

Data Sheet for Linear Sensors

Inductive Linear Transducer

Series EVTB



- Robust miniature design with attractive price
- Measuring strokes for ± 1 , ± 2.5 and ± 5 mm
- In 2 designs as probe or loose core ("L" version)e
- Up to $\pm 0.1\%$ linearity
- On request increased temperature range up to 200°C

The inductive displacement sensors of the EVTB series are versions with an attractive price level and available with loose core or as probe with spring return.

Electrical Data	EVTB / EVTBL		
	1	2	5
Effective electrical travel	± 1 (2) mm	± 2.5 (5) mm	± 5 (10) mm
Independent linearity (best straight line) 1.)	$\pm 0.5\%$ ($\pm 0.25\%$ / $\pm 0.1\%$)		
Sensitivity EVTB (probe IP64)	150 mV/V/mm	375 mV/V/mm	700 mV/V/mm
Sensitivity EVTBL (lose core IP64)	--	375 mV/V/mm	700 mV/V/mm
Theoretical resolution 1.)	Almost infinite		
Backlash (Hysteresis) 1.)	< 0.01 mm		
Supply voltage	nom. 5 V rms, 5 kHz (0.5 up to 7 V rms, 2 up to 10 kHz)		
Output load	100 kOhm		
Temperature coefficient	± 0.01 % F.S./ $^{\circ}\text{C}$		

Mechanical and Environment Data	EVTB / EVTBL		
	1	2	5
Mechanical stroke (mm) 1.)	See drawing		
Lifetime (90% effective electrical travel) 2.)	Almost infinite		
Operational force @ RT 1.) 2.) EVTB	0.4 N @13 mm	0.9 N @12 mm	0.9 N @12 mm
Spring rate	1.2N/cm	0.9N/cm	0.8N/cm
Operational temperature	$-20..+125^{\circ}\text{C}$ (higher temperature range on request)		
Storage temperature	-20 up to $+125^{\circ}\text{C}$		
Protection grade (IEC60529)	IP64		
Housing length EVTB	52 mm	61 mm	78 mm
Housing length EVTBL	--	43 mm	56 mm
Mass ca. EVTB	12 gram	25 gram	30 gram
Mass ca. EVTBL	--	17 gram	21 gram
Included in delivery	Probe or nut M3 x 0.5 or loose push rod		
Material housing	Steel nickel plated		
Material push rod	Stainless steel (Mu metal)		
Electrical connection	Round cable 2 m		

1.) According IEC 60393

2.) Determined by climatic conditions according to IEC 68-1, para. 5.3.1 without load collectives

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Order Code

Description	Selection: standard=black/bold , possible <i>options=grey/italic</i>			
Series: Probe with spring return Loose core	EVTB EVTBL			
Effective electrical travel: ±1 mm (not for EVTBL) ±2.5 mm ±5 mm		1 2 5		
Independent linearity: Standard ±0.5 % <i>Option ±0.25</i> <i>Option ±0.1</i>			- <i>L0,25%</i> <i>L0,1%</i>	
Electrical connection: Cable 2 m <i>Option cable length in m (max. 7 m)</i>				- <i>Kxx</i>

For higher quantities or on-going demand, additional options are available as described below on request

For example:

