XXW54P3APL0●●●

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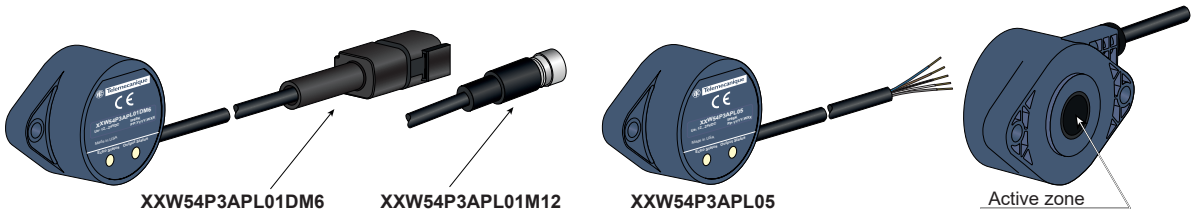
Wide Beam Ultrasonic Sensor



http://qr.tesensors.com/XX0003

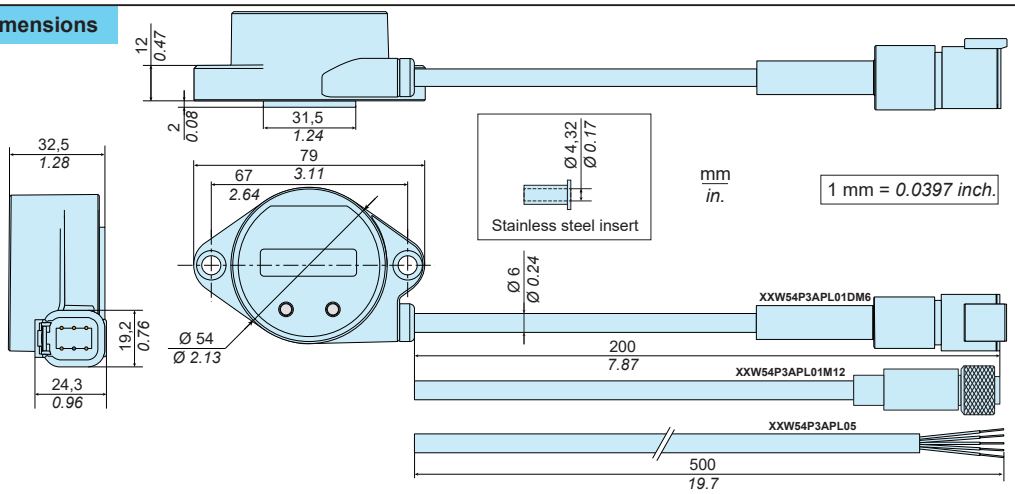
⚠ WARNING

UNINTENDED EQUIPMENT OPERATION

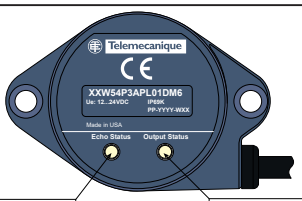
- This device does not have a Performance Level or Safety Integrity Level or any other type of capability with regard to functional safety
- Do not use this device to detect objects within the deadband (blind zone) or outside the sensing window.
- Do not use this device for safety related purposes.
- Use appropriate equipment and measures to protect against all hazards identified in your risk assessment.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

Dimensions



LEDs



Green: Echo Status
White: Power Applied

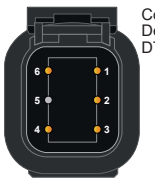
Yellow: Output Status

The **White** LED is ON when the green is OFF (to indicate that the product is powered).

Green = object detected between the blind zone and the max sensing distance (from 0,425m to 4m / *1.39 to 13.1 ft.*).

Yellow = object detected between the near and the far limits (from 0,425m to 3m / *1.39 to 9.8 ft.*).

Connectors wiring



Connector model: Deutsch connector DTM04 male 6-pin

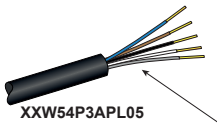
XXW54P3APL01DM6

Pin Number	Wire Color	Description
①	BN: Brown	+12...24 Vdc
②	BU: Blue	0 Vdc
③	BK: Black	4...20 mA Analog Output *(3)*
④	WH: White	PNP Digital Output
⑤ *(2)*		Not Connected
⑥	GY: Grey	Synchronization *(1)*

Connector model: M12 - male 5-pin

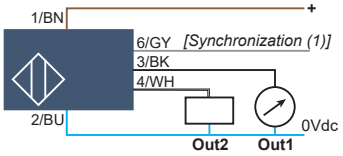
XXW54P3APL01M12

Pin Number	Wire Color	Description
①	BN: Brown	+12...24 Vdc
②	WH: White	PNP Digital Output
③	BU: Blue	0 Vdc
④	BK: Black	4...20mA Analog Output *(3)*
⑤	GY: Grey	Synchronization *(1)*

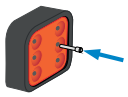


XXW54P3APL05

Cable model: 5 wires - 0,34 mm² / 22 AWG



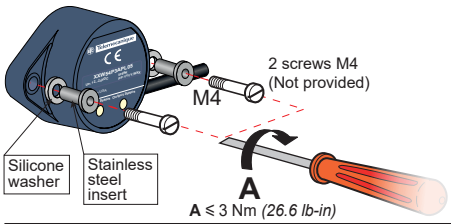
Note :
(1): See synchronization section
(2): Deutsch connector Pin 5 = Sealing plug



(3): The analogue output is 2 mA in case of excessive environmental noise. This exceeded output value means that the sensor cannot work properly in this environment.

Tightening torque

Stainless steel insert
Silicone washer
(provided with the sensor)



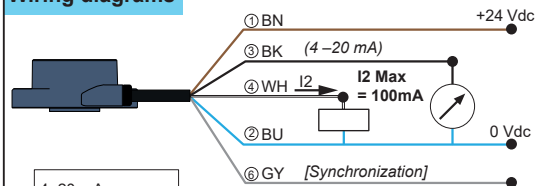
⚠ CAUTION

RISK OF MATERIAL DAMAGE

The stainless steel insert and the silicone washer are mandatory in all mounting cases

Failure to follow these instructions can result in injury or equipment damage.

Wiring diagrams



4–20 mA:
- For 12 Vdc, Load ⩽ 250 Ω
- For 24 Vdc, Load ⩽ 850 Ω

Sensor type	4...20 mA
Rated supply voltage	12 or 24 Vdc Min = 9 Vdc Max = 32 Vdc with reverse polarity protection

⚠ WARNING

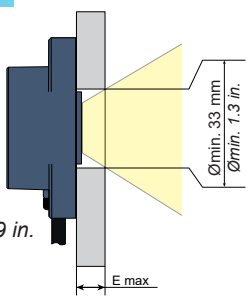
IMPROPER CONNECTION

- The **XXW54P3APL0●●●** must be powered by a dedicated safety extra low voltage (SELV) or a protected extra low voltage (PELV).
- The **XXW54P3APL0●●●** operate directly from a 24 Vdc power supply. The power supply must meet the requirements of **IEC 60204-1**.

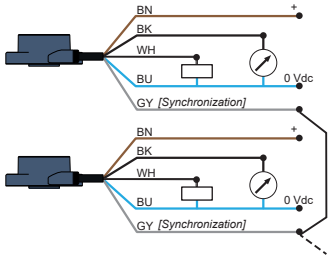
The SELV Schneider Electric part number **ABL8RPS24•••** is recommended.

Failure to follow these instructions can result in death, serious injury or equipment damage.

Flush mounting limit



Synchronization (side by side application)



Synchronization operation
The synchronization is recommended if more than 1 sensor is used in same direction in order to avoid any interference between the sensors due to their width of the beam.
Up to 8 sensors can be synchronized to operate side by side by electrically connecting all pin no.6 (grey) wires together.
All sensors must be the same model and have the same cycle time setting.

Noise Detection

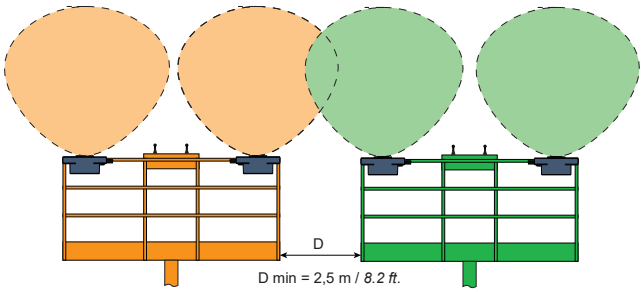
This sensor is equipped with a noise detection capability. This is enabled by default. When noise detection is enabled, the sensor's analog output will output 2 mA when it detects excessive environmental noise. This alerts the user that the environmental noise is likely too excessive for the sensor to sense object distances properly. While it will not necessary distinguish all noise, it can be aid to the user.

The settings associated with noise detection can be changed using the Ultrasonic Sensors configuration interface and the dedicated software.

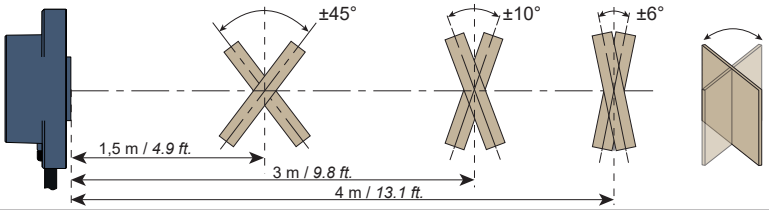
Mutual influence between 2 side by side separate mobile equipments

(Sensors in the same mobile equipment must be synchronized but between 2 mobile equipments, the sensors can not be synchronized.)

Note : For the side by side use, consider the machine manufacturer's prescriptions without ever going below the 2,5 m / *8.2 ft.* .



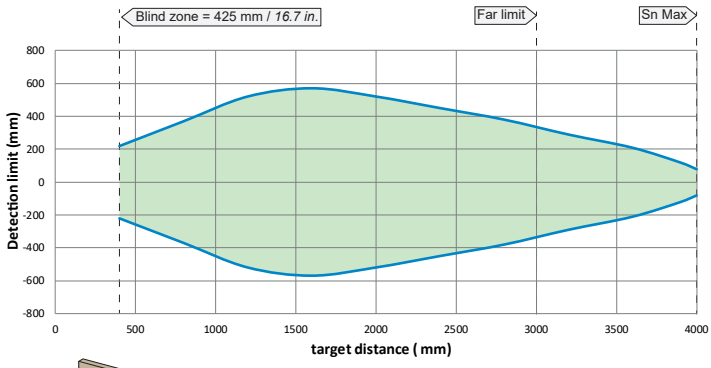
Tilt angle



500 x 500 mm / *19.7 x 19.7 in.*
Stainless steel plate

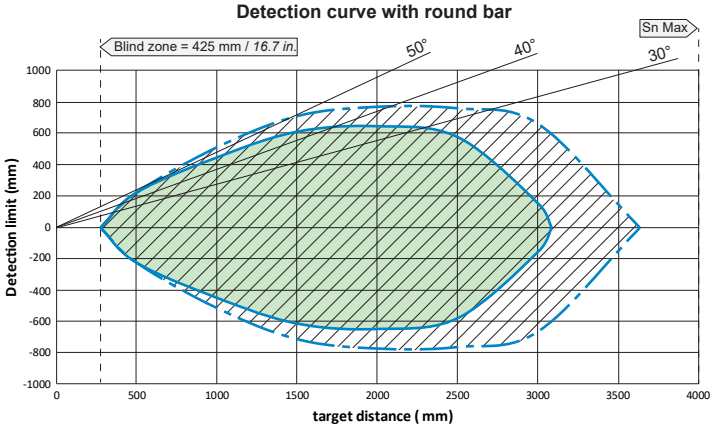
Detection curves for different objects

Detection curve with 100 x 100 mm square target



100 x 100 mm / *3.94 x 3.94 in.*
Stainless steel plate

Detection curve with round bar



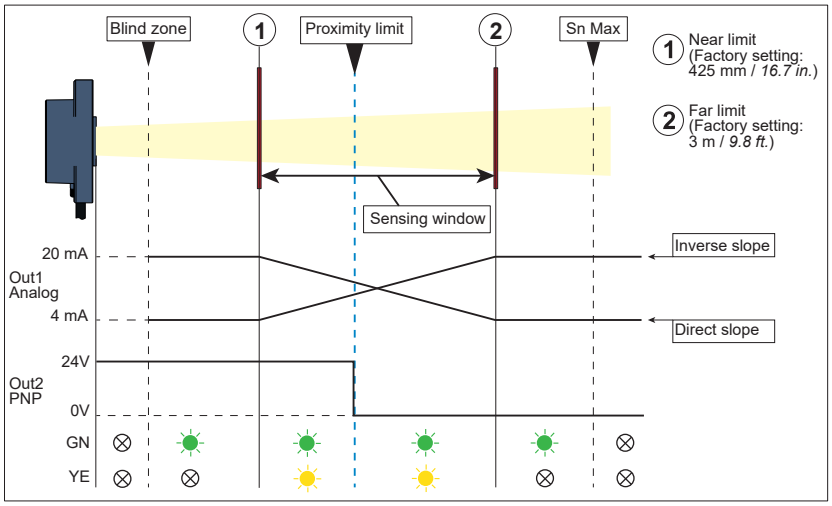
Ø 10 mm / *0.394 in.*
L = 1 m / *3.28 ft.*
Stainless steel cylinder

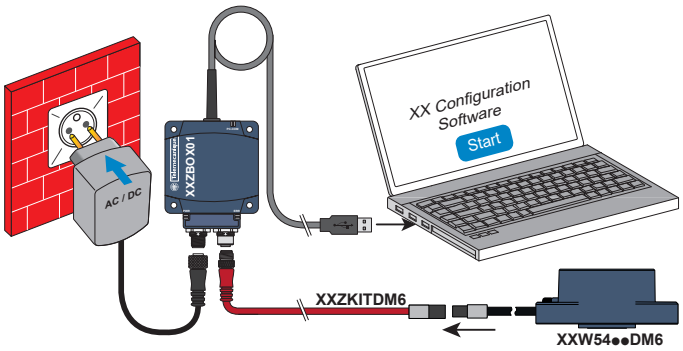
Ø 25 mm / *0.984 in.*
L = 1 m / *3.28 ft.*
Stainless steel cylinder

Sensor setting

The settings can be changed with the Ultrasonic Sensors configuration Interface and the dedicated software.
See : XXZBOX01 / XXZKIT01 Ultrasonic sensors configuration interface, Instruction sheet.

https://tesensors.com/global/en/document/QGH70768_EN





Note: The sensor's analog output will output 2 mA when it detects excessive environmental noise.

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UK Representative :
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