

SD21 OPTICAL LEVEL SWITCH OPERATING INSTRUCTIONS

SPECIFICATION

- Power range: 10 ~ 28 Vdc
- Current consumption: <25 mA
- Output mode: NPN / PNP
- Output function: NO + NC
- Load current: <200mA
- Working pressure: <60bar
- Electrical protection: reverse polarity protection, short circuit protection
- Delay time: 5 sec \pm 1 sec (optional)
- Anti ambient light interference: <500 Lux
- Operating temperature: -20~100°C
- Ambient temperature: -20~80°C
- Waterproof, protection class: IP67
- Indicator light: red status indicator (only cable type)
- Cable specifications (with cable):
 - Cable Silicone rubber jacket, 24AWG, length 2m, the 4C (Blue, White(Green), Black and Brown)
- Connection size : 3/8" / 1/2"
- Thread options: PT / PF / NPT
- Body material: SUS304 / SUS316
- Prism material: glass

WIRING

Type	High Position delay		Low Position delay		Standard	
Position						
LED						
Green wire						
Black wire						

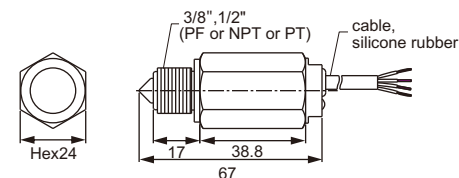
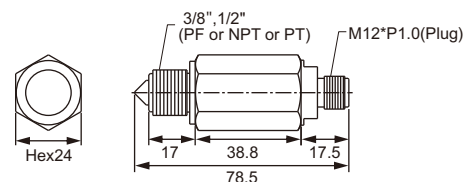
Mode of operation	Wire Color	Wiring	
NO	Green	<div> NPN </div> <div> PNP </div>	
NC	Black	<div> NPN </div> <div> PNP </div>	

CAUTION

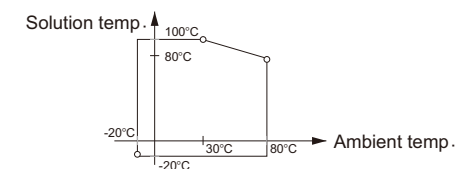
- The recommended tightening torque for the standard sealing ring (O-ring) is 8-12 kgf-cm.
- This torque may vary depending on the internal pressure of the pipe/barrel or if the material is changed.
- Maximum Allowable Torque for the Casing: 75Kgf-cm
- This product is not suitable to the solutions containing adhesion and suspended materials in it or viscous liquids.
- This product may not work in part of emulsion and liquids which are in semi-solid state.
- Turbidity type can detect the turbid solution in level of 4000NTU.
- Instruction for time delay type:
 - ◆ High position with time delay type (SD21□□□□4□, SD21□□□□6□)
It will switch as continually contacting liquid for 5 seconds, will switch back immediately as leaving the liquid.
 - ◆ Low position with time delay type (SD21□□□□5□, SD21□□□□7□)
It will switch as continually leaving liquid for 5 seconds, will switch back immediately as contacting the liquid.

DIMENSION

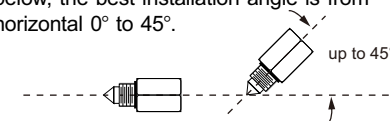
(Unit:mm)



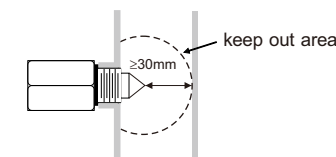
- The correspondence for temperature of detected liquid and ambient temperature is as below:



- This product can not be used in the environments with infrared light source.
- The installation is recommended as shown below, the best installation angle is from horizontal 0° to 45°.



- This product can not be installed in the liquid entry point.
- There should be no objects or surface which might occur reflection or other interference within the radius of 30mm for prism tip.
- As it mounts with the threaded sleeve, the prism tip must be exposed out of sleeve.
- The distance between prism tip and tank wall must be at least 30mm.



REGULAR MAINTENANCE

- In poor conditions, should be cleaned regularly the tip which contact liquid.
- Do not use scouring pads to scrub, to avoid damaging to the sensor.



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