

Series LVDT-ISAG

Inductive Displacement Sensor

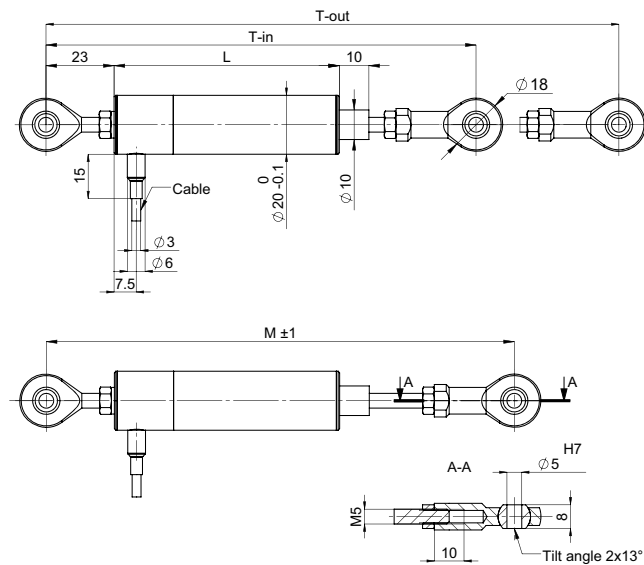
Housing Ø20 Output sensor: mV/V



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

Drawing



Standard types				Dimensions (mm)			
Type	Armature	Displacement	Connection	L Housing length	T-in Armature inner position	M Middle of stroke	T-out Armature outer position
ISAG-2-K	Plain Bearing	±1 (2mm)	Cable	62	138	148	157
ISAG-5-K		±2.5 (5mm)		62	138	148	157
ISAG-10-K		±5 (10mm)		76	145	158	171
ISAG-20-K		±10 (20mm)		115	179	194	210
ISAG-50-K		±25 (50mm)		160	225	255	285
ISAG-100-K		±50 (100mm)		295	359	418	490
ISAG-200-K		±100 (200mm)		465	545	653	760

Series LVDT-ISAG

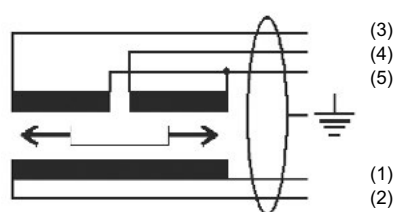
Inductive Displacement Sensor

Electrical Specification								
Displacement	±1 (2)	±2.5 (5)	±5 (10)	±10 (20)	±25 (50)	±50 (100)	±100 (200)	[mm]
Sensitivity typ.	76	82	43	34	27	12.2	7	[mV/V/mm]
Linearity deviation	< ±0.5 (< ±0.25 optional)							[% F.S.]
Excitation voltage	1..10							[V RMS]
Excitation frequency	0.5..5							[kHz]
Input resistance typ.	332	69	97	175	221	On request	On request	[Ohm]
Input impedance typ.	790	134	188	345	369	On request	On request	[Ohm]
Output impedance typ.	900	170	118	360	525	On request	On request	[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)	140		165	180	230	290	[g]	

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

Connection	
Function	Color of cable (Cable length: 1m)
Primary 1	red
Primary 2	black
Secondary 1	orange
Secondary 2	yellow
Secondary 1, 2 Center	white
Shield	Housing






Series LVDT-ISAG

Inductive Displacement Sensor

Order code			
Series	Stroke	Connection	Lin.-Tolerance*
ISAG-	20-	K-	
Standard	2 = ± 1 5 = $\pm 2,5$ 10 = ± 5 20 = ± 10 50 = ± 25 100 = ± 50 200 = ± 100	K = Cable (1meter)	*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 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 

Note

The following applies to the 100mm and 200mm displacement versions:

For horizontal installation, the sensor housing must be additionally stabilized and axial alignment must be ensured. Otherwise the sensor could bend from its own weight! Use of 3 mounting blocks is recommended.