



**Models 7C, 7D, 7E & 7F**

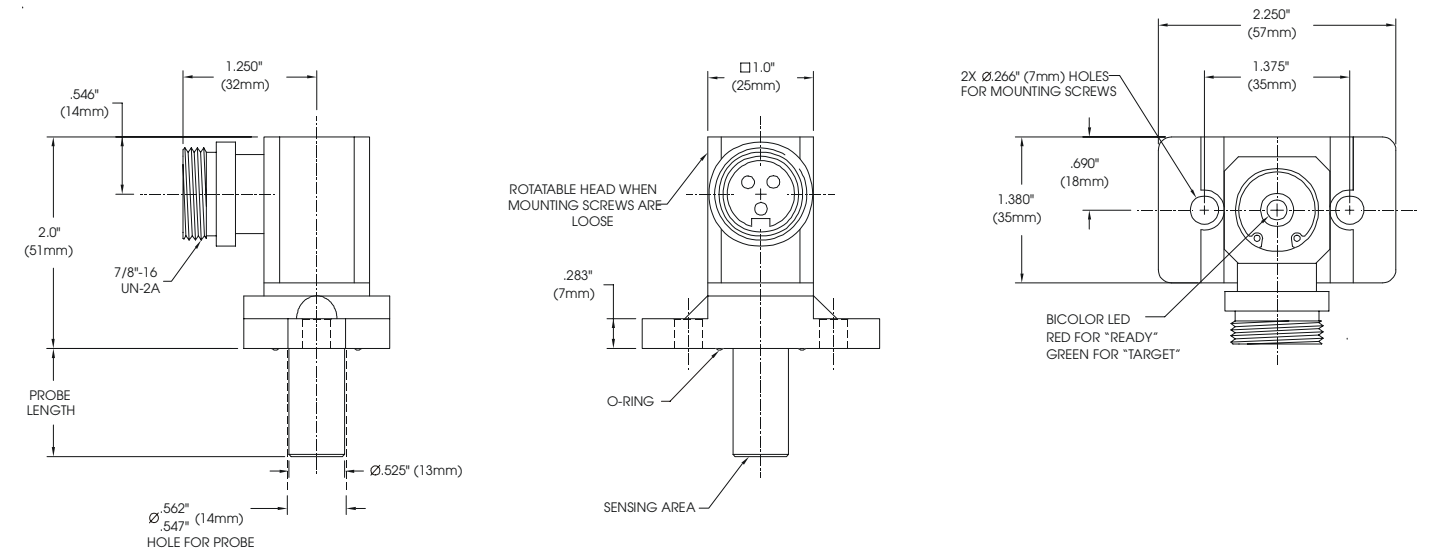
With their solid stainless steel housings and leverless limit switch design, Stroke to GO switches have set the standard for reliability and durability in cylinder position sensing.

- Features:**  
 SPDT 4A contacts  
 Inherently Intrinsically Safe  
 -40° to 221°F operating temperature
- Options:**  
 -40° to 400°F high temperature  
 Quick disconnect connector  
 Underwater capabilities

**FAST TRACK DELIVERY**

SPST	SPDT
<b>7C-23658-DCA</b> 1.025" Probe Mini Connector	<b>7C-43658-DCA</b> 1.025" Probe Mini Connector
<b>7D-23658-DCA</b> 1.250" probe Mini Connector	<b>7D-43658-DCA</b> 1.250" probe Mini Connector
<b>7E-23658-DCA</b> 2.062" probe Mini Connector	<b>7E-43658-DCA</b> 2.062" probe Mini Connector

**Dimensions**



**Model**

**Repeatability:** .002" (.05 mm) typical  
**Response Time:** 8 milliseconds  
**Differential:** Approx. .020" (.51 mm)  
**Operating Temperature:** -40° to 160°F (-40° to 71°C) with LEDs -40° to 221°F (-40° to 105°C) without LEDs; HiTemp™ option to 400°F (204°C)

- ✓ **7C** Model 7C  
1.025" (26 mm) probe length
- ✓ **7D** Model 7D  
1.250" (32 mm) probe length
- ✓ **7E** Model 7E  
2.062" (52 mm) probe length
- 7F** Custom probe lengths  
1.000" (26 mm) - 5.000" (127 mm)\*

\*Probe lengths shorter than 1.000" require a taller upper switch housing

**Ordering Guide**

Fill in the boxes to create your 'ordering number.'

