HYDAC INTERNATIONAL

Linear Position Transmitter
HLT 2550

Flat Profile Design,
with Magnetic Guidance

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 available for measuring ranges up to 3 m and in various signal output versions (analog, CANopen, SSI) with a resolution of 50 µm and a non-linearity of ≤ 0.02 % FS.

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

Special features:

- Compact design
- Used in applications where space is very limited
- Individual adaptation to various mounting conditions
- For measuring ranges up to 3 m
- Non-contact and wear-free
- Persuasive price / performance ratio

Technical data:

Input data	
Measuring ranges [1]	30 .. 3000 mm in steps of 50 mm
Housing	Measuring body: aluminium
Output data	
Signal output	Analog: Current: 4 .. 20 mA or 20 .. 4 mA Voltage: 0 .. 10 V or 10 .. 0 V CANopen SSI
Resolution	12 bit, ≥ 0.05 mm
Ohmic resistance to GND (only for signal output analogue)	Current: 200 .. 500 Ω Voltage: > 2 kΩ
Non-linearity	≤ ± 0.02 % FS, ≥ 0.06 mm
Hysteresis	≤ 0.1 mm
Repeatability	≤ ± 0.005 % FS, ≥ 0.05 mm
Temperature coefficient	≤ ± 0.006 % FS / °F
Sampling rate	0.5 ms up to 1,200 mm 1.0 ms up to 2,400 mm 2.0 ms up to 3,000 mm
Installation position and travel speed	No restrictions
Environmental conditions	
Operating temperature range	-4 .. +167°C, optionally -40 .. +167°F
Storage temperature range	-22 ..+185°F, dry
Relative humidity	98 %, non-condensing
CE mark	EN 61000-6-1 / 2 / 3 / 4
Vibration resistance to DIN EN 60068-2-6 at 50 .. 2000 Hz	≤ 10 g
Shock resistance to DIN EN 60068-2-27	≤ 100 g / 11 ms / half sine
Protection class to IEC 60529	IP 67
Other data	
Electrical connection	M12x1 plug
Supply voltage	24 V DC ± 20 %
Residual ripple of supply voltage	≤ 250 mVpp
Current consumption without output	max. 100 mA
Weight	Depends on length

Note: Reverse polarity protection of the supply voltage, excess voltage and short circuit protection are provided.
FS (**F**ull **S**cale) = relative to the complete measuring range
[1] Other measuring ranges on request.

Model code:

HLT 2 5 5 0 – L2 – XXX - XXX – XXXX – 000

Design/Geometry type
5 = Profile

Model
L2 = Flat profile, with magnetic guidance

Electrical connection
Signal output analog
M04 = Male M12x1, 4 pole

Signal output CANopen
M05 = Male M12x1, 5 pole

Signal output SSI
M08 = Male M12x1, 8 pole

Signal output
C01 = Analog 4 .. 20 mA, 3 conductor
C02 = Analog 20 .. 4 mA, 3 conductor
B01 = Analog 0 .. 10 V
B02 = Analog 10 .. 0 V
F11 = CANopen
SSI = SSI

Measuring range in mm (30 to 3000 mm in steps of 50 mm)
Example
0150 = 150 mm

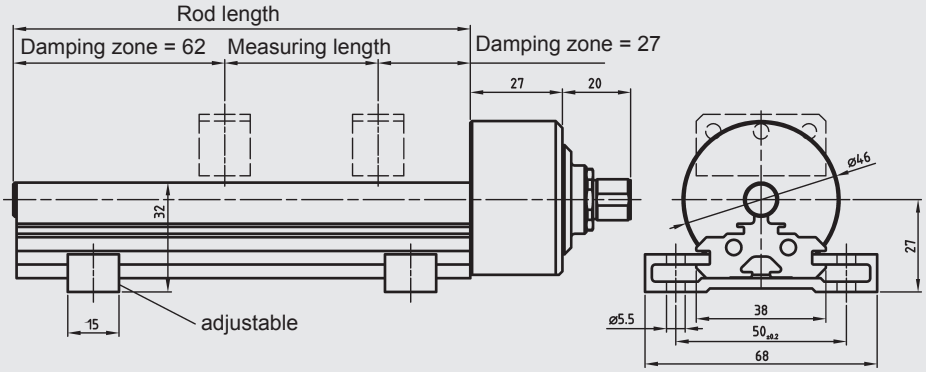
Modification
000 = Standard

Notes:
Special models on request.
The position magnet must be ordered separately.

Items supplied:
• HLT 2550
• Operating instructions

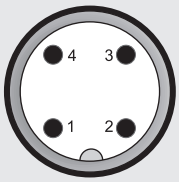
Accessories:
Appropriate accessories, such as position magnets, magnet slides or spacers, can be found in the Accessories section of the Electronics brochure.

Dimensions:



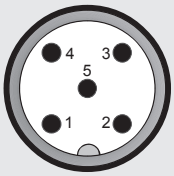
Pin connections:

M12x1, 4 pole



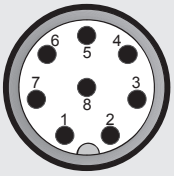
Pin	
1	$+U_B$
2	n.c.
3	0 V
4	Signal

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

M12x1, 8 pole



Pin	Description
1	Clock input +
2	Clock input -
3	Data output +
4	Data output -
5	n.c.
6	n.c.
7	$+U_B$
8	0 V

Note:

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

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

Subject to technical modifications.

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