

The SG1 provides absolute linear position up to a 10-ft. stroke range. Constructed with a rugged polycarbonate body, this model is available in an 80-inch or 120-inch stroke range and offers optional IP67 protection for wet or outdoor installations and an M12 connector for easy installation.

The SG1 uses a precision high-cycle plastic hybrid potentiometer and an extremely durable spring-loaded stainless steel measuring cable to provide an accurate reliable position feedback signal over the entire stroke. With its slim design and versatile mounting bracket, the SG1 has been designed to fit into spaces no other measurement device can. For the OEM customer, custom mounting hardware and electrical connections are available.



## SG1

### Cable Actuated Sensor Voltage Divider Output Signal

Compact Mid-Range String Pot • Absolute Position

80, 120-inch Stroke Range Options

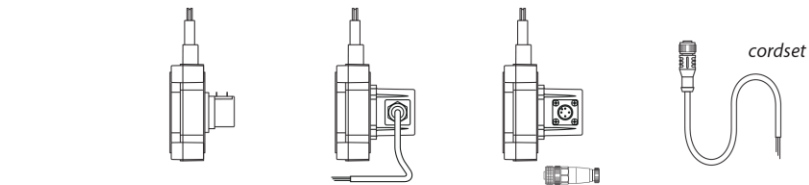
Polycarbonate Enclosure • IP67

In Stock for Quick Delivery

#### Specifications

<b>Stroke Range Options</b>	80 inches (2032 mm), 120 inches (3048 mm)
<b>Output Signal</b>	voltage divider (potentiometric)
<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>Input Resistance</b>	10K ohms, ±10%
<b>Power Rating, Watts</b>	2.0 at 70°F
<b>Recommended Maximum Input Voltage</b>	30 V (AC/DC)
<b>Output Signal Change Over Full Stroke Range</b>	94% ±4% of V(+in)
<b>Cycle Life</b>	≥ 250,000
<b>Electrical Connection</b>	see ordering information
<b>Enclosure</b>	glass-filled polycarbonate
<b>Environmental</b>	IP 50 , IP67 (m12 connector & pigtail options)
<b>Operating Temperature</b>	-40° to 160° F (-40° 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)

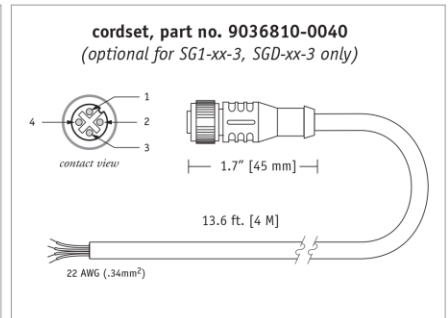
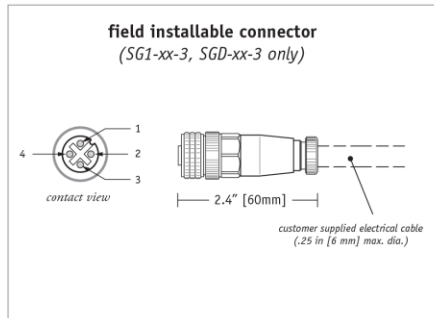
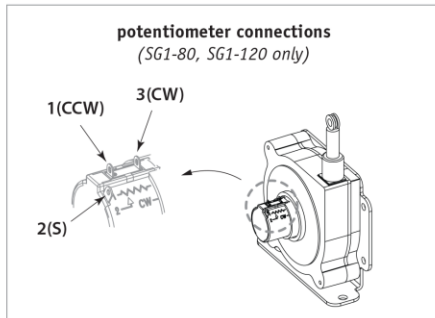
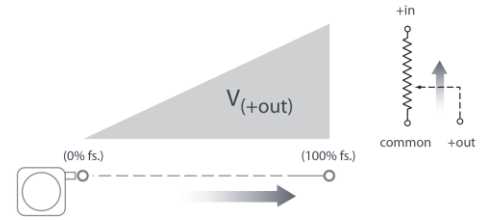
**Electrical Connection**



