%
0	0	0	↓
0	0	1	↓
0	1	0	↓
0	1	1	↓
1	0	0	↓
1	0	1	↓
1	1	0	↓
1	1	1	100%

Time Delay

Switch 3	Switch 2	Time Delay in sec.
0	0	0 sec
0	1	2 sec
1	0	4 sec
1	1	8 sec

M12 connection



supply and output signal

Ordering Code

Level Switch **NS01** [ ] [S] [ ] [#] [#] [#] [#]

Electrical Connection
Screwed cable gland M16x1,5 ..... > 5
M12 connection ..... > 6

Version
Standard ..... > S

Fitting Length
55 mm ..... > 0
130 mm ..... > L

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