

Linear Position Transmitter HLT 724 for series applications

Magnetic-inductive	For full integration	Resolution 0.1 %
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Analogue

Description:

The sensor's measurement principle for position or distance is based magnetic-inductive measuring method.

Based on this non-contact and wear-free measuring system, HYDAC offers a version in a pressure-resistant housing for full integration in hydraulic cylinders.

The different output signals (analogue) facilitate the connection of all HYDAC ELECTRONIC GmbH measurement and control devices as well as connection to standard evaluation systems (e.g. to PLC controls).

The main fields of application are in mobile hydraulics.

Technical Data:

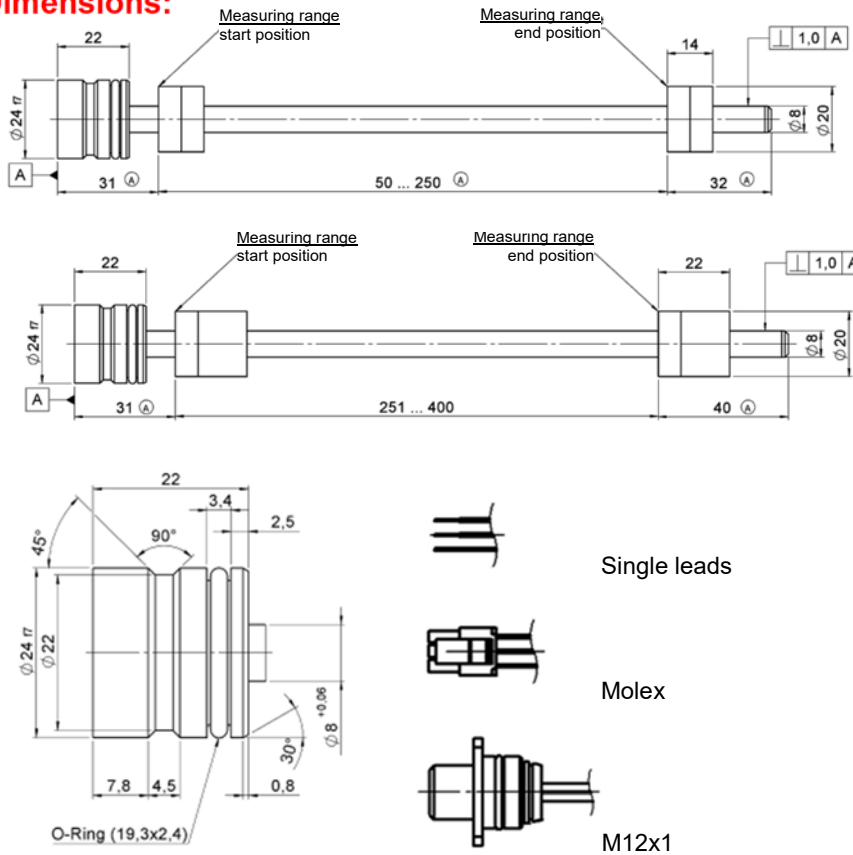
Input data	
Measurement ranges	50 .. 400 mm
Type	Rod Ø 8 mm, sensor head Ø 24 mm ¹⁾ for full cylinder integration Operating pressure: ≤ 450 bar Maximum pressure to DIN EN ISO 19879: 630 bar
Material	Rod: Stainless steel 1.4571 Housing: Stainless steel 1.4057
Seal	O-ring: PU P5008
Output data	
Output signal, permitted load resistance	Current: 4 .. 20 mA, 3 conductor 20 .. 4 mA, 3 conductor Load: 200 .. 500 Ω Voltage: 0,25 .. 4,75 V, 4,75 .. 0,25 V 0,5 .. 4,5 V, 4,5 .. 0,5 V Load: > 2 kΩ
Resolution	0.1 % FS
Non linearity	≤ ± 1 % FS
Hysteresis	≤ ± 0.25 % FS
Repeatability	≤ ± 0.125 % FS
Sampling rate	≤ 20 ms (10 .. 90 %)
Ambient conditions	
Operating temperature range	-40 .. +85 °C
Storage temperature range	-55 .. +105 °C
Fluid temperature range	-40 .. +120 °C
CE mark	EN 61000-6-1 / 2 / 3 / 4
Vibration resistance to DIN EN 60068-2-6 at 10 .. 9 Hz	≤ 1.5 mm
at 91 .. 2000 Hz	≤ 17 g
Shock resistance to DIN EN 60068-2-27 (11 ms)	≤ 50 g
Protection class acc. DIN EN 60529	IP 67 (single leads) IP 6K9K (shouldered flange connector M12x1; shouldered flange connector Molex in conjunction with ZBE 50 (accessory flange connector DT04-3p Molex))
Mounting position	No restrictions
Other data	
Supply voltage (V _{in}) nominal	9 .. 32 V DC
Residual ripple of supply voltage	≤ 5 %
Power consumption (without output)	≤ 320 mW
Weight	(dependent on measurement and lead lengths) 50 mm: ~ 50 g 400 mm: ~ 130 g

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

FS (Full Scale) = relative to the full measuring range

¹⁾ further head diameters available on request

Dimensions:



Model code:

HLT 7 2 4 - XXX - XXX - XXX - 000

Connection type

Single leads

- K10 = Single leads, length 100 mm
- K20 = Single leads, length 200 mm
- K50 = Single leads, length 500 mm

Shouldered flange connector M12x1, 4 pole

- L06 = 60 mm lead length
- L18 = 180 mm lead length
- L24 = 240 mm lead length

Shouldered connector Molex, 3 pole

- M06 = 60 mm Aderlänge
- M08 = 80 mm Aderlänge
- M24 = 240 mm Aderlänge

Output signal

- C01 = Analogue 4 .. 20 mA, 3 conductor
- C02 = Analogue 20 .. 4 mA, 3 conductor
- G01 = Analogue 0.25 .. 4.75 V
- G02 = Analogue 4.75 .. 0.25 V
- G04 = Analogue 0.5 .. 4.5 V
- G05 = Analogue 4.5 .. 0.5 V

Measuring range in mm (50 mm to 400 mm)

Example

250 = 250mm

Modification

000 = Standard

Accessory available: (not included in the scope of delivery)

ZBL MR-HLT 700	Position magnet for measuring range 50 .. 250 mm	Part No.: 4105026
ZBL MR-HLT 700 LANG	Position magnet for measuring range 251 .. 400 mm	Part No.: 4322460
ZBE 50	Flange connector DT04-3p – Molex	Part No.: 4143770

More information about this accessory or further accessories such as electrical connectors etc. can be found in the Accessories brochure.

Pin connections:

Single leads

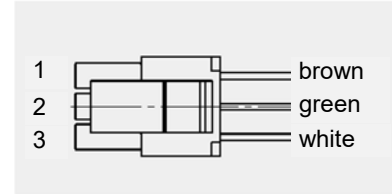
Lead	Analogue
Red	+U _B
Blue	0 V
Green	Analogue

M12x1, 4 pole



Pin	Analogue
1	+U _B
2	n.c.
3	0 V
4	Signal

Molex, 3-pol.



Pin	Analogue
1	+U _B
2	Signal
3	0 V

Pin assignment

Molex	DT04-3p (accessory)
1	A
2	B
3	C

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. All technical details are subject to change without notice.

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