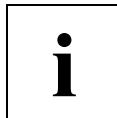
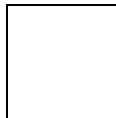
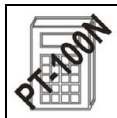


## Linear transducer LP-46-K SSI

Eglishalde 6  
 D-78647 Trossingen  
 Tel. +49 - (0) 74 25 / 228 - 0  
 Fax +49 - (0) 74 25 / 228 - 33  
<http://www.tr-electronic.de>  
 Germany



- SSI interface
- For linear measurement
- Non-contact and wear free measurement system
- Easy mounting, by means of profile housing
- Parameterizable
- Position value - Adjustment
- Further interfaces available
- Customized adaptations upon request

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## Characteristics

Supply voltage.....	24 VDC; -20 %, +10 %
Current consumption without load .....	< 250 mA
Measuring principle .....	magnetostrictive
Measuring length, standard .....	50 mm...2000 mm > 2000 mm on request, in steps of 50 mm
Resolution <sup>1)</sup> .....	≤ 0.001 mm
Linearity deviation, related to the measuring length .....	± 0.1 mm up to 1.500 mm / ± 0.15 mm > 1.500 mm
Reproducibility.....	≤ 0.005 mm
Hysteresis .....	≤ 0.02 mm up to 1.500 mm / ≤ 0.1 mm > 1.500 mm
Temperature coefficient, related to the measuring length.....	< 8 µm/°C ≤ 500 mm / < 15 ppm/°C > 500 mm
Straight line velocity and mounting position.....	no restrictions
Material - measuring body.....	Aluminium extruded profile
Magnet.....	Sliding, other on request
SSI .....	Synchronous-Serial-Interface
Clock input .....	Optocoupler
Data output.....	RS-422, 2-wire
Clock frequency .....	95 kHz – 1 MHz
Mono time t <sub>M</sub> .....	16 µs ≤ t <sub>M</sub> ≤ 25 µs, typically 20 µs
Output code <sup>1)</sup> .....	Binary, Gray, BCD
Output format <sup>1)</sup> .....	MSB left-justified, variable number of data bits, variable origin
Negative values <sup>1)</sup> .....	Sign + Value, Two's complement
Other SSI parameter <sup>1)</sup> .....	Failure value output (damping zone), Synchronization
Cycle times, internal	
≤ 1.0 m.....	0.50 ms
≤ 1.5 m.....	0.75 ms
≤ 2.0 m.....	1.00 ms
F/R <sup>1)</sup> .....	Count direction
Preset <sup>1)</sup> .....	electronic adjustment
Logic level .....	"0" < + 2 VDC, "1" = Supply voltage

<sup>1)</sup> programmable parameter

## Environmental conditions

Vibration, DIN EN 60068-2-6: 1996.....  $\leq 100 \text{ m/s}^2$ , sine 50-2000 Hz  
Shock, DIN EN 60068-2-27: 1995.....  $\leq 1000 \text{ m/s}^2$ , half-sine 11 ms  
EMC  
- Discharge of static electricity, DIN EN 61000-4-2: 2001  
- Burst, DIN EN 61000-4-4: 2004  
- Immunity to disturbance, DIN EN 61000-6-2: 2001  
Working temperature.....  $0 \text{ }^\circ\text{C} \dots +70 \text{ }^\circ\text{C}$ , optional  $-20 \text{ }^\circ\text{C} \dots +70 \text{ }^\circ\text{C}$   
Storage temperature.....  $-30 \text{ }^\circ\text{C} \dots +85 \text{ }^\circ\text{C}$ , dry  
Relative humidity, DIN EN 60068-3-4: 2002 ..... 98 %, non condensing  
Protection class, DIN EN 60529: 1991 <sup>2)</sup> ..... IP 65  
Stray magnetic field, measured on the measuring level.....  $< 3 \text{ mT}$

<sup>2)</sup> valid with screwed on mating connector and / or screwed together cable gland

## Dimension drawing

