For more complex sensing needs, refer to www.SeSensors.com, the Essential Guide to Sensing or the Sensors General Catalog for information relative to the sensors described below.

OsiSense® Sensors
Choose the right sensing solution

Object to be detected

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>metal?</td>
<td>No</td>
</tr>
<tr>
<td>Weight &lt; 500 g (11 lb)</td>
<td>Yes</td>
</tr>
<tr>
<td>actuation speed &lt; 5 feet/sec (1.5 m/s?)</td>
<td>No</td>
</tr>
<tr>
<td>Object to be detected ≤ 50 mm (1.97 in.)?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Limit switches

Industrial proximity sensors

Ultrasonic sensors

Photoelectric sensors

Pressure switches

Industries

XC

XS

SM/XX

XU

XM

Machine tools
Food & beverage
Packaging
Hoisting
Conveying
Assembly
Wood industry
Automotive industry
Paper industry
Minerals and minerals
Pumping and water treatment
Robot and embedded robots
Lifter and elevators
Service industry and building

Interfaces and I/Os

Simplify machine architectures by connecting the sensors and actuators distributed throughout your machines via fieldbus or AS-Interface.

IP67 distributed IO, modular system interface modules

IP67 distributed IO, compact interface modules

Adapters AS-Interface FP01 and IP67 cabling system

NOTE: Sensors described in this catalog with the exception of the safety detections products are designed to be used for standard industrial presence sensing applications. These sensors do not include the self-checking redundant circuitry necessary to allow for their use in safety applications.

Recommended
Possible
Unsuitable

Schneider Electric USA, Inc.
Schneider Electric Sensor Competency Center
1875 Founders Drive
Dayton, Ohio 45420-4017
800.435.2121
www.seensors.com

The information and dimensions in this catalog are provided for the convenience of our customers. While this information is believed to be accurate, Schneider Electric reserves the right to make updates and changes without prior notification and assumes no liability for any errors or omissions.

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Photos: Schneider Electric
Print: Schneider Electric
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**SM/XX Ultrasonic sensors**
- **Detection of all solid objects by contact**
- **Detection of metals (Fe, Al, Cu, …) without contact (no touch)**
- **High operating ratings, fast response time**
- **Excellent resistance to industrial environments**
- **Insensitive to temperature**
- **Detection of opaque, shiny objects**
- **Not suitable for harsh environments: dirty, dusty**
- **Sound-absorptive materials and oddly-shaped objects may be difficult to detect.**

**XU Proximity sensors**
- **Detection of objects without contact (no touch), space, size, or transparent.**
- **Direct detection of objects/objects, wall and/or physical space**
- **Long range detection: > 50 m (164.0 ft)**
- **High operating rate. Available with background suppression.**
- **Not suitable for harsh environments: dirty, dusty**
- **Temporal range limitation, interference between photocrystal must be avoided.**

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**Choice criteria**

1. **Choose the body**
   - **Appropriate to the environment:**
     - **Choose size, material and body**
     - **XS1, 2, 4, 5, 6**
     - **W x H x D**
     - **DIN pressure switch**
   - **XS: Plastic**
   - **XU: Metal**

2. **Choose the head**
   - **Choose the output type**
     - **Sensing range**
     - **Choose the output signal & function**
     - **Choose the pressure switch & transmitter for industrial use**
     - **Choose the electrical connection**
     - **Choose the hydraulic fluid connection**

3. **Choose the body size**
   - **Detection of all solid objects by contact**
   - **High operating ratings, fast response time**
   - **Detection of metals (Fe, Al, Cu, …) without contact**
   - **High operating ratings, fast response time**
   - **Detection of objects without contact**

4. **Choose the electrical connection**
   - **Sensing Range**
     - **XS…M8 M8 3-pin**
     - **XS…U20 1/2” 3-pin**
     - **XS…M12 M12 4-pin**
     - **XU…M8 M8 4-pin**
     - **XU…M12 M12 4-pin**
     - **DIN pressure switch**

5. **Choose the optical connection**
   - **Choose the output type**
     - **Detection of all solid objects by contact**
     - **Detection of metals (Fe, Al, Cu, …) without contact**

6. **Choose the output signal & function**
   - **Detection of objects without contact**
   - **Detection of objects without contact, no touch**
   - **High operating ratings, fast response time**
   - **Detection of objects without contact, no touch**
   - **High operating ratings, fast response time**

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**Electrical connections**

- **Sensors with a cable or terminal**
- **Sensors with a connector**
- **Connector types**
  - **Sensors and connector types**
  - **Connector types**
  - **Electrical connections**

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**Technologies**

- **Collection of all solid objects by contact**
- **Detection of metals (Fe, Al, Cu, …) without contact**
- **High operating ratings, fast response time**
- **Detection of objects without contact (no touch)**

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**Details**

- **Choose the body**
- **Choose the head**
- **Choose the body size**
- **Choose the electrical connection**
- **Choose the optical connection**
- **Choose the output signal & function**

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**Connections**

- **Sensors with a cable or terminal**
- **Sensors with a connector**
- **Connector types**
  - **Sensors and connector types**
  - **Connector types**
  - **Electrical connections**