

- **Contactless sensing with inductive coil technology**
- **Small transducer body length to stroke ratio**
- **25mm to 500mm stroke range**
- **Infinite resolution**
- **Absolute measurement**
- **Rugged stainless steel construction, resistance to shock and vibration**
- **Operates from -40 to +150°C**
- **CE approved**



The SLT190 linear position transducer is designed to provide reliable, fit-and forget position sensing within a compact transducer size for the most arduous operating environments. The transducer uses an innovative single coil inductive operating principle within a rugged, stainless steel housing and provides an analogue position signal proportional to the operating sleeve position. Offering one of the most cost-effective solutions for contactless absolute position sensing, this transducer is ideally suited to exterior mounting on off-highway vehicle systems, including military vehicles.

The SLT190 has been designed with 21st century applications in mind. The transducer can withstand

operating temperatures from -40°C to +150°C and has been tested to withstand shocks to 10,000g. With an EMC Immunity of 100V/m, this transducer is ready for the harshest applications, such as steel and aluminium plants and power generating stations.

The SLT190 is available with 14 different strokes from 25 to 500mm and has a short body-to stroke-length ratio. This makes it ideal for the replacement of linear potentiometers in hostile operating conditions, whilst providing a cost saving over equivalent stroke length inductive transducers, such as LVD

SPECIFICATIONS

ELECTRICAL

ELECTRICAL STROKE RANGE	25 TO 500mm
STROKE INCREMENTS	25 to 200 in 25mm increments 250 to 500 in 50mm increments
NON-LINEARITY	Enhanced - typically less than $\pm 0.2\%$ of total stroke, $\pm 0.25\%$ maximum (code A) Standard - typically less than $\pm 0.4\%$ of total stroke, $\pm 0.5\%$ maximum (code B)
RESOLUTION	Virtually Infinite
TEMPERATURE COEFFICIENT	$< \pm 100$ ppm of electrical stroke/ $^{\circ}\text{C}$ (+20 to +60 $^{\circ}\text{C}$) $< \pm 200$ ppm of electrical stroke/ $^{\circ}\text{C}$ (-20 to +100 $^{\circ}\text{C}$) $< \pm 300$ ppm of electrical stroke/ $^{\circ}\text{C}$ (-20 to +150 $^{\circ}\text{C}$)
INSULATION RESISTANCE	Greater than 50M Ω at 50Vdc

MECHANICAL

MECHANICAL STROKE RANGE	Electrical stroke +3mm overstroke at each end
MOUNTING	via M8 stainless steel rod end bearings. Suitable for mounting on 8mm or 5/16in bolts
OPERATING FORCE	< 500 in horizontal plane (vented sleeve)
SHAFT VELOCITY - MAXIMUM	5 (see EICT performance for frequency response)

ENVIRONMENTAL

PROTECTION CLASS	IP67
OPERATIONAL TEMPERATURE	-40 to +150 $^{\circ}\text{C}$
STORAGE TEMPERATURE	-50 to +150 $^{\circ}\text{C}$
LIFE	Contactless - no limitation to electrical life. Mechanical life is tested to 100 million operations (5x10 ⁶ cycles), actual service life is dependant on installation and application.
VIBRATION	RTCA/DO-160E 10Hz to 2000Hz, 11.23g (rms) - radial axis only
SHOCK	Survival to 10000g - radial axis
EMC IMMUNITY LEVEL	Transducer can withstand a threat of 100V/m