



## Linear Position Transmitter HLT 2550-L2

Magnetostrictive

For external mount

Resolution 0.05 mm



Synchronous serial interface

### Description:

The HLT 2550 is a linear position transmitter which, due to its compact design, was developed in particular for use in applications where space is very limited. The measuring profile can be individually adapted to various mounting conditions by means of spacers.

The HLT 2550 is suited for measuring ranges up to 3 m.

In the version with synchronous serial interface, the measured value is made available via synchronous and symmetrical clock and data signals.

The main fields of application for the HLT 2550 are, for example, general positioning tasks in mechanical engineering and in stationary hydraulics, or as a wear-free alternative for existing measuring equipment such as potentiometers.

### Technical data:

#### Input data

Measuring ranges <sup>1)</sup>	30 .. 3000 mm in steps of 50 mm
Model	Profile, with top magnet guidance joint
Material	Measuring body: Aluminium
<b>Output data</b>	
Output signal	SSI
Resolution	0.05 mm
Non-linearity	≤ ± 0.01 % FS, ≥ 0.06 mm
Hysteresis	≤ ± 0.1 mm
Repeatability	≤ ± 0.005 % FS, ≥ 0.05 mm
Temperature coefficient	≤ ± 0.01 % FS / °C typ.
Sampling rate	Depending on length: 0.5 ms (measuring range ≤ 1200 mm) 1.0 ms (measuring range ≤ 2400 mm) 2.0 ms (measuring range ≤ 3000 mm)

#### Environmental conditions

Operating temperature range	-20 .. +75 °C, optionally -40 .. +75 °C
Storage temperature range	-30 .. +85 °C
CE mark	EN 61000-6-1 / 2 / 3 / 4
Vibration resistance acc. to DIN EN 60068-2-6 at 50 .. 2000 Hz	≤ 10 g
Shock resistance acc. to DIN EN 60068-2-27 (11 ms / half sine)	≤ 100 g
Protection class acc. to DIN EN 60529 <sup>2)</sup>	IP 67
Installation position	No restrictions

#### Relevant data for SSI

SSI clock input	Optocoupler
SSI data output	RS-422, 2-wire
SSI clock frequency	95 .. 1000 kHz
SSI monotime, typical	20 µs

#### Other data

Supply voltage	24 V DC ± 20 %
Residual ripple of supply voltage	≤ 100 mA
Current consumption without output	< 100 mA
Weight	Depending on length: 30 mm: ~ 300 g 3000 mm: ~ 3900 g

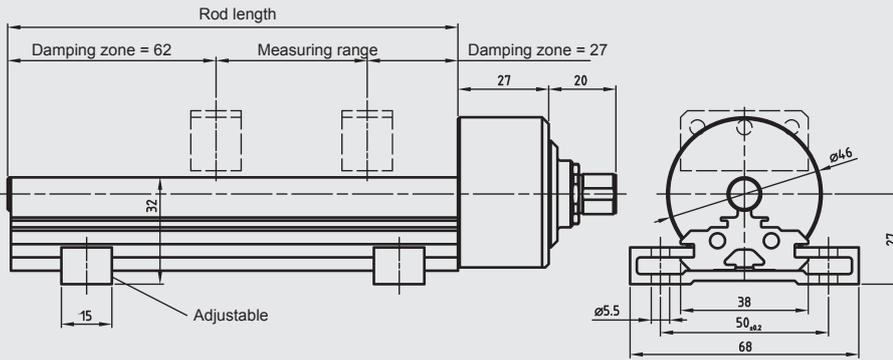
Note: Reverse polarity protection of the supply voltage, excess voltage and short circuit protection are provided.

**FS (Full Scale)** = relative to complete measuring range

<sup>1)</sup> Other measuring ranges on request.

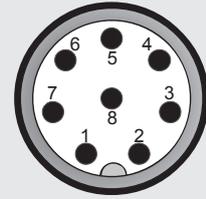
<sup>2)</sup> With mounted mating connector in corresponding protection class

## Dimensions:



## Pin connections:

M12x1, 8 pole



Pin	Description
1	Clock input +
2	Clock input -
3	Data output +
4	Data output -
5	n.c.
6	n.c.
7	+ U <sub>B</sub>
8	0 V

## Model code:

**HLT 2 5 5 0 - L2 - 00P - S16 - XXXX - XXX - XXX - 000**

### Design / geometry type

5 = profile

### Model

L2 = profile,  
with top magnet guidance joint

### Electrical connection

00P = male M12x1, 8 pole

### Output signal

S16 = SSI

### Measuring range in mm (30 .. 3000 mm in steps of 50 mm)

Example

0130 = 130 mm

### Code

B24 = binary code 24 bit

B25 = binary code 25 bit

G24 = Gray code 24 bit

G25 = Gray code 25 bit

### System resolution

050 = 50 µm

100 = 100 µm

150 = 150 µm

200 = 200 µm

### Modification

000 = standard

### Notes:

The position magnet must be ordered separately.

### Scope of delivery:

- HLT 2550
- Operating manual

### Accessories: (not supplied with instrument)

ZBL MVS35-39	magnet slide	part no.: 6105654
ZBL MV63	position magnet	part no.: 6084454
ZBL MF38-18	position magnet	part no.: 6084456
ZBL MU38-20	position magnet	part no.: 6084455
Mounting kit		part no.: 6105653

More detailed information on accessories as well as on further accessories, such as mating connectors, can be found in the Accessories brochure.

## Note:

The information in this brochure relates to the operating conditions and applications described.

For applications or operating conditions not described, please contact the relevant technical department.

Subject to technical modifications.

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