

# SGD

## Cable Actuated Sensor

### 4 -20mA | 0 - 10 VDC Output Signal

**Compact Mid-Range String Pot | Absolute Position**  
**80, 120-inch Stroke Range Options**  
**Polycarbonate Enclosure | IP67**

#### Specifications

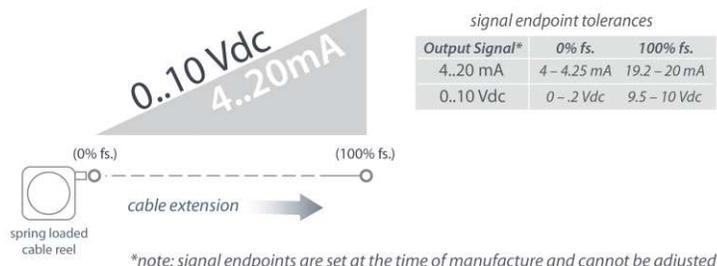
<b>Stroke Range</b>	80 inches (2032 mm), 120 inches (3048 mm)
<b>User Selectable Output Signal</b>	4...20mA (2-wire) / 0...10 Vdc
<b>Input Voltage, 4...20mA option</b>	8-40 VDC
<b>Input Voltage, 0...10 Vdc option</b>	12-32 VDC
<b>Accuracy</b>	.35% FS
<b>Repeatability</b>	.05% FS
<b>Resolution</b>	Essentially infinite
<b>Measuring Cable</b>	.019-inch dia. nylon-coated stainless steel
<b>Maximum Acceleration</b>	10 g
<b>Measuring Cable Tension</b>	9 oz. (2,5 N) ±30%
<b>Sensor</b>	Plastic-hybrid precision potentiometer
<b>Cycle Life</b>	≥250,000
<b>Electrical Connection</b>	M12 connector (mating plug included)
<b>Enclosure</b>	glass-filled polycarbonate
<b>Environmental</b>	IP 67
<b>Operating Temperature</b>	-40° to 160° F (-18° to 70° C)
<b>Weight, 80-inch (not including bracket)</b>	.6 lbs. (272 g)
<b>Weight, 120-inch (not including bracket)</b>	1 lb. (453 g)

Suited for IP67 (wet) environments, the SGD provides a user selectable 4-20mA or 0-10 VDC absolute linear position signal over an 80 inch or 120-inch full stroke range option. Signal selection is simply made by connecting the appropriate pins on the included connector or selecting the proper wires in the optional cordset.

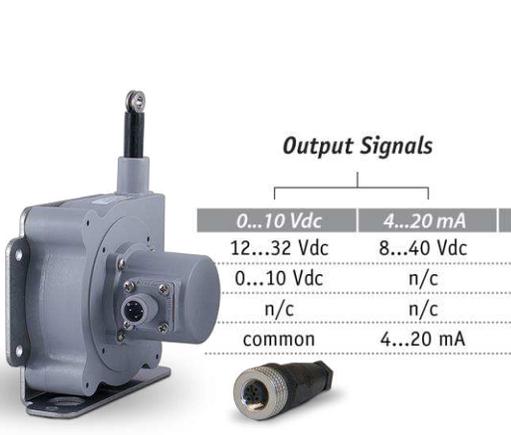
Additionally, this sensor is constructed with a rugged polycarbonate body, an extremely durable spring-loaded stainless steel measuring cable and a mounting bracket that lets the customer mount this sensor in just about any direction.

Customized options are also available for OEM customers.

