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Cylinder Proximity and Inclinometer Sensors

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44 Glossary of Terms

	Sensor	/ Groove Cross Reference Chart	
8WS Dovetail			Numatics
9C Round Keyway		2,5 4.7 R 2.13 +/- 0.05	DE-STA-CO Robohand SMC Bimba Compact Air Fabco
9D Universal Dovetail	Canada .		Fabco Numatics Rotomation
9E Universal Dovetail			Fabco Numatics Rotomation
9F 4mm T-Slot	and a		Fabco Festo Numatics Rotomation
9H 4.2mm T-Slot	1		4x4 Groove
9K 4.2mm U Groove		R 5 (2) 1 + 3.1 + 3.1 + 45.0° Ø 4.25	Mindman Koganei
9M50 6.5mm D Groove	Constant of the second	1.9 5.1 R 3.25	Norgren
9Q Universal T-Slot	Cartes		Parker Fabco Festo Numatics Rotomation
9U Universal T-Slot		Any 2.8 3.9 Any	Fabco Festo Numatics Parker SMC

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REED OR ELECTRONIC? Which type of sensor should I use

The type of sensor that is best for a particular application depends on the operating parameters and cost related issues. Canfield Connector is proud to offer the industry's best value in Reed and Electronic Sensors. However if our sensors are misapplied, they could fail prematurely. Therefore, give careful consideration when selecting the proper proximity sensor for your application. We have prepared this catalog with all the necessary information in order to aid in this decision. If you require more assistance or have any questions, please feel free to call. Our customer service and engineering staff will be happy to assist you. *For technical assistance, please call - (330) 758-8299 or visit our web site at www.canfieldconnector.*com

Reed Switch Sensors:

If initial cost and versatility are most important, then reed switch sensors should be considered. For example the 7000 Series Type 04 reed switch will operate from 5 to 240 volts AC or DC. Generally, one switch can be stocked to cover a large majority of common applications. Please note, reed sensors do to work well with inrush surge currents and transients (common to inductive & capacitive loads; i.e. relays, coils & long wire runs). If inrush surge currents and transients must be accommodated, switch Types 21 - 29 may be specified. These parameters should be given careful consideration when selecting a proximity device that will be best suited for an application.

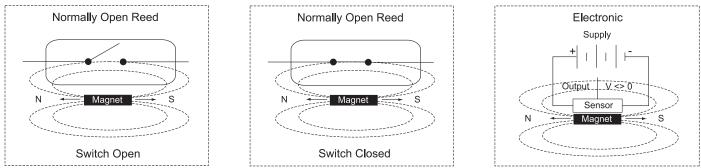
Electronic Sensors:

In general, if longevity is a major concern, electronic sensors should be used whenever they fit within the operating parameters specified for a given application. They should receive special attention when high cycle rates are required. If electronic sensors are used within their operating range they will always outperform and out last mechanical reed sensors. The initial added cost associated with a electronic sensor will be outweighed should the application require high cycle rates.

PRINCIPLES OF OPERATION FOR MAGNETIC PROXIMITY SWITCHES

Reed / Electronic Switch Working Principle

Our reed switch sensors contain hermetically sealed reed elements (mechanical contacts) which can be open or closed in their normal state depending on the version selected. When a magnetic field moves within proximity of the switch, magnetism is induced into the leads and forces the contacts to change state (open if normally closed or closed if normally open). Typically used with air cylinders that are built with internal magnetic pistons.



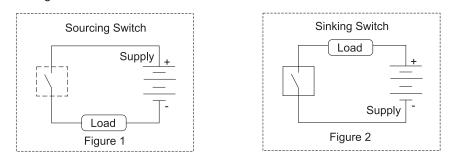
Note: Arrows indicate movement of magnet in relation to switch surface.

Sinking (NPN) vs. Sourcing (PNP)

Electronic switches are available in Sinking or Sourcing versions. The basic difference between these two ways of solid state switching is as follows:

The Sourcing method connects or switches one side of the load to the positive (+) side of the supply. The negative (-) side is connected directly to the other side of the load as shown in figure 1. PNP is the acronym used to describe the transistor that performs this type of switching in a solid state sensor.

The Sinking method connects or switches one side of the load to the negative (-) side of the supply. The positive (+) side is connected directly to the other side of the load as shown in figure 2. NPN is the acronym used to describe the transistor that performs this type of switching in a solid state sensor.



PROXIMITY SENSOR TYPES

Reed Switch Sensors:

Type 01 & 05 -

These two sensors are the most basic types. They are made up of a reed element only. The Type 01 is single pole, single throw, normally open and the Type 05 is single pole, single throw, normally closed. These sensors act as an in line switch which is actuated in a magnetic field, with no minimum current requirement.

- Features: Lowest cost
 - Non polarity dependent
 - CSA versions available
- AC or DC operation Zero leakage current
- · High power capacity
- Nema 6 versions available

Type 02 and 04 & 09 -

The Type 02 is current limiting and is single pole, single throw, normally open. The Type 04 is single pole, single throw, normally open and Type 09 is single pole, single throw, normally closed. They act as an in line switch which is actuated in a magnetic field. These sensors also include an LED indicator and surge suppression. Surge suppression helps to extend the life of the sensor when it is used to switch higher current loads and / or inductive loads. The Type 04 & 09 are similar to the Type 01 & 05, in that they perform the same function.

• AC or DC operation

Features:	 Lowest cost
-----------	---------------------------------

- Polarity protection
- CSA versions available
- Zero leakage current LED indicator
- High power capacity
- Nema 6 versions available

Type 06 -

This sensor is a reed type sensor which uses a single pole, double throw element. This enables the switching of two separate loads. One side of the switch is normally closed and the other is normally open. This sensor also included an LED indicator which is connected to the normally open side of the switch. The LED indicator operates when the normally open side is closed with a minimum 5mA current flowing through the switch and a typical 3 volt drop.

Features:	 AC or DC operation 	 Zero leakage current 	• LED indicator on normally open
	 High power capacity 	 CSA versions available 	 Nema 6 versions available

Type 21 & 25 and 23, 24 & 29 -

These sensors are designed specifically to switch high power AC loads (including inductive loads) and loads with high transient or inrush currents, although they are not limited to these applications. These sensor types all use a reed element to sense a magnetic field and a triac to drive the output, and include standard surge suppression. This configuration provides excellent longevity even under the most demanding conditions. The Type 21 & 25 utilize a two wired switch has no LED and Types 23, 24 & 29 utilize a three wired switch with LED.

Resistant to current inrush

- Features: • Solid state triac output = long life
 - High power capacity
 - CSA versions available
- Low voltage drop
- · Zero leakage current
- Nema 6 versions available

Electronic Sensors:

Type 15 & 16 -

These two sensors use magnetoresistive elements with no magnetic polarity. They are 100% solid state, and have no moving parts, resulting in extremely long life expectancy. These virtually vibration and shock proof sensors utilize a rugged triac to switch power convenient AC voltage (common to reed switches) combined with the reliability of solid state technology (common to electronic switches).

- Features: Solid state circuitry = long life
 - LED indicator
 - Resistant to current inrush
- Low voltage drop
- CSA versions available
- Nema 6 versions available
- AC operation
- Resistant to shock and vibration
- No minimum current to operate

Type 31 & 32 -

These sensors use magnetoresistive elements with no magnetic polarity. They are 100% solid state, and have no moving parts, resulting in extremely long life expectancy. They are designed to operate within 6 to 24V DC, and are available in two configurations: NPN (Sinking) output and PNP (Sourcing) output. Both include an indicator light which illuminates when the switch is actuated. No minimum load current and low voltage drop make them ideal for use with programmable controllers.

- Features: • Solid state circuitry = long life
 - LED indicator
 - Resistant to current inrush
- · Low voltage drop
- CSA versions available
- Nema 6 versions available
- No minimum current to operate
- · High power capacity
- · Highly shock and vibration resistant



7000 SERIES REED AND ELECTRONIC SENSORS FOR 2" TO 8" BORE TIE ROD CYLINDERS OR 3/4" TO 4" ROUND CYLINDERS

GENERAL DESCRIPTION

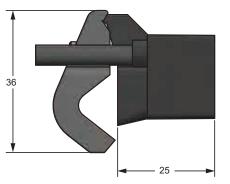
The Canfield 7000 Series proximity sensors are used to sense position on cylinders. They accommodate 2 to 8 inch bore tie rod cylinders or 3/4 to 4 inch round cylinders. This proven design is rugged yet cost effective. The Series 7000 boasts the largest number of custom circuits to match applications found in the market. Examples include; 1 or 4 Amp reed switches, normally open, normally closed or SPDT switch types, reed or electronic sensing elements in the same package style, and the industry's first 120 VAC Hall sensor. A wide range of enclosures and connector options are available. To reduce stocking requirements, two clamp options feature a self-adjusting clamp for NFPA and other tie rod cylinders from 2 to 8 inch bore. Another clamp option features a band clamp from 3/4 to 4 inch round cylinders.



DIMENSIONAL DATA

All dimensions are in millimeters unless otherwise noted.





CONNECTION OPTION

12mm



MOUNTING / CLAMP STYLES

STYLE: 0



Clamp for NFPA tie-rod cylinders Universal 2" to 6" bore.





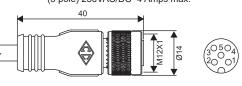
Clamp for NFPA tie-rod cylinders 6" to 8" bore.

Switch Type / Tech. Specs.	See Ordering Information [†]		
Sensitivity / Orientation	Reed / Electronic: 85 Gauss Parallel (measured from sensor surface)		
Shock	Up to 30G (11mS) Reed Only (not applicable for electronics)		
Vibration	Up to 20G (10-55 Hz) Reed only		
Materials	Cable: PVC House: PEI, PA		
Temperature Range	-20° to +80°C		
Environmental Protection	Designed for IP 67 / NEMA 6		
Cable Diameter	5.1mm		
Wire Gauge	22 AWG standard		

ORDERING INFORMATION

(ADDITIONAL) MATING CORDSETS / CONFIGURATION

12mm female molded locking connector (3 pole) 250VAC/DC 4 Amps max.



