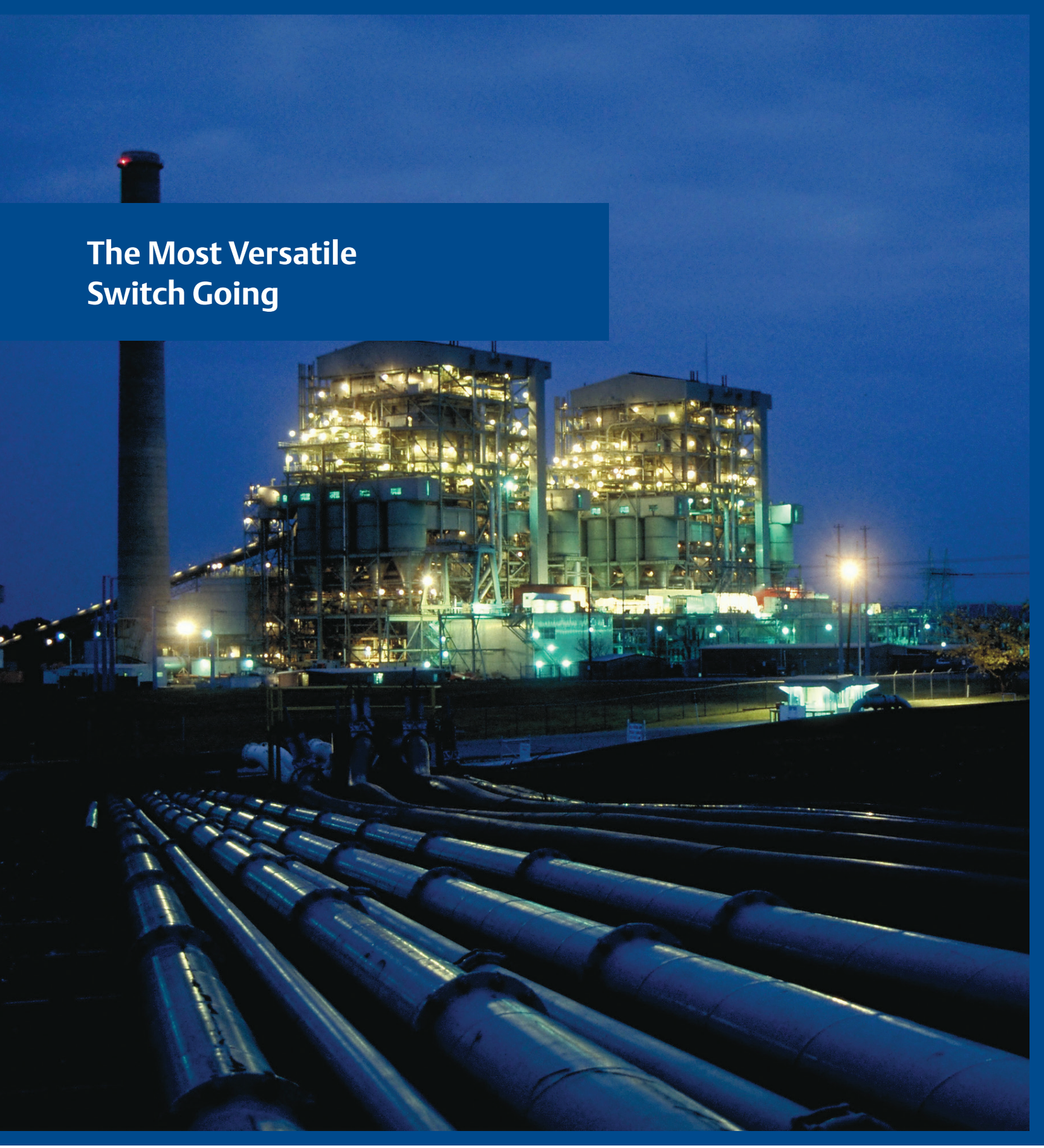
The Most Versatile Switch Going



GO™ Switch 7J With An Integral Junction Box

Simple. Reliable. Maintenance-Free.

EMERSON™

Highly reliable hybrid limit switch and proximity sensor help you regulate and isolate your process with certainty.

Emerson's TopWorx™ GO™ Switch position sensing technology provides absolute assurance in the most challenging applications by increasing reliability, profitability and reducing down time. Engineered to meet tough applications while offering high reliability and installation flexibility, these rugged, dependable, and affordable models are designed to provide dependability in all environments.

Existing switches can't handle harsh conditions on a regular basis and will eventually fail due to inherent design limitations—resulting in equipment damage or life-threatening accidents.

Users are increasingly looking for sensor solutions that reduce their maintenance requirements in critical applications.

Changing environmental and application conditions make it difficult to get consistent, repeatable precision sensing feedback with traditional sensors.

What if Emerson's highly versatile switches and sensors opened up new horizons for you to explore?

