

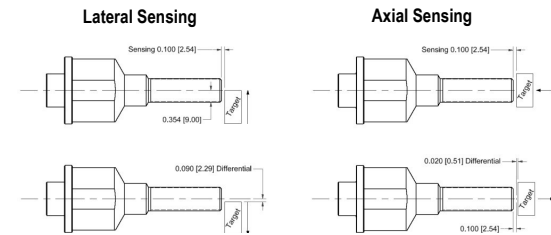
Introduction

The 70 Micro Junction integrates 70 series GO™ Switch with junction box allowing termination to the switch directly. Additionally, this product provides the full range of GO™ Switch performances in the junction box and the reliability of the GO™ Switch for use in increased safety applications. The junction box is available with an M20 or 1/2 NPT conduit entry and has terminal blocks for ease of end user push-in installation.

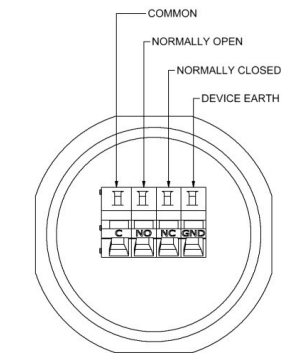
The integrated GO switches in the micro junction use permanent magnets which, when actuated by the presence of a ferrous or magnetic target, change the state of electrical contacts.

Specifications

Target Material: Ferrous metal; optional target magnets	Thread Options: 5/8-18 UNF; M18 x 1
Sensing Distance: Ferrous target: 0.100" (2,54mm)	Temperature Rating: Hazardous Location: -40°C to +75°C Ordinary Location: -40°C to +105°C
<i>Increased sensing distance possible with TopWorx supplied target magnets</i>	Contact Material: Palladium silver
Differential: Ferrous target: 0.020" (0,51mm)	Contacts: Single Pole, Double Throw, Form C
Contact resistance: <0,5 ohm	Electrical Ratings: Resistive 4A @ 120VAC / 3A @ 24VDC
Response time: 15 milliseconds	Connection Head Conduit Outlet: 1/2" -14NPT or M20.
Enclosure Material: Body tube and lid: 303 or 316 SST	



Wiring Diagram

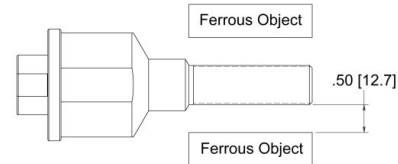


EU Declaration of Conformity

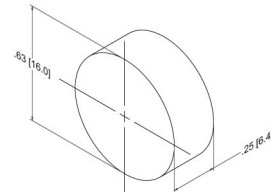
The products described herein, conform to the provisions of the following UNION Directives, including the latest amendments:
Low Voltage Directive (2014/35/EU)
EMD Directive (2014/30/EU)
ATEX Directive (2014/34/EU).

Mounting and Operation Best Practices

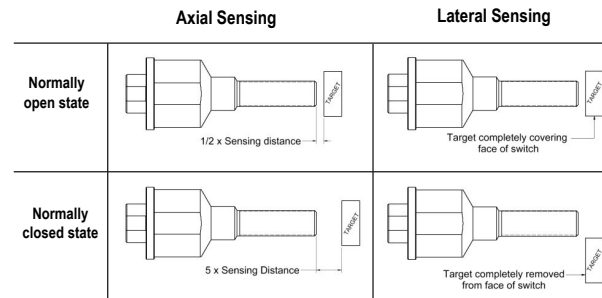
- Torque specs:
Mounting nuts: 3 lbf-ft [4.1 N·m]
Lid: 14 lbf-ft [19 N·m]
- Recommended mounting bracket material: 300 series stainless steel
- For the maximum rated sensing distance, ensure a 0.500" gap between threaded portion of switch and ferrous objects.



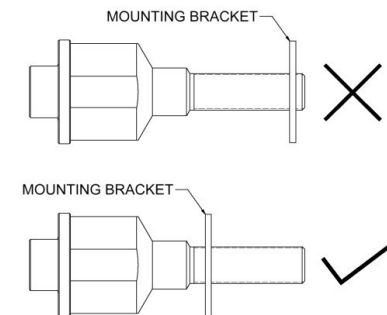
- Minimum recommended ferrous target dimensions:
0.63" diameter, 0.25" thick
Approximate weight, steel target: 0.32 oz (9g)



- In order to achieve maximum contact pressure, ensure that the ferrous target distance from the switch is 5 times the rated sensing distance in the normally closed states and 1/2 the rated sensing distance in the normally open state.



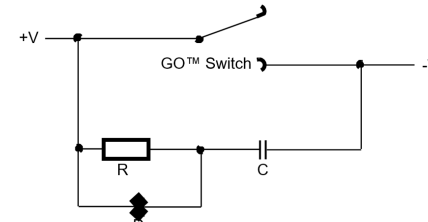
- To minimize undue stress caused by conduit or cables, ensure that the switch is mounted such that the mounting bracket is near the center of the switch.



Installation

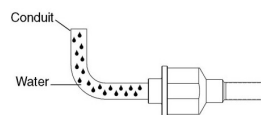
- For heavy or inductive loads, arc suppression devices or interposing relays are recommended for contact longevity.

