Stroke-to-GO

All Stainless Steel
360° Rotatable
Weld Field Immune

Stroke-to-GO® Switch
Models 7C, 7D, 7E, 7F

Cylinder Position Sensor

Stroke-To-GO® Switches provide precise end-of-stroke position indication on pneumatic and hydraulic cylinders. Designed to exceed automotive industry standards, the housing is machined from stainless steel bar stock to handle pressures to 3,000 PSI operating (tested to UL's 4X burst requirement) while withstanding the extreme external conditions such as weld slag, coolants, cutting fluids, physical abuse and even high temperatures. Stroke-to-GO® Switches incorporate the same 70 Series GO® Switch mechanism that has been tested to over 200 million mechanical cycles and field proven in the most rigorous applications. This unique design offers the greatest benefits in cylinder position indication.

Unique Features

Mechanical life:
>200,000,000 cycles
Leakage current:
Without LEDs - *none*
With LEDs - <1.7mA
Voltage Drop:
Without LEDs - *none*
With LEDs - <5V (SPST)
Temperature drift: *none*
Washdown: designed to withstand 1,000 PSI washdown and NEMA 6P with Mini-Change® type connector option
Underwater: rated to 10,000 PSI with deep sea connector option
Weld Field Immune: tested and exceeded General Motors EHS-320 specifications. Testing Agency - Candid Logic
Radio Frequency Interference (RFI): *no affect at any frequency*

Application Considerations

- Cylinder cushion must be ferrous.
- Air gap between switch sensing face and cushion should be .015" to .040" (outside this range please consult factory).
- Largest diameter of target (cushion) should cover at least 75% of probe sensing face.
- Sensing face of Stroke-To-GO® Switch must be at least .125" from piston rod for proper switch reset. This may at times require an air gap distance greater than .040".
- For cushion diameters less than .50", air gap should be .015" to .025".

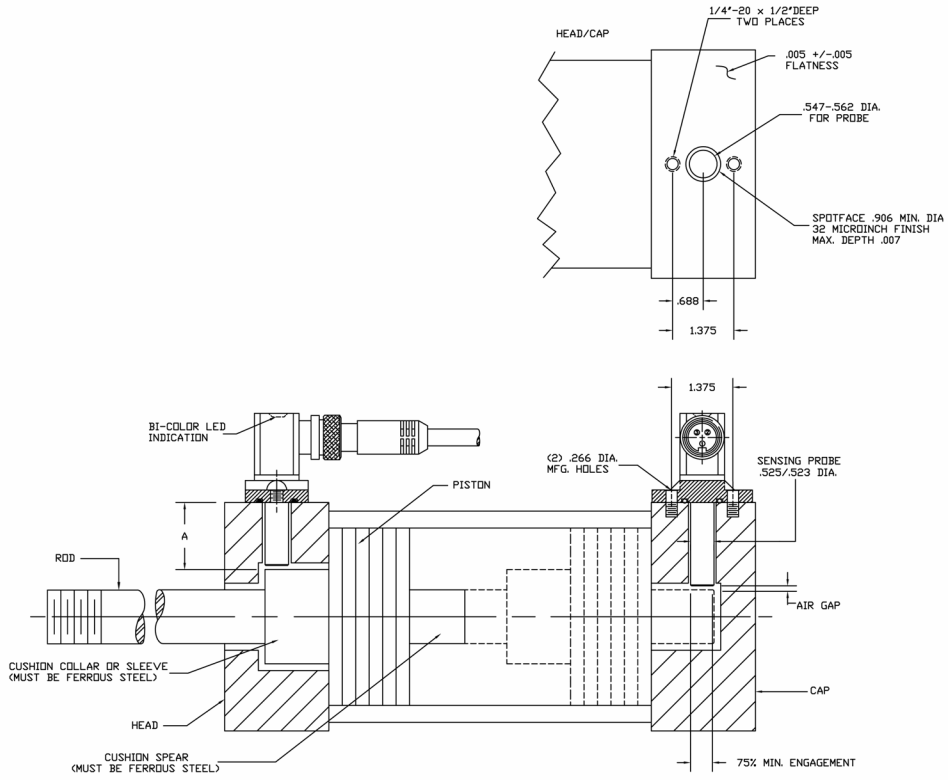


Figure 1

Stroke-to-GO

All Stainless Steel
360° Rotatable
Weld Field Immune

Specifications

Housing

Size: Standard probe lengths: 1.025" (26 mm), 1.250" (32 mm) and 2.062" (52 mm). Custom probe lengths:** 1.000" (26 mm) - 5.000" (127 mm)
Materials: Stainless Steel bar stock
Conduit Outlet: Mini-change standard

