

Series LVDT-ISDT

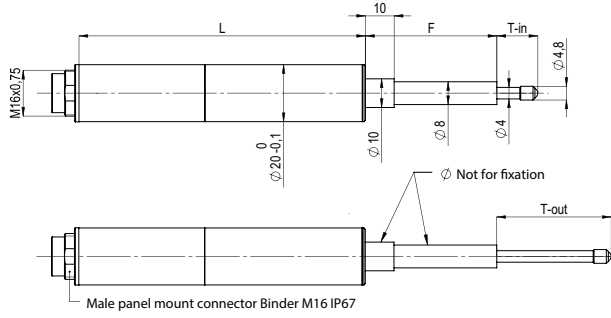
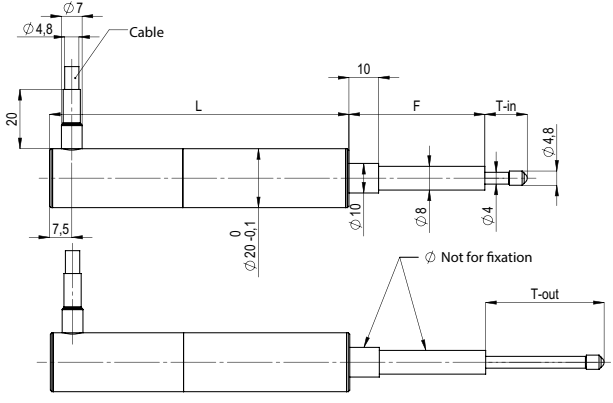
Displacement Sensor, integrated signal conditioner



LVDT with spring loaded and guided probe and integrated signal conditioner. Robust sensor made of rustproof steel, suitable for applications that require reliable sensor performance in demanding environments.



- Economy version for rough environment
- Measurement range: 2mm up to 50mm
- Degree of protection IP65
- Housing diameter 20mm

Dimensions connector	Dimensions cable
 <p>Male panel mount connector Binder M16 IP67</p>	 <p>All dimension in mm</p>

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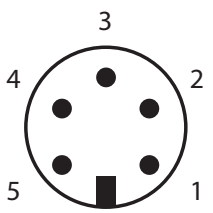
Standard types				Dimensions mm			
Type	Armature	Displacement	Connection	L Housing length	F Flange length	T-in Armature inner position	T-out Armature outer position
ISDT-2-S	Spring-function	±1 (2mm)	Connector	76.5	46	25.5	40
ISDT-5-S		±2.5 (5mm)		87.5		21.5	
ISDT-10-S		±5 (10mm)		101.5		14.5	
ISDT-20-S		±10 (20mm)		140.5		7.5	
ISDT-50-S		±25 (50mm)		185.5	84	17.5	
ISDT-2-K	Spring-function	±1 (2mm)	Cable	76	46	25.5	40
ISDT-5-K		±2.5 (5mm)		87		21,5	
ISDT-10-K		±5 (10mm)		101		14.5	
ISDT-20-K		±10 (20mm)		140		7.5	
ISDT-50-K		±25 (50mm)		185	84	17.5	

Electrical Specification						
Displacement	±1 (2)	±2,5 (5)	±5 (10)	±10 (20)	±25 (50)	mm
Linearity deviation	< ±0.5 (< ±0.25 optional)					% F.S.
Supply voltage	±15 (±5%) / 24 (±20%) optional 12 (±5%)					VDC
Current consumption	±20 (±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 off frequency (-3 dB)	100					Hz
Temperature coefficient	±0.4					% F.S./10K

Mechanical Specification						
Housing material	Steel nickeling plated					
Core material	Nickel-iron-alloy					
Weight (with cable/connector)	130/110	145/130	165/145	215/195	285/265	g

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

Connection				
Cable with 5 poles (cable length 1m)	Cable with 4 poles (cable length 1m)	Cable connection (Cable length 1m)	Plug connection	 <p>M16 connector</p>
Supply voltage ±15 VDC	Supply voltage ±24 VDC	Color 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	Internal electronics	Operation	Displacement (mm)	Connection	Supply voltage	Output signal	Linearity deviation
<u>IS</u>	<u>D</u> = DC	<u>I</u> = spring return	2 = ±1 5 = ±2.5 10 = ±5 20 = ±10 50 = ±25	K = Cable S = Connector	15 = ±15 VDC 24 = 24 V DC optional: 12 = 12 VDC	05 = 0..5 VDC 10 = 0..10 VDC 55 = ±5 VDC 11 = ±10 VDC 20 = 0..20 mA 42 = 4..20 mA	< ±0.5% (FS)
Ordering example: LVDT-ISDT5-S-2410							

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Options

- Other cable length on request (standard = 1m)
- Improved linearity tolerance (< 0,25%)
- Extended temperature range (-25°C .. +85°C)
- Individual calibration service
- Signal conditioner (internal, external)
- Compression proved mounting assembly for hydraulic cylinder
- Operation (unguided armature)
- More options on request

Mechanical Accessories

		
Mounting block for Ø 20mm	Mounting flange for Ø 20mm	Probe tip

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Leander TX 78641

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All data in the data sheet are general product descriptions.
Application-related deviations are the responsibility of the user.
Subject to change without notice at any time.