

Installation Instructions for Standard and Extended Temperature Optoprox Series Proximity Sensors

GENERAL DESCRIPTION

The proximity sensor provides single point object detection from the sensor face up to a typical distance of 10mm via a TTL compatible push pull output.

An infra-red LED and phototransistor are positioned at the sensor tip such that in air most light will escape. When the sensor's field of vision is interrupted by an object, the infra-red light reflects back into the sensor tip from the object causing a change in the amount of light present at the phototransistor which makes the output change state.

CLEANING

Proper fluids should be selected based on type of contamination to be removed. SST Sensing recommends freon and alcohol based solvents. DO NOT use chlorinated solvents such as trichlorethane as these are likely to attack the sensor material.

ELECTRICAL SPECIFICATIONS

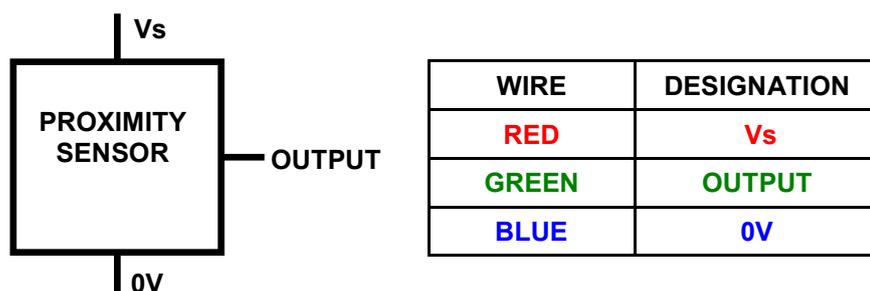
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|---------------------------------------|--|---|---|
| Supply Voltage (Vs) | +4.5 Vdc to +15.4Vdc | Output Voltage (Vout) Iout = 100mA | Output High Vout = Vs - 1V Max Output Low Vout = 0V + 0.5V Max |
| Supply Current (Is) | Max 2.5mA (Vs = 15.4Vdc) | Output Voltage (Vout) Iout = 0mA | Output High Vout = Vs - 0.3V Max Output Low Vout = 0V + 0.1V Max |
| Output Type | The output of the proximity sensor will be low when no object is within it's field of vision. Otherwise it will toggle high. | Maximum Switching Frequency | 1kHz |
| Output Sink and Source Current (Iout) | 100mA | Typical Switching Distance from Sensor Face to Target | 10mm |
| Operating Temperatures | -25°C to +80°C (Standard) -40°C to +125°C (Extended) | | |
| Storage Temperatures | -30°C to +85°C (Standard) -40°C to +125°C (Extended) | | |

MOUNTING AND HOUSING TYPES

| | | | | |
|----------------------------------|-------------------------------------|---|---|---|
| Housing Series | 210 SH Series | - | - | - |
| Thread | M12x1x8g with Hex Nut* | - | - | - |
| Tightening Torque | 1.5 N m/13.26 in lb max. | | | |
| Pressure (when correctly sealed) | 7 bar max | - | - | - |
| Mounting Hole | Ø12mm | - | - | - |
| Housing Material | Polysulphone or Trogamid | | | |
| Sensor Termination | 24AWG, 250mm PTFE Wires, 8mm Tinned | | | |

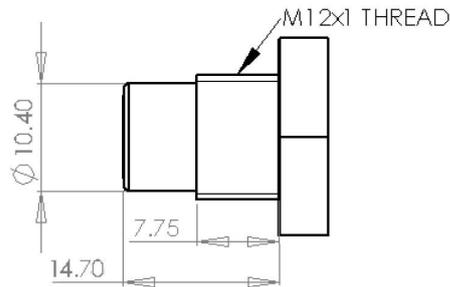
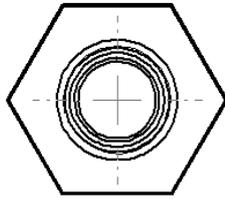
* Hex nut and o-ring sold separately, please contact us for details. NPT version can be sealed with PTFE tape.

Sensor Output Wiring



PRODUCT DIMENSIONS
(All dimensions in mm)

200 and 210 SH Series (Mounted from Outside)



PART NUMBERING SYSTEM

SENSOR MOUNTED FROM OUTSIDE VESSEL

P S X X X 0 D 3 S H



General Note: SST Sensing Ltd reserves the right to make changes in product specifications without notice or liability. All information is subject to SST's own data and considered accurate at time of going to print.

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| <p>WARNING Personal Injury DO NOT USE these products as safety or Emergency Stop devices or in any other application where failure of the product could result in personal injury. Failure to comply with these instructions could result in death or serious injury.</p> | <p>CAUTION Do not exceed maximum ratings. Although the sensor is protected against supply reversal, it is not recommended. Do not overtighten screw-in type. Do not use chlorinated solvents. Do not mount with dome pointing downwards. Failure to comply with these instructions may result in product damage.</p> |
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It is the customer's responsibility to ensure that this product is suitable for use in their application. For technical assistance or advice, please email us: info@sstsensing.com