ST972/3/4

LINEAR POTENTIOMETERS

USER INFORMATION

(ST541101-001)

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INSTALLATION

It is essential to ensure that these sensors are **NOT** mounted in a position, which is close to any devices, or associated wiring, similar to the following:

Suggested Wiring Clearances	Min space ST972/3/4
Ignition HT & coil leads	100mm (4”)
Radio transmitters	75mm (3”)
Fast switching inductive loads like fuel injectors, hydraulic solenoids.	75mm (3”)
Any powerful source of heat	Shield with reflective material

Measurement of suspension movement

To measure high frequency signals such as suspension movement Linear Potentiometers must be connected to the data-logging module through an **ST983** digital interface via a four way, Mini Sure Seal (MSS) connector.
For maximum accuracy the sensor should be positioned parallel to the damper unit.

Measurement of steering position

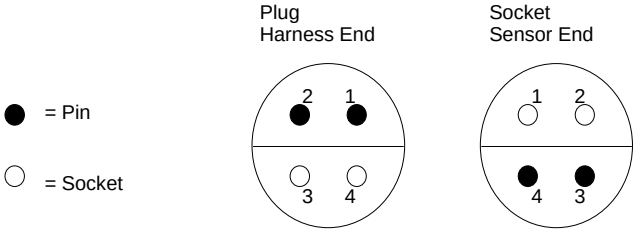
The sensor can be connected directly into the Stack ST883 range of harnesses as a replacement for a rotary steering position sensor.

General Installation notes

The range of movement between the maximum compression and extension **must not be exceeded** otherwise the sensor will be damaged.
The sensor must be fixed to the vehicle through the spherical bearing mounts provided. Failure to do this will result in bending forces being applied, which will cause premature failure of the sensor.

Ensure the following when installing the sensor:
. Bending loads are not applied to the mini-sure seal connectors.
. The Sensor wires must not be routed over sharp edges.
. Tight radius bends should be avoided.
. The following polarity is observed:

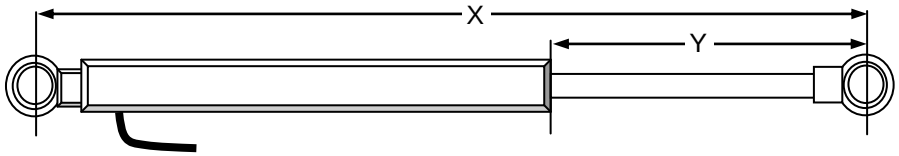
Connector Pinout



These terminals must be connected to the corresponding terminals of the selected input channel.

Pin Number	Signal Description
1	Signal from sensor
2	+5V Supply
3	No connection
4	0v

TECHNICAL SPECIFICATION



Sensor	**ST972**	**ST973**	**ST974**
X max (maximum extension)	250mm (9.8”)	350mm (13.8”)	550mm (21.6”)
X min (Retracted mounting distance)	200mm (7.9”)	250mm (9.8”)	350mm (13.8”)
Y max (Mechanical stroke)	50mm (1.9”)	100mm (3.9”)	200mm (7.9”)
Weight (Grams)	135	155	195
Temperature	-40 to + 100 Degrees C		
Linearity %	0.2	0.2	0.1