#### Output Signal



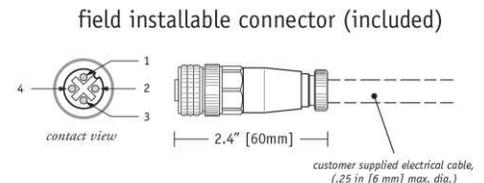
**Electrical Connection**



**Output Signals**

0...10 Vdc	4...20 mA	pin	pin - colorcode
12...32 Vdc	8...40 Vdc	1	1 - brown
0...10 Vdc	n/c	2	2 - white
n/c	n/c	3	3 - blue
common	4...20 mA	4	4 - black

field installable connector (included)

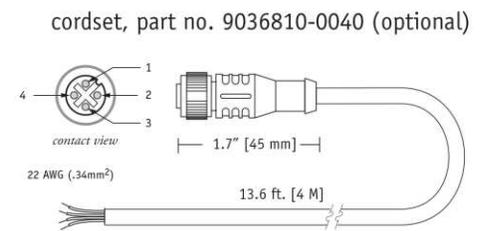


contact view

2.4" [60mm]

customer supplied electrical cable, (.25 in [6 mm] max. dia.)

cordset, part no. 9036810-0040 (optional)

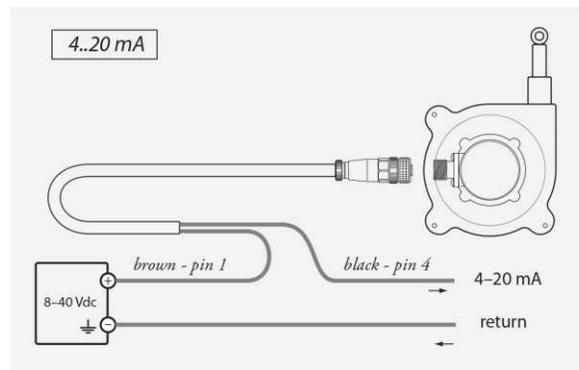
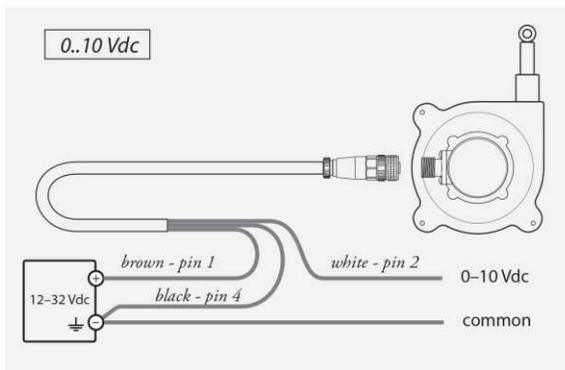


contact view

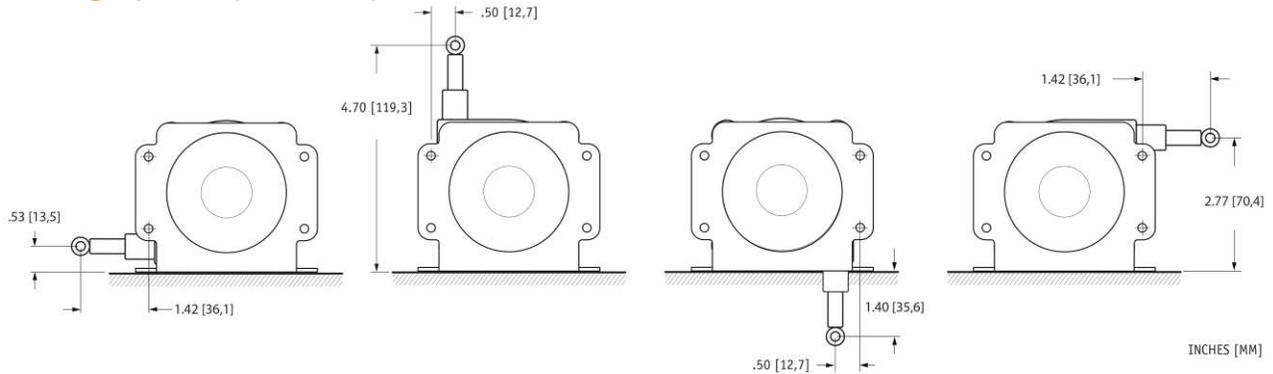
1.7" [45 mm]

