

Product Information

Original Instructions

Magnetically Coded Non-contact Switch (MC1)

Catalog Numbers 440N-Z2NRS1A, 440N-Z2NRS1B, 440N-Z2NRS1C



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.

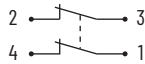


ATTENTION: The presence of spare actuators can compromise the integrity of safety systems. Personal injury or death, property damage, or economic loss can result. Appropriate management controls, working procedures, and alternative protective measures should be introduced to control their use and availability.



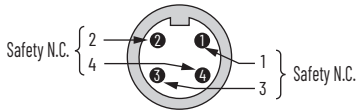
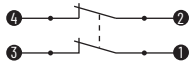
WARNING: Do not defeat, tamper, remove, or bypass this unit. Severe injury to personnel could result.

Wiring



Pin	Wire Color	Signal
1	Blue	Safety 1 N.C.
2	Yellow	Safety 2 N.C.
3	Green	Safety N.C.
4	Red	Safety 1 N.C.

Figure 1 - 440N-Z2NRS1C Pinout



Recommended Safety Relays

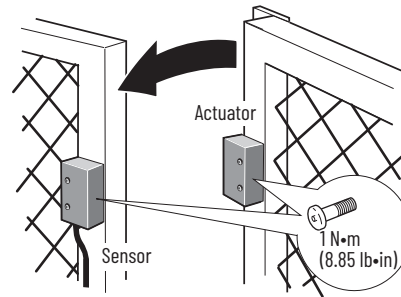
- Guardmaster® safety relays: CI, SI, DI, and DIS
- CR30 software configurable safety relay
- Minotaur™ safety relays: MSR30, MSRI26, MSRI27, and MSRI31

Mounting Information

IMPORTANT After installation and commissioning, the actuator, switch, and switch lid mounting screws should be coated with tamper-evident varnish or similar compound.

Maintain 5 mm (0.2 in.) clearance from ferrous surroundings.

IMPORTANT Do not use anaerobic adhesive.



Alignment

Figure 2 - Proper Alignment

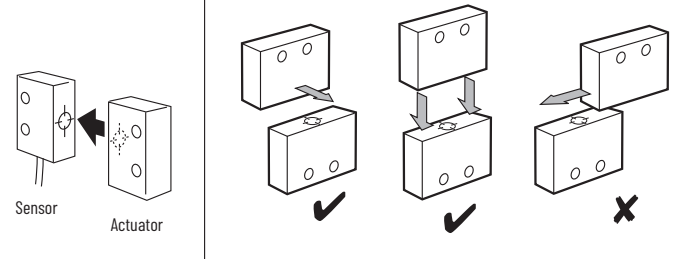
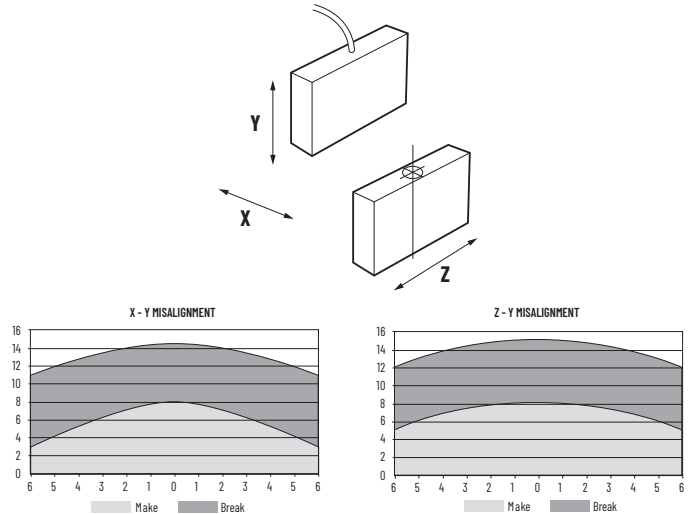


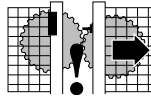
Figure 3 - Misalignment Curve



Maintenance



ATTENTION: Verify that the machine is isolated and stopped whenever the interlocked guard door is open.



Every week, check the correct operation of the switching circuit. Also check for signs of abuse or tampering. Inspect the switch casing for damage.

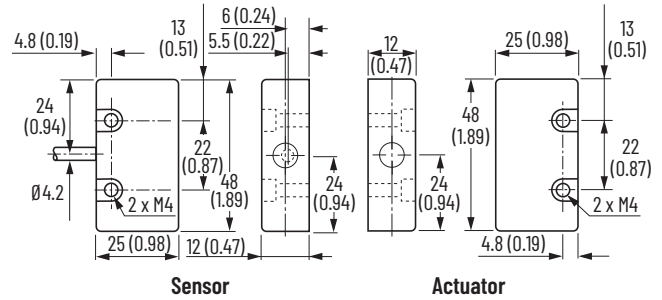
Repair

If there is any malfunction or damage, no attempts at repair should be made. The unit should be replaced before machine operation is allowed.

IMPORTANT Do not dismantle the unit.

Approximate Dimensions

Figure 4 - Dimensions shown in mm (in.)



Specifications

Attribute	Value
Switching distance, max (safety)	<ul style="list-style-type: none"> • Make: 8 mm (0.31 in.) • Break: 14 mm (0.55 in.)
Operating temperature	-10...+55 °C (14...131 °F)
Mechanical life	1 x 10 ⁶
Torque settings, max	1.0 N•m (8.85 lb•in) mounting bolts

Additional Resources

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

Resource	Description
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	Provides general guidelines for installing a Rockwell Automation industrial system.
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.

For technical support, visit rok.auto/support.

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