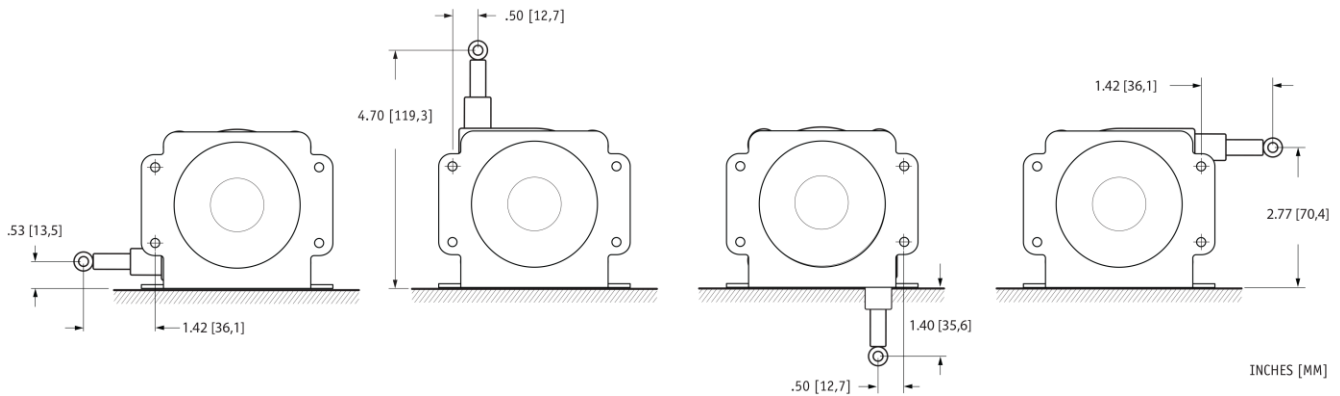
signals	terminal	colorcode	pin*	pin - colorcode*
+in	3 (cw)	red	1	1 - brown
common	1 (ccw)	black	2	2 - white
+out	2 (s)	green	3	3 - blue

\*note: connector pin 4 and the black wire on the cordset are NOT used.

