



Linear Position Transmitter HLT 2550-L2

Magnetostrictive

For external mount

Resolution 0.05 mm



CANopen

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 CANopen version, the measured value is digitised and made available to the CAN field bus system via the CANopen protocol. The instrument parameters can be viewed and configured by the user via the CANopen object directory using standard CAN software.

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 ¹⁾	30 .. 3000 mm in steps of 50 mm
Model	Profile, with top magnet guidance joint
Material	Measuring body: Aluminium
Output data	
Output signal	CANopen
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 ²⁾	IP 67
Installation position	No restrictions

Protocol data for CANopen

Communication profile	CiA DS 301 V4.2
NMT-Services	CiA DSP 302 V4.1
Layer setting services and protocol	CiA DSP 305 V2.2
Encoder Device Profile	CiA DS 406 V3.2
Baud rates	10 kbit/s .. 1 Mbit/s acc. to DS305 V2.2
Transmission services	
- PDO	Measured value as 32 bit and float
- Transfer	synchronous, asynchronous, cyclical
Node ID/ baud rate	Adjustable via LSS

Other data

Supply voltage	12 .. 24 V DC ± 10 %
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

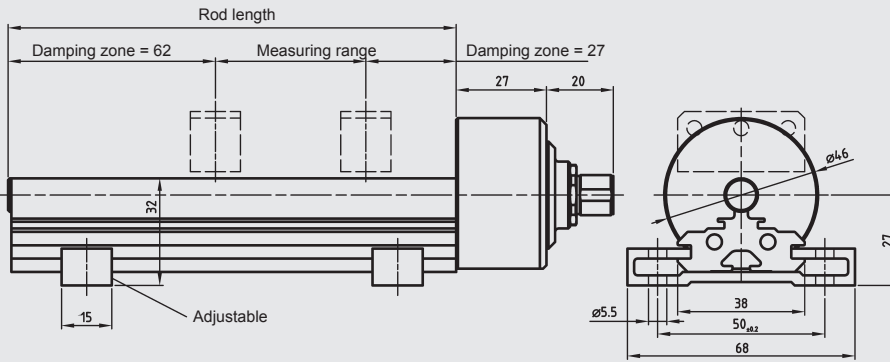
Note: Reverse polarity protection of the supply voltage, excess voltage and short circuit protection are provided.

FS (Full Scale) = relative to complete measuring range

¹⁾ Other measuring ranges on request.

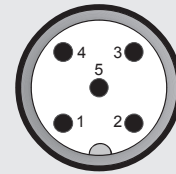
²⁾ With mounted mating connector in corresponding protection class

Dimensions:



Pin connections:

M12x1, 5 pole



Pin	Signal	Description
1	n.c.	
2	+U _B	Supply+
3	0 V	Supply-
4	CAN_H	Bus line dominant high
5	CAN_L	Bus line dominant low

Model code:

HLT 2 5 5 0 - L2 - 008 - F11 - XXXX - 000

Design / geometry type

5 = profile

Model

L2 = profile, with top magnet guidance joint

Electrical connection

008 = male M12x1, 5 pole

Output signal

F11 = CANopen

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

Example

0130 = 130 mm

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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