Sensing

Target Material: *Ferrous*
Sensing Range: Approx. .090" (2 mm) end sensing (3,000 PSI) (Recommended air gap .015" - .040")

Contacts

Materials: Palladium silver
Form: Single Pole, Double Throw, Form C (w/ or w/o LED indication) Single Pole, Single Throw (w/ or w/o LED indication) Form A or Form B
Ratings: Resistive

AC		DC	
Volts	Amps	Volts	Amps
120	4	24	3
240	2	48	*
480	*	125	0.5
		250	0.5

Without LED's

AC		DC	
Volts	Amps	Volts	Amps
120	0.5	24	0.5
240	0.5	48	0.5
480	*	125	0.5
		250	0.5

With LED's

Performance

Repeatability: .002"(.05 mm) typical
Response Time: 8 milliseconds
Differential: Approximately .020" (.51 mm)
Operating Temperature: -40°F (-40°C) to 160°F (71°C) With LEDs -40°F (-40°C) to 221°F (105°C) Without LEDs; 400°F (204°C) optional
Pressure Rating: Stainless steel 3,000 PSI operating (UL tested 4x burst)

Approvals

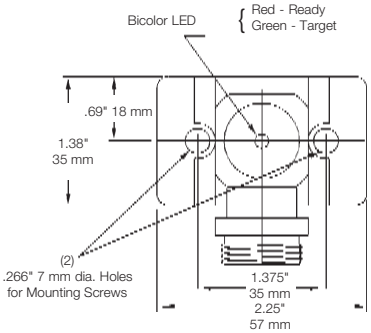
Approvals: UL and CSA

**Probe lengths shorter than 1.00" are available with taller upper switch housing.

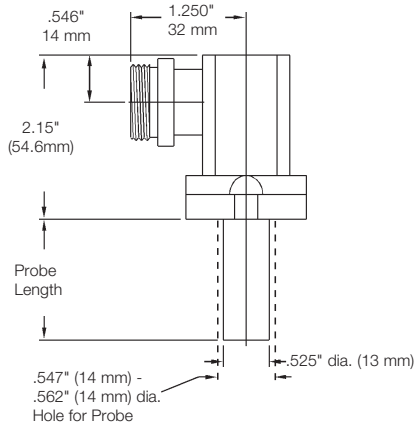
Most popular models

7C-23658-DCA
SPST with LEDs, approx. .090"(2.3 mm) end sensing, stainless steel 1.025" (26 mm) probe, 360° adjustable side outlet with 3 pin mini change connector. < 1mA leakage current.

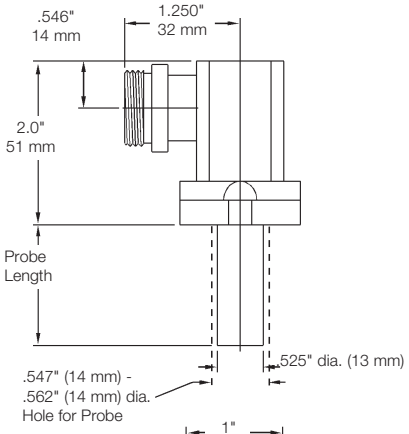
7E-43658-DCA
SPDT, (no LED) approx. .090" (2.3 mm) end sensing, stainless steel 2.062" (52 mm) probe, 360° adjustable side outlet with 3 pin mini change connector. No leakage current.

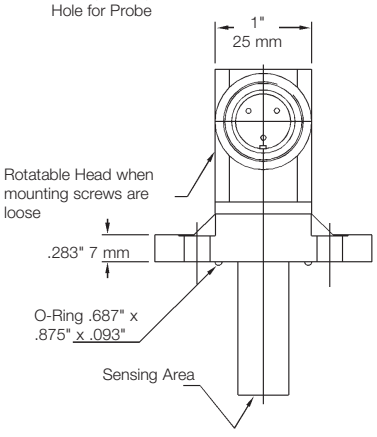


Probe Lengths
Greater than 1.025"