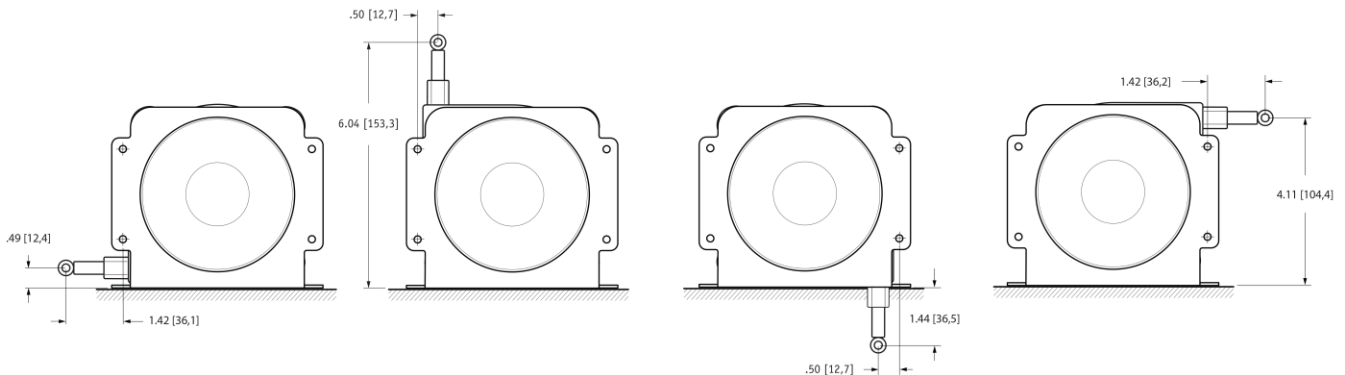
**Output Signal**



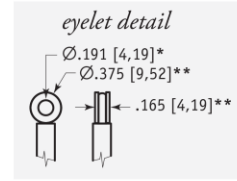
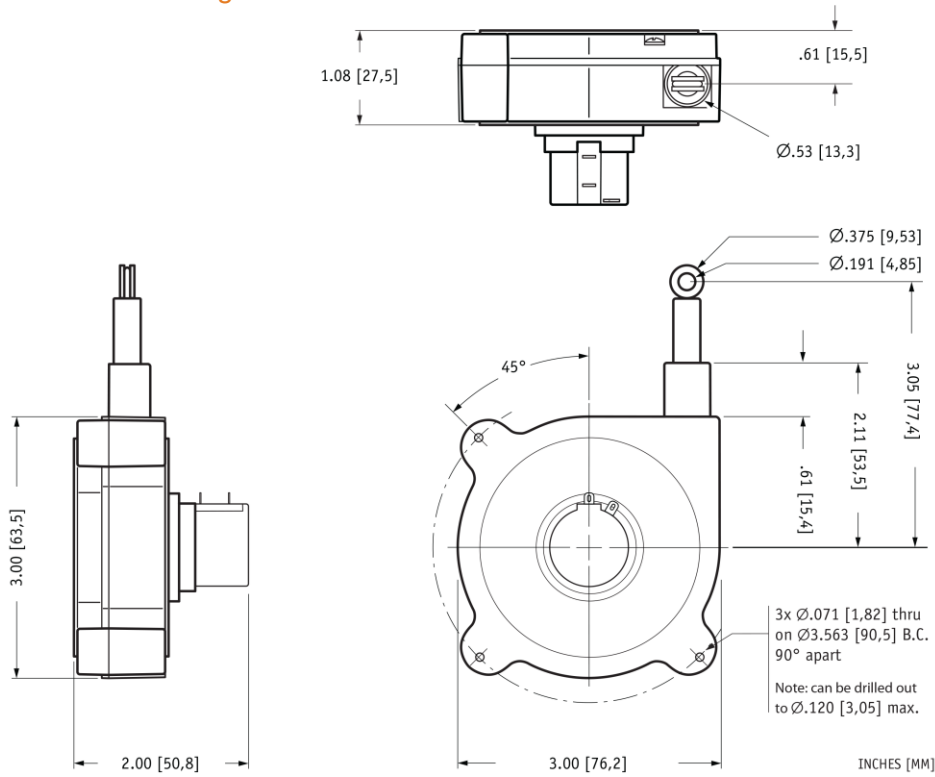
**Mounting Options (SG1-80, SG1-80-2, SG1-80-3):**



**Mounting Options (SG1-120, SG1-120-2, SG1-120-3):**

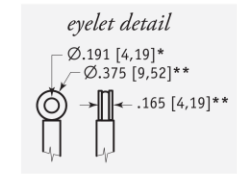
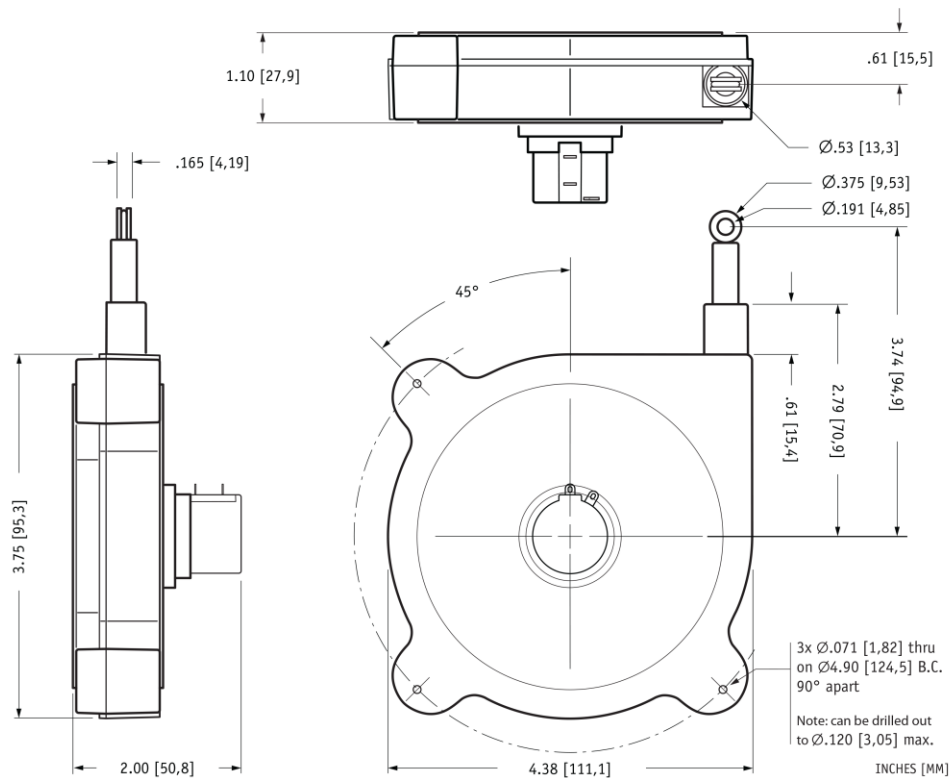


