

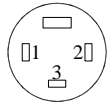
# Installation Information

## LIPS<sup>®</sup> P103 SHORT STROKE LINEAR POSITION SENSOR

Electronics Option	Output Description:	Supply Voltage: (Vs)	Output:	Load resistance: (include leads for 4 to 20mA O/Ps)	Load connected to:
A	Voltage (ratiometric with supply)	5±0.5V	0.5 to 4.5V	2kΩ min	0V
B	Voltage	±9 to 28V	±5V	2kΩ min	0V
C	Voltage	13 to 28V	0.5 to 9.5V	5kΩ min	0V
D	Voltage	±13.5 to 28V	±10V	5kΩ min	0V
E	2 wire Current Loop	18 to 28V	4 to 20mA	$R_L = V_s - 18/20mA$ 300Ω @ 24V	In supply lead
F	3 wire Current Loop - Sink	13 to 28V	4 to 20mA	$R_L = V_s - 5/20mA$ 950Ω @ 24V	Vs
G	Voltage	9 to 28V	0.5 to 4.5V	2kΩ min	0V
H	3 wire Current Loop - Source	13 to 28V	4 to 20mA	300Ω max	0V

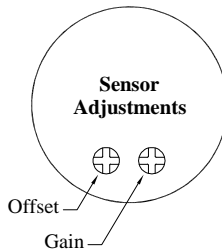
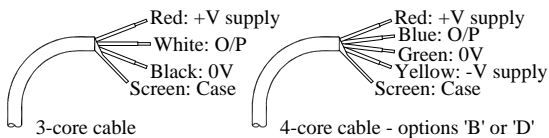
**Connector pin layout:**

Wide pin '4'

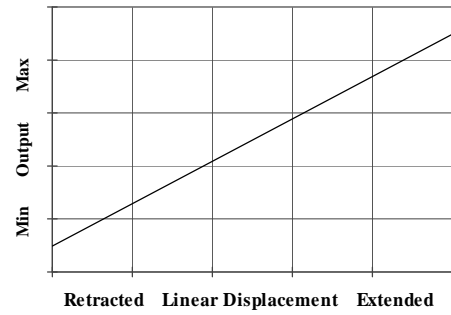


- 1: +V supply
- 2: O/P
- 3: 0V
- 4: Sensor body 'A','C','E','H',  
-V supply options 'B' or 'D'

**Conductor Identification:**



**Output Characteristic - Standard**



**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:**

Flange mounted or by clamping the sensor body - body clamps are available, if not already ordered. The flange slots are 4.5mm by 30 degrees wide on a 48mm pitch.

**Output Characteristic:**

Plunger extended, at start of normal travel, from mounting face by:

Standard body : 25 mm

Flanged body : 10 mm

Note: where ball end option is fitted add 5 mm.

The output increases as the plunger extends from the sensor body, the calibrated stroke is between 10 and 50 mm.

**Incorrect Connection Protection levels:-**

- A **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.
- B & D Supply leads diode protected. Output must not be taken outside ± 12V.
- C & G Supply leads diode protected. Output must not be taken outside 0 to 12V.
- E, F & H Protected against any misconnection within the rated voltage.