

# 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 trichloroethane as these are likely to attack the sensor material.

## ELECTRICAL SPECIFICATIONS

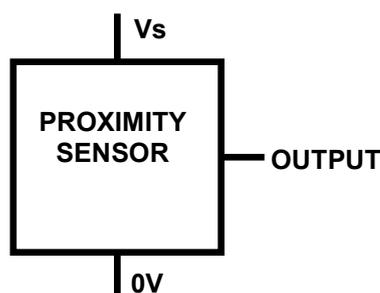
Supply Voltage (Vs)	+4.5 Vdc to +15.4Vdc	Output Voltage (Vout) Iout = 100mA	<b>Output High</b> Vout = Vs - 1V Max
Supply Current (Is)	Max 2.5mA (Vs = 15.4Vdc)		<b>Output Low</b> Vout = 0V + 0.5V Max
Output Type	The output of the proximity sensor will be low when no object is within it's field of vision.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

## 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

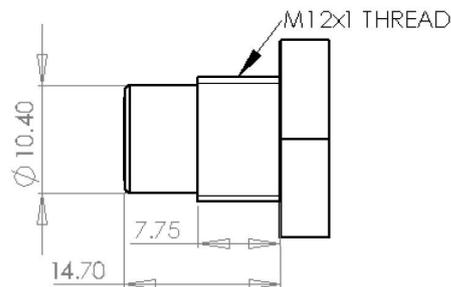
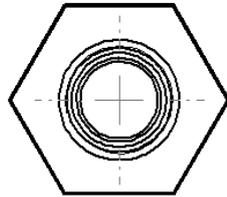


WIRE	DESIGNATION
RED	Vs
GREEN	OUTPUT
BLUE	0V



**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

<b>Housing Material</b>
C = Polysulphone T = Trogamid

<b>Housing Style</b>
2 = 200 and 210 SH Series

<b>Operating Temperature</b>
0 = -25°C to +80°C 1 = -40°C to +125°C

**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.

**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.**

**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.**