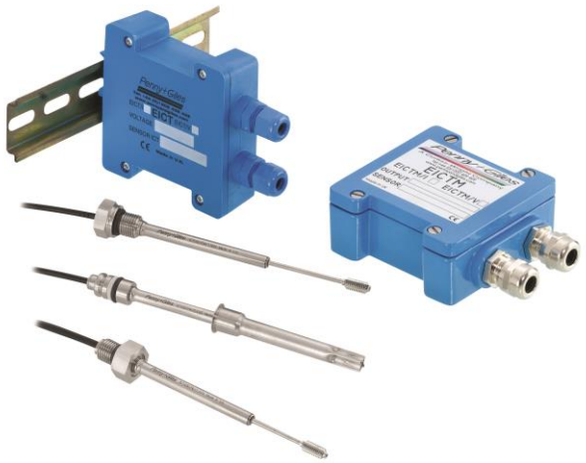
Penny & Giles

Contactless In-Cylinder Linear Transducer

ICT050

- **Contactless design – Inductive technology**
- **Wear-free operation**
- **Stroke lengths up to 500mm**
- **5.4mm body diameter**
- **Absolute measurement**
- **Infinite resolution**
- **High temperature capability – Up to 200°C or down to -55°C**
- **Working pressures up to 500Bar**
- **Separate signal conditioning (EICT)**
  - **High performance driver circuit**
  - **Zero and span adjustment**
  - **Choice of enclosure designs**



The ICT050 Contactless In-Cylinder Linear Transducer has been specifically designed for smallbore, mobile and static hydro-pneumatic actuators

Designed primarily for the off-highway markets, the ICT050 linear transducer provides reliable, fit-and forget position sensing of the cylinder rod in actuators with strokes up to 500mm, with a body diameter of only 5.4mm.

It is a robust, non-contact transducer suitable for the harsh conditions of lifting and steering position applications and hydro-pneumatic active suspension systems. It works on an inductive coil principle, with virtually infinite resolution and is capable of withstanding temperatures down to -55°C and up to +200°C, with working pressures to 500Bar (7250psi).

The EICT signal-conditioning module has been specifically designed to operate with the Penny and Giles range of SLT and ICT contactless linear position transducers

The module incorporates a high performance circuit that drives the transducer and provides a choice of output signals with zero and span adjustment for simple user configuration. The module can be supplied in a choice of enclosures, with sealing to IP66 or IP68 protection.

SPECIFICATIONS

ELECTRICAL

MEASUREMENT RANGE	Maximum stroke selectable up to 500mm
SENSOR RESOLUTION	Infinite
LEAST SQUARES LINEARITY	<0.75% stroke max
INSULATION RESISTANCE	Yellow / blue to case >50MΩ at 50Vdc Screen to case >50MΩ at 50Vdc
GREEN WIRE BONDING RESISTANCE	< 1+ (0.21 x cable length in metres) Ω
SENSOR TEMPERATURE COEFFICIENT	<±100ppm of electrical stroke /°C (+20°C to +60°C) <±200ppm of electrical stroke /°C (-20°C to +100°C) <±300ppm of electrical stroke /°C (-20°C to +200°C)

MECHANICAL

MAXIMUM SENSOR WORKING PRESSURE	500Bar

ENVIRONMENTAL

SENSOR TEMPERATURE RANGE	Operating: Refer to ordering code Storage: -55°C to +200°C
ELECTROMAGNETIC INTERFERENCE	EN61000-6-2, 100V/m (EICTM adjacent to transducer) Derangement <0.05% FS EN61000-6-2, 10V/m (EICT 1m cable to transducer) Derangement <0.05% FS

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