# GEFRAN

#### **L** I RECTILINEAR DISPLACEMENT TRANSDUCER



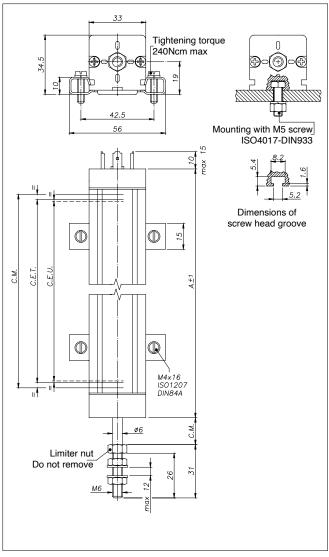
#### Main features

- 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**

	from 50 to 1350 mm							
Useful electrical stroke (C.E.U.)	(for intermediate strokes see table "Elec-							
	trical / Mechanical Data")							
Independent linearity (within C.E.U.)	± 0.05%							
Resolution	Infinite							
Repeatability	0.01 mm							
Electrical connections LTM LTH LTB LTF LTZ	4-pole connector DIN43650 3-pole connector 5-pole connector DIN43322 1 meter 3-pole shielded cable 4-pole connector M12							
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							
	52000Hz,							
Vibrations	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							
Actual Temperature Coefficient of the output voltage	≤ 5 ppm/°C typical							
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  $lc \le 0.1 mA$ 

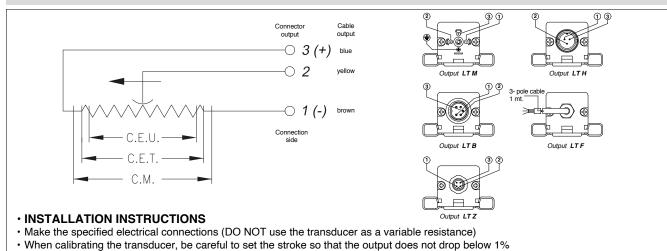
#### **ELECTRICAL / MECHANICAL DATA**

MODEL		50	75	100	130	150	175	200	225	250	275	300	350	360	375	400	450	500
Useful electric stroke (C.E.U.) +3/-0	mm	50	75	100	130	150	175	200	225	250	275	300	350	360	375	400	450	500
Theoretical electrical stroke (C.E.T.) ±1	mm	C.E.U. + 3					C.E.U. + 4					355	365	380	406	457	508	
Resistance (C.E.T.)	kΩ	5																
Mechanical stroke (C.M.)	mm	C.E.U. + 9					C.E.	J. + 10	260	C.E.l	J. + 10	361	371	386	412	463	518	
Case length (A)	mm	C.E.U. + 63				C.E.I	J. + 64	314,8	C.E.U	J. + 64	415	425,8	440	466	517	572		

MODEL		600	650	700	750	800	900	950*	1000*	1050*	1100*	1200*	1250*	1350*	
Useful electric stroke (C.E.U.) +3/-0	mm	600	650	700	750	800	900	950	1000	1050	1100	1200	1250	1350	
Theoretical electrical stroke (C.E.T.) ±1	mm	609	660	711	762	813	914	965	1016	1067	1118	1220	1250	1350	
Resistance (C.E.T.)	kΩ		5			10			20						
Mechanical stroke (C.M.)	mm	619	670	717	772	823	924	975	1026	1077	1128	1230	1280	1380	
Case length (A)	mm	673	725	771.8	826	826	978	1029,8	1080,8	1131,8	1182,8	1284,8	1334,8	1434,8	

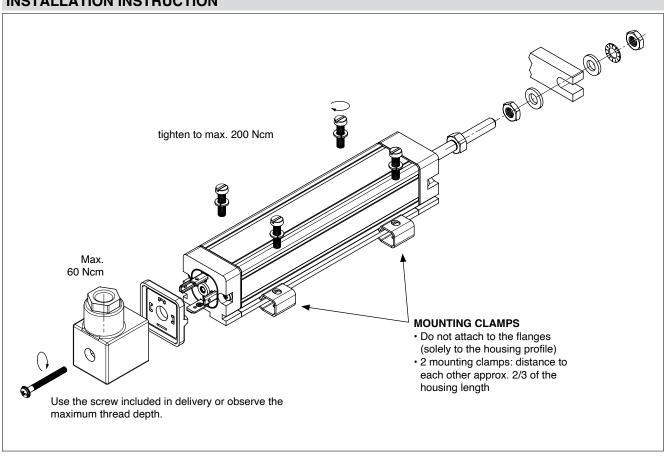
 $<sup>^*</sup>$  = Only for vertical installations

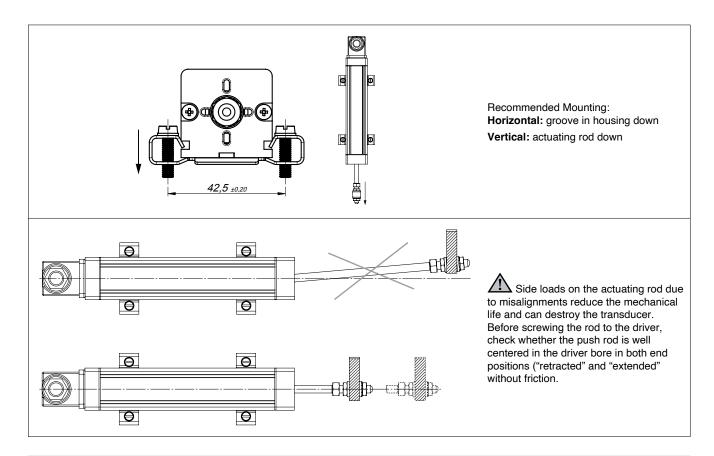
# **ELECTRICAL CONNECTIONS**



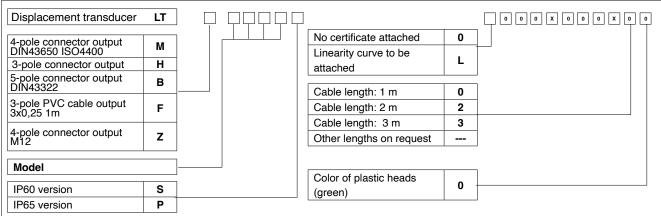
### **INSTALLATION INSTRUCTION**

or rise above 99% of the voltage level.









Example:LT - M - 0300 - S 000X000X00

LT displacement 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



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