Brown = Pin 1 Blue = Pin 3 Black = Pin 4 N/C = Pin 2 N/C = Pin 5

Order P/N:

RC12-AFM030-0120C10A (2m length) RC12-AFM030-0150C10A (5m length)



Mounting / Clamp Style 0 - Universal tie rod clamp 2" to 6" bore

9 - 5/8" tie rod clamp 6" to 8" bore

Connector Style

0 - Standard cable module (9 ft)

5 - 12mm quick connect male*

*Mates with cordsets shown on previous page Switching Switching Switch Switching Description Function Voltage Drop Туре Voltage Current Power 0 - 240V AC/DC 30 Watts 01 Reed Switch 2 Wire Normally Open SPST 1 Amp max. 0 Volts 50/60 Hz max. Reed Switch, MOV, Red LED, 240V AC/DC 30 Watts 5 1 Amp max. 04 Normally Open SPST 3 Volts 2 Wire 50/60 Hz .005 Amps min. max. Reed Switch, 0 -120V AC/DC 20 Watts 05 Normally Closed SPST 1 Amp max. 0 Volts 2 Wire 50/60 Hz max. Reed Switch, Red LED, Single Pole, Double 5 - 120V AC/DC 20 Watts 3 Volts/load1 1 Amp max. 06 0 Volts/load2 .005 Amps min. 3 Wire Throw 50/60 Hz max. Reed Switch, MOV, Red LED, 5 - 120V AC/DC 20 Watts 1 Amp max. Normally Closed SPST 3 Volts 09 50/60 Hz .005 Amps min. 2 Wire max AC Electronic Sensor for Reed Normally Open TRIAC 600 mA max. 15 Watts 15 12-24 VAC 1 Volt Magnets, Red LED, 3 Wire output 5 Amps Inrush max. AC Electronic Sensor for Reed Normally Open TRIAC 600 mA max. 72 Watts 120 VAC 16 1 Volt Magnets, Red LED, 3 Wire output 5 Amps Inrush max. Reed Switch, MOV, Normally Open TRIAC 10 - 240 VAC 4 Amps max. 100 Watts 21 1 Volt 2 Wire 50/60 Hz 50 Amps Inrush output max. 4 Amps max. 10 - 50 VAC Reed Switch, MOV, Red LED, Normally Open TRIAC 100 Watts 23 50 Amps Inrush 1 Volt 3 Wire output 50/60 Hz max. .005 Amps min. 4 Amps max. Reed Switch, MOV, Red LED, Normally Open TRIAC 24 - 240 VAC 100 Watts 24 50 Amps Inrush 1 Volt 3 Wire output 50/60 Hz max. .005 Amps min. 10-120 VAC Reed Switch, MOV, Normally Closed TRIAC 4 Amps max. 100 Watts 25 1 Volt 50/60 Hz 50 Amps Inrush 2 Wire output max. 4 Amps max. Normally Closed TRIAC Reed Switch, MOV, Red LED, 10-120 VAC 100 Watts 29 50 Amps Inrush 1 Volts 50/60 Hz 3 Wire Output max. .005 Amps min.

710- 00 - 0

Each switch supplied with clamp assembly



31

32

Consult factory for available versions listed by Canadian Standards Association for use with certified electrical equipment.

Electronic for Reed Magnet, Red LED & Sourcing, 3 Wire

Electronic for Reed Magnet, Red LED & Sinking, 3 Wire

Ordering Example: 710-000-004

1 Amp max.

1 Amp max.

Universal tie rod clamp, Standard cable, reed switch, lighted, MOV surge suppression, normally open, 5 - 240V AC/DC 50/60 Hz

24 Watts

max.

24 Watts max.

0.5 Volts

0.5 Volts

6 - 24 VDC

6 - 24 VDC

Normally Open PNP

Normally Open NPN



7C SERIES REED AND ELECTRONIC SENSORS FOR 2" TO 8" BORE TIE ROD CYLINDERS

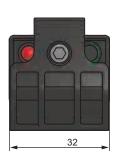
GENERAL DESCRIPTION

The Canfield Connector 7C Series proximity sensors are used to sense position on pneumatic actuators equipped with magnetic pistons from 2" to 8" bore. This proven design is rugged yet cost effective. All switches feature a self-adjusting clamp that grips standard NFPA and custom cylinders eliminating stocking requirements of many clamps for different bore sizes. The Series 7C boasts the largest number of custom circuits to match applications found in the market. Examples include; 1 or 4 Amp reed switches, normally open, normally closed or SPDT switch types, reed or electronic sensing elements in the same package style, not to mention the industry's first 120 VAC Hall sensor. The low cost 7C features a ½" conduit hub and wire lead to meet stringent electrical codes in certain regions and applications.

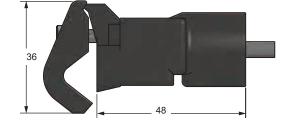


DIMENSIONAL DATA

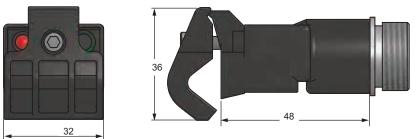
All dimensions are in millimeters unless otherwise noted.



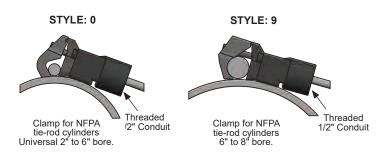
1/2" CONDUIT



3 / 5 PIN AUTOMOTIVE



MOUNTING / CLAMP STYLES



Switch Type / Tech. Specs.	See Ordering Information [†]		
Sensitivity / Orientation	Reed / Electronic: 85 Gauss Parallel (measured from sensor surface)		
Shock	Up to 30G (11mS) Reed Only (not applicable for electronics)		
Vibration	Up to 20G (10-55 Hz) Reed only		
Materials	Cable: PVC House: PEI, PA		
Temperature Range	-20° to +80°C		
Environmental Protection	Designed for IP 67 / NEMA 6		
Cable Diameter	5.1mm		
Wire Gauge	22 AWG standard		

PIN CONFIGURATION Automotive Connector

STYLE: 3 STYLE: 4





5 Pin

ORDERING INFORMATION

	7 C1 0 - 🗍 0 0 - 🗍 🗍 🗍
Mounting / Clamp Style 0 - Universal tie rod clamp 2" to 6" bore 9 - 5/8" tie rod clamp 6" to 8" bore	

Connector Style

- 2 1/2" Conduit Hub
- 3 3 Pin Automotive Connector
- 4 5 Pin Automotive Connector

Switch [†] Type	Description	Function	Switching Voltage	Switching Current	Switching Power	Voltage Drop
01	Reed Switch, 2 Wire	Normally Open SPST	0 - 240V AC/DC 50/60 Hz	1 Amp max.	30 Watts max.	0 Volts
04	Reed Switch, MOV, Red LED, 2 Wire	Normally Open SPST	5 - 240V AC/DC 50/60 Hz	1 Amp max. .005 Amps min.	30 Watts max.	3 Volts
05	Reed Switch, 2 Wire	Normally Closed SPST	0 - 120V AC/DC 50/60 Hz	1 Amp max.	20 Watts max.	0 Volts
06	Reed Switch, Red LED, 3 Wire	Single Pole, Double Throw	5 - 120V AC/DC 50/60 Hz	1 Amp max. .005 Amps min.	20 Watts max.	3Volts/load1 0Volts/load2
09	Reed Switch, MOV, Red LED, 2 Wire	Normally Closed SPST	5 - 120V AC/DC 50/60 Hz	1 Amp max. .005 Amps min.	20 Watts max.	3 Volts
15	AC Electronic Sensor for Reed Magnets, Red LED, 3 Wire	Normally Open TRIAC output	12-24 VAC	600 mA max. 5 Amps Inrush	15 Watts max.	1 Volt
16	AC Electronic Sensor for Reed Magnets, Red LED,3 Wire	Normally Open TRIAC output	120 VAC	600 mA max. 5 Amps Inrush	72 Watts max.	1 Volt
21	Reed Switch, MOV, 2 Wire	Normally Open TRIAC output	10 - 240 VAC 50/60 Hz	4 Amps max. 50 Amps Inrush	100 Watts max.	1 Volt
23	Reed Switch, MOV, Red LED, 3 Wire	Normally Open TRIAC output	10 - 50 VAC 50/60 Hz	4 Amps max. 50 Amps Inrush .005 Amps min.	100 Watts max.	1 Volt
24	Reed Switch, MOV, Red LED, 3 Wire	Normally Open TRIAC output	24 - 240 VAC 50/60 Hz	4 Amps max. 50 Amps Inrush .005 Amps min.	100 Watts max.	1 Volt
25	Reed Switch, MOV, 2 Wire	Normally Closed TRIAC output	10-120 VAC 50/60 Hz	4 Amps max. 50 Amps Inrush	100 Watts max.	1 Volt
29	Reed Switch, MOV, Red LED, 3 Wire	Normally Closed TRIAC Output	10-120 VAC 50/60 Hz	4 Amps max. 50 Amps Inrush .005 Amps min.	100 Watts max.	1 Volts
31	Electronic for Reed Magnet, Red LED & Sourcing, 3 Wire	Normally Open PNP	6 - 24 VDC	1 Amp max.	24 Watts max.	0.5 Volts
32	Electronic for Reed Magnet, Red LED & Sinking, 3 Wire	Normally Open NPN	6 - 24 VDC	1 Amp max.	24 Watts max.	0.5 Volts

Ordering Example: 7C10-000-204

Universal tie rod clamp, 1/2" conduit hub, reed switch, lighted, MOV surge suppression, normally open, 5 - 240V AC/DC 50/60 Hz



7GL SERIES GENERAL LOCATION MAGNETIC PROXIMITY SENSORS FOR TIE ROD CYLINDERS

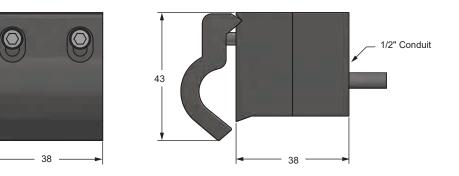
GENERAL DESCRIPTION

The Canfield Connector 7GL is an expansion of the popular Series 7000 "floating" clamp design, which adapts to NFPA tie rod linear actuators with 2 to 8 inch bore. This rugged magnetic proximity sensor can sense actuator position in stringent, general location applications. The switch features a robust, aircraft aluminum body, epoxy-filled, vibration and shock resistant, electronic circuit. Available in a normally open contact, the 7GL can switch current up to .5 Amps and has a voltage range of 0-120VAC/VDC 50/60 Hz.



DIMENSIONAL DATA

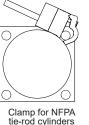
All dimensions are in millimeters unless otherwise noted.

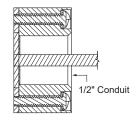


TECHNICAL DATA

Switch Type	S.P.S.T., Normally Open, Reed		
Operating Voltage	0-120 V AC/DC 50/60 Hz		
Load Max.	10W, Resistive only		
Current Max.	0.5A		
Response Time	On: 0.5ms Off: 0.1ms		
Sensitivity / Orientation	85 Gauss Parallel (measured from sensor surface)		
Shock	Up to 30G (11mS)		
Vibration	Up to 20G (10-55 Hz)		
Materials	Cable: PVC House: Anodized 6061-T6 Aluminum, Epoxy encapsulated printed circuit board		
Temperature Range	-20° to +80°C		
Environmental Protection	Designed for NEMA 1, 4 and 13		
Cable Diameter	.19mm		
Wire Gauge	20 AWG standard		
Wire Length	9 Ft. standard		

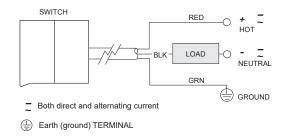
MOUNTING INSTALLATION





tie-rod cylinders Universal 2" to 6" bore.