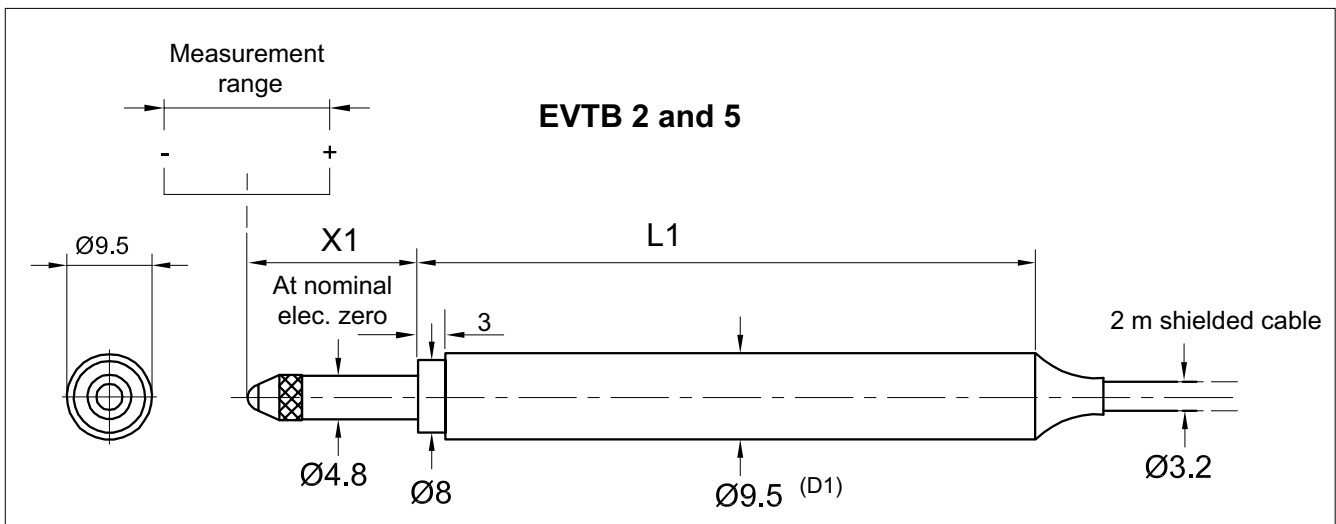
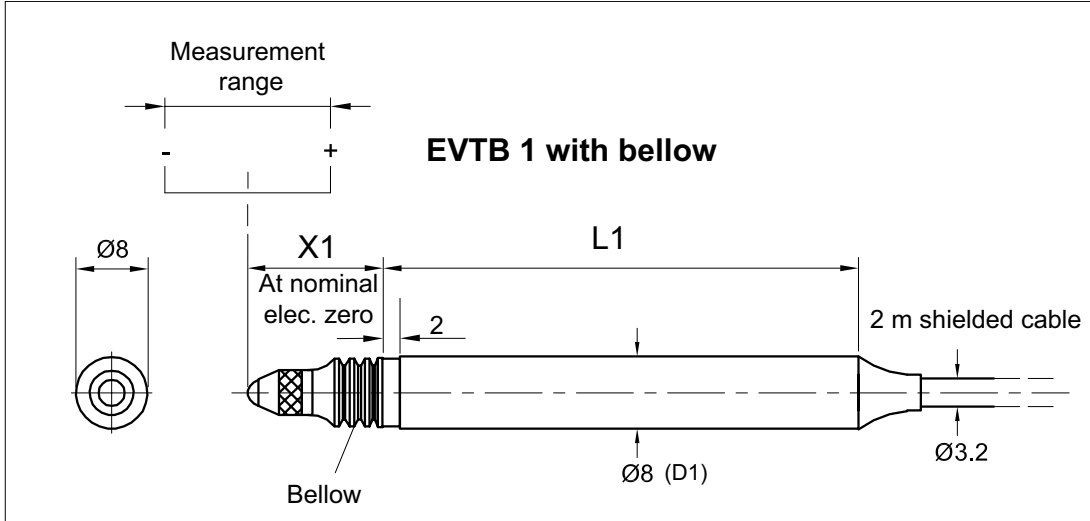
- EVTB in the probe lengths ±0.25 mm and ±0.5 mm
- Cable assemblies with and without connector, versions with radial cable, cables up to 1000 m
- Extended temperature range up to 200°C
- Special probe, special axis length and much mores

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Drawing



Dimensions	1	2	5
L1 housing length EVTB [mm]	52	61	78
D1 housing EVTB Ø [mm]	8	9,5	9,5
Effective electrical travel middle position [mm]	±1	±2,5	±5
X1 middle position EVTB [mm]	13	12	12
EVTB inward over travel [mm]	1,8	1,3	1,1
EVTB outward over travel [mm]	0,8	1,3	1,4

