

Series LVDT-IMDL

Displacement Sensor, integrated signal conditioner

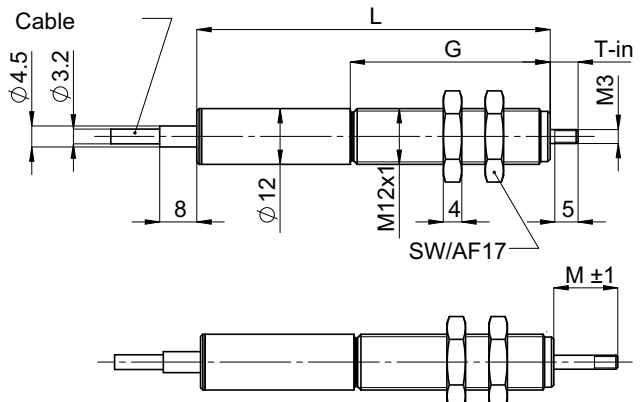
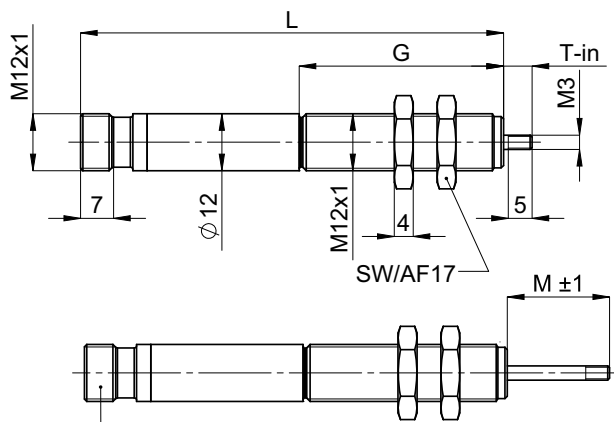
 Housing M12  Output



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

- Housing M12
- Displacement: 2mm up to 20mm
- Degree of protection IP65 (optional IP67, IP68)
- Unguided armature

Drawing



Standard types				Dimensions (mm)			
Type	Armature	Displacement	Connection	L Housing length	G Thread length	T-in Armature inner position	M Middle of stroke
IMDL-2-S-XX	Unguided	±1 (2mm)	Connector	64	18	6	8.5
IMDL-5-S-XX		±2.5 (5mm)		78	32	6	15.5
IMDL-10-S-XX		±5 (10mm)		89	43	6	14
IMDL-20-S-XX		±10 (20mm)		119	73	6	21
IMDL-2-K-XX	Unguided	±1 (2mm)	Cable	51	18	6	8.5
IMDL-5-K-XX		±2.5 (5mm)		65	32	6	15.5
IMDL-10-K-XX		±5 (10mm)		76	43	6	14
IMDL-20-K-XX		±10 (20mm)		106	73	6	21

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Electrical Specification					
Displacement	±1 (2)	±2.5 (5)	±5 (10)	±10 (20)	[mm]
Linearity deviation	< ±0.5	< ±0.5 (optional < ±0.25)		< ±0.5	[% F.S.]
Supply voltage	24 (±20%)				[VDC]
Current consumption (not load)	< 20				[mA]
Output signal	0..5 / 0..10 / ±5				[VDC]
Output load	>10 kOhm voltage output / <500 Ohm current output				
Output noise (Ripple)	<5				[mV RMS]
Cut of frequency (-3 dB)	1k				[Hz]
Temperature coefficient	±0.4				[% F.S./10K]

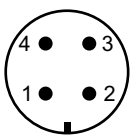
Mechanical Specification		
Housing material	steel blue zinc-plated	
Core material	Nickel-iron-alloy	
Weight (with Plug)	ca. 110	[g]
Weight core	ca. 1.5	[g]

Environments		
Rated temperature range	-25..+85	[°C]
Storage temperature range	-40..+85	[°C]
Degree of protection	IP65 (optional IP67, IP68) Connector version: with mounted connector	
Impact resistance	200 g, 2ms	
Vibration resistance	10g / 2 Hz .. 2 kHz	

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Connection			
Function	Cable connection (Cable length 1m)	Plug connection (M12)	
	Colour of cable	PIN	
+24 VDC	brown	PIN 1	
Output	green	PIN 2	
Excitation GND	grey	PIN 3	
Signal GND	white	PIN 4	
Housing	Shield	Housing	



Order code						
Series	int. electronics	Operation	Displacement	Connection	Supply voltage	Output signal
IM = external thread M12	D = DC	L = Unguided armature	2 = 2 mm 5 = 5 mm 10 = 10 mm 20 = 20 mm	S = Connector	24 = 24 VDC	05 = 0..5 VDC 10 = 0..10 VDC 55 = ±5 VDC
Options			Other on request	K = Cable		

Accessories			
Connector with cable (2m or 5m)			
