

Series LVDT ISDL-KD

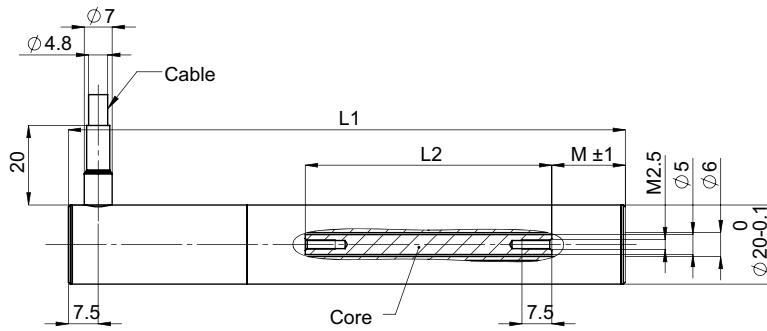
Displacement Sensor, integrated signal conditioner



The displacement sensors operate according to the principle of the differential transformer.

- With Throughhole shaft
- Displacement: 2mm up to 200mm
- Degree of protection IP65
- Housing Diameter 20mm

Drawing



Standard types				Dimensions (mm)		
Type	Armature	Displacement	Connection	L 1	L 2	M Middle of stroke
ISDL-2-KD-24XX	Unguided	±1 (2mm)	Cable	76	17	9
ISDL-5-KD-24XX		±2.5 (5mm)		87	23	11.5
ISDL-10-KD-24XX		±5 (10mm)		101	30	15
ISDL-20-KD-24XX		±10 (20mm)		140	62	18.5
ISDL-50-KD-24XX		±25 (50mm)		185	80	32
ISDL-100-KD-24XX		±50 (100mm)		320	130	74.5
ISDL-200-KD-24XX		±100 (200mm)		490	230	109.5

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Electrical Specification								
Displacement	±1 (2)	±2.5 (5)	±5 (10)	±10 (20)	±25 (50)	±50 (100)	±100 (200)	[mm]
Linearity deviation	< ±0.5 (< ±0.25 optional)					< ±1		[% F.S.]
Supply voltage	24 (±20%) / ±15 (±5%)							[VDC]
Current consumption	±20/20 (±40/40 current output)							[mA]
Output signal	0.5 V / ±5 V / 0..10 V / ±10 V* / 0..20 mA / 4..20 mA							
Output load	>10 kOhm voltage output / <500 Ohm current output							
Output noise (Ripple)	<10							[mV RMS]
Cut of frequency (-3 dB)	100							[Hz]
Temperature coefficient	±0.04							[% F.S./10K]

Mechanical Specification								
Housing material	Steel nickeling plated							
Core material	Nickel-Iron-Alloy							
Weight (with Cable/Plug)	110/65	125/100	151/125	215/190			710/685	[g]
Weight core	2	3.2	4.5	10	13	33	39	[g]

Environments			
Operation temperature	0 .. +60		[°C]
Storage temperature	-30 .. +80		[°C]
Degree of protection	IP65		
Impact resistance	100g, 2ms		DIN IEC68T2-27
Vibration resistance	10g / 2 Hz .. 2 kHz		DIN IEC68T2-6

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Connection			
Function		Cable connection (Cable length 1 m)	Plug connection
Excitation voltage ± 15 VDC	Excitation voltage 24VDC	Colour of cable	PIN
-15 VDC	N.C.	yellow	1
+15 VDC	+24 VDC	brown	2
Signal GND		white	3
Output		green	4
Excitation GND		grey	5
Shield		Housing	Shield

Order code					
Series	Displacement	Connection	Supply voltage	Output signal	Linearity deviation*
ISDL-	20-	KD-	24	10	
Standard	2 = 2mm 5 = 5mm 10 = 10mm 20 = 20mm 50 = 50mm 100 = 100mm 200 = 200mm	KD = Cable (1m) Armature on both sites	24 = 24 V DC 15 = ± 15 VDC	05 = 0.5 VDC 10 = 0..10 VDC 55 = ± 5 VDC 11 = ± 10 VDC 20 = 0..20 mA 42 = 4..20 mA	*nur wenn $< \pm 0.5\%$ *in case of $< \pm 0.5\%$
Options	Other on request	Length K2 = length 2m			$\pm 0.25\%$ $\pm 0.1\%$

Mechanical Accessories			
Mounting block for $\varnothing 20$ mm	Mounting flange for $\varnothing 20$ mm	Extension for armature	Measuring pin