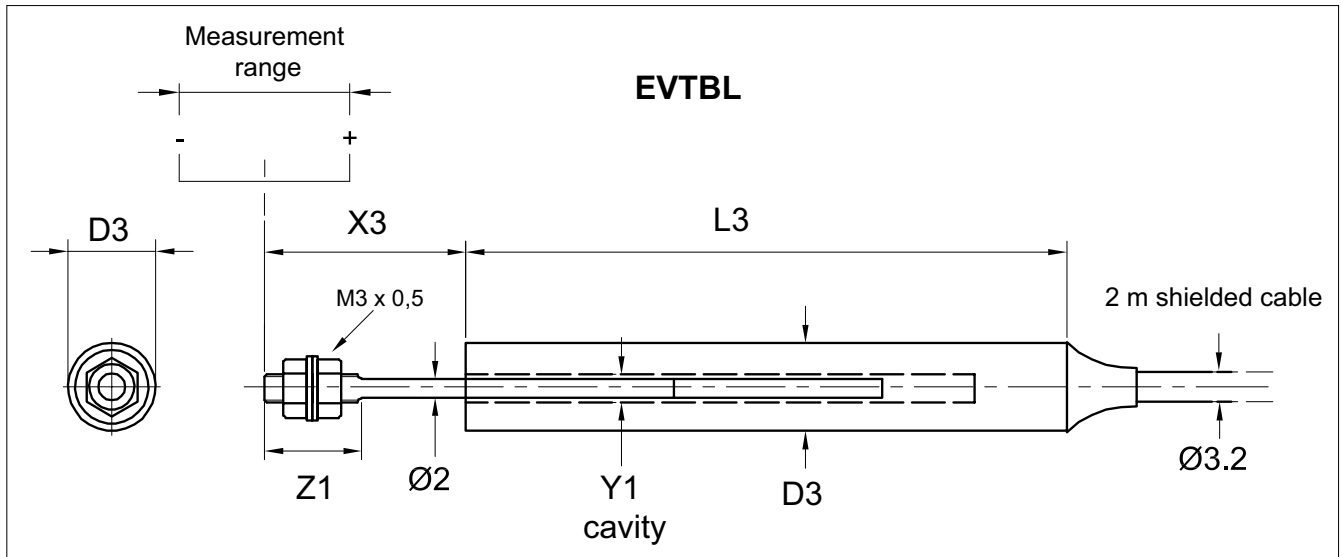
Dimensions in mm

Data Sheet for Linear Sensors

Inductive Linear Transducer

Series EVTBL

Drawing



Dimensions	2	5
L3 housing length EVTBL [mm]	43	56
D3 housing EVTBL Ø [mm]	9,5	9,5
Z1 thread EVTBL [mm]	15	18
Y1 cavity Ø EVTBL [mm]	2,9	2,9
EVTBL effective elec. travel middle position [mm]	±2,5	±5
X3 middle position EVTBL [±1 mm]	19	25
EVTBL inward over travel [mm]	1,5	2,0

Dimensions in mm

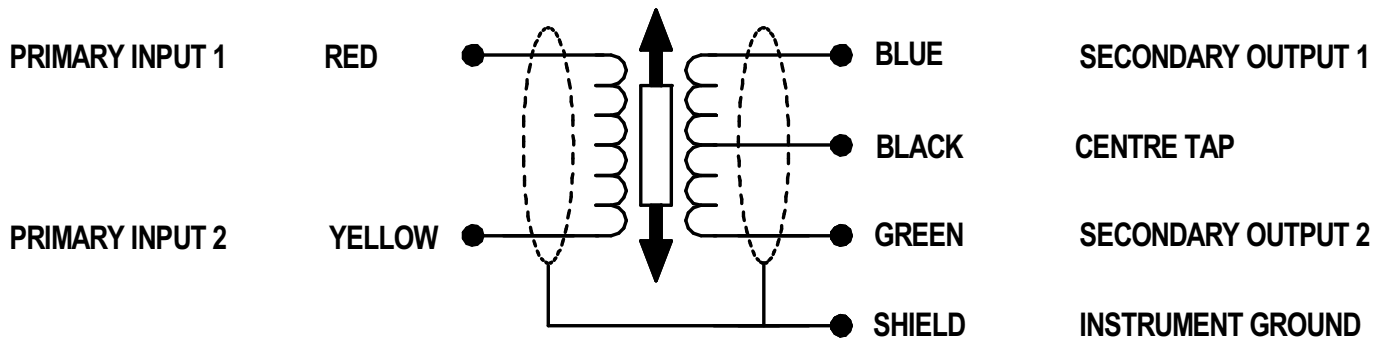
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Electrical connection

CONNECTION DETAILS



NOTE : If not used the BLACK wire should be insulated from any other wires or connections including the cable shield.