

Product Guide

Linear Transducer

Type 13723-OEM



No contacts, no bearings, no bushes, no fine wires.....just reliable measurements all day, every day.

Zettlex transducers are **non-contacting, absolute** position measuring devices. They utilise a unique inductive technique and comprise two main components – a Target and an Antenna. The Antenna is powered with an electrical supply and the Target is passive. An electrical output from the Antenna shows the position of the Target relative to the Antenna.

The 13723 unit is an unpackaged (OEM) transducer for **measurement of linear displacement**. This unit has been specifically designed for **extreme lightweight** (5 grammes only) and generous mechanical motion in axes other than the measurement axis. It can simply be clipped or bonded to a host product and is ideally suited as a lower cost replacement for LVDTs or magnetostrictive devices. There are no electrical contacts so lifetime and operational reliability is far greater than potentiometers – especially in harsh environments

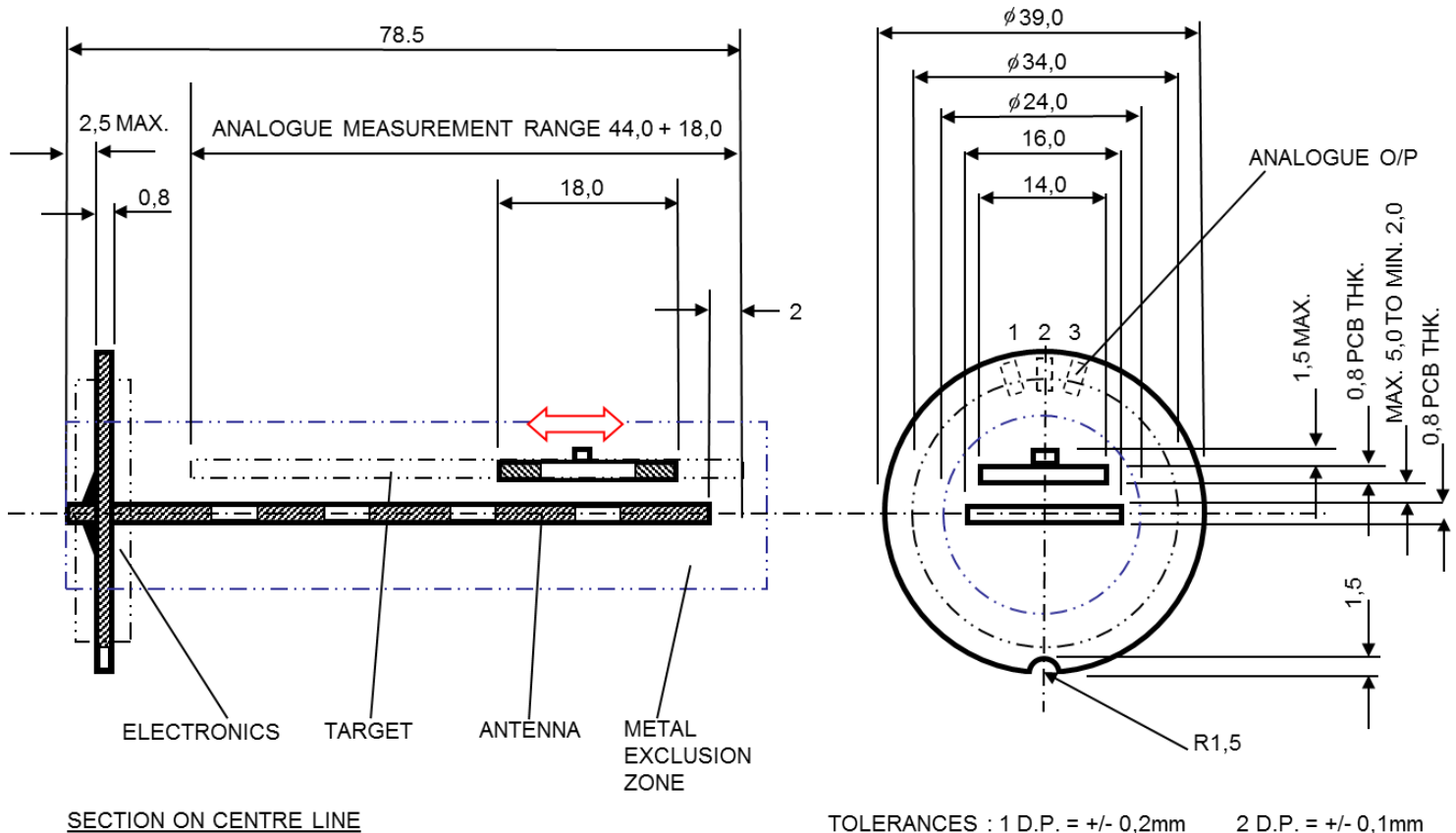
Custom versions are available for OEMs with alternative temperature ranges, mechanical mounts, finer linearity etc. - simply contact Zettlex for further details.