**Contact Form**

**Contact Material:** Palladium silver with sawtooth surface configuration

**Form:** SPDT, Form C (with or without LED indication) Single Pole, Single Throw (with or without LED indication) Form A or Form B

**Ratings:** Resistive

AC		DC	
Volts	Amps	Volts	Amps
120	4	24	3
240	2	48	1.25
		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
		125	0.5
		250	0.5

With LED's

- ✓ **2** Single Pole Single Throw (Form A) (N/O output with bi-color LED indication) (Operating voltage: 24Vdc/120Vac) (Optional voltage: 48Vdc/240Vac) (Leakage current is 1.0mA)
- 3** Single Pole Single Throw (Form B) (N/C output with bi-color LED indication) (Operating voltage: 24Vdc/120Vac) (Optional voltage: 48Vdc/240Vac) (Leakage current is 1.0 mA)
- ✓ **4** Single Pole Double Throw (Form C) (without LED) (No leakage current)
- 5** Single Pole Double Throw (Form C) (with dual LED's) (Operating voltage: 24Vdc/120Vac) (No leakage current)
- 7** Single Pole Single Throw (Form A) N/O output w/o LED indication (No leakage current)
- 8** Single Pole Single Throw (Form B) N/C output w/o LED indication (No leakage current)

**Contact Form**  
3

**Sensing Range**

**Target Material:** Ferrous steel  
**Sensing Range:** .090" (2.3 mm) end sensing (3,000 PSI) (Recommended air gap .015" - .040")

- ✓ **3** Standard sensing - approx. .090" (2.3 mm) end sensing

**Sensing Range**  
3

**Outlet Position**

- 2** Side entry 360° adjustable (Wiring must be A, B, C, or F) No conduit hub
- ✓ **6** Side outlet 360° adjustable with Quick Disconnect (Wiring must be D) (Approval must be 7 or 8)
- 7** Side outlet 360° adjustable with ½" NPT conduit hub (Wiring must be A, B, or F)
- 8** Top outlet (Wiring must be SubSea)

**Need Accessories?**

See pp. 93-104 for:  
 Range Extending  
 Target Magnets  
 Mounting Brackets  
 Connectors and more!

**Outlet Position**  
3

**Enclosure Material**

**Stainless Steel type 303**

- ✓ **5** Stainless steel (rated 3,000 PSI operating) (3 to 1 safety factor applies to standard probe lengths)

**Enclosure Material**  
5

**Approvals**



- 2** High temperature to 400°F (204°C) with Teflon™ insulated leads (Wiring must be F) (Contact form must be 4, 7, or 8)
- 7** CSA certified General Purpose
- ✓ **8** UL listed General Purpose

**Approvals**  
8

**Wiring Options**

**Lead Wires** 18 Gauge (.110" dia) potted-in PVC insulated AWM / TEW stranded lead wires, rated at 221°F (105°C) 600V UL / CSA listed

- A2** 36" (914 mm)
- A3** 72" (1829 mm)
- A4** 144" (3658 mm)
- A\_ \_ \_** Lengths greater than 144" (Specify length in 5' increments (e.g. A150 = 150 ft. of leads))

**Cable** 18 Gauge (.250" dia.) potted-in PVC cable, rated at 176°F (80°C) 300V, UL / CSA listed

- B2** 36" (914 mm)
- B3** 72" (1829 mm)
- B4** 144" (3658 mm)
- B\_ \_ \_** Lengths greater than 144" (Specify length in 5' increments (e.g. B150 = 150 ft. of cable))

**Water Resistant** 18 Gauge (.250" dia.) PVC cable rated at 176°F (80°C) 300V with water-resistant squeeze connector.

- C2** 36" (914 mm)
- C3** 72" (1829 mm)
- C4** 144" (3658 mm)
- C\_ \_ \_** Lengths greater than 144" (Specify length in 5' increments (e.g. C150 = 150 ft. of cable))

