

# INTRINSICALLY SAFE



## LIPS X103 Linear sensor Installation Information

ATEX Qualified to Intrinsic Safety Standard Certificate number Sira 00ATEX2076X		IIC 1G EEX ia IIC T4 (Ta = -40°C to +80°C)	
Supply Voltage: <b>+5V +/- 0.5 Volts</b>		O/P Volts at sensor <b>+0.5 to +4.5V for 5V supply</b>	
Pin No. / Cable Colour	Connector Pins	Adjustors	
<b>1 / Red</b>	+ 5 V Supply		
<b>2 / White</b>	Output		
<b>3 / Black</b>	0 V		
<b>Wide Pin / Screen</b>	Case		

### Putting Into Service

The sensor must be used with a galvanically isolated three terminal barrier designed to supply the sensor with a nominal 5V and to transmit the buffered output to a safe area. Various Barrier output versions are available. The barrier parameters must not exceed: - **Ui = 11.4V** **Ii = 0.46A** **Pi = 0.51W**  
The sensor is certified to be used with up to **150m** of cable with parameters not exceeding :-

$$\text{Capacitance} = 550 \text{ nF total} \quad \text{Inductance} = 0.66\mu\text{H/m}$$

The performance of the sensor may be affected by voltage drops in long cables. These can be eliminated by using a 5 wire connection. The typical supply current is 10mA and the sensor output is ratiometric to the supply voltage at the sensor.

### Use

The sensor is designed to measure Linear displacement and provide an analogue output voltage.  
The start of calibrated travel is with the 6mm dia. target end face 10 mm (Flanged) or 25mm (Unflanged) from the End face. The Ball end is a further 5mm if fitted.  
The output increases as the target is moved out of the sensor body.

### Assembly and Dismantling

The unit is not to be serviced or dismantled and re-assembled by the user.

### Maintenance

No maintenance is required.

### Installation - Mechanical Mounting

The unit is Flange or body mounted. A mounting clamp is available for body mounting.

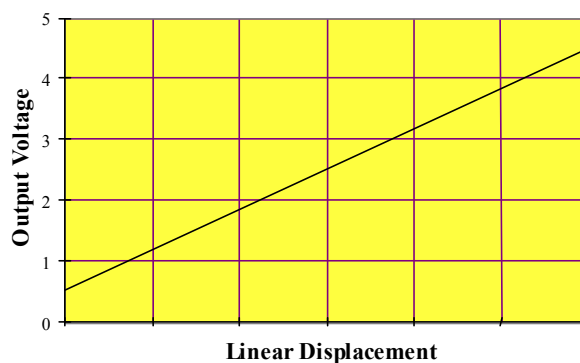
### Gain and Offset Adjustment may be available on some units.

If provided:- To adjust the gain or the offset remove the taptite screw from the cover and insert a small potentiometer adjuster or screwdriver 2mm across, 20mm long. The trim potentiometers are accessed through holes in a metal plate inside the sensor. Do not apply too much force on the potentiometers. The other electronics are protected from damage by the metal lid.

### Warning: The device is not protected against reverse polarity.

It will not, however, be damaged by mis-connection to a 5V supply limited to less than 50 mA.

**LIPS 103 Output Characteristic**



**For more information, please contact:**  
Everight Precision Technologies Corporation  
102 Commerce Dr., Unit 8, Moorestown, NJ 08057  
www.everightsensors.com info@everightsensors.com  
phone: 856-727-9500 fax: 610-672-9663