**SG1-80 w/o Mounting Bracket:**



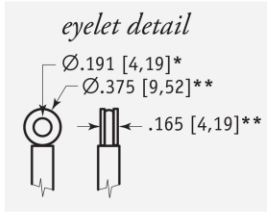
\*tolerance = +.005 -.001 [+13 -.03]  
 \*\*tolerance = +.005 -.005 [+13 -.13]

**SG1-120 w/o Mounting Bracket:**

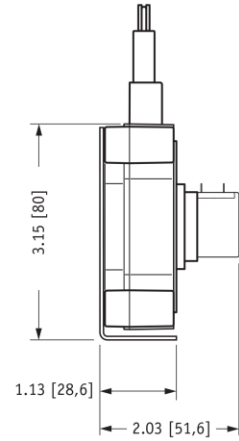
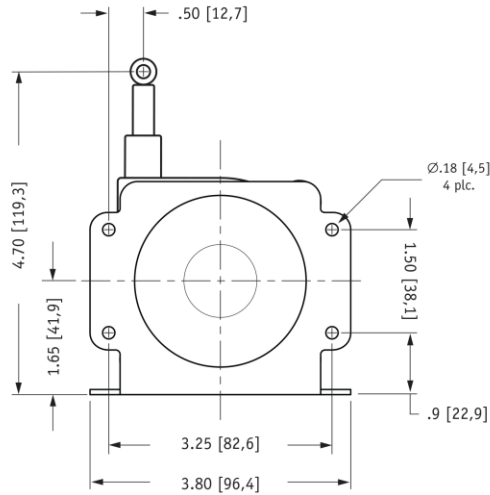
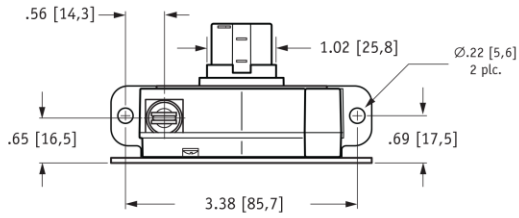


\*tolerance = +.005 -.001 [+13 -.03]  
 \*\*tolerance = +.005 -.005 [+13 -.13]

**SG1-80 w/ Mounting Bracket:**

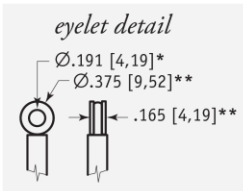


\*tolerance = +.005 -.001 [+13 -.03]  
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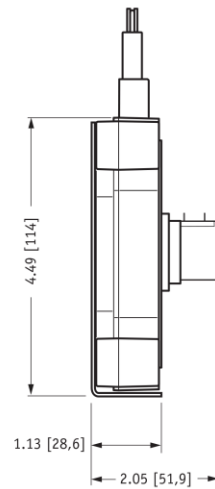
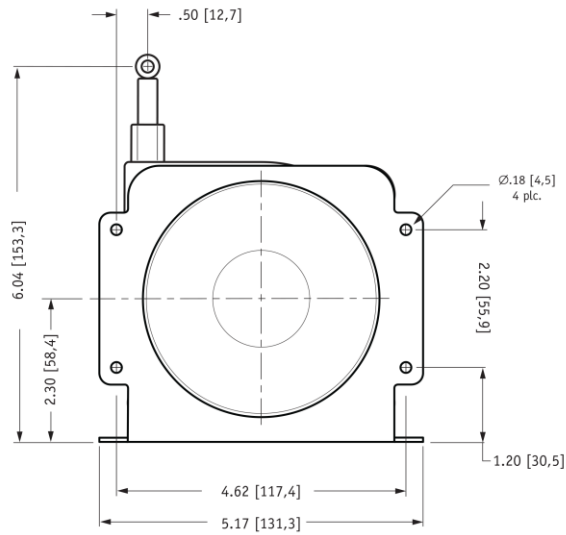
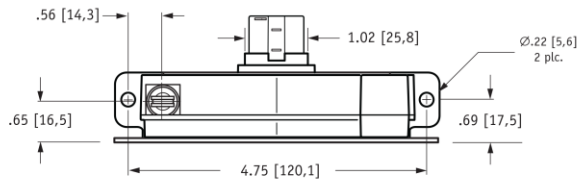