ELECTRICAL INSTALLATION



ORDERING INFORMATION

7 G L 1 0 - 0 0 0 - 0 0 1



7HL SERIES HAZARDOUS LOCATION MAGNETIC PROXIMITY SENSORS FOR TIE ROD CYLINDERS

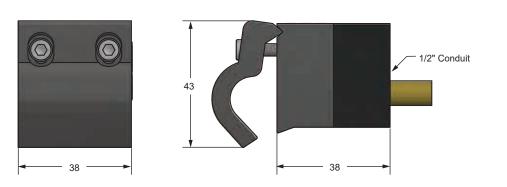
GENERAL DESCRIPTION

The Canfield Connector 7HL is a rugged magnetic proximity sensor designed to sense actuator position in stringent, hazardous location applications. The switch features a robust, epoxy-filled, aircraft aluminum body, and has a vibration and shock resistant, electronic circuit. The 7HL is an expansion of the popular Series 7000 "floating" clamp design and will clamp on 2 to 8 inch bore NFPA tie rod linear actuators. This product is designed to operate in hazardous locations, this switch is CSA approved for Class I, Division 2, Groups A, B, C, and D; Class II, Division 2, Groups F and G; and Class III.



DIMENSIONAL DATA

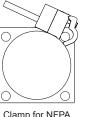
All dimensions are in millimeters unless otherwise noted.

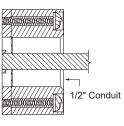


TECHNICAL DATA

Switch Type	S.P.S.T., Normally Open, Reed
Operating Voltage	0-120 V AC/DC 50/60 Hz
Load Max.	10W, Resistive only
Current Max.	0.5A
Response Time	On: 0.5ms Off: 0.1ms
Sensitivity / Orientation	85 Gauss Parallel (measured from sensor surface)
Shock	Up to 30G (11mS)
Vibration	Up to 20G (10-55 Hz)
Materials	Cable: PVC House: Anodized 6061-T6 Aluminum, Epoxy encapsulated printed circuit board
Temperature	Code: T6 Range: -20° to +80°C
Environmental Protection	Designed for NEMA 1, 4 and 13
Hazardous Location Rating	CSA: Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F and G; and Class III
Cable Diameter	.310mm
Wire Gauge	SJTOW type, 18 AWG standard
Wire Length	9 Ft. standard

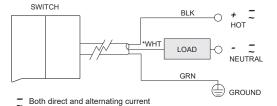
MOUNTING INSTALLATION





Clamp for NFPA tie-rod cylinders Universal 2" to 6" bore.

ELECTRICAL INSTALLATION



Earth (ground) TERMINAL

*White wire must be permanently reidentified to indicate its use as an ungrounded conductor, by painting or other effective means at its termination, and each location where the conductor is visible and accessible. Per NEC Article (200.7)



Consult factory for available versions listed by Canadian Standards Association for use with certified electrical equipment.

ORDERING INFORMATION

7 H L 1 0 - 0 0 0 - 0 0 1



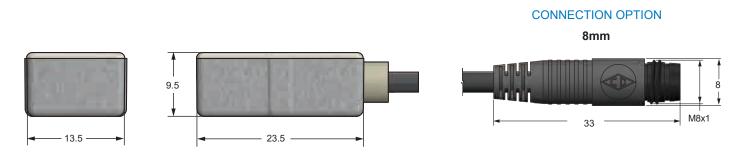
8000 SERIES REED & ELECTRONIC SENSORS FOR ROUND, TIE-ROD, OR EXTRUDED CYLINDERS

GENERAL DESCRIPTION

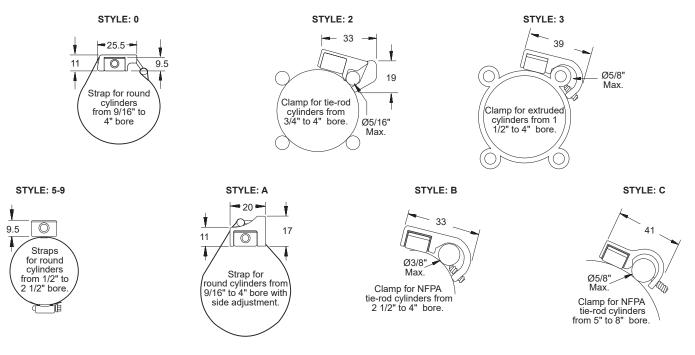
The Canfield Connector 8000 Series Reed and Electronic sensors are compact units designed for sensing applications on round cylinders from 9/16" - 4" and tie-rod pneumatic cylinders from 3/4" - 8" bore. These sensors offer a wide voltage range from 0-120 VAC/VDC 50/60 Hz and high current capacity up to 0.5 Amps. They include high intensity indicator lights and a wide viewing angle. The sensor's small package can fit easily on the smallest cylinder without appearing too large. The Series 8000's design promotes ease of installation with a tight fit. Options include 9ft. PVC or 8mm quick connect male pigtail.

DIMENSIONAL DATA

All dimensions are in millimeters unless otherwise noted.



MOUNTING / CLAMP STYLES



www.canfieldconnector.com

em: customerservice@canfieldconnector.com

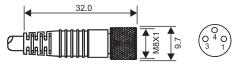
ph: 1-800-554-5071

14

Switch Type / Tech. Specs.	See Ordering Information [†]
Sensitivity / Orientation	Reed / Electronic: 85 Gauss Parallel (measured from sensor surface)
Shock	Up to 30G (11mS) Reed Only (not applicable for electronics)
Vibration	Up to 20G (10-55 Hz) Reed only
Materials	Cable: PVC House: PA
Temperature Range	-20° to +80°C
Environmental Protection	Designed for IP 65 / NEMA 4, IP 67 / NEMA 6 available on request
Cable Diameter	3.7mm
Wire Gauge	24 AWG standard

(ADDITIONAL) MATING CORDSETS / PIN CONFIGURATION

8mm female molded locking connector



Brown = Pin 1 Blue = Pin 3 Black = Pin 4 Order P/N: RC08-AFM030-0120C10A (2m length) RC08-AFM030-0150C10A (5m length)

ORDERING INFORMATION

	810-						
0 - Univer 1 - No cla 2 - Univer 3 - Extrud 5 - Clamp 6 - Clamp 7 - Clamp 9 - Clamp 9 - Clamp 9 - Clamp A - Side a B - NFPA C - NFPA ****Uses 5/1 Connectio 0 - 9 ft PV 1 - 8mm q	sal tie-rod clamp ed cylinder clamp loop / no clamp*** loop / 1/2" - 3/4" clamp loop / 1" - 1 1/2" clamp loop / 1" - 1 1/2" clamp loop / 2" - 2 1/2" clamp djust round cylinder clamp 2 1/2" - 4" tie-rod cylinder clamp 5" - 8" tie-rod cylinder clamp 6" wide band clamp	p					
Switch [†] Type	Description	Function	Switching Voltage	Switching Current	Switching Power	Voltage Drop	Magnetic Sensitivity
01	Reed Switch	Normally Open SPST	0 - 120V AC/DC	0.5 Amps Max.	10 watts Max.	0 Volts	85 Ga.
02	Reed Switch & Red LED	Normally Open SPST	5 - 120V AC/DC	0.025 Amps Max. 0.001 Amps Min.	3 watts Max.	6.0 Volts	85 Ga.
04	Reed Switch, Red LED & MOV	Normally Open SPST	5 - 120V AC/DC	0.5 Amps Max. 0.005 Amps Min.	10 watts Max.	3.0 Volts	85 Ga.
31	Electronic for Reed Magnet, Red LED & Sourcing	Normally Open PNP	6 - 24 VDC	0.3 Amps Max.	7.2 watts Max.	.5 Volts	85 Ga.
32	Electronic for Reed Magnet, Red LED & Sinking	Normally Open NPN	6 - 24 VDC	0.3 Amps Max.	7.2 watts Max.	.5 Volts	85 Ga.



Consult factory for available versions listed by Canadian Standards Association for use with certified electrical equipment.

Ordering Example: 810-000-002

Universal round cylinder clamp, 9ft PVC cable, reed switch with LED, SPST, normally open, 5 - 120V AC/DC



8WS SERIES REED & ELECTRONIC SENSORS FOR PNEUMATIC CYLINDERS FOR 12MM DOVETAIL GROOVE

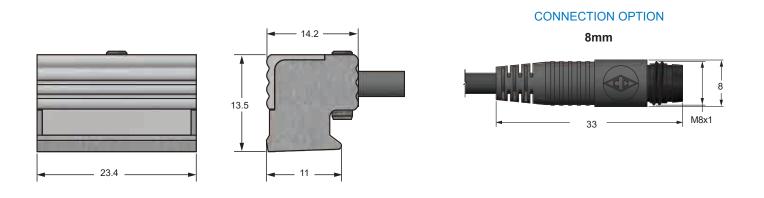
GENERAL DESCRIPTION

The Canfield Connector 8WS Series reed and electronic magnet sensors are rugged yet compact switches used to sense position on pneumatic actuators equipped with a magnetic piston and 12mm dovetail groove. The switch can be slipped in and tightened from anywhere along the groove that is fabricated into the cylinder wall or clamping system. The switch features a die cast holder which clamps to the cylinder groove while the electronics are fully encapsulated and resistance to environment. These sensors offer a wide voltage range from 0-120 V AC/DC 50/60Hz and have a up to a 500 mA switching current rating. The switch has a high intensity indicator light which indicates power to the switch and load. Options include 9ft. PVC or 8mm quick connect male pigtail.

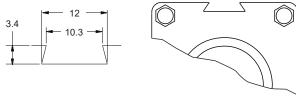


DIMENSIONAL DATA

All dimensions are in millimeters unless otherwise noted.