Outline Specification

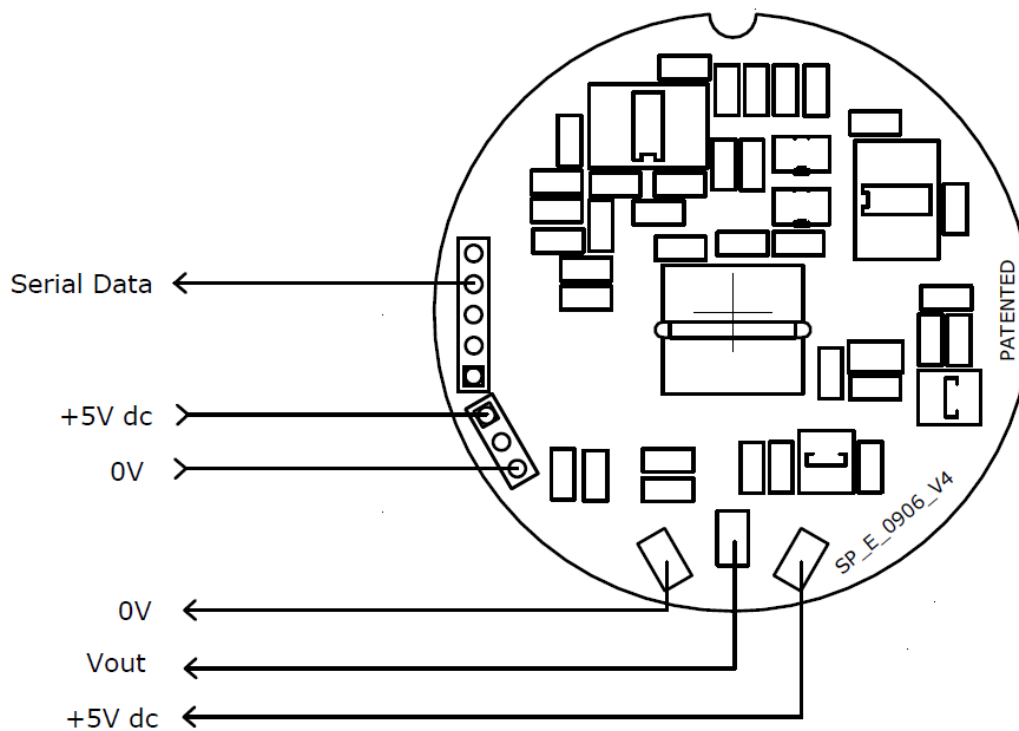
Output signal	Digital or Analogue Analogue = 0.5V – 4.5V (10% - 90% of Supply Voltage) Digital = Asynchronous Serial Data
Full-scale	44mm (Analogue) / 55mm (Digital)
Measurement type	Absolute

Resolution	53.5µm (Analogue) / 15µm (Digital)
Repeatability	≤+/- 53.5µm
Linearity	≤+/- 1% Full-scale (0.5%, 0.25% & 0.1% available as options)
Operating temp.	-40 to 85Celsius
Power supply	5VDC +/- 5%
Measurement frequency	15Hz
EMC	EN50082-2 & EN55011 Group 1, Class A
Temperature coefficient	≤40ppm/K
Connector	Pin headers for power and digital output Solder pads for power and analogue output
Weight	< 6g

Dimensions & Installation



Wiring & Output Formats



ENCODER OUTPUT : Digital
 ASCII coded 4800 Baud async serial data
 (no parity, 8 data, 1 stop)
 TXD = 5V Logic Level Output (idle high)
 Update = 15Hz (approx)

Positions o/p codes => P+NNNNN<CR>
 Error o/p code => P-00001<CR>
 (e.g. Target Removed)

Full Scale (+NNNNN) = 0 to 3600
 Linear Scale = 55mm

ENCODER OUTPUT : Analogue
 Voltage Range = 0.5V to 4.5V (dc)

Linear Scale = 2895 / 44mm

Ordering code

13723 - OEM

Zettlex UK Ltd.
 Newton Court, Newton
 Cambridge
 CB22 7PE
 United Kingdom
 Web www.zettlex.com
 Email info@zettlex.com
 Telephone +44 (0) 1223 874444