# GEFRAN

# RECTILINEAR DISPLACEMENT TRANSDUCER



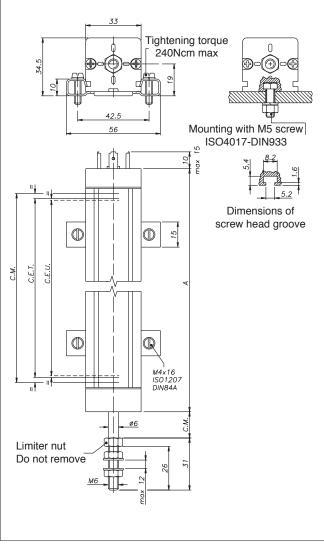
#### Main features

- The transducer has been improved in order to guarantee greater reliability under all conditions
- A sturdier structure makes the LT series even stronger for applications with heavy vibration
- Installation is made simpler by the absence of electrical signal variation in output, outside the Theoretical Electrical Stroke
- The new grooves provide an excellent alternative to the usual system of fastening with brackets
- Ideal for applications on plastic injection presses, vertical presses, and on many other processing machines

### **TECHNICAL DATA**

Useful electrical stroke (C.E.U.)	50/75/100/130/150/175/200/225/275/300/ 350/375/400/450/500/600/650/750/900							
Independent linearity (within C.E.U.)	± 0.05%							
Resolution	Infinite							
Repeatability	0.01 mm							
Electrical connections LTM	4-pole connector DIN43650							
LTH	3-pole connector							
LTB								
LTF	1 meter 3-pole shielded cable							
Displacement speed	Standard ≤ 10 m/s							
Protection level	IP60 (IP65 on request)							
	> 25x10 <sup>6</sup> m strokes, or							
Life	> 100x10 <sup>6</sup> maneuvers, whichever is less (within C.E.U.)							
Displacement force	3,5N (typical) IP60 version 15N (typical) IP65 version							
Vibrations	52000Hz, Amax =0.75 mm amax. = 20 g							
Shock	50 g, 11ms.							
Acceleration	200 m/s² max (20g)							
Tolerance on resistance	± 20%							
Recommended cursor current	< 0.1 µA							
Maximum cursor current	10mA							
Maximum applicable voltage	60V							
Electrical isolation	>100MΩ at 500V=, 1bar, 2s							
Dielectric strength	< 100µA at 500V∼, 50Hz, 2s, 1bar							
Dissipation at 40°C (0W at 120°C)	3W							
Thermal coefficient of resistance	-200+ 200 ppm/°C typical							
Actual Temperature Coefficient	≤ 5 ppm/°C typical							
of the output voltage								
Working temperature	-30+100°C							
Storage temperature	-50+120°C							
Material for transducer case	Anodised aluminium Nylon 66 G							
Material for pull shaft	Stainless steel AISI 303							
Mounting	Brackets with adjustable distance betwe- en centers or with M5 screw ISO4017- DIN933							

## **MECHANICAL DIMENSIONS**

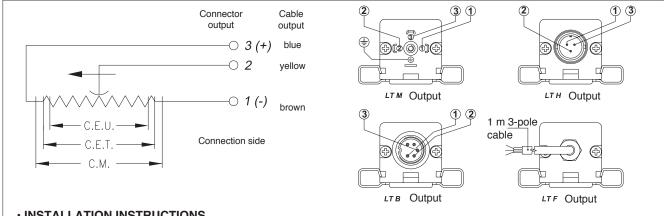


**Important**: all the data reported in the catalogue linearity, lifetime, temperature coefficient are valid for a sensor utilization as a ratiometric device with a max current across the cursor lc  $\leq$  0.1  $\mu A$ 

#### **ELECTRICAL / MECHANICAL DATA**

MODEL		50	75	100	130	150	175	200	225	275	300	350	375	400	450	500	600	650	750	900
Useful electric stroke (C.E.U.) +3/-0	mm	50	75	100	130	150	175	200	225	275	300	350	375	400	450	500	600	650	750	900
Theoretical electrical stroke (C.E.T.) ±1	mm	C.E.U. + 3					C.E.U. + 4				355	380	406	457	508	609	660	762	914	
Resistance (C.E.T.)	kΩ		5				5			5	5	5	5	5	5	5	10	10		
Mechanical stroke (C.M.)	mm	C.E.U. + 9				C.E.U. + 10			361	386	412	463	518	619	670	772	924			
Case length (A)	mm		C.E.U. + 63				C.E.U. + 64			415	440	466	517	572	673	725	826	978		

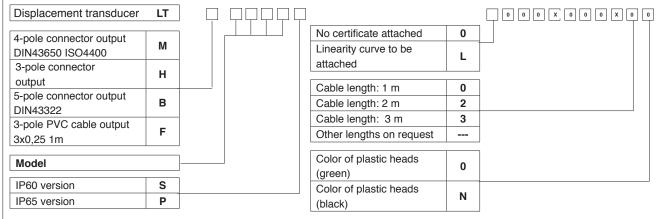
#### **ELECTRICAL CONNECTIONS**



#### · INSTALLATION INSTRUCTIONS

- · Make the specified electrical connections (DO NOT use the transducer as a variable resistance)
- When calibrating the transducer, be careful to set the stroke so that the output does not drop below 1% or rise above 99% of the voltage level.

#### **ORDER CODE**



Example:**LT - M - 0300 - S** 000X000X00

LTdisplacement transducer, 4-pole connector output DIN43650 - ISO 4400, useful electrical stroke (C.E.U.) 300mm. IP60 protection, no certificate attached, green plastic components.

#### **ACCESSORIES**

STANDARD	Code	
LT mounting kit, 2 brackets, screws	PKIT009	
ON REQUEST	Code	
LTM 4-pole 90° radial female connector DIN43650 IP65 PG9 clamp for ø6-ø8mm cable	CON006	
LTH 3-pole axial female connector IP40 clamp for ø4-ø6mm cable	CON002	
LTB 5-pole axial female connector DIN43322 IP40 clamp for ø4-ø6mm cable	CON011	
LTB 5-pole axial female connector DIN43322IP65 PG7 clamp for ø4-ø6mm cable	CON012	
LTB 5-pole 90° radial female connector DIN43322 IP40 clamp for ø4-ø6mm cable	CON013	
Ball connection joint	PKIT015	

GEFRAN spa reserves the right to make any kind of design or functional modification at any moment without prior notice



via Sebina, 74 25050 PROVAGLIO D'ISEO (BS) - ITALIA tel. 0309888.1 - fax. 0309839063 Internet: http://www.gefran.com