GROOVE DETAILS



(Fits: Numatics)

www.canfieldconnector.com

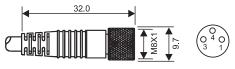
em: customerservice@canfieldconnector.com

ph: 1-800-554-5071

Switch Type / Tech. Specs.	See Ordering Information [†]
Sensitivity / Orientation	Reed / Electronic: 85 Gauss Parallel (measured from sensor surface)
Shock	Up to 30G (11mS) Reed Only (not applicable for electronics)
Vibration	Up to 20G (10-55 Hz) Reed only
Materials	Cable: PVC House: PA
Temperature Range	-20° to +80°C
Environmental Protection	Designed for IP 67 / NEMA 6
Cable Diameter	3.7mm
Wire Gauge	24 AWG standard

(ADDITIONAL) MATING CORDSETS / PIN CONFIGURATION

8mm female molded locking connector



Brown = Pin 1 Blue = Pin 3 Black = Pin 4 Order P/N: RC08-AFM030-0120C10A (2m length) RC08-AFM030-0150C10A (5m length)

ORDERING INFORMATION

8 W S 1 0 - 0 0 0 - 🗌 🗌 🗌

Connection Options

0 - 9 ft PVC cable

1 - 8mm quick connect male pigtail*

*Mates with cordsets shown above

Switch [†] Type	Description	Function	Switching Voltage	Switching Current	Switching Power	Voltage Drop	** Magnetic Sensitivity
01	Reed Switch	Normally Open SPST	0 - 120V AC/DC	0.5 Amps Max.	10 watts Max.	0 Volts	85 Ga.
02	Reed Switch & Red LED	Normally Open SPST	5 - 120V AC/DC	0.025 Amps Max. 0.001 Amps Min.	3 watts Max.	6.0 Volts	85 Ga.
04	Reed Switch, Red LED & MOV	Normally Open SPST	5 - 120V AC/DC	0.5 Amps Max. 0.005 Amps Min.	10 watts Max.	3.0 Volts	85 Ga.
31	Electronic for Reed Magnet, Red LED & Sourcing	Normally Open PNP	6 - 24 VDC	0.3 Amps Max.	7.2 watts Max.	.5 Volts	85 Ga.
32	Electronic for Reed Magnet, Red LED & Sinking	Normally Open NPN	6 - 24 VDC	0.3 Amps Max.	7.2 watts Max.	.5 Volts	85 Ga.

**Minimum gauss rating required for proper operation. Size of sensing area depends upon size and strength of magnet and thickness of cylinder wall.



Consult factory for available versions listed by Canadian Standards Association for use us with certified electrical equipment. Ordering Example: 8WS10-000-002

9 ft. PVC cable, reed switch with LED, SPST normally open, 5 - 120V AC/DC



9C SERIES REED & ELECTRONIC MAGNETIC SENSORS FOR ROUND KEYWAY GROOVE

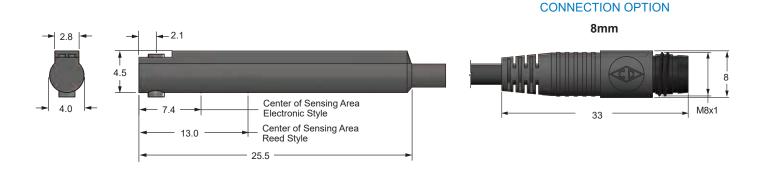
GENERAL DESCRIPTION

The 9C Series is a compact, universal, magnetically operated proximity switch commonly used on aluminum extruded profile type linear actuators equipped with magnetic pistons. The switches are available in both reed and electronic styles and made to fit into a 4mm key hole type slot. Position fixing is accomplished by means of a screw that is supplied in the switch body. The on board indicator light shows instant switch diagnostics to minimize downtime and facilitate installation and can be seen from wide angles. Available in the standard 9 ft. PVC wired or optional 8mm quick connect, the switch can handle AC or DC current in several configurations. The 9C is constructed of engineered polymers and designed to meet IP 67 / NEMA 6 environmental specifications.

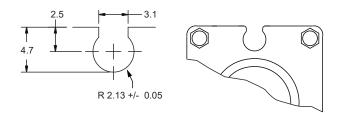


DIMENSIONAL DATA

All dimensions are in millimeters unless otherwise noted.



GROOVE DETAILS

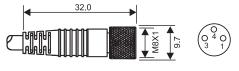


(Fits: DE-STA-CO, Robohand, SMC, Bimba, Compact Air, Fabco)

Switch Type / Tech. Specs.	See Ordering Information [†]		
Sensitivity / Orientation	Electronic: 40 Gauss Parallel Reed: 85 Gauss Parallel (measured from sensor surface)		
Shock	Up to 30G (11mS) Reed Only (not applicable for electronics)		
Vibration	Up to 20G (10-55 Hz) Reed only		
Materials	Cable: PVC House: PBT, TPU		
Temperature Range	-10° to +70°C		
Environmental Protection	Designed for IP 67 / NEMA 6		
Cable Diameter	2.7mm		
Wire Gauge	26 AWG standard		

(ADDITIONAL) MATING CORDSETS / PIN CONFIGURATION

8mm female molded locking connector



Brown = Pin 1 Blue = Pin 3 Black = Pin 4 Order P/N: RC08-AFM030-0120C10A (2m length) RC08-AFM030-0150C10A (5m length)

ORDERING INFORMATION

	9C10-000-
	T T
Connection Options 0 - 9 ft PVC cable	
3 - 8mm quick connect male pigtail* *Mates with cordsets shown above	J

Switch [†] Type	Description	Function	Switching Voltage	Switching Current	Switching Power	Voltage Drop	**Magnetic Sensitivity
02	Reed Switch for PLC's, Red LED (current limiting)	Normally Open SPST	5 - 120V AC/DC 50/60 Hz	0.03 Amps Max. 0.001 Amps Min.	4 watts Max.	5.0 Volts @ 5mA	85 Ga.
31	Electronic for Reed Magnet, Yel LED & Sourcing	Normally Open PNP	5 - 28 VDC	0.5 Amps Max.	14 watts Max.	.5 Volts @ 500mA	40 Ga.
32	Electronic for Reed Magnet, Red LED & Sinking	Normally Open NPN	5 - 28 VDC	0.5 Amps Max.	14 watts Max.	.5 Volts @ 500mA	40 Ga.

**Minimum gauss rating required for proper operation. Size of sensing area depends upon size and strength of magnet and thickness of cylinder wall.

Ordering Example: 9C10-000-032

9 ft. PVC cable, electronic for reed magnet, Red LED, sinking, NPN, 5 - 28 VDC



9D SERIES REED & ELECTRONIC MAGNETIC SENSORS FOR UNIVERSAL APPLICATIONS

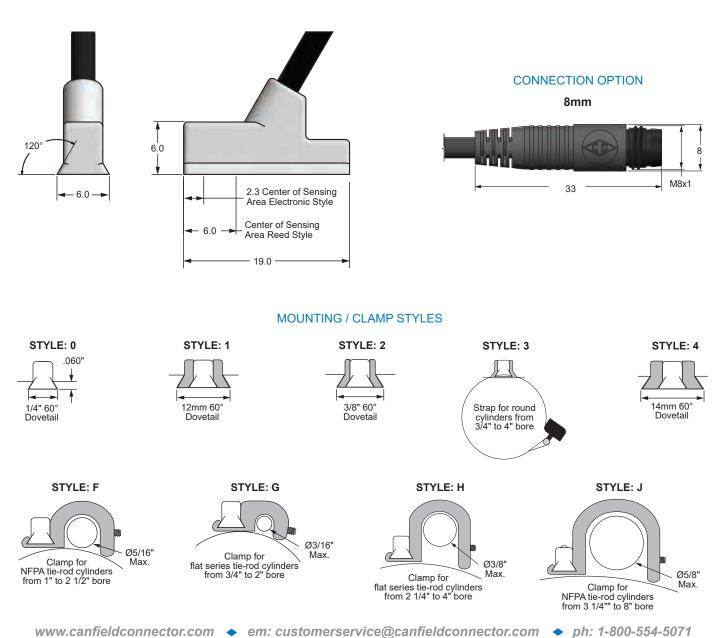
GENERAL DESCRIPTION

The Canfield Connector 9D Series is a universal, ultra-small, magnetic proximity switch available in both solid state electronic and reed styles. These sensors are designed to fit the most stringent space requirements by use of a standard .250 inch dovetail slot. Many other mounting options are also available. The electronic sensor exhibits greater sensitivity to magnetism with reduced deadband and hysteresis as compared to competitive devices. The reed sensor offers a wide operating voltage range. The molded switch has an on board indicator light that can be viewed from wide angles. Standard connection to the sensor is provided by a 9 ft. PVC or 8mm quick connect male pigtail. The rugged switch is shipped with mounting hardware ready for installation.



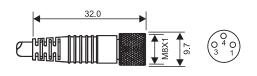
DIMENSIONAL DATA

All dimensions are in millimeters unless otherwise noted.



Switch Type / Tech. Specs.	See Ordering Information [†]			
Sensitivity / Orientation	Electronic: 25 Gauss Parallel Reed: 85 Gauss Parallel (measured from sensor surface)			
Shock	Up to 30G (11mS) Reed Only (not applicable for electronics)			
Vibration	Up to 20G (10-55 Hz) Reed only			
Materials	Cable: PVC House: PA, TPU			
Temperature Range	-20° to +80°C			
Environmental Protection	Designed for IP 67 / NEMA 6			
Cable Diameter	2.7mm			
Wire Gauge	26 AWG standard			

(ADDITIONAL) MATING CORDSETS / PIN CONFIGURATION



Brown = Pin 1 Blue = Pin 3 Black = Pin 4

Order P/N: RC08-AFM030-0120C10A (2m length) RC08-AFM030-0150C10A (5m length)

GROOVE DETAILS



(Fits: Fabco, Numatics, Rotomation)

Electronic for Reed

Magnet, Yel LED & Sourcing

Electronic for Reed

Magnet, Red LED & Sinking

31

32

ORDERING INFORMATION

0 - 1/4"6 1 - 12mr 2 - 3/8"6 3 - Roun 4 - 14mr F - NFP4 G - Flats J - NFP4 J - NFP4 Connecti 0 - 9 ft P ^V 3 - 8mm	 4 - 14mm 60° dovetail adapter F - NFPA tie-rod cylinder clamp 1" - 2 1/2" bore G - Flat series cylinder clamp 3/4" - 2" bore H - Flat series cylinder clamp 2 1/4" - 4" bore J - NFPA tie-rod cylinder clamp 3 1/4" - 8" bore Connection Options 0 - 9 ft PVC cable 3 - 8mm quick connect male pigtail* *Mates with cordsets shown above 							
Switch [†] Type	Description	Function	Switching Voltage	Switching Current	Switching Power	Voltage Drop	Magnetic Sensitivity	
01	Reed Switch	Normally Open SPST	0 - 120V AC/DC 50/60 Hz	0.25 Amps Max.	5 watts Max.	0 Volts	85 Ga.	
02	Reed Switch for PLC's, Red LED (current limiting)	Normally Open SPST	5 - 120V AC/DC 50/60 Hz	0.03 Amps Max. 0.001 Amps Min.	4 watts Max.	5.0 Volts @ 5mA	85 Ga.	

Ordering Example: 9D10-000-002

4.8 watts

Max.

4.8 watts

Max.

