



