Optical LLIS

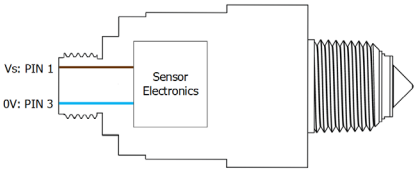
Liquid Level Switches
Intrinsically safe for hazardous areas

- Certified to ATEX, UKEX, and IECEx standards
- Classification: II 1 G Ex ia T4 Ga with an operating temperature range of -30... +80 °C (-22...+176 °F)
- Robust construction with 316 stainless steel housing
- Can detect the presence or absence of most liquids
- NAMUR output

Description

SST's intrinsically safe optical liquid level switches are approved for hazardous areas and ideal for applications involving hydrocarbons, fuels, and other flammable liquids. Using infrared and total internal reflection they deliver rapid response times with a switch point repeatability of +/- 1mm. Extremely robust and resistant to chemical attack; these sensors have an operating temperature range of -30...+80 °C, stainless steel housing, and a choice of sensing tip materials.

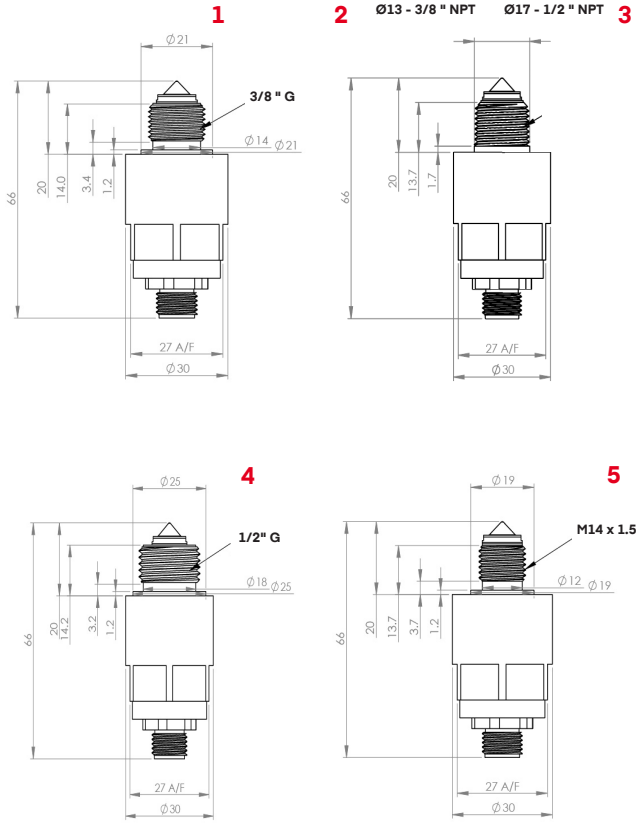
*Pin Connection	
Pin	**Designation**
1	+ Vs
2	NC
3	0 V
4	NC



Specifications

Process connections					
Thread	3/8" G	3/8" NPT	½" NPT	½" G	M14 x 1.5
Tightening torque	3 Nm / 26.5 in-lbs maximum				
Electrical input/output					
Power supply	+5 V_{DC} ... 12 V_{DC} (+8.2 V nominal)				
Supply current	Liquid detected: >3 mA; Air detected: <1 mA				
Maximum input values	Ui = 12V, Ii = 130 mA, Pi = 85 mW, Ci = 1.08µF				
Output type	NAMUR				
Interface	M12, 4-pin, A-coded connector				
Mechanical					
Sensor tip options	Polysulfone / Trogamid / Grilamid				
Seal O-Ring options	Viton / Nitrile				
Operating temperatures	-30...+80 °C (-22..+176 °F)				
Storage temperatures	-40...+80 °C (-40...+176°F)				
Pressure	32 bar (464 psi) maximum				
Ingress protection	IP68				
Housing material	316 Stainless steel				
Weight	<100 g (<3.5 oz)				
Conformity					
ATEX / UKEX	**IECEx**				
II 1 G Ex ia T4 Ga (-30...+80 °C)	Ex ia IIC T4 Ga (-30...+80 °C)				

Dimensions and Wiring Diagram



*Red numbers correspond to order information, see next page.

Ordering Guide

Generate your specific part number using the convention shown below.
Use only those letters and numbers that correspond to the sensor and output options you require — omit those you do not.

L L I S - X X - 0 X - N D

Sensor tip material
P: Polysulfone
T: Trogamid
G: Grilamid

Seal O-ring
V: Viton
N: Nitrile

Process connection
1: 3/8" G
2: 3/8" NPT
3: ½" NPT
4: ½ " G
5: M14 x 1.5

Accessories

Accessory			
Cable with connector REACH EC 1907/2006	**CABSET02SS** Female cordset M12 4-pin A-coded Length 2m SS 316L body	**CABSET05** Female cordset M12 4-pin A-coded Length 5m Zinc diecast body	**CABSET10** Female cordset M12 4-pin A-coded Length 10m Zinc diecast body
(Other cable options available)			
1-channel isolated barrier	**SSTC-KCD2-SOT-Ex1.LB**		

Cable connector, NAMUR

- M12 angled female socket
- 4-pin A-coded
- Single-ended
- IP68 / IP69 protection
- Suitable for NAMUR technology
- Can be specified with Zinc diecast or SS 316L screw connection
- PUR cable - blue
- Various lengths available.

Single sensor barrier / controller

- 1-channel isolated barrier
- ATEX, IECEx, cULus hazardous area approved
- SIL2 capable
- Can be configured as:
  Signal splitter
  Line fault detection (LFD)
- Reversed mode of Operation
- 24 V DC supply.

Caution	Information
Do not exceed maximum ratings and ensure sensor(s) are operated in accordance with their requirements. Carefully follow all wiring instructions. Incorrect wiring can cause permanent damage to the device. SST recommends using alcohol-based cleaning agents. Do NOT use chlorinated solvents, as these are likely to attack the sensor tip material. Failure to comply with these instructions may result in product damage.	As customer applications are outside of SST Sensing Ltd.'s control, the information provided is given without legal responsibility. Customers should test under their own conditions to ensure that the equipment is suitable for their intended application. SST Sensing Ltd. reserves the right to make changes to product specifications without notice or liability. All information is subject to SST Sensing Ltd's. own data and considered accurate at time of going to print.

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