0.2 Amps Max.

0.2 Amps Max.

1/4" dovetail, 9 ft. PVC cable, reed switch for PLC's with LED, SPST, normally open, 5 - 120V AC/DC 50/60 Hz

1.0 Volts

1.0 Volts

25 Ga.

25 Ga.

5 - 28 VDC

5 - 28 VDC

Normally Open

PŃP

Normally Open NPN



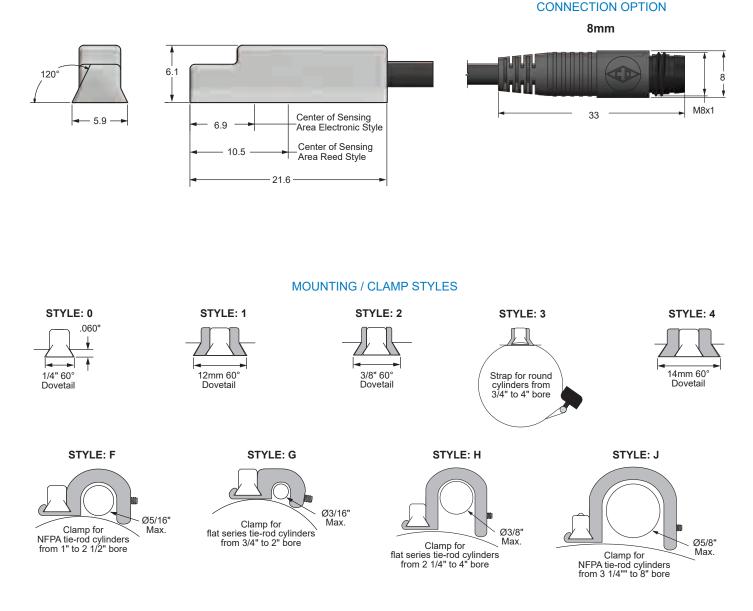
9E SERIES REED & ELECTRONIC MAGNETIC SENSORS FOR UNIVERSAL APPLICATIONS

GENERAL DESCRIPTION

The Canfield Connector 9E Series is a universal, ultra-small, magnetic proximity switch available in both solid state electronic and reed styles. These sensors are designed to fit the most stringent space requirements by use of a standard .250 inch dovetail slot. Many other mounting options are also available. The electronic sensor exhibits greater sensitivity to magnetism with reduced deadband and hysteresis as compared to competitive devices. The reed sensor offers a wide operating voltage range. The molded switch has an on board indicator light that can be viewed from wide angles. Standard connection to the sensor is provided by a 9 ft. PVC or 8mm quick connect male pigtail. The rugged switch is shipped with mounting hardware ready for installation.

DIMENSIONAL DATA

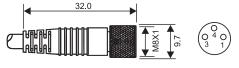
All dimensions are in millimeters unless otherwise noted.



Switch Type / Tech. Specs.	See Ordering Information [†]		
Sensitivity / Orientation	Electronic: 25 Gauss Parallel Reed: 85 Gauss Parallel (measured from sensor surface)		
Shock	Up to 30G (11mS) Reed Only (not applicable for electronics)		
Vibration	Up to 20G (10-55 Hz) Reed only		
Materials	Cable: PVC House: PA, TPU		
Temperature Range	-20° to +80°C		
Environmental Protection	Designed for IP 67 / NEMA 6		
Cable Diameter	2.7mm		
Wire Gauge	26 AWG standard		

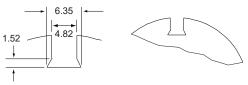
(ADDITIONAL) MATING CORDSETS / PIN CONFIGURATION

8mm female molded locking connector



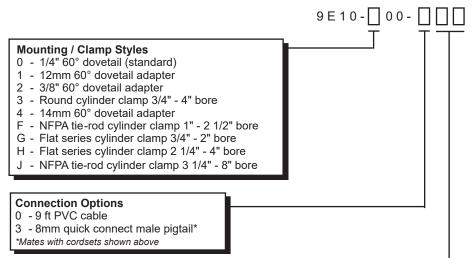
Brown = Pin 1 Blue = Pin 3 Black = Pin 4 Order P/N: RC08-AFM030-0120C10A (2m length) RC08-AFM030-0150C10A (5m length)

GROOVE DETAILS



(Fits: Fabco, Numatics, Rotomation)

ORDERING INFORMATION



Switch [†] Type	Description	Function	Switching Voltage	Switching Current	Switching Power	Voltage Drop	Magnetic Sensitivity
01	Reed Switch	Normally Open SPST	0 - 120V AC/DC 50/60 Hz	0.25 Amps Max.	5 watts Max.	0 Volts	85 Ga.
02	Reed Switch for PLC's, Red LED (current limiting)	Normally Open SPST	5 - 120V AC/DC 50/60 Hz	0.03 Amps Max. 0.001 Amps Min.	4 watts Max.	5.0 Volts @ 5mA	85 Ga.
31	Electronic for Reed Magnet, Yel LED & Sourcing	Normally Open PNP	5 - 28 VDC	0.2 Amps Max.	4.8 watts Max.	1.0 Volts	25 Ga.
32	Electronic for Reed Magnet, Red LED & Sinking	Normally Open NPN	5 - 28 VDC	0.2 Amps Max.	4.8 watts Max.	1.0 Volts	25 Ga.

Ordering Example: 9E10-000-002

1/4" dovetail, 9 ft. PVC cable, reed switch for PLC's with LED, SPST, normally open, 5 - 120V AC/DC 50/60 Hz



9F SERIES REED & ELECTRONIC MAGNETIC SENSORS FOR 4MM "T" SLOT APPLICATIONS

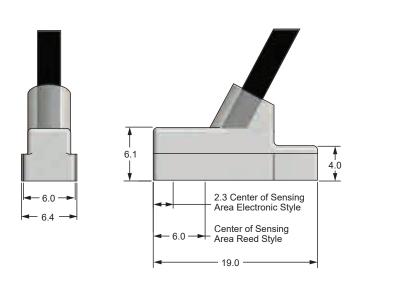
GENERAL DESCRIPTION

The Canfield Connector 9F Series is a universal, ultra-small, magnetic proximity switch available in both solid state electronic and reed styles. These sensors are designed to fit the most stringent space requirements by using a 4mm "T" slot. The electronic sensor exhibits greater sensitivity to magnetism with reduced dead-band and hysteresis as compared to competitive devices. The reed sensor offers a wide operating voltage range. The molded switch has an on board indicator light that can be viewed from wide angles. Standard connection to the sensor is provided by a 9 ft. PVC or 8mm quick connect male pigtail. The rugged switch is shipped with mounting hardware ready for installation.



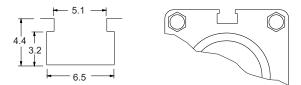
DIMENSIONAL DATA

All dimensions are in millimeters unless otherwise noted.





GROOVE DETAILS

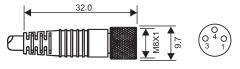


(Fits: Fabco, Festo, Numatics, Rotomation)

Switch Type / Tech. Specs.	See Ordering Information [†]
Sensitivity / Orientation	Electronic: 25 Gauss Parallel Reed: 85 Gauss Parallel (measured from sensor surface)
Shock	Up to 30G (11mS) Reed Only (not applicable for electronics)
Vibration	Up to 20G (10-55 Hz) Reed only
Materials	Cable: PVC House: PA, TPU
Temperature Range	-20° to +80°C
Environmental Protection	Designed for IP 67 / NEMA 6
Cable Diameter	2.7mm
Wire Gauge	26 AWG standard

(ADDITIONAL) MATING CORDSETS / PIN CÓNFIGURATION

8mm female molded locking connector

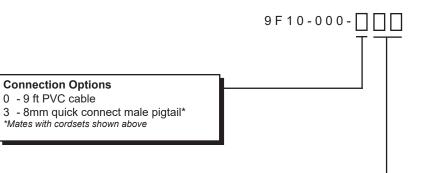


Brown = Pin 1 Blue = Pin 3 Black = Pin 4

Order P/N: RC08-AFM030-0120C10A (2m length) RC08-AFM030-0150C10A (5m length)

ORDERING INFORMATION

Connection Options 0 - 9 ft PVC cable



Switch [†] Type	Description	Function	Switching Voltage	Switching Current	Switching Power	Voltage Drop	Magnetic Sensitivity
01	Reed Switch	Normally Open SPST	0 - 120V AC/DC 50/60 Hz	0.25 Amps Max.	5 watts Max.	0 Volts	85 Ga.
02	Reed Switch for PLC's, Red LED (current limiting)	Normally Open SPST	5 - 120V AC/DC 50/60 Hz	0.03 Amps Max. 0.001 Amps Min.	4 watts Max.	5.0 Volts @ 5mA	85 Ga.
31	Electronic for Reed Magnet, Yel LED & Sourcing	Normally Open PNP	5 - 28 VDC	0.2 Amps Max.	4.8 watts Max.	1.0 Volts	25 Ga.
32	Electronic for Reed Magnet, Red LED & Sinking	Normally Open NPN	5 - 28 VDC	0.2 Amps Max.	4.8 watts Max.	1.0 Volts	25 Ga.

Ordering Example: 9F10-000-002

9 ft. PVC cable, reed switch for PLC's with LED, SPST, normally open, 5 - 120V AC/DC 50/60 Hz



9H SERIES REED & ELECTRONIC MAGNETIC SENSORS FOR 4.2MM "T" SLOT APPLICATIONS

GENERAL DESCRIPTION

The Canfield Connector 9H Series is a profile mounting type switch that fits in a 4mm X 4mm square groove which normally is designed into an aluminum extrusion type linear actuator. Available in reed or electronic versions, the 9H is also available with a 9 ft. PVC or 8mm quick connect male pigtail. The switch is IP-67 which is dust tight and water resistant.

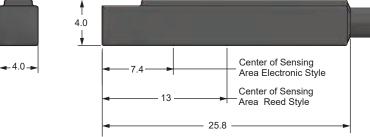


DIMENSIONAL DATA

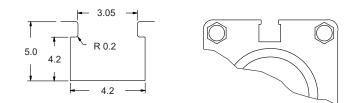
All dimensions are in millimeters unless otherwise noted.

CONNECTION OPTION
8mm





GROOVE DETAILS

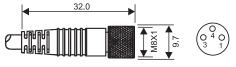


(Fits: 4x4 groove)

Switch Type / Tech. Specs.	See Ordering Information [†]		
Sensitivity / Orientation	Electronic: 25 Gauss Parallel Reed: 85 Gauss Parallel (measured from sensor surface)		
Shock	Up to 30G (11mS) Reed Only (not applicable for electronics)		
Vibration	Up to 20G (10-55 Hz) Reed only		
Materials	Cable: PVC House: ABS		
Temperature Range	-20° to +80°C		
Environmental Protection	Designed for IP 67 / NEMA 6		
Cable Diameter	2.8mm		
Wire Gauge	26 AWG standard		

(ADDITIONAL) MATING CORDSETS / PIN CONFIGURATION

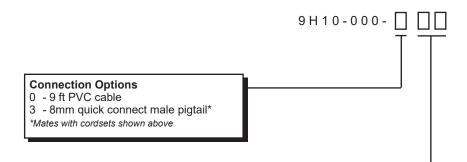
8mm female molded locking connector



Brown = Pin 1 Blue = Pin 3 Black = Pin 4 Order P/N:

RC08-AFM030-0120C10A (2m length) RC08-AFM030-0150C10A (5m length)

ORDERING INFORMATION



Switch [†] Type	Description	Function	Switching Voltage	Switching Current	Switching Power	Voltage Drop	Magnetic Sensitivity
02	Reed Switch with Red LED	Normally Open SPST	5 - 120V AC/DC	0.1 Amps Max.	10 watts Max.	2.5 Volts @ 100mA	60 Ga.
31	Electronic for Reed Magnet, with Grn LED & Sourcing	Normally Open PNP	5 - 28 VDC	0.2 Amps Max.	6 watts Max.	.5 Volts @ 200 mA	40 Ga.
32	Electronic for Reed Magnet, with Red LED & Sinking	Normally Open NPN	5 - 28 VDC	0.2 Amps Max.	6 watts Max.	.5 Volts @ 200 mA	40 Ga.