INCHES [MM]

**SG1-120 w/ Mounting Bracket:**

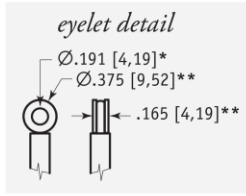


\*tolerance = +.005 -.001 [+13 -.03]  
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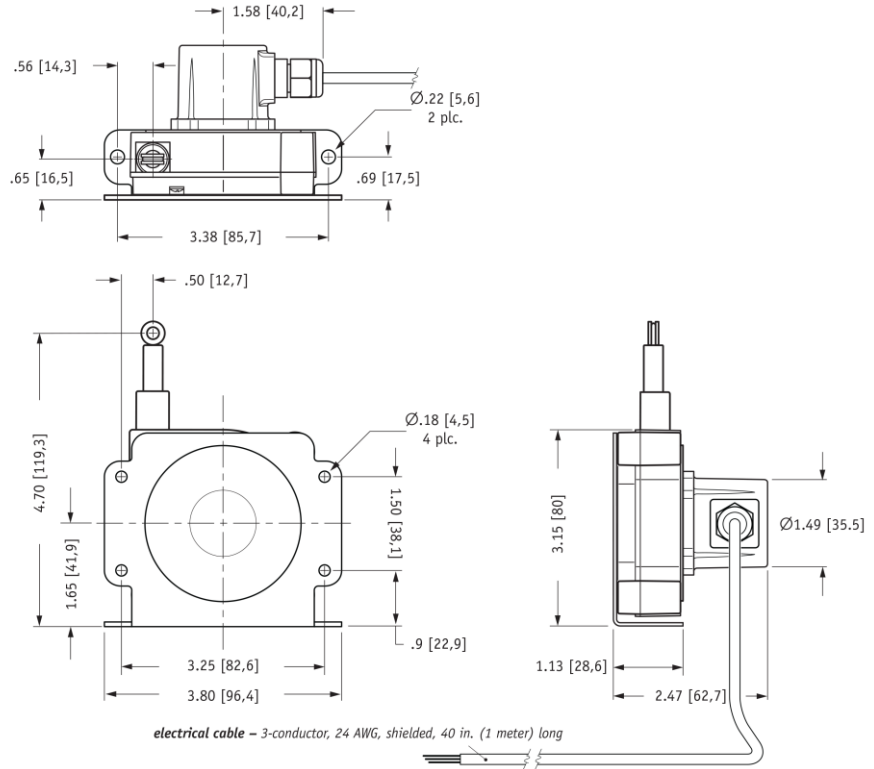


INCHES [MM]

