

Series LVDT-ISAL

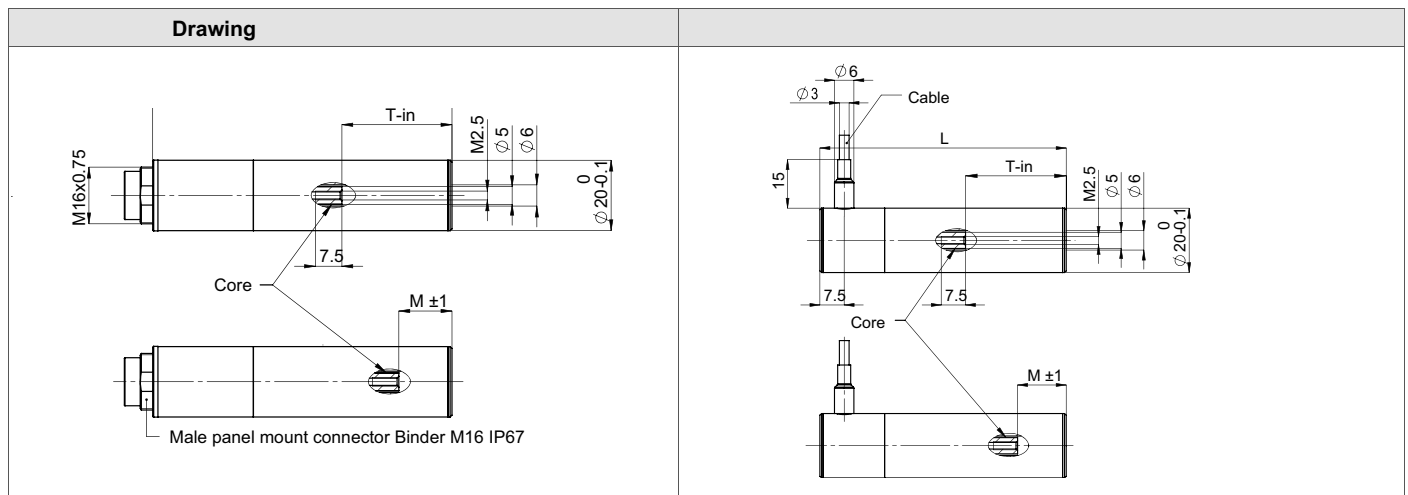
Inductive Displacement Sensor

 Housing Ø20  Output sensor: mV/V



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

- For rough environment
- Displacement: 2mm up to 200mm
- Degree of protection IP65 (optional IP67, IP68)
- Housing Diameter 20mm



Standard types				Dimensions (mm)		
Type	Armature	Displacement	Connection	L Housing length	T-in Armature inner position	M Middle of stroke
ISAL-2-S	Unguided	±1 (2mm)	Connector	51	19	9
ISAL-5-S		±2.5 (5mm)		62	24	11.5
ISAL-10-S		±5 (10mm)		76	31	15
ISAL-20-S		±10 (20mm)		115	38	18.5
ISAL-50-S		±25 (50mm)		160	65	32
ISAL-100-S		±50 (100mm)		296	150	74.5
ISAL-200-S		±100 (200mm)		466	220	109.5
ISAL-2-K	Unguided	±1 (2mm)	Cable	51	19	9
ISAL-5-K		±2,5 (5mm)		62	24	11.5
ISAL-10-K		±5 (10mm)		76	31	15
ISAL-20-K		±10 (20mm)		115	38	18.5
ISAL-50-K		±25 (50mm)		160	65	32
ISAL-100-K		±50 (100mm)		296	150	74.5
ISAL-200-K		±100 (200mm)		466	220	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 = 1MOhm							

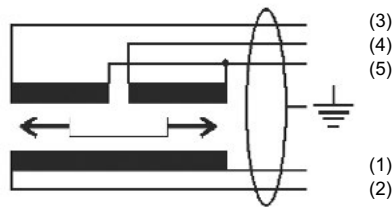
Mechanical Specification								
Housing material	Steel nickeling plated							
Core material	Nickel-Iron-Alloy							
Weight (with Cable/Plug)	85/65	100/80	120/100	175/155	230/210			[g]
Weight core	2	3.2	4.5	10	13	22	39	[g]

Environments			
Rated temperature range	-35 .. +120		[°C]
Storage temperature range	-55 .. +120		[°C]
Degree of protection	IP65/ optional IP67 or IP68		
Impact resistance	200g, 2ms		DIN IEC68T2-27
Vibration resistance	10g / 2 Hz .. 2 kHz		DIN IEC68T2-6





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



Order code			
Series	Displacement	Connection	Linearity deviation *
ISAL-	20-	S-	
Standard	2 = ± 1 5 = ± 2.5 10 = ± 5 20 = ± 10 50 = ± 25 100 = ± 50 200 = ± 100	S = Connector K = Cable	*in case of $< \pm 0.5\%$
Options	Other on request	Other Cable 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
			

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