**Quick Disconnect** Male Quick Disconnect only, potted-in connector. (CSA requires a case ground) (Approvals must be 7 or 8)

	Mini-change®	Micro-change®
✓ <b>DCA</b>	3 - pin Mini-change® type	<b>DBA</b> 3 - pin Micro-change® type
<b>DCD</b>	4 - pin Mini-change® type	<b>DBD</b> 4 - pin Micro-change® type
<b>DCG</b>	5 - pin Mini-change® type	

**SubSea Underwater Connector** (Outlet position must be 8)

- 3DD** 3 pin, certified not to leak underwater
- 4DD** 4 pin, certified not to leak underwater
- 3DE** 3 pin right-angle, certified not to leak underwater
- 4DE** 4 pin right-angle, certified not to leak underwater

**HiTemp Leads** 18 gauge (.070" dia. potted-in Teflon™ insulated leads rated at 482°F (250°C) 600V UL / CSA listed (Approval must be 2, 7, or 8)

- F2** 36" (914 mm)
- F3** 72" (1829 mm)
- F4** 144" (3658 mm)
- F\_ \_ \_** Lengths greater than 144" (Specify length in 5' increments (e.g. F150 = 150 ft. of leads))

**Wiring Options**  
8



## Agency Approvals

Approvals	(2) HiTemp	(7) CSA General Purpose	(8) UL General Purpose
<b>Termination Options</b>			
A - Potted PVC Leads		X	X
B - Potted PVC Cable		X	X
C - Water squeeze connector		X	X
D - Quick Disconnect		X	X
D - SubSea™ Connector		X	X
F - HiTemp™ Leads	X	X	X

X = Approvals Available

## NEMA Ratings

Models 7C, 7D, 7E, 7F	Non-Hazardous				Hazardous	
	4	4X	6	6P	7	9
<b>NEMA CLASSES</b>						
A - Potted PVC leads	X	X				
B - Potted PVC cable	X	X				
C - PVC Cable w/ squeeze	X	X	X	X		
D - Quick Disconnect	X	X	X	X		
D - SubSea™ Connector	X	X	X	X		
F - HiTemp™ Teflon leads	X	X				

X = Designed to meet respective NEMA specifications

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

### 3 Pin Micro 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 Micro Change with or without LED

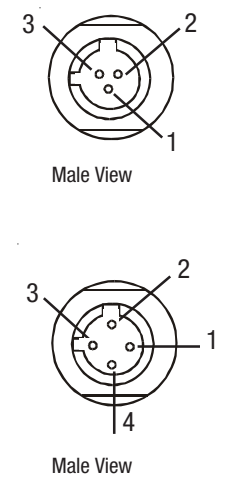
SPST, Form A, N/O	
PIN 1	COM
PIN 2	N/O
PIN 3	INACTIVE
PIN 4	GND

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



## 3 Pin Mini Change with or without LED

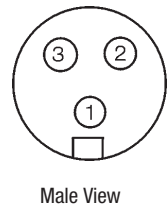
SPST, Form A, N/O	
PIN 1	GND
PIN 2	COM
PIN 3	N/O

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

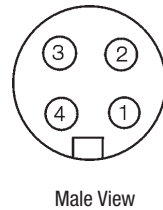
SPST, Form A, N/O	
PIN 1	COM
PIN 2	N/O
PIN 3	INACTIVE
PIN 4	GND

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

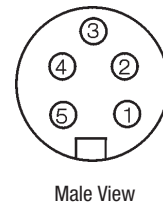
SPST, Form A, N/O	
PIN 1	N/O
PIN 2	Inactive
PIN 3	GND
PIN 4	Inactive
PIN 5	COM

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

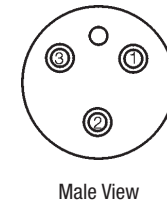
SPST, Form A, N/O	
PIN 1	COM
PIN 2	N/O
PIN 3	GND

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

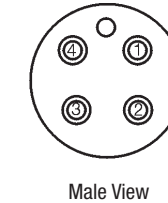
SPST, Form A, N/O	
PIN 1	COM
PIN 2	N/O
PIN 3	INACTIVE
PIN 4	GND

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