22 AWG (.34mm<sup>2</sup>)

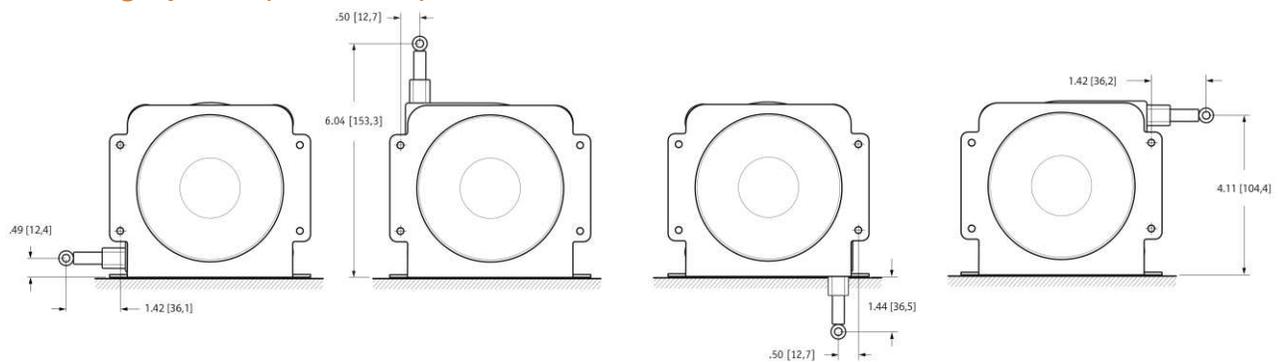
13.6 ft. [4 M]