GO™ Switch 7J With An Integral Junction Box

Product overview

GO™ Switch Model 7J takes two proven technologies and combines them into one. The 7J is a one piece proximity sensor and junction box assembly that allows the end-user to terminate directly on to the sensor. There is no more need to acquire a separate fitting and junction box to be able to terminate to the sensor. The compact design gives the user the ability to install the sensor in areas where there are space constraints or where precision sensing is required, i.e., short stroking valves. The product is available with NEC and IEC hazardous area classifications and is available with imperial or metric threads.

Area Classifications

- UL Class 1, Div 1, Groups A-D, Class II, Div 1, Groups E-G, Class III (Lead seal required within 18”)
- cUL Class 1, Div 1, Groups A-D, Class II, Div 1, Groups E-G, Class III (Lead seal required within 18”)
- UL Class 1, Div 2, Groups A-D, CL II Div 2, Groups E-G (Lead seal required within 18")
- cUL Class 1, Div 2, Groups A-D, CL II, Div 2, Groups E-G (Lead seal required within 18”)
- cUL General Purpose
- UL General Purpose
- Ex d IIC T6 Gb (Tamb -40^{0}C to +75^{0}C) Ex tb IIIC T85^{0}C/T100^{0}C/T135^{0}C Db (Tamb -40^{0}C to 75^{0}C), IP66/68
- Ex de IIC T6 Gb (Tamb -40^{0}C to +75^{0}C) Ex tb IIIC T85^{0}C Db (Tamb -40^{0}C to 75^{0}C), IP66/68

GO™ Switch - 7J

Model 7J With Integral Junction Box

Model 7J is a one piece proximity sensor and junction box assembly that allows the end-user to terminate directly on to the sensor. The compact design gives the user the ability to install the sensor in areas where there are space constraints or where precision sensing is required.

Features

- SPDT
- Simple Apparatus
- One piece stainless steel construction
- -40°C to 75°C (-40°F to 167°F) operating temperature
- CE, CCC Certified

Options

- Imperial or Metric Threads
- UL, cUL, IECEx, ATEX certifications

Model

Differential:
Approx. 0.5 mm (0.20”)

Operating Temperature:
-40^{0}C to 75^{0}C (-40^{0}F to 167^{0}F)

Contact Resistance: 100 mΩ

Insulation Resistance:
100 MΩ Min. (@500 VDC)

7J 5/8” x 2 5/32” Mounting Threads
1/2” NPT Conduit

7JM M18 x 1 Mounting Threads
M20 Conduit

Ordering Guide
Fill in the boxes to create your ‘ordering number’

Model
——

Contact Form

Contact Material: Palladium silver with sawtooth surface configuration

Form: SPDT Form C

Ratings: Resistive

AC		DC	
Volts	Amps	Volts	Amps
120	4	24	3

SPDT

1 Single Pole Double Throw (Form C)

Contact Form
1

Sensing Range

Target Material: Ferrous steel

Sensing Range:
2.5 mm (0.100”) end sensing

3 Standard sensing approx. 2.5 mm (0.100”) end sensing

Extended Sensing Range with External Target Magnets
(See Accessories for External Target Magnets)

Extending Sensing Rage with External Target Magnets 73, 75, 77 Series

Magnet	Sensing	Differential
AMP3	0.20”	0.25”
AMS4	0.35”	0.15”
AMS7	0.20”	0.05”

Sensing Range
3

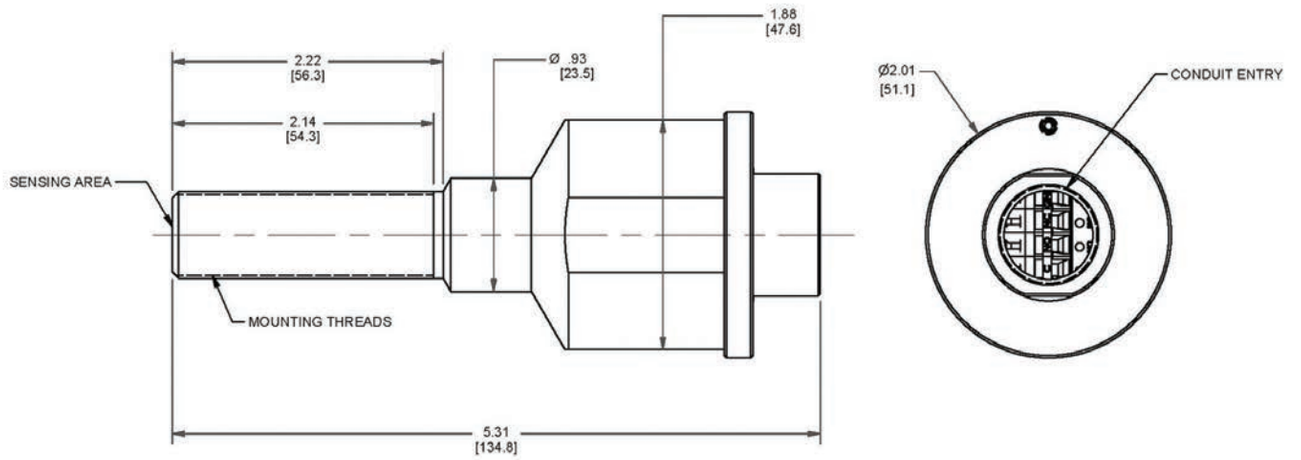
Outlet Position

Conduit Outlet:

5 Bottom of enclosure

Outlet Position
5

Dimensions



Enclosure Material

6 316L stainless steel

Area Classification

3 UL Class I Div 1, Groups A-D Cl II Div 1, Groups E-G, Class III (Lead seal required within 18")

4 cUL Class I Div 1, Groups A-D Cl II Div 1, Groups E-G, Class III (Lead seal required within 18")

5 UL Class I Div 2, Groups A-D Cl II Div 2, Groups E-G (Lead seal required within 18")

6 cUL Class I Div 2 , Groups A-D Cl II Div 2, Groups E-G (Lead seal required within 18")

7 cUL General Purpose

8 UL General Purpose

9 Ex d IIC T6 Gb (Tamb -40°C to 75°C), Ex tb IIIC T85C Db (Tamb -40°C to 75°C), IP66/68

Y Ex de IIC T6 Gb (Tamb -40°C to 75°C), Ex tb IIIC T85C Db (Tamb -40°C to 75°C), IP66/68

F ATEX/IECEx Zone 0
Ex ia IIC T6 Ga
Ex ia IIIC T85°C Da (-40°C < Ta < 50°C)

G ATEX/IECEx Zone 0
Ex ia IIC T4 Ga
Ex ia IIIC T135°C Da
(-40°C ≤ Ta ≤ 100°C)

H ATEX/IECEx Zone 0
Ex ia IIC T3 Ga
Ex ia IIIC T200°C Da
(-40°C ≤ Ta ≤ 150°C)

Wiring Options

JSP (1/2" NPT) only available with 7J

JSM (M20) only available with 7JM

Regional Certs

N NEPSI (Area Class 9 only)

R EAC (Area Class 9 only)

Enclosure Material
6

Approvals
— —

Wiring Options
— —

Regional Certs
—

The TopWorx™ Family of Products

GO™ Switch

Using a unique technology, GO Switch outperforms conventional limit switches and proximity sensors in the toughest applications. If your plant conditions are hot, cold, wet, dirty, abusive, corrosive, or explosive, be sure to specify GO Switch for a long, trouble-free life.

TopWorx™ K-Series

The K-Series switchbox gives you a compact, robust product that conforms to the latest European Directives. The use of quality materials and attention to detail in the design and manufacturing processes has resulted in an excellent reputation for reliability. The requirement for maintenance has been virtually eliminated.

Wireless safety shower monitoring solution

The TopWorx™ Wireless Safety Shower Monitoring Solution combines two 10 Series, latching GO Switches with a Rosemount 702 Wireless Transmitter that provide on/off indication, time stamping, and automated reporting functions for safety shower/eyewash stations.

Vip brackets

With over 1,500 mounting kit designs, TopWorx™ products can be mounted on any rack-n-pinion, scotch-yoke, or vane actuator, quarter-turn manual valves, linear knifegate and control valves, and positioners.

TopWorx™ Discrete Valve Controllers

TopWorx™ D-Series discrete valve controllers are certified for use in every world area. They carry IECEx, ATEX, UL, and CSA certifications in a single model, making it easier for global customers to standardize across plants in multiple world areas. Other certifications available include NEPSI, KOSHA, InMetro, and GOST. TopWorx™ D-Series discrete valve controllers can survive in virtually any plant condition. Their heavy-duty construction and corrosion resistance enable superior performance in the most demanding applications.

TopWorx™ T-Series switchboxes deliver outstanding value by providing full functionality in compact, direct-mount enclosures. Available with a variety of position sensors, integral solenoid valves, and bus networks, the T-Series is suitable for use in all hazardous areas and carry IECEx, ATEX, and CSA certifications.

TopWorx SIL-3 ESD Valve Controllers provide a complete Partial Stroke Test Solution with unique features and functionality that enable partial stroke testing of emergency shutdown valves without disrupting or shutting down the process.

About Emerson

Emerson is a powerful, global, single source of process improvement technology and expertise. We help major companies in selected industries optimize their plants and processes to achieve higher quality, greater reliability and faster time to market, while steadily advancing productivity and profitability. We can build it - providing experienced project management, engineering and a single point of accountability for the entire instrumentation and automation system. We can connect it – seamlessly integrating people and technology at every level of the process. We can improve it – creating more efficient utilization of energy and raw materials. And we can sustain it – producing greater reliability, month after month, year after year. From the field, to the plant, to the bottom line – where performance is the question, Emerson is the answer.

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