

## LINTRAN™ Linear Position Transducers Product Guide



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

Zettlex LINTRAN™ transducers are **non-contacting, absolute**, linear position measuring devices. They utilise a unique inductive technique and comprise two main components – a Target and a Stator. The Stator is longer than the Target and is powered with a DC electrical supply. An electrical output from the Stator shows the position of the Target relative to the Stator. The Target has no electrical connections and is arranged for displacement relative to the Stator.

Zettlex LINTRAN™ encoders are **sealed to IP67** and are ideally suited to harsh environments where electrical contacts or optical transducers would prove unreliable. The LINTRAN™ range offers a cost effective alternative to LVDTs, magnetostrictive devices or precision potentiometers. LINTRAN™ units **do not require precision mounting** and are **field programmable without a PC**.

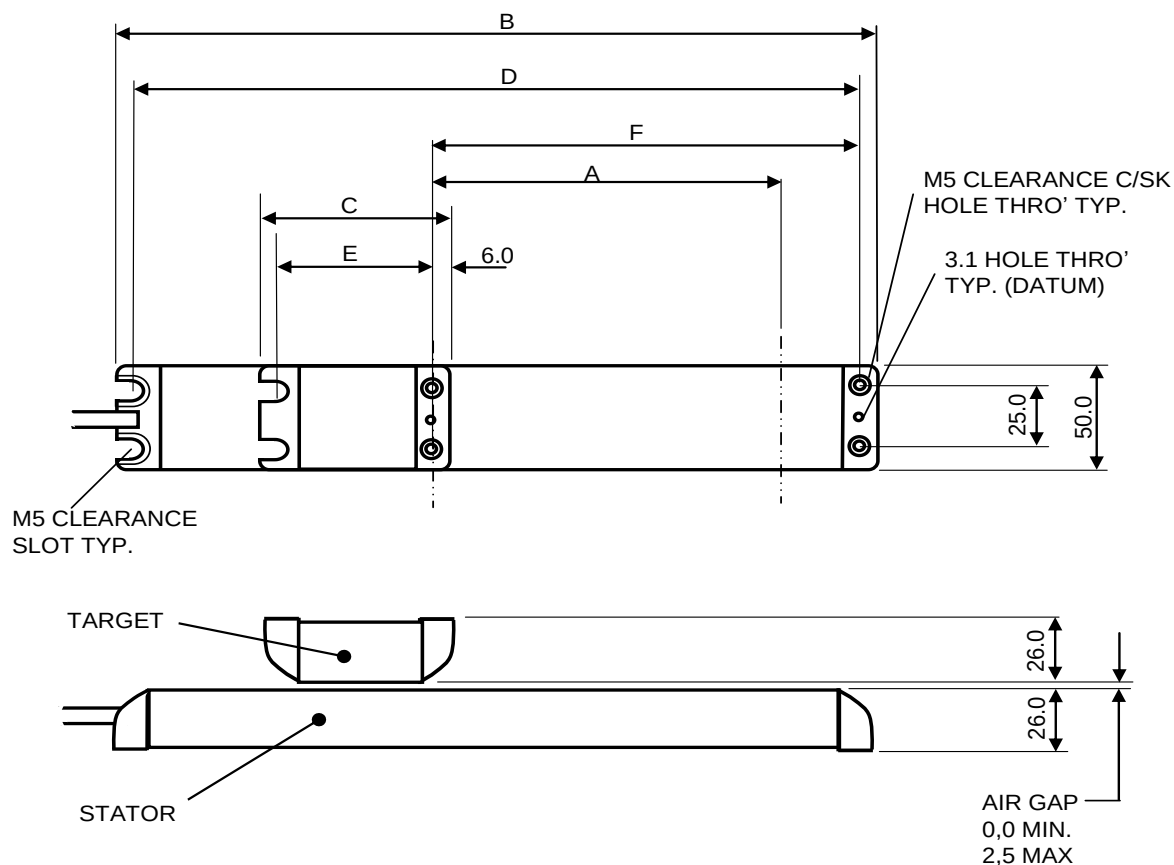
**Custom versions are available for OEMs** with alternative temperature ranges, mechanical mounts, finer linearity etc. - simply contact Zettlex for further details.