Ordering Example: 9H10-000-002

9 ft. PVC cable, reed switch with red LED, SPST, 5 - 120V AC/DC 50/60 Hz



9K SERIES REED & ELECTRONIC MAGNETIC SENSORS FOR 4.2MM "U" GROOVE APPLICATIONS

CONNECTION OPTION

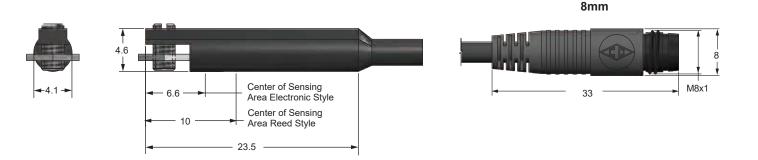
GENERAL DESCRIPTION

The Canfield Connector 9K Series is a profile mounting type switch that fits in a 4.2mm "U" groove which normally is designed into an aluminum extrusion type linear actuator. Available in reed or electronic versions, the 9K is also available with a 9 ft. PVC or 8mm quick connect male pigtail. The switch is IP67 which is dust tight and water resistant.

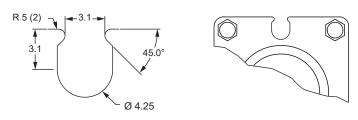


DIMENSIONAL DATA

All dimensions are in millimeters unless otherwise noted.



GROOVE DETAILS

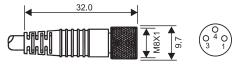


(Fits: Mindman, Koganei)

Switch Type / Tech. Specs.	See Ordering Information [†]
Sensitivity / Orientation	Electronic: 25 Gauss Parallel Reed: 85 Gauss Parallel (measured from sensor surface)
Shock	Up to 30G (11mS) Reed Only (not applicable for electronics)
Vibration	Up to 20G (10-55 Hz) Reed only
Materials	Cable: PVC House: PBT
Temperature Range	-20° to +80°C
Environmental Protection	Designed for IP 67 / NEMA 6
Cable Diameter	2.8mm
Wire Gauge	26 AWG standard

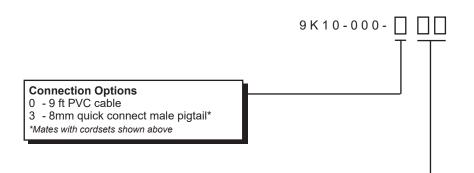
(ADDITIONAL) MATING CORDSETS / PIN CONFIGURATION

8mm female molded locking connector



Brown = Pin 1 Blue = Pin 3 Black = Pin 4 Order P/N: RC08-AFM030-0120C10A (2m length) RC08-AFM030-0150C10A (5m length)

ORDERING INFORMATION



Switch ¹ Type	Description	Function	Switching Voltage	Switching Current	Switching Power	Voltage Drop	Magnetic Sensitivity
02	Reed Switch with Red LED	Normally Open SPST	5 - 120V AC/DC	0.03 Amps Max.	4 watts Max.	2.5 Volts	60 Ga.
31	Electronic for Reed Magnet, with Grn LED & Sourcing	Normally Open PNP	5 - 28 VDC	0.2 Amps Max.	4.8 watts Max.	.5 Volts	40 Ga.
32	Electronic for Reed Magnet, with Red LED & Sinking	Normally Open NPN	5 - 28 VDC	0.2 Amps Max.	4.8 watts Max.	.5 Volts	40 Ga.

Ordering Example: 9K10-000-002 9 ft. PVC cable, reed switch with red LED, SPST, 5 - 120V AC/DC 50/60 Hz



9M50 SERIES REED & ELECTRONIC MAGNETIC SENSORS FOR 6.5MM "D" GROOVE APPLICATIONS

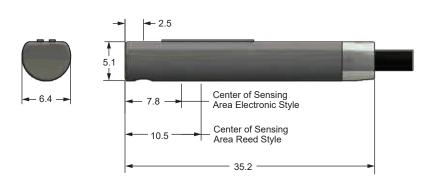
GENERAL DESCRIPTION

The Canfield Connector 9M50 Series is a compact full featured magnetic proximity switch designed to fit a "D" shaped groove detail designed into linear actuators. The innovative design allows the switch to be inserted anywhere along the linear actuator and then rotated and locked into position. When installed the switch lies flat against the cylinder housing and does not protrude beyond the cylinder face making installations neat and clean. The fully encapsulated switch is offered in reed, and electronic styles in either NPN or PNP. The robust polyurethane encapsulated design meets IP67, NEMA 6 environmental protection. Voltage ranges are available from 0 to 120 VAC/DC in multiple versions. Standard connection is provided by a 9 ft. PVC or 8mm quick connect male pigtail and is proudly made in the U.S.A.



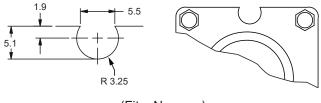
DIMENSIONAL DATA

All dimensions are in millimeters unless otherwise noted.



CONNECTION OPTION 8mm

GROOVE DETAILS

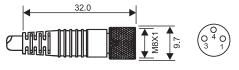


(Fits: Norgren)

Switch Type / Tech. Specs.	See Ordering Information [†]
Sensitivity / Orientation	Electronic: 25 Gauss Parallel Reed: 85 Gauss Parallel (measured from sensor surface)
Shock	Up to 30G (11mS) Reed Only (not applicable for electronics)
Vibration	Up to 20G (10-55 Hz) Reed only
Materials	Cable: PVC House: PEI, TPU
Temperature Range	-20° to +80°C
Environmental Protection	Designed for IP 67 / NEMA 6
Cable Diameter	2.7mm
Wire Gauge	26 AWG standard

(ADDITIONAL) MATING CORDSETS / PIN CÓNFIGURATION

8mm female molded locking connector



Brown = Pin 1 Blue = Pin 3 Black = Pin 4

Order P/N:

RC08-AFM030-0120C10A (2m length) RC08-AFM030-0150C10A (5m length)

ORDERING INFORMATION

		9 M 5 0	10-000- [] [-	
]		
Switch [†]	Description	Eurotion	Switching	Switching

Switch [†] Type	Description	Function	Switching Voltage	Switching Current	Switching Power	Voltage Drop	**Magnetic Sensitivity
01	Reed Switch	Normally Open SPST	0 - 120V AC/DC 50/60 Hz	0.25 Amps Max.	5 watts Max.	0 Volts	85 Ga.
02	Reed Switch for PLC's Red LED (current limiting)	Normally Open SPST	5 - 120V AC/DC 50/60 Hz	0.03 Amps Max. 0.001 Amps Min.	4 watts Max.	3.5 Volts	85 Ga.
31	Electronic for Reed Magnet, Yel LED & Sourcing	Normally Open PNP	5 - 28 VDC	0.2 Amps Max.	4.8 watts Max.	1.0 Volts	25 Ga.
32	Electronic for Reed Magnet, Red LED & Sinking	Normally Open NPN	5 - 28 VDC	0.2 Amps Max.	4.8 watts Max.	1.0 Volts	25 Ga.

**Minimum gauss rating required for proper operation. Size of sensing area depends upon size and strength of magnet and thickness of cylinder wall.

Ordering Example: 9M5010-000-002

9 ft. PVC cable, reed switch with Red LED, SPST, 5 - 120V AC/DC 50/60 Hz



9Q SERIES REED & ELECTRONIC MAGNETIC SENSORS FOR UNIVERSAL "T" SLOT APPLICATIONS

GENERAL DESCRIPTION

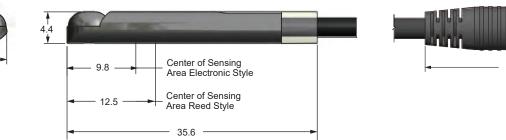
The Canfield Connector 9Q Series is a magnetic proximity switch that is engineered to fit into extruded actuators that are made with a "T" slot. The unique design of the 9Q enables it to be installed anywhere along the slot and assembled in place without taking off the actuator end-cap. The rugged polyurethane encapsulated switch features an innovative design that incorporates a hard nylon shell. The switches are available in reed or electronic sensing and features a standard on board indicator light. Offered as a flying lead or 8mm quick connect, the sensors are quickly and easily wired in to any application. The sensors meet NEMA 6 / IP67 environmental specifications and are corrosion and wash-down compatible. This sensor is proudly made in the USA.



DIMENSIONAL DATA

All dimensions are in millimeters unless otherwise noted.



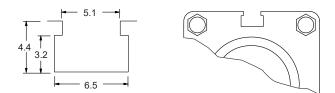


CONNECTION OPTION





GROOVE DETAILS

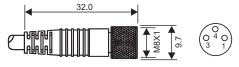


(Fits: Parker, Fabco, Festo, Numatics, Rotomation)

Switch Type / Tech. Specs.	See Ordering Information [†]
Sensitivity / Orientation	Electronic: 25 Gauss Parallel Reed: 85 Gauss Parallel (measured from sensor surface)
Shock	Up to 30G (11mS) Reed Only (not applicable for electronics)
Vibration	Up to 20G (10-55 Hz) Reed only
Materials	Cable: PVC House: PEI, TPU
Temperature Range	-20° to +80°C
Environmental Protection	Designed for IP 67 / NEMA 6
Cable Diameter	2.7mm
Wire Gauge	26 AWG standard

(ADDITIONAL) MATING CORDSETS / PIN CONFIGURATION

8mm female molded locking connector



Brown = Pin 1 Blue = Pin 3 Black = Pin 4 Order P/N: RC08-AFM030-0120C10A (2m length) RC08-AFM030-0150C10A (5m length)

ORDERING INFORMATION

	9Q10-000- [] [] []
Connection Options 0 - 9 ft PVC cable 3 - 8mm quick connect male pigtail* *Mates with cordsets shown above	

Switch [†] Type	Description	Function	Switching Voltage	Switching Current	Switching Power	Voltage Drop	Magnetic Sensitivity
01	Reed Switch	Normally Open SPST	0 - 120V AC/DC 50/60 Hz	0.25 Amps Max.	5 watts Max.	0 Volts	85 Ga.
02	Reed Switch for PLC's, Red LED (current limiting)	Normally Open SPST	5 - 120V AC/DC 50/60 Hz	0.03 Amps Max. 0.001 Amps Min.	4 watts Max.	5.0 Volts @ 5mA	85 Ga.
31	Electronic for Reed Magnet, Yel LED & Sourcing	Normally Open PNP	5 - 28 VDC	0.2 Amps Max.	4.8 watts Max.	1.0 Volts	25 Ga.
32	Electronic for Reed Magnet, Red LED & Sinking	Normally Open NPN	5 - 28 VDC	0.2 Amps Max.	4.8 watts Max.	1.0 Volts	25 Ga.