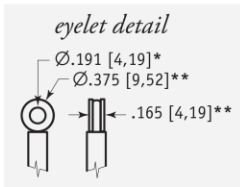
**SG1-80-2 w/ Mounting Bracket:**



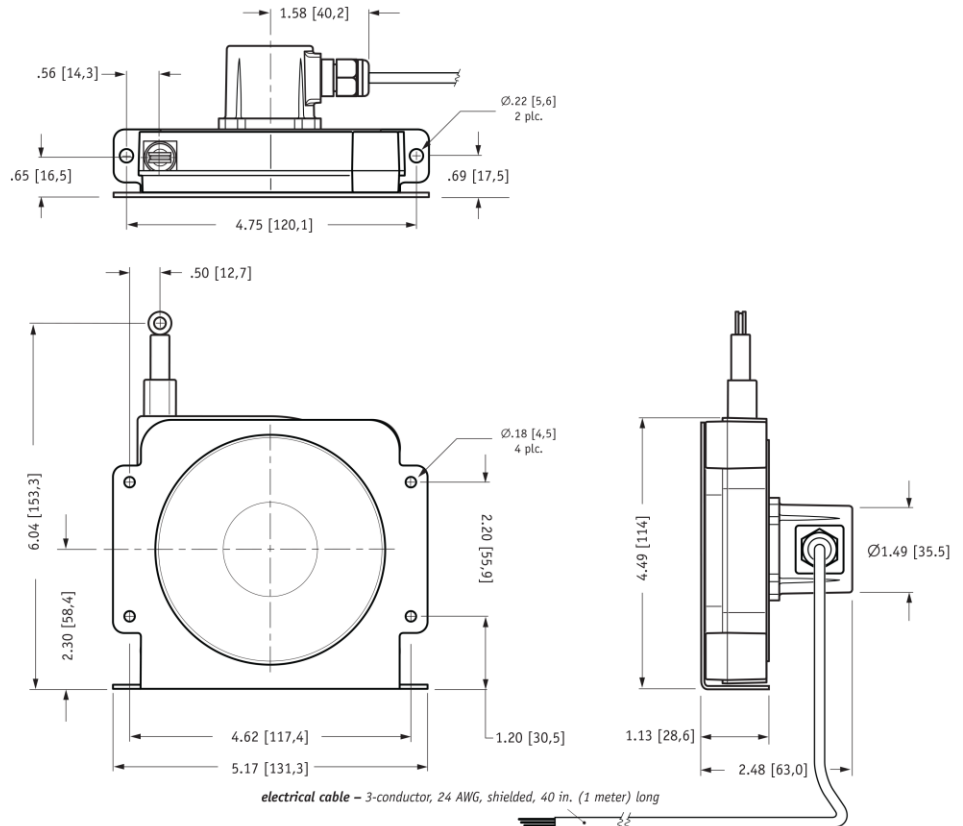
\*tolerance = +.005 - .001 [+13 -.03]  
\*\*tolerance = +.005 - .005 [+13 -.13]