## Specification

|                             |                                                                                             |
|-----------------------------|---------------------------------------------------------------------------------------------|
| Output type                 | Analogue                                                                                    |
| Full scale*                 | 200, 300, 400, 500, 600, 700, 800mm<br>– other options for OEM quantities of >100units/year |
| Measurement type            | Absolute                                                                                    |
| Resolution                  | 0.025% full scale (12 bit resolution)                                                       |
| Repeatability               | 0.050% full scale ( $\pm 1$ LSB)                                                            |
| Linearity                   | +/- 0.250% full scale ( <i>finer linearity available as an option</i> )                     |
| Operating temp.             | -40 to +85 Celsius                                                                          |
| Output signal               | 4 - 20mA or 0 - 10VDC – other options for OEM volumes                                       |
| Power supply                | 24VDC +/-20% with <50mA max.                                                                |
| Measurement update rate     | 1000Hz                                                                                      |
| Storage temperature         | -40 to 100°C                                                                                |
| EMC                         | Complies with EN61326 emissions & immunity                                                  |
| Temperature coefficient     | <70ppm/K for 0-10V Output, <100ppm/K for 4-20milliamp                                       |
| Ingress protection          | IP67                                                                                        |
| Reverse polarity protection | Yes                                                                                         |
| Connector                   | Integral cable - multi-strand PVC sheathed cable 2m long                                    |

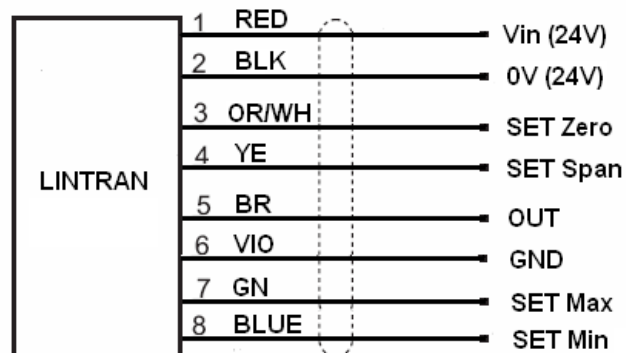
\* Actual scale selectable down to 10% of full scale.

## Dimensions (Target shown in factory set zero position)



| Model       | A<br>(Full Scale)<br>mm | B±2<br>mm | C±2<br>mm | D±2<br>mm | E±2<br>mm | F±1<br>mm |
|-------------|-------------------------|-----------|-----------|-----------|-----------|-----------|
| ST-LINT-200 | 200                     | 398.1     | 83.7      | 386.1     | 71.7      | 209.7     |
| ST-LINT-300 | 300                     | 530.1     | 102.5     | 518.1     | 90.5      | 316.5     |
| ST-LINT-400 | 400                     | 662.0     | 121.3     | 650.0     | 109.3     | 423.0     |
| ST-LINT-500 | 500                     | 794.2     | 138.6     | 782.2     | 126.6     | 530.5     |
| ST-LINT-600 | 600                     | 926.0     | 162.0     | 914.0     | 150.0     | 634.5     |
| ST-LINT-700 | 700                     | 1058.6    | 182.3     | 1046.6    | 170.3     | 740.9     |
| ST-LINT-800 | 800                     | 1190.4    | 202.6     | 1178.4    | 190.6     | 846.5     |

## Electrical Interface



'Set Max' and 'Set Min' are factory settings and should not be connected without prior consultation with Zettlex LINTRAN factory settings are with 0% and 100% at the extremes of the measurement range.

**NOTE - 0% or 100% can be at either end of actual stroke. Actual stroke can be any portion (>10%) of full-scale**

To set an alternative 0% (0V or 4milliamp) of scale, power up the LINTRAN, then move the Target to the desired 0% position and connect Orange/White wire to 0V wire for >1 second.

To set an alternative 100% (10V or 20milliamp) of scale, power up the LINTRAN, then move the Target to the desired 100% position and connect Yellow wire to 0V wire for >1 second.

Once 0% and 100% are set, we recommend that the relevant wires are terminated and insulated.