Example arc snubber circuit

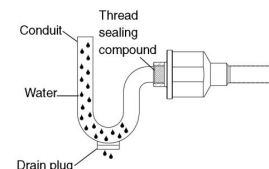


- When using long runs of conduit or cable, place supports close to the switch assembly to avoid pulling the assembly out of position.
- If switch assembly is mounted on a moving part, ensure that flexible conduit is long enough to allow for movement, and positioned to eliminate binding or pulling.
- Avoid contact between target and switch.
- For ease of installation in Cl1 Div 1 environments, Topworx recommends either an Appleton UNY50 or UNY50NR conduit union.
- To prevent water ingress through the conduit entry, ensure that a drip loop and drain plug are installed within 6 inches of the switch.
- The purchaser should make TopWorx aware of any external effects of aggressive substances that the equipment may be exposed to.

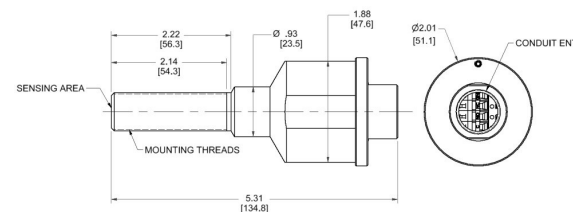
Inadequate ingress protection



Good ingress protection



Basic Dimensions



Technical Assistance

- TopWorx engineers are available to provide technical assistance on GO™ Switch products. However, it is the customer's responsibility to determine the safety and suitability of the product in their application. It is also the customer's responsibility to install the switch using the current electrical codes in their region.

零件名称 (Part Name)	铅 (Lead) (Pb)	汞 (Mercury) (Hg)	镉 (Cadmium) (Cd)	六价铬 (Hexavalent Chromium) (Cr+6)	多溴联苯 (Polybrominated diphenyls) (PBB)	多溴二苯醚 (Polybrominated diphenyl ethers) (PBDE)
接触组件 (Contact Assembly)	X	O	O	O	O	O
磁铁 (Magnets)	O	O	O	O	O	O
壳体 (Enclosure)	O	O	O	O	O	O
塑料 (Plastic)	O	O	O	O	O	O
接线 (Wiring)	X	O	O	O	X	X

O: 表示该有毒物质在该零件所有物质材料中的含量均低于GB/T26572规定的限量要求以下
X: 表示该有毒物质在该零件的某一物质材料中的含量超出GB/T26572规定的限量

Special Conditions for Safe Use

WARNING

To reduce risk of death, serious injury or property damage:

- Personnel installing, maintaining, or operating this equipment must be qualified, must read, understand, and follow these instructions before proceeding.
- This document must be retained for future reference.
- Please contact local Topworx representative for questions, clarifications, or comments.

General

- For installation in hazardous locations, check local electrical codes.
- The maximum voltage and current shown in the rating label must not be exceeded.
- The switch / terminal assembly is bonded together by the internal cement/ potting. Any attempt to separate the parts (except the threaded cover) will void the warranty and certification.
- A minimum of 5 threads engagement of the lid to the body tube must be maintained when in service.

NEC

- When installed in Cl I Div 1 or Div 2 environment, lead seal fittings are required within 18" of switch assembly.

ATEX/IECEX

- The 70 Series GO™ Switch assembly shall be suitably earthed by its installation via the male thread of the GO™ Switch body.
- Do not allow dust layers to build up on the surface of the switch.
- No more than one single multi-stranded lead shall be connected to the terminal unless multiple conductors have been joined in a suitable manner, e.g. two conductors into a single insulated bootlace ferrule, or any method indicated on the terminal certificate.
- Suitably certified cable entry devices shall be installed in accordance with IEC60079-14 and must maintain the ingress protection (IP) rating of the enclosure. The cable entry device thread shall not protrude within the enclosure body (i.e. shall maintain the clearance to the terminals).
- Any unit marked Ex db must be fitted with an Ex db certified gland only.
- Any unit marked Ex db eb may be fitted with either an Ex db or Ex eb certified gland as per the installation requirements.



II 2 GD Ex db IIC T* Gb; Ex db eeb IIC T* Gb Ex tb IIC T* C Db
Ambient temperatures as low as -40°C up to 75°C available
for certain products.
(Reference certificate for specific marking)
Baseefa 14ATEX0236X
IECEX BAS 13.0086X
BAS 21UKEX0425X

II 1 GD Ex ia IIC T* Ga; Ex ia IIC T* Ca
Ambient temperatures as low as -40°C up to 150°C
available for certain products.
(Reference certificate for specific marking)
Baseefa 15ATEX0193X
IECEX BAS 15.0136X
BAS 21UKEX0665X



Visit www.topworx.com for comprehensive information on our company, capabilities, and products – including model numbers, data sheets, specifications, dimensions, and certifications

info.topworx@emerson.com
www.topworx.com



GLOBAL SUPPORT OFFICES

Americas
3300 Fern Valley Road
Louisville, Kentucky 40213 USA
+1 502 969 8000

Asia-Pacific
1 Pandan Crescent
Singapore 128461
+65 6891 7550

Europe
Horsfield Way
Bredbury Industrial Estate
Stockport SK6 2SU
United Kingdom
+44 0 161 406 5155

Africa
24 Angus Crescent
Longmeadow Business Estate East
Modderfontein
Gauteng
South Africa
+27 11 451 3700

Middle East
P.O. Box 17033
Jebel Ali Free Zone
Dubai 17033
United Arab Emirates

© 2015 - 2016 TopWorx.™ All rights reserved. TopWorx™ and GO™ Switch™ are all trademarks of Top-Worx™. The Emerson logo is a trademark and a service mark of Emerson Electric. Co. © 2016 Emerson Electric Company. All other marks are the property of their respective owners. Information herein – including product specifications – is subject to change without notice.

ES-03895-1 AB