**Mounting Options (SGD-80-3):**



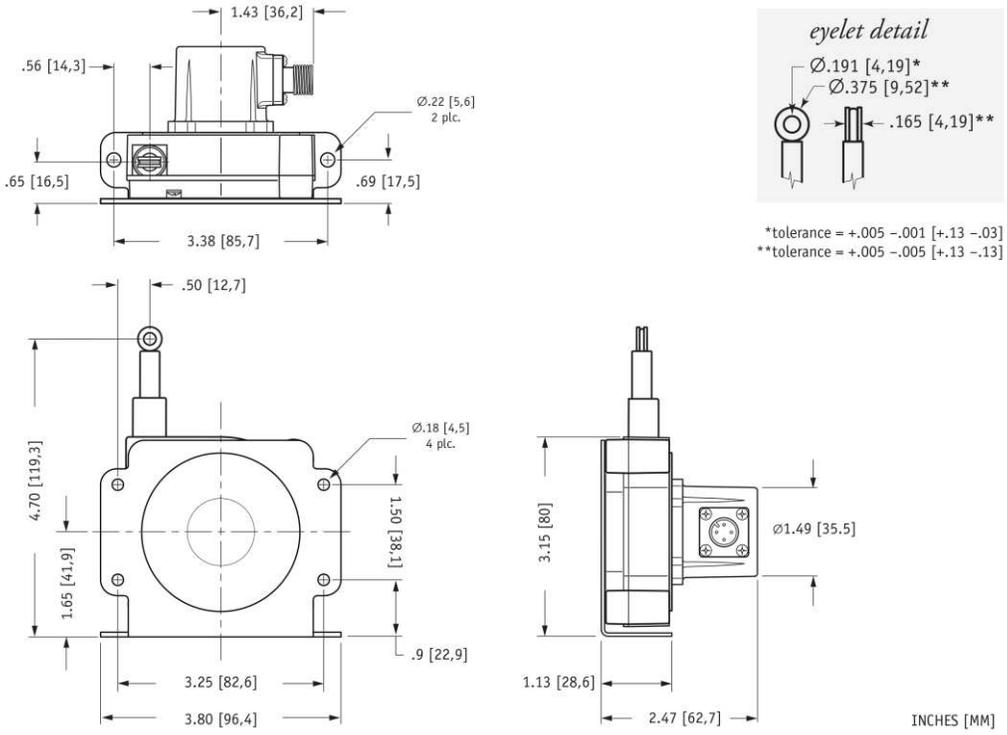
**Mounting Options (SGD-120-3):**



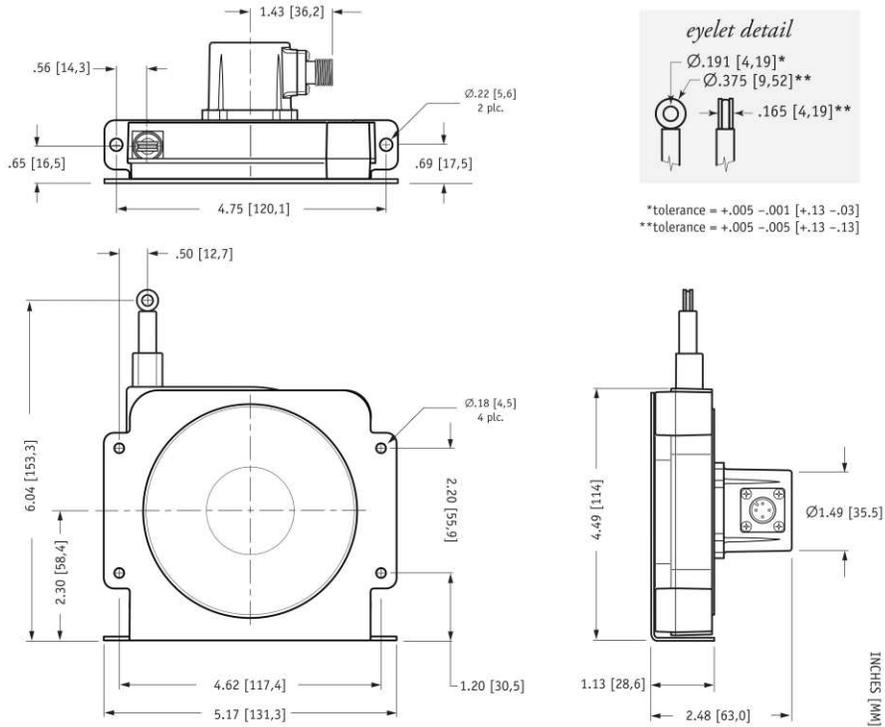
# SGD

4..20Ma | 0..10 Vdc Output Signal

## SGD-80-3 w/ Mounting Bracket:



## SGD-120-3 w/ Mounting Bracket:



## SGD

4..20Ma | 0..10 Vdc Output Signal

### Ordering Information



Part No.

## SGD-80-3

80-inch stroke range,  
4–20 mA / 0–10 Vdc output  
M12 connector,  
IP67 environments,  
mounting bracket included

Part No.

## SGD-120-3

120-inch stroke range,  
4–20 mA / 0–10 Vdc output  
M12 connector,  
IP67 environments,  
mounting bracket included



4-pin M12 connector  
13 ft (4 m)  
22 AWG (.34mm<sup>2</sup>)

### Optional Cordset

Part No.

## 9036810-0040

for short-run connections, a convenient optional 13-ft. cordset with a 4-pin M12 connector is available for the SGD-80-3 and SGD-120-3.

[CLICK HERE >](#)  
**CONNECT WITH A SPECIALIST**

#### NORTH AMERICA

Tel +1 800 522 6752

#### EUROPE

Tel +31 73 624 6999

#### ASIA

Tel +86 0400 820 6015

### [te.com/sensors](https://te.com/sensors)

TE Connectivity, TE, TE Connectivity (logo) and Every Connection Counts are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2021 TE Connectivity Corporation. All Rights Reserved.

Version # 08/2023