Ordering Example: 9Q10-000-002

9 ft. PVC cable, reed switch for PLC's with LED, SPST, normally open, 5 - 120V AC/DC 50/60 Hz



9U SERIES REED & ELECTRONIC MAGNETIC SENSORS FOR "T" SLOT APPLICATIONS

GENERAL DESCRIPTION

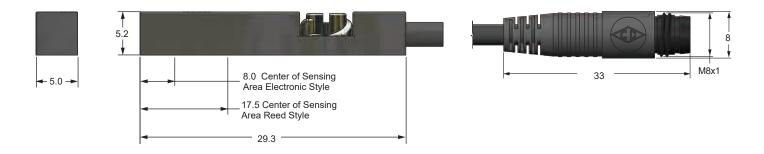
The Canfield Connector 9U Series is a compact full featured magnetic proximity switch designed to fit a Fabco, Festo, Numatics, Parker and SMC T-slot groove detail designed into linear actuators. The innovative top down design allows the switch to be inserted anywhere along the linear actuator and tightened into position. When installed the switch lies flush against the cylinder housing making installations neat and clean. The fully encapsulated switch is offered in reed, and electronic styles in either NPN or PNP. The robust encapsulated design meets IP67, EN60529, NEMA 6 environmental protection. Voltage ranges are available for reed version from 0 to 240 VAC/DC and 5-30 VDC in electronic versions. Standard connection is provided by a 9 ft. PUR wire lead or 8mm quick connect male pigtail.



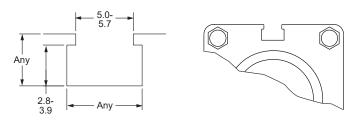
CONNECTION OPTION 8mm

DIMENSIONAL DATA

All dimensions are in millimeters unless otherwise noted.





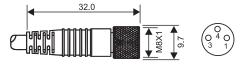


(Fits: Fabco, Festo, Numatics, Parker, SMC)

Switch Type / Tech. Specs.	See Ordering Information [†]
Sensitivity / Orientation	Electronic: 40 Gauss Parallel Reed: 60 Gauss Parallel (measured from sensor surface)
Shock	Up to 50G (11mS)
Vibration	Up to 9G
Materials	Cable: PUR House: PA
Temperature Range	-10° to +70°C
Environmental Protection	Designed for IP 67 / NEMA 6
Cable Diameter	2.9mm
Wire Gauge	26 AWG standard

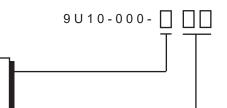
(ADDITIONAL) MATING CORDSETS / PIN CONFIGURATION

8mm female molded locking connector



Brown = Pin 1 Blue = Pin 3 Black = Pin 4 Order P/N: RC08-AFM030-0120C10A (2m length) RC08-AFM030-0150C10A (5m length)

ORDERING INFORMATION



Connection Options

0 - 9 ft PVC cable

3 - 8mm quick connect male pigtail*

*Mates with cordsets shown above

Switch [†] Type	Description	Function	Switching Voltage	Switching Current	Switching Power	Voltage Drop	Magnetic Sensitivity
02	Reed Switch with Red LED	Normally Open SPST	5 - 240V AC/DC	0.1 Amps Max.	10 watts Max.	2.65 Volts @ 100mA	60 Ga.
31	Electronic for Reed Magnet, with Grn LED & Sourcing	Normally Open PNP	5 - 30 VDC	0.1 Amps Max.	3 watts Max.	.5 Volts @ 100 mA	40 Ga.
32	Electronic for Reed Magnet, with Red LED & Sinking	Normally Open NPN	5 - 30 VDC	0.1 Amps Max.	3 watts Max.	.5 Volts @ 100 mA	40 Ga.

Ordering Example: 9U10-000-002

9 ft. PVC cable, reed switch with red LED, SPST, 5 - 240V AC/DC 50/60 Hz



CS SERIES ALL THREADED MAGNETIC SENSORS FOR UNIVERSAL APPLICATIONS

GENERAL DESCRIPTION

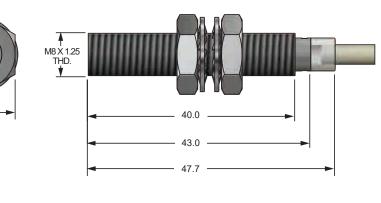
The Canfield Connector CS Series Cylindrical Threaded Mount Sensor is a rugged and compact magnetic sensor set within a miniature encapsulated Stainless Steel M8 threaded housing. Available in reed or electronic sensing, the CS sensor can sense magnets or magnetic objects in industrial machinery and mobile equipment. Typically used where greater sensing distance is required, the CS sensor changes state in the presence of a magnetic field. Electrical output for the CS is normally open, with sinking or sourcing outputs for the electronic versions. Input voltages available are 0 to 120 VAC/DC .5 Amp maximum for the reed and 5-24 VDC 0.2 Amp maximum for the electronic versions. The sensor is made of a Stainless Steel body, TPU encapsulant and has PVC wire standard and is NEMA 6. Temperature ranges are -20° to 80°C. The CS Series is proudly made in the U.S.A.



DIMENSIONAL DATA

13.0

All dimensions are in millimeters unless otherwise noted.



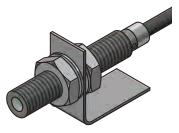
CONNECTION OPTIONS



12mm



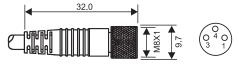
MOUNTING ORIENTATION



Switch Type / Tech. Specs.	See Ordering Information [†]
Sensitivity / Orientation	Electronic: 25 Gauss Parallel Reed: 85 Gauss Parallel (measured from sensor surface)
Shock	Up to 30G (11mS) Reed Only (not applicable for electronics)
Vibration	Up to 20G (10-55 Hz) Reed only
Materials	Cable: PVC House: 300 Series Stainless Steel, TPU
Temperature Range	-20° to +80°C
Environmental Protection	Designed for IP 67 / NEMA 6
Cable Diameter	2.7mm
Wire Gauge	24 AWG standard

(ADDITIONAL) MATING CORDSETS / PIN CÓNFIGURATION

8mm female molded locking connector

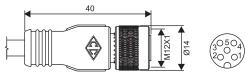


Brown = Pin 1 Blue = Pin 3 Black = Pin 4

Order P/N: RC08-AFM030-0120C10A (2m length) RC08-AFM030-0150C10A (5m length)

12mm female molded locking connector (3 pole) 250VAC/DC 4 Amps max.





Brown = Pin 1 Blue = Pin 3 Black = Pin 4 N/C = Pin 2N/C = Pin 5

Order P/N:

RC12-AFM030-0120C10A (2m length) RC12-AFM030-0150C10A (5m length)

ORDERING INFORMATION

	C S M 0 8 1 0 - 🗌 🗌	- 0	
Connection Options 0 - 9 ft PVC cable 3 - 8mm quick connect male pigtail* 5 - 12mm quick connect male pigtail* *Mates with cordsets shown above		- T	Special Packaging A - Bulk G - Individually Bagged

Switch [†] Type	Description	Function	Switching Voltage	Switching Current	Switching Power	Voltage Drop	Magnetic Sensitivity
01	Reed Switch	Normally Open SPST	0 - 120V AC/DC 50/60 Hz	0.5 Amps Max.	5 Watts Max.	0 Volts	85 Ga.
31	Electronic for Reed Magnet, No LED & Sourcing	Normally Open PNP	5 - 24 VDC	0.2 Amps Max.	4.8 Watts Max.	1.0 Volts	25 Ga.
32	Electronic for Reed Magnet, No LED & Sinking	Normally Open NPN	5 - 24 VDC	0.2 Amps Max.	4.8 Watts Max.	1.0 Volts	25 Ga.

Ordering Example: CSM0810-001-0A

9 ft. PVC cable, Reed Switch, Normally Open, 0-120V AC/DC 50/60 Hz, Bulk Packaged.





EIS SERIES ELECTRONIC INCLINOMETER SENSORS

GENERAL DESCRIPTION

The Canfield Connector Electronic Inclinometer Sensor EiS is an instrument designed to measure angles of slope, tilt, or elevation of an object with respect to gravity based on an artificial horizon. Synonyms include tilt sensor, tilt switch, clinometer, slope sensor, slope gauge, level sensor, level meter, tiltmeter or pitch and roll sensor. The EiS Series is an all solid-state, MEMs device designed to measure tilt while reporting the data within 0.3 degrees accuracy +/- 85° with an analog output of .5 to 9.5 Volts DC, 4 -20mA. The unit features a miniature metal housing and is epoxy encapsulated for vibration, water and dust resistance and is rated up to IP 69K environmental rating. Available in 1 or 2 axis versions, the unit boasts a temperature drift of +/- 1° maximum with a temperature range of -40 to 85°C. The EiS Series is precisely calibrated to remove non-linearity in the sensing range. Applications for inclinometers such as the EiS Series include platform leveling, motion sensing, filter vibrations, boom angle sensing, cameras, machine arm angle sensing as well as mobile security systems. The unit comes with high quality 9 ft. PVC jacketed wire, other lengths and quick connections as options, and is mounted in place by use of two 4.2mm holes.

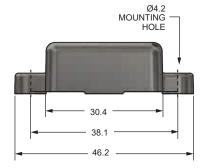


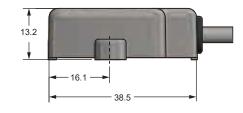
DIMENSIONAL DATA

All dimensions are in millimeters unless otherwise noted.