Probe Lengths
1.025" and less





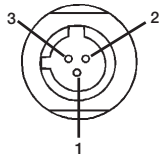
Stroke-to-GO

Wiring Diagrams

CONTACT FORMS		Leads UL	Leads CSA	Cable UL	Cable CSA	Water-Resistant UL	Water-Resistant CSA	HiTemp
2 - SPST Form A N/O w/ LED	COM N/O GND	Black Blue Green	Black Blue Green	Black White Red	Black White Red	Black White Red	Black White Red	N/A
3 - SPST Form B N/C w/ LED	COM N/C GND	Black Red Green	Black Red Green	Black Red White	Black Red White	Black Red White	Black Red White	N/A
4 - SPDT Form C No LED	COM N/O N/C GND	Black Blue Red	Black Blue Red Green	Black White Red	Black White Red Green	Black White Red	Black White Red Green	Black Blue Red
5 - SPDT Form C Dual LEDs	COM N/O N/C GND	Black Blue Red	Black Blue Red Green	Black White Red	Black White Red Green	Black White Red	Black White Red Green	N/A
7 - SPST Form A N/O w/o LED	COM N/O GND	Black Blue Green	Black Blue Green	Black White Red	Black White Red	Black White Red	Black White Red	Black Blue Green
8 - SPST Form B N/O w/o LED	COM N/C GND	Black Red Green	Black Red Green	Black Red White	Black Red White	Black Red White	Black Red White	Black Red Green

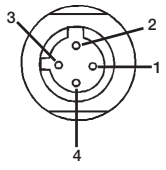
3 Pin Micro-Change with or without LEDs

SPST, Form A, N/O	
PIN 1	GND
PIN 2	COM
PIN 3	N/O
SPST, Form B, N/C	
PIN 1	GND
PIN 2	COM
PIN 3	N/C
SPDT, Form C	
PIN 1	COM
PIN 2	N/C
PIN 3	N/O



4 Pin Micro-Change with or without LEDs

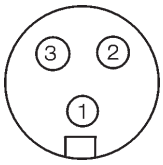
SPST, Form A, N/O	
PIN 1	COM
PIN 2	N/O
PIN 3	INACTIVE
PIN 4	GND
SPST, Form B, N/C	
PIN 1	COM
PIN 2	INACTIVE
PIN 3	N/C
PIN 4	GND
SPDT, Form C	
PIN 1	COM
PIN 2	N/O
PIN 3	N/C
PIN 4	GND



Wiring Diagrams

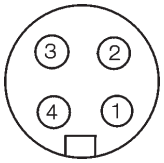
3 Pin Mini-Change with or without LED

SPST, Form A, N/O	
PIN 1	GND
PIN 2	COM
PIN 3	N/O
SPST, Form B, N/C	
PIN 1	GND
PIN 2	COM
PIN 3	N/C
SPDT, Form C	
PIN 1	COM
PIN 2	N/C
PIN 3	N/O



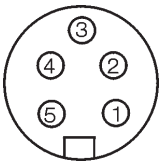
4 Pin Mini-Change with or without LED

SPST, Form A, N/O	
PIN 1	COM
PIN 2	N/O
PIN 3	INACTIVE
PIN 4	GND
SPST, Form B, N/C	
PIN 1	COM
PIN 2	INACTIVE
PIN 3	N/C
PIN 4	GND
SPDT, Form C	
PIN 1	COM
PIN 2	N/O
PIN 3	N/C
PIN 4	GND



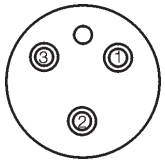
5 Pin Mini-Change with or without LED

SPST, Form A, N/O	
PIN 1	N/O
PIN 2	Inactive
PIN 3	GND
PIN 4	Inactive
PIN 5	COM
SPST, Form B, N/C	
PIN 1	Inactive
PIN 2	N/C
PIN 3	GND
PIN 4	Inactive
PIN 5	COM
SPDT, Form C	
PIN 1	N/O
PIN 2	N/C
PIN 3	GND
PIN 4	Inactive
PIN 5	COM



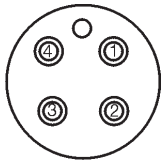
3 Pin SubSea without LED

SPST, Form A, N/O	
PIN 1	COM
PIN 2	N/O
PIN 3	GND
SPST, Form B, N/C	
PIN 1	COM
PIN 2	N/C
PIN 3	GND
SPDT, Form C	
PIN 1	N/C
PIN 2	COM
PIN 3	N/O



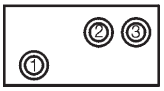
4 Pin SubSea without LED

SPST, Form A, N/O	
PIN 1	COM
PIN 2	N/O
PIN 3	INACTIVE
PIN 4	GND
SPST, Form B, N/C	
PIN 1	COM
PIN 2	INACTIVE
PIN 3	N/C
PIN 4	GND
SPDT, Form C	
PIN 1	COM
PIN 2	N/O
PIN 3	N/C
PIN 4	GND



3 Pin SubSea - Right Angle without LED

SPST, Form A, N/O	
PIN 1	COM
PIN 2	N/O
PIN 3	GND
SPST, Form B, N/C	
PIN 1	COM
PIN 2	N/C
PIN 3	GND
SPDT, Form C	
PIN 1	COM
PIN 2	N/O
PIN 3	N/C



S-K038 R3