HYDAC INTERNATIONAL

Linear Position Transmitter
HLT 2150

Rod Version,
Partly-Integrated

Description:

The HLT 2150 is a linear position transmitter which, due to its compact design, was developed in particular for use in applications where space is very limited. A wide range of accessories such as magnets is available for individual adaptation to the particular application.

The HLT 2150 is available for measuring ranges up to 2.5 m. The different output signals (analog, CANopen) facilitate the connection of all HYDAC ELECTRONIC GMBH measurement and control devices as well as connection to standard evaluation systems (e.g. also to PLC controls).

The main fields of application for the HLT 2150 are, for example, general positioning tasks in mechanical engineering and in mobile and industrial hydraulics, as a partly-integrated solution in hydraulic cylinders.

Special features:

- Compact design
- High resistance to shock and vibration
- Excellent EMC characteristics
- For measuring ranges up to 2.5 m
- Non-contact and wear-free
- Persuasive price / performance ratio

Technical data:

Input data		
Measuring ranges	50 .. 2500 mm	
Pressure resistance	450 bar	
Peak pressure	630 bar	
Housing	Stainless steel (1.4301 / 1.4571)	
Output data		
Signal output	Current: 4 .. 20 mA or 20 .. 4 mA Voltage: 0 .. 10 V or 10 .. 0 V 0.25 .. 4.75 V or 4.75 .. 0.25 V 0.5 .. 9.5 V 0.5 .. 4.5 V CANopen	
Measuring accuracy	**Analog**	**CANopen**
Resolution	12 bit, ≥ 0.1 mm	0.1 mm
Ohmic resistance to GND	Current: 200 ... 500 Ω Voltage: > 2 kΩ	
Non-linearity	≤ ± 0.05 % FS	≤ ± 0.02 % FS
Hysteresis	≤ ± 0.1 % FS	≤ ± 0.1 mm
Repeatability	≤ ± 0.1 % FS	≤ ± 0.1 mm
Temperature coefficient	≤ ± 0.006 % FS / °F	≤ ± 0.0018 % FS / °F
Sampling rate (internal)	2 ms	2 ms
Installation position and travel speed	No restrictions	
Environmental conditions		
Operating temperature range	-40 .. +185°F	
Storage temperature range	-40 .. 212°F, dry	
Fluid temperature range	-40 .. 248°F	
Relative humidity	90 %, non-condensing	
CE mark	EN 61000-6-1 / 2 / 3 / 4	
Vibration resistance to DIN EN 60068-2-6 at 10 .. 500 Hz at 5 kHz	≤ 20 g ≤ 15 g	
Shock resistance to DIN EN 60068-2-27 (11 ms)	≤ 50 g	
Protection class to IEC 60529	IP 67	
Other data		
Electrical connection	M12x1 plug	
Supply voltage	12 .. 30 V DC	
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

Model Code:

HLT 2 1 5 0 – R1 – XXX - XXX – XXXX – 000

Design/Geometry type
1 = Rod

Model
R1 = Threaded flange M18x1.5

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

Signal output CANopen
M05 = Male M12x1, 5 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
G01 = Analog 0.25 .. 4.75 V
G02 = Analog 4.75 .. 0.25 V
G03 = Analog 0.5 .. 9.5 V
G04 = Analog 0.5 .. 4.5 V

Measuring range in mm (50 to 2500 mm)
Example
0150 = 150 mm

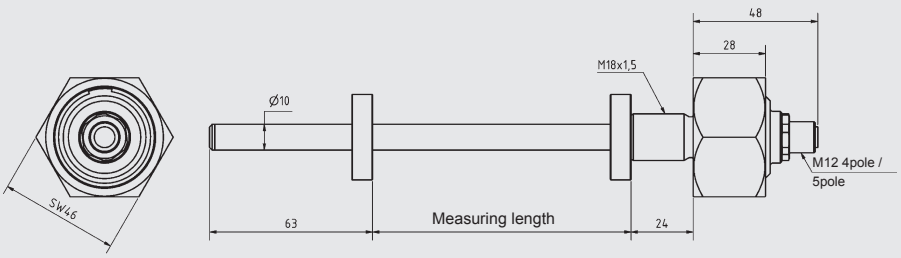
Modification
000 = Standard

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

Items supplied:
• HLT 2150
• Operating instructions

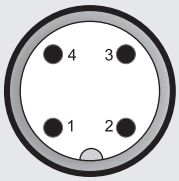
Accessories:
Appropriate accessories, such as position magnets, etc., can be found in the Accessories section of the Electronics brochure.

Dimensions:



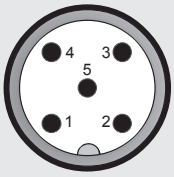
Pin connections:

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

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.

HYDAC ELECTRONICS
90 Southland Dr. Bethlehem, PA 18017
Telephone +1 (610) 266-0100
E-mail: electronic@hydacusa.com
Website: www.hydacusa.com