CONNECTION OPTIONS





12mm

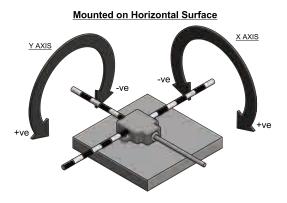


GT 4 Pin



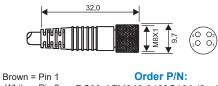
Accuracy @ 20°C	0.3°		
Environmental Protection	Up to IP 69K		
Materials	Housing: Zinc die-cast Housing Finish: Black powder coat		
Number of Axis	Single: 1 Dual: 2		
Output Current	10 mA Maximum (Voltage Output Units)		
Output Format	Analog		
Output Type	0.5 - 4.5VDC 0.5 - 9.5 VDC 4 - 20 mA		
Range	+/- 85°		
Supply Voltage	12-24 VDC		
Temperature Drift	+/- 1° Maximum		
Temperature Range	-40° to +85°C		
Cable Type	PVC (PUR on request. Consult Factory)		
Wire Gauge	24 AWG		

MOUNTING / SENSING ORIENTATION



(ADDITIONAL) MATING CORDSETS / PIN CONFIGURATION

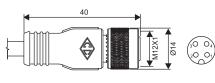
8mm female molded locking connector



White = Pin 2 Blue = Pin 3 Black = Pin 4

RC08-AFM040-0120C10A (2m length) RC08-AFM040-0150C10A (5m length)

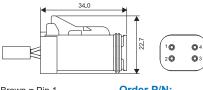
12mm female molded locking connector



Brown = Pin 1 White = Pin 2 Blue = Pin 3 Black = Pin 4 Order P/N:

RC12-AFM040-0120C10A (2m length) RC12-AFM040-0150C10A (5m length)

GT Deutsch style locking plug

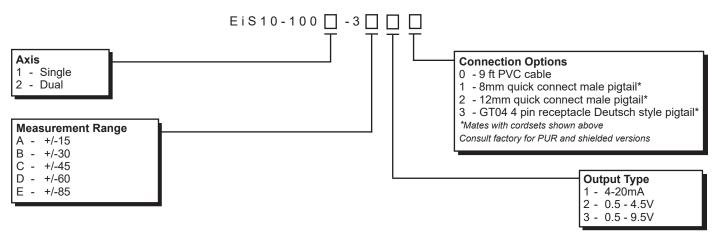


Brown = Pin 1 Blue = Pin 2 Black = Pin 3 Green = Pin 4

Order P/N: GT0604-U000-1A (2m length)

GT0604-X000-1A (5m length)

ORDERING INFORMATION



Ordering Example: EiS10-1001-3A10 Single Axis, +/-15 Range, 4-20mA, 9 ft. PVC cable.





GENERAL DESCRIPTION

The Canfield Connector Electronic Inclinometer Sensor EiS is available in two versions, CANopen and SAE J1939 communication interfaces. The EiS CAN BUS versions feature dual axis output designed to measure angles of slope or tilt angles of an object with respect to gravity based on an artificial horizon. Synonyms include tilt sensor, tilt switch, clinometer, slope sensor, slope gauge, level sensor, level meter, tiltmeter or pitch and roll sensor. The EiS Series is an all solid-state, MEMs device designed to measure tilt while reporting the data via CANopen or SAE J1939 within 0.3 degrees accuracy +/- 90°. The unit features a miniature metal housing and is epoxy encapsulated for vibration, water and dust resistance and is rated up to IP 69K environmental rating. The unit boasts a temperature drift of $+/-1^{\circ}$ maximum with a temperature range of -40 to 85° C. The EiS CAN BUS versions are precisely calibrated to remove non-linearity in the sensing range. Applications for inclinometers such as the EiS Series include platform leveling, motion sensing, filter vibrations, boom angle sensing, cameras, machine arm angle sensing, engine management as well as mobile security systems. The unit comes with high quality 9 ft. PVC jacketed wire, other lengths and quick connections as options, and is mounted in place by use of two 4.2mm holes.

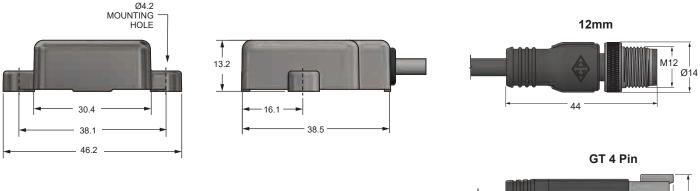


DIMENSIONAL DATA

All dimensions are in millimeters unless otherwise noted.



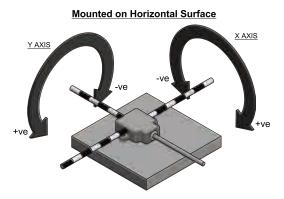






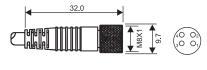
Accuracy @ 20°C	-0.3° to +0.3°		
Environmental Protection	Up to IP 69K		
Materials	Housing: Zinc die-cast Housing Finish: Black powder coat		
Number of Axis	Dual: 2		
Angle Range	Both Axis -90° to +90°		
Supply Current	30 mA Maximum		
CAN Speed	250 kbps (default)		
Startup Time	Vcc = 0V to VCC = 12V 1 sec.		
Resolution	0.01°		
Update Rate	100 Hz		
Supply Voltage	8 to 30V		
Temperature Drift	+/- 1° Maximum		
Temperature Range	-40° to +85°C		
Cable Type	PVC (PUR on request. Consult Factory)		
Wire Gauge	24 AWG		

MOUNTING / SENSING ORIENTATION



(ADDITIONAL) MATING CORDSETS / PIN CONFIGURATION

8mm female molded locking connector

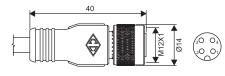


Brown = Pin 1 White = Pin 2 Blue = Pin 3 Black = Pin 4 Order P/N:

RC08-AFM040-0120C10A (2m length)

RC08-AFM040-0150C10A (5m length)

12mm female molded locking connector

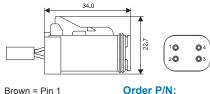


Brown = Pin 1 White = Pin 2 Blue = Pin 3 Black = Pin 4

Order P/N:

RC12-AFM040-0120C10A (2m length) RC12-AFM040-0150C10A (5m length)

GT Deutsch style locking plug

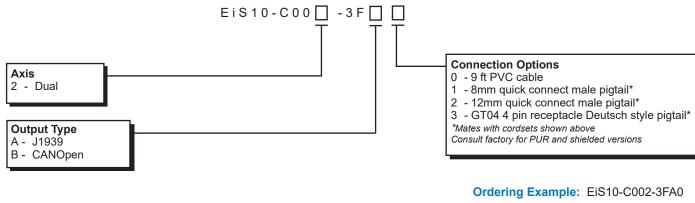


Blue = Pin 2 Black = Pin 3 Green = Pin 4

Order P/N: GT0604-U000-1A (2m length)

GT0604-X000-1A (5m length)

ORDERING INFORMATION



Dual Axis, J1939, 9 ft. PVC cable.





ETS SERIES ELECTRONIC TILT SWITCH

GENERAL DESCRIPTION

The Canfield Connector Electronic Tilt Switch is a rugged, non-mercury, all electronic sensor designed to trigger a precision output based on user defined angles of slope, tilt, or elevation of an object with respect to gravity, based on an artificial horizon. The Canfield Connector ETS Series is an all solid-state MEMs device designed to measure tilt and facilitate either a high or low signal output, while internally calculating the data within 0.5 degrees accuracy up to a preset trigger point within +/- 85 degrees. The unit features a rugged metal housing and is epoxy encapsulated for vibration, dust and water resistance to IP69K. The ETS Series is omnidirectional and boasts a temperature drift of +/- 1° maximum with a temperature range of -40 to 85°C. The ETS Series is digitally and temperature compensated and precisely calibrated to remove non-linearity of the trip point. Applications for Tilt Switches such as the ETS Series include platform leveling, motion limit sensing, boom angle sensing, cameras, machine arm angle sensing as well as mobile security systems. The unit comes with PVC wire (PUR on request), 9ft. length with other lengths and quick connections available. The unit is installed in place by use of two 4.2mm holes.



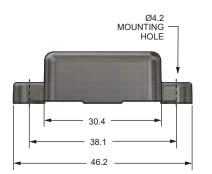
DIMENSIONAL DATA

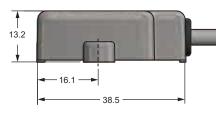
All dimensions are in millimeters unless otherwise noted.

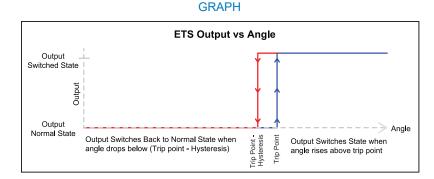
CONNECTION OPTIONS



44







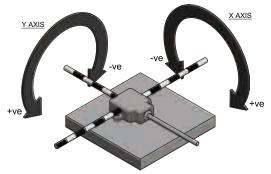
GT 4 Pin



Accuracy @ 20°C	0.5°		
Environmental Protection	Up to IP 69K		
Materials	Housing: Zinc die-cast Housing Finish: Black powder coat		
Number of Axis	Single: 1 Dual: 2		
Output Current	1Amp Max (each)		
Output Format	Sourcing		
Output Type	Supply 1V Max		
Supply Voltage	12-24 VDC		
Temperature Drift	+/- 1° Maximum		
Temperature Range	-40° to +85°C		
Cable Type	PVC (PUR on request. Consult Factory)		
Wire Gauge	24 AWG		

MOUNTING / SENSING ORIENTATION

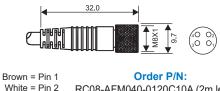
Mounted on Horizontal Surface



ORDERING INFORMATION

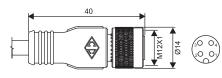
(ADDITIONAL) MATING CORDSETS / PIN CONFIGURATION

8mm female molded locking connector



White = Pin 2 Blue = Pin 3 Black = Pin 4 RC08-AFM040-0120C10A (2m length) RC08-AFM040-0150C10A (5m length)

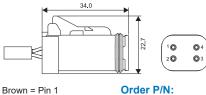
12mm female molded locking connector



Brown = Pin 1 White = Pin 2 Blue = Pin 3 Black = Pin 4 Order P/N:

RC12-AFM040-0120C10A (2m length) RC12-AFM040-0150C10A (5m length)

GT Deutsch style locking plug



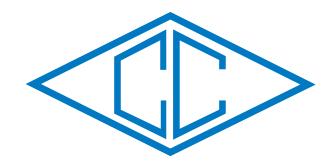
Blue = Pin 2 Black = Pin 3 Green = Pin 4 GT0604-U000-1A (2m length)

GT0604-X000-1A (5m length)

ETS10-100 - 3 - 2 1 - 0 **Connection Options** Axis 0 - 9 ft PVC cable 1 - Single 1 - 8mm quick connect male pigtail* 2 - Dual 2 - 12mm quick connect male pigtail* 3 - GT04 4 pin receptacle Deutsch style pigtail* *Mates with cordsets shown above Sign Consult factory for PUR and shielded versions - Positive + - Negative **Output State Trip Point** 1 - Normally OFF 15 - 15° 2 -Normally ON 30 - 30° 45 - 45° 60 - 60° 85 - 85° Ordering Example: ETS10-1001-3+15-211-0

Single Axis, +15° Trip Point, Normally Off, 9 ft. PVC cable.

We appreciate your business!



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