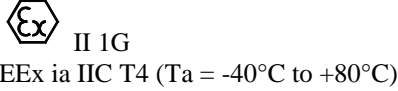


Installation Information

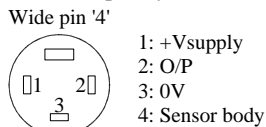
LIPS[®] X106 INTERNALLY MOUNTED CYLINDER SENSOR WITH EXTERNAL ELECTRONICS

INTRINSICALLY SAFE FOR HAZARDOUS GAS/VAPOUR ATMOSPHERES

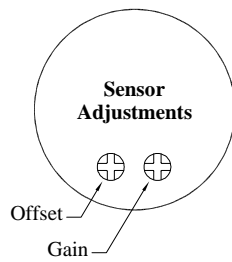
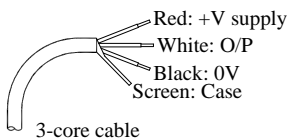
ATEX Qualified to Intrinsic Safety Standard Certificate number Sira 00ATEX2076X

Output Description:	Barrier Supply Voltage:	Barrier Output:	
Voltage (BX002)	20-35V dc	0.5 to 9.5V	
Current Loop (BX003)	20-35V dc	4-20mA	

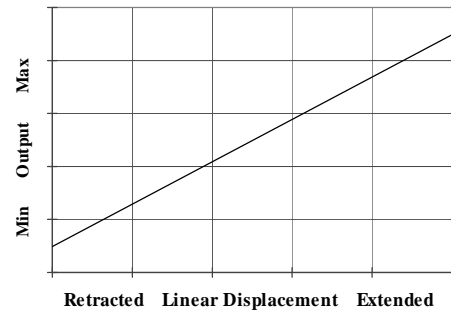
Connector pin layout:



Conductor Identification:



Output Characteristic - Standard



Putting Into Service:

The sensor must be used with a galvanically isolated three port 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:

- **U_i = 11.4V I_i = 0.20A P_i = 0.51W**

C_i = 1.16µF with connector, **C_i** = 1.36µF with 1000m of cable. **L_i** = 50µH with connector, **L_i** = 710µH with 1000m of cable.

The sensor is certified to be used with up to **1000m** of cable with parameters not exceeding:-

Capacitance = **200 nF** total, Inductance = **660µH** total

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 signal.

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

Maintenance: No maintenance is required.

Gain and Offset Adjustment: (Where accessible - Typically ± 10% Min available)

To adjust the gain or offset use a small potentiometer adjuster or screwdriver 2mm across. Do not apply too much force on the potentiometers.

Mechanical Mounting:

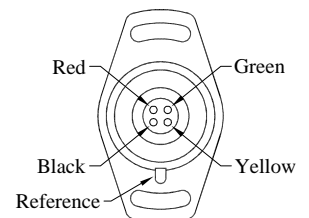
The sensor probe intended for internal mounting in hydraulic or pneumatic cylinders; retain with a grub screw and seal with 16x2.4 N70 O-ring provided. Install the target tube using the flange provided or adhere directly into the piston rod, the end of the target tube can be proud or flush with the piston end face as required.

Mount electronics module externally on the cylinder via M18x1.5 thread or flange. The flange slots are 4.5mm by 30 degrees wide on a 48mm pitch.

To protect against fluid ingress seal the grub screw retaining the probe, also fit a 16 x 2.4 mm O ring on the flanged version. The threaded version is fitted with bonded seal. Water around the probe connections will impair operation.

Probe Connections:

The user to solder the probe wires to the rear of electronics unit; connect colours as shown right, note reference mark in flange base or etched on threaded base. Take care not to over twist wires installing the threaded version.



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Output Characteristic:

Target position at Start of normal travel is 4.5 mm from body face. The output increases as the target is moved away from the sensor body, the calibrated stroke is between 20 and 600 mm.

Incorrect Connection Protection levels:-

Not protected – the sensor is **not** protected against either reverse polarity or over-voltage. The risk of damage should be minimal where the supply current is limited to less than 50mA.