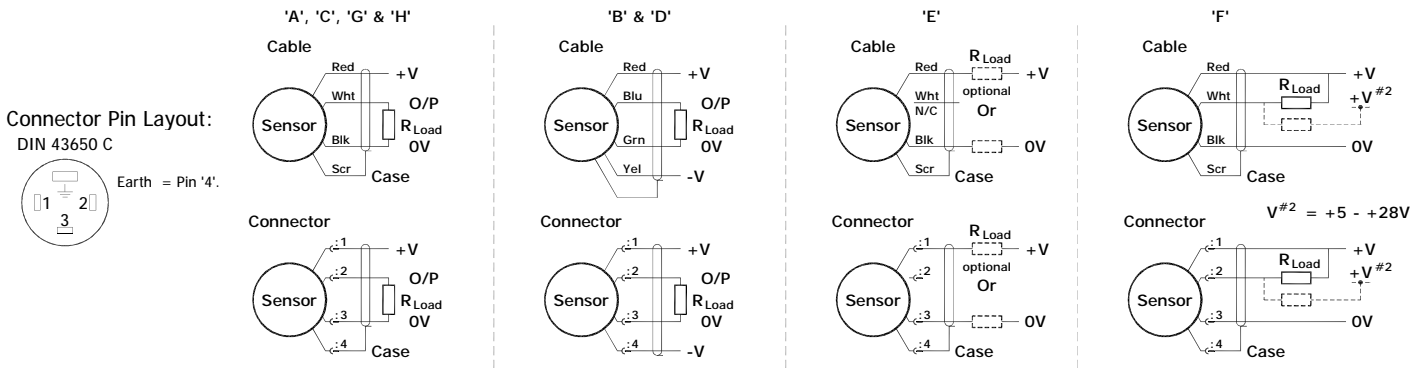


Installation Information

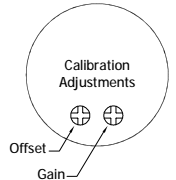
LIPS[®] P133 MID STROKE LINEAR POSITION SENSOR

| Output Option | Output Description: | Supply Voltage: V_s (tolerance) | Load resistance: (include leads for 4 to 20mA O/Ps) |
|---------------|--------------------------------------|--------------------------------------|---|
| A | 0.5 - 4.5V (ratiometric with supply) | +5V (4.5 - 5.5V) | $\geq 5k\Omega$ |
| B | $\pm 5V$ | $\pm 15V$ nom. ($\pm 9 - 28V$) | $\geq 5k\Omega$ |
| C | 0.5 - 9.5V | +24V nom. (13 - 28V) | $\geq 5k\Omega$ |
| D | $\pm 10V$ | $\pm 15V$ nom. ($\pm 13.5 - 28V$) | $\geq 5k\Omega$ |
| E | 4 - 20mA 2 wire Current Loop | +24V nom. (18 - 28V) | $\approx 0 - 300\Omega$ max. @24V ~ 1.2 to 6V across 300 Ω { R_L max. = $(V_s - 18) / 20^{-3}$ } |
| F | 4 - 20mA 3 wire Sink | +24V nom. (13 - 28V) | $\approx 0 - 950\Omega$ max. @24V ~ 3.8 to 19V across 950 Ω { R_L max. = $(V_s - 5) / 20^{-3}$ } |
| G | 0.5 - 4.5V | +24V nom. (9 - 28V) | $\geq 5k\Omega$ |
| H | 4 - 20mA 3 wire Source | +24V nom. (13 - 28V) | $\approx 0 - 300\Omega$ max. ~ 1.2 to 6V across 300 Ω |

Not all output options available - see product datasheet for full options list



Gain and Offset Adjustment: (Where accessible - Typically $\pm 10\%$ 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.

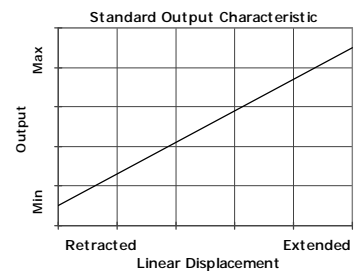


Mechanical Mounting: Flange mounted or by clamping the sensor body - body clamps are available, if not already ordered. The flange slots are 4.5 mm by 30 degrees wide on a 48 mm pitch.

Output Characteristic: Plunger extended, at start of normal travel, from mounting face by:
 Standard body : 42.5 mm
 Flanged body : 28 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 51 mm and 100 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 $\pm 12V$.
- 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.