

Series LVDT ISAL-KD

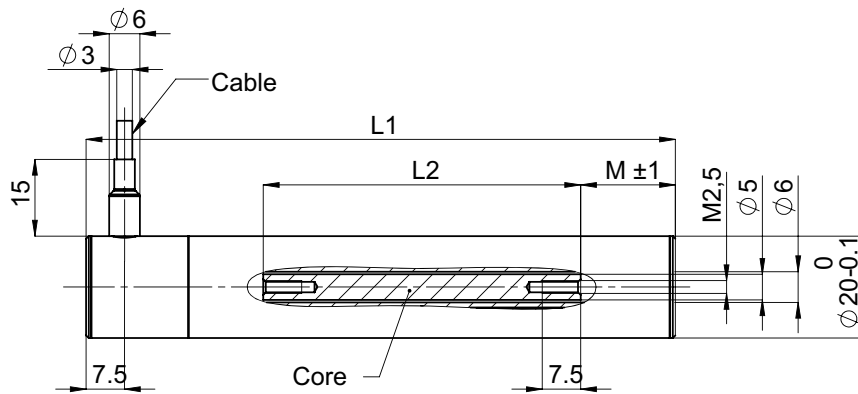
Inductive Displacement Sensor



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

- With Through hole shaft
- Displacement: 5mm up to 200mm
- Degree of protection IP65
- Housing Diameter 20mm

Drawing



Standard types				Dimensions (mm)		
Type	Armature	Displacement	Connection	L1 Housing length	L2 Housing length	M Middle of stroke
ISAL-2-KD	Unguided	±1 (2mm)	Cable	51	17	9
ISAL-5-KD		±2.5 (5mm)		62	23	11.5
ISAL-10-KD		±5 (10mm)		76	30	15
ISAL-20-KD		±10 (20mm)		115	62	18.5
ISAL-50-KD		±25 (50mm)		160	80	32
ISAL-100-KD		±50 (100mm)		296	130	74.5
ISAL-200-KD		±100 (200mm)		466	230	109.5

Electrical Specification								
Displacement	±1 (2)	±2.5 (5)	±5 (10)	±10 (20)	±25 (50)	±50 (100)	±100 (200)	[mm]
Sensitivity	76	82	43	34	27	12.2	7	[mV/V/mm]
Linearity deviation	< ±0.5 (< ±0.25 optional)					< ±1		[% F.S.]
Excitation voltage	1..10							[V _{RMS}]
Excitation frequency	0.5..5							[kHz]
Input resistance typ.	332	69	97	175	221	460	820	[Ohm]
Input impedance typ.	790	134	188	345	369	2240	5770	[Ohm]
Output impedance typ.	900	170	118	360	525	2140	5060	[Ohm]
Temperature coefficient	±0.2							[% F.S./10K]
Calibrated at	5V RMS / 2.5 kHz RL = 1MΩ							

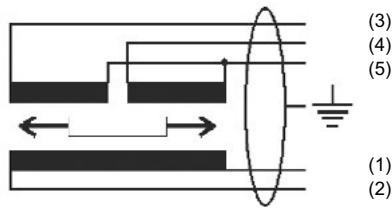
Mechanical Specification								
Housing material	Steel nickeling plated							
Core material	Nickel-Iron-Alloy							
Weight (with Cable/Plug)	85/65	100/80	120/100	175/155	230/210			[g]
Weight core	2	3.2	4.5	10	13	22	39	[g]

Environments			
Rated temperature range	-35 .. +120		[°C]
Storage temperature range	-55 .. +120		[°C]
Degree of protection	IP65		
Impact resistance	200g, 2ms		
Vibration resistance	10g / 2 Hz .. 2 kHz		



Series LVDT ISAL-KD


Inductive Displacement Sensor

Connection (Cable 1m)	
Color of cable	Signal
white	Primary 1
brown	Primary 2
yellow	Secondary 1
green	Secondary 2
grey	Secondary 1, 2 Center
Housing	Shield



Order code			
Series	Displacement	Connection	Linearity deviation *
ISAL-KD-	20-	KD-	
Standard	2 = ±1 5 = ±2.5 10 = ±5 20 = ±10 50 = ±25 100 = ±50 200 = ±100	KD = Cable (1 meter) / Armature on both sides	*in case of < ±0,5%
Options	Other on request	Other Cable length K2 = Length 2m	±0.25% ±0.1%

Mechanical Accessories			
Mounting block for Ø 20 mm	Mounting flange for Ø 20 mm	Extension for armature	Measuring pin
			

Electrical Accessories		
Signal Conditioner DIN Rail Mount IMA2-LVDT 	Signal Conditioner Circuit Board Mount IVM-LVDT 	Signal Conditioner IP65 IMK-LVDT 