


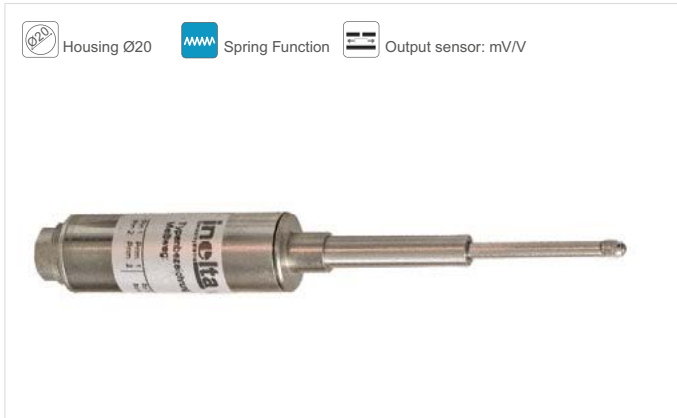


# Series LVDT-ISAT

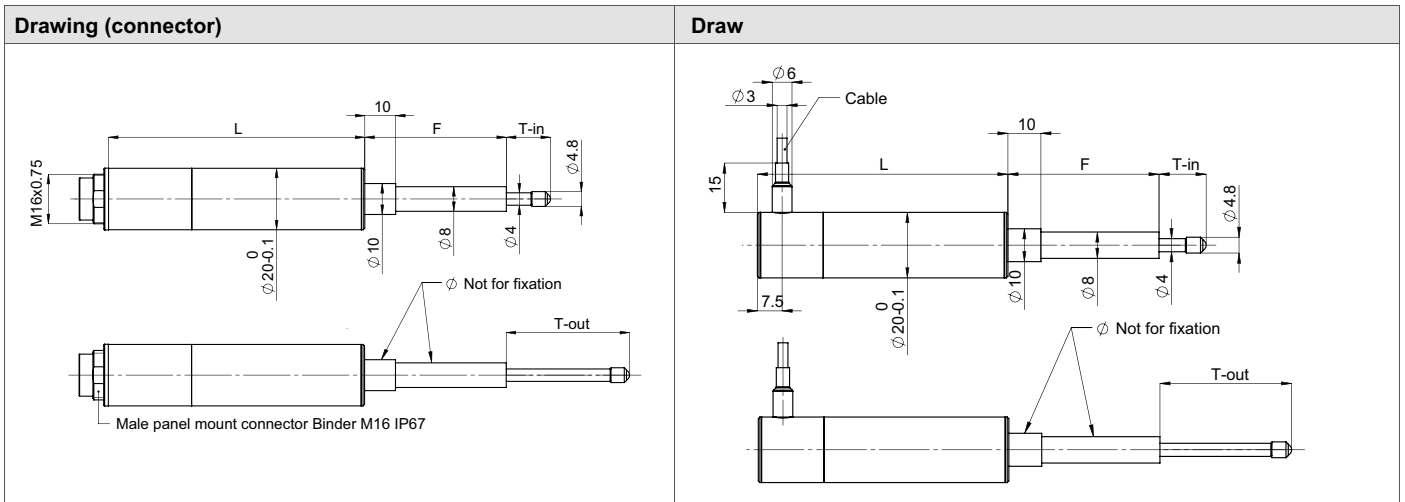
## Inductive Displacement Sensor

 Housing Ø20
  Spring Function
  Output sensor: mV/V



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

- For rough environment
- Measuring range: 2mm up to 50mm
- Degree of protection IP65 (optional IP67, IP68)
- Housing diameter 20mm



Standard types				Dimensions (mm)			
Type	Armature	Displacement	Connection	L Housing length	F Flange length	T-in Spring return inner position	T-out Spring return outer position
ISAT-2-S	Spring function	±1 (2mm)	Connector	59.5	46	25.5	40
ISAT-5-S		±2.5 (5mm)		70.5		21.5	40
ISAT-10-S		±5 (10mm)		84.5		14.5	40
ISAT-20-S		±10 (20mm)		123.5		7.5	40
ISAT-50-S		±25 (50mm)		168.5	77	17.5	77
ISAT-2-K	Spring function	±1 (2mm)	Cable	51	45	25.5	40
ISAT-5-K		±2.5 (5mm)		62		21.5	40
ISAT-10-K		±5 (10mm)		76		14.5	40
ISAT-20-K		±10 (20mm)		115		7.5	40
ISAT-50-K		±25 (50mm)		160	83	17.5	77

**Series LVDT-ISAT**  
Inductive Displacement Sensor

Electrical Specification						
Displacement	±1 (2)	±2.5 (5)	±5 (10)	±10 (20)	±25 (50)	[mm]
Sensitivity	76	82	43	34	27	[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	332	69	97	175	221	[Ohm]
Input impedance	790	134	188	345	369	[Ohm]
Output impedance	900	170	118	360	525	[Ohm]
Temperature coefficient	±0.2					[% F.S./10K]
Calibrated at	5V RMS / 2.5 kHz RL=1MΩ					

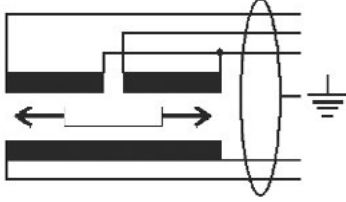
Mechanical Specification						
Housing material	Steel nickel plated					
Core material	Nickel-Iron-Alloy					
Weight (with Cable/Plug)	110/90	125/105	140/120	190/170	260/240	[g]

Environments			
Rated temperature range	-35 .. +120		[°C]
Storage temperature range	-55 .. +120		[°C]
Degree of protection	IP65 (optional IP67, IP68)		DIN60529
Impact resistance	200g, 2 m/s <sup>2</sup>		DIN IEC68T2-27
Vibration resistance	10g / 2 Hz .. 2 kHz		DIN IEC68T2-6





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Inductive Displacement Sensor

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



Order code			
Series	Displacement	Connection	Lin.-Tolerance*
ISAT-	20-	S-	
Standard	2 = ±1 5 = ±2.5 10 = ±5 25 = ±12.5 50 = ±25	S = Connector K = Cable (1 meter)	*in case of < ±0.5%
Options	Other on request	Other Cable length K2 = Length 2m	±0.25%

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 