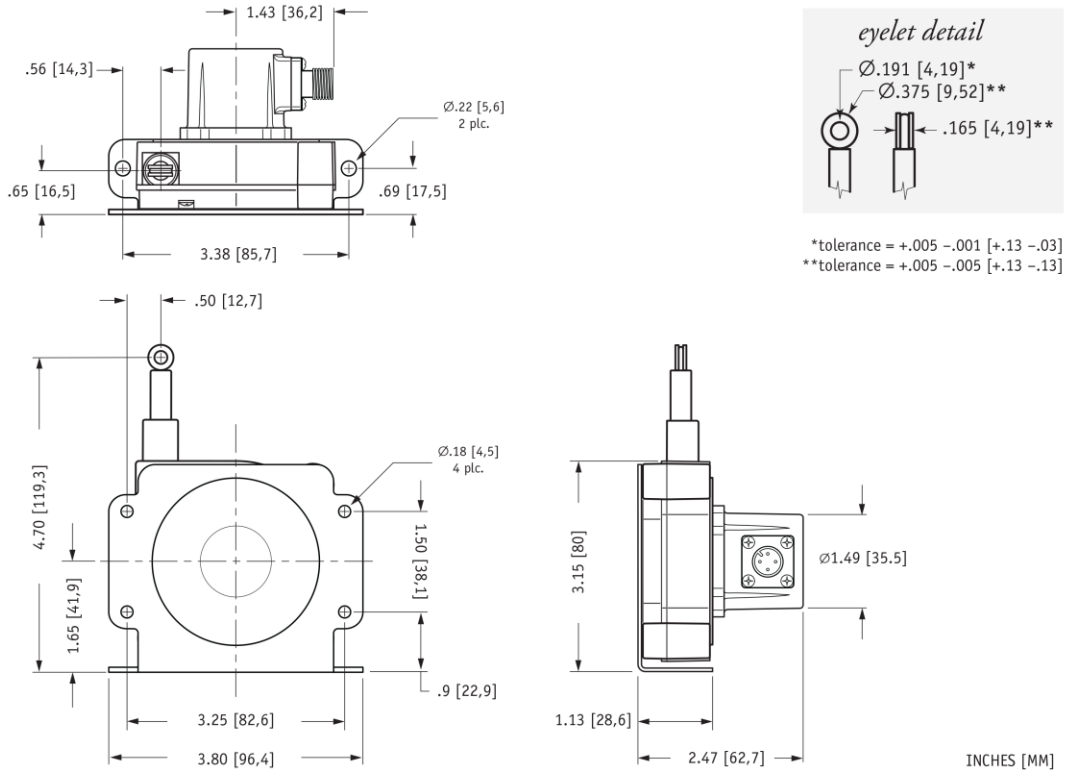
**SG1-120-2 w/ Mounting Bracket:**



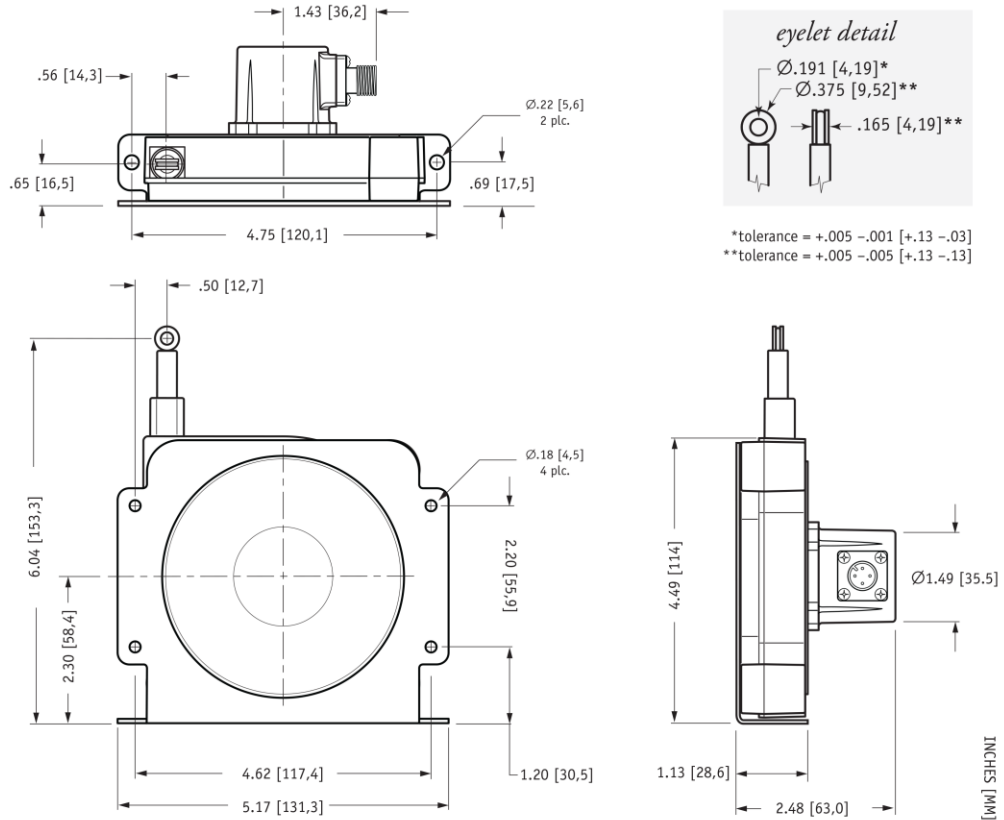
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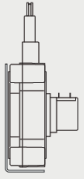


**SG1-80-3 w/ Mounting Bracket:**



**SG1-120-3 w/ Mounting Bracket:**



**Ordering Information**

Part No.

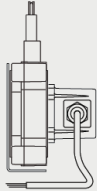
**SG1-80**

80-inch stroke range,  
solder terminal connection,  
IP50 environments,  
mounting bracket included

Part No.

**SG1-120**

120-inch stroke range,  
solder terminal connection,  
IP50 environments,  
mounting bracket included



Part No.

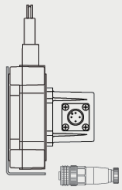
**SG1-80-2**

80-inch stroke range,  
40-inch electrical cable,  
IP67 environments,  
mounting bracket included

Part No.

**SG1-120-2**

120-inch stroke range,  
40-inch electrical cable,  
IP67 environments,  
mounting bracket included



Part No.

**SG1-80-3**

80-inch stroke range,  
M12 connector,  
IP67 environments,  
mounting bracket included

Part No.

**SG1-120-3**

120-inch stroke range,  
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 SG1-80-3 and SG1-120-3.

**NORTH AMERICA**

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SG1 12/01/2015

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С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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