

Product Information

Original Instructions

SensaGuard 18 mm Barrels (Series B Models Only)

Catalog Numbers 440N-Z21S16x, 440N-Z21U16x, 440N-Z21S17x, 440N-Z21U17x



Allen-Bradley

by ROCKWELL AUTOMATION



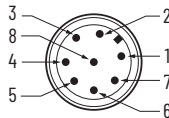
ATTENTION: Read this document and the documents that are listed in [Additional Resources on page 2](#) about installation, configuration, and operation of this equipment before you install. Users are required to familiarize themselves with installation and connection instructions and requirements of all applicable codes, laws, and standards. In accordance with applicable codes of practice, suitably trained personnel are required to implement installation, adjustments, service initiation, use, assembly, disassembly, and maintenance. If this equipment is used in a manner that the manufacturer does not specify, the protection that is provided by the equipment may be impaired.



WARNING: Do not defeat, tamper, remove, or bypass this unit. Severe injury to personnel could result.

Wiring

Table 1 - 8-pin Unit Pinout



Pin Number	Wire Color	Signal
1	White	Auxiliary Output
2	Brown	24V DC ⁽¹⁾
3	Green	_ ⁽²⁾
4	Yellow	Safety OSSD 2 Input
5	Gray	Safety OSSD 1 Output
6	Pink	Safety OSSD 2 Output
7	Blue	0V
8	Red	Safety OSSD 1 Input

(1) Operating voltage is 24V DC +10%/-15% Class 2 SELV or PELV power supply.

(2) Shield wire for stainless steel version.

Recommended mating cable, 2 m (6.5 ft) - 889D-F8AB-2. Replace the 2 with 5 (5 m [16.4 ft]) or 10 (10 m [32.8 ft]) for standard cable lengths.

Table 2 - 5-pin Micro (M12) Unit Pinout



Pin Number	Signal
1	+24V ⁽¹⁾
2	Safety OSSD 1
3	0V
4	Safety OSSD 2
5	Aux

(1) Operating voltage is 24V DC +10%/-15% Class 2 SELV or PELV power supply.

The recommended cordset is 2 m (6.5 ft) - 889D-F5AC-2. For additional lengths, replace the 2 with 5 (5 m [16.4 ft]) or 10 (10 m [32.8 ft]) for standard cable lengths.

IMPORTANT If you do not require the auxiliary signal, a 4-pin cordset (889D-F4AC-2) can be used.

The recommended patchcord for use with ArmorBlock® Guard I/O™ Safety modules is 2 m (6.5 ft) - 889D-F4ACDM-2. Replace the 2 with 0M3 (0.3 m [1 ft]), 1 (1 m [3.3 ft]), 5 (5 m [16.4 ft]), or 10 (10 m [32.8 ft]) for standard cable lengths.

IMPORTANT Do not use a 5-pin patchcord with ArmorBlock I/O modules.

Status/Diagnostic Indicator

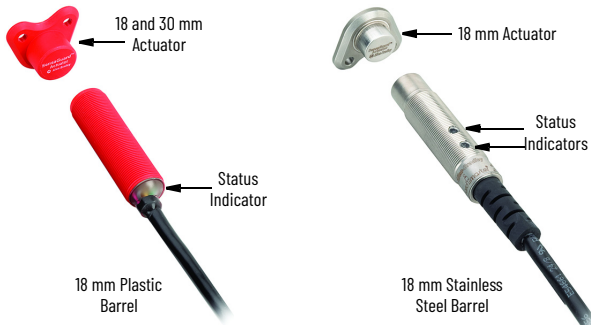


Table 3 - Status/Diagnostic Indicator

State	Status
Steady green	Door/guard closed, safety outputs active.
Steady red	Door/guard open, safety outputs off.
Flashing red	Unit failure.
Flashing green	Safety inputs off.

See publication [440N-IN017](#) in [Additional Resources on page 2](#) for learning sequence errors.

Nut Torque Specification

Switch/Actuator: 2.20 N·m (19.5 in·lb)

Minimum Distance Between Sensors

Figure 1 - Plastic Housing [mm (in.)]

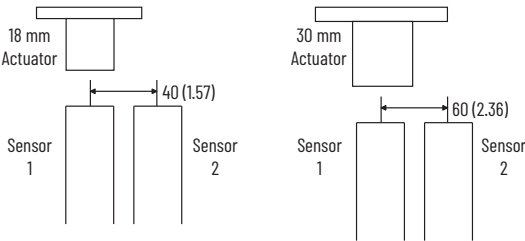
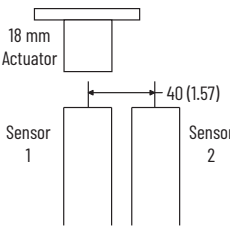


Figure 2 - Stainless Steel Housing [mm (in.)]



Approximate Dimensions

Figure 3 - Plastic Barrel [mm (in.)]

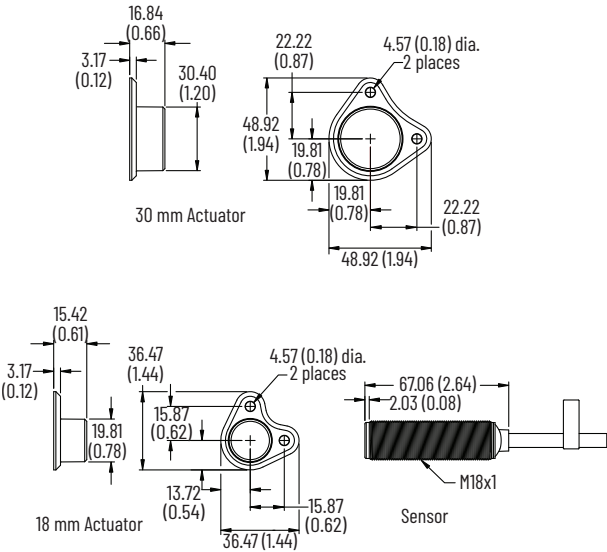
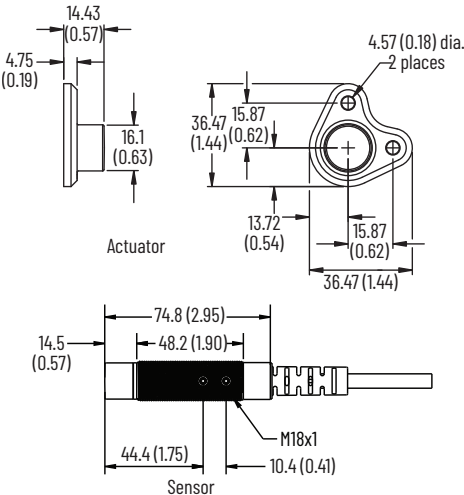


Figure 4 - Stainless Steel Barrel [mm (in.)]



Additional Resources

To download publications, visit rok.auto/literature and search for the following publication numbers.

Resource	Description
SensaGuard 18 mm Barrels Installation Instructions, publication 440N-IN017	A detailed description of the SensaGuard™ 18 mm Barrels functionality, configuration, installation procedure, and information on how to use the switch.
Safety Switches Specifications Technical Data, publication SWITCH-TD001	Provides specification information for safety switch devices.
Product Certifications website, rok.auto/certifications	Provides declarations of conformity, certificates, and other certification details.

Waste Electrical and Electronic Equipment (WEEE)



At the end of life, this equipment should be collected separately from any unsorted municipal waste.

Rockwell Automation maintains current product environmental compliance information on its website at rok.auto/pec.

Your comments help us serve your documentation needs better. If you have any suggestions on how to improve our content, complete the form at rok.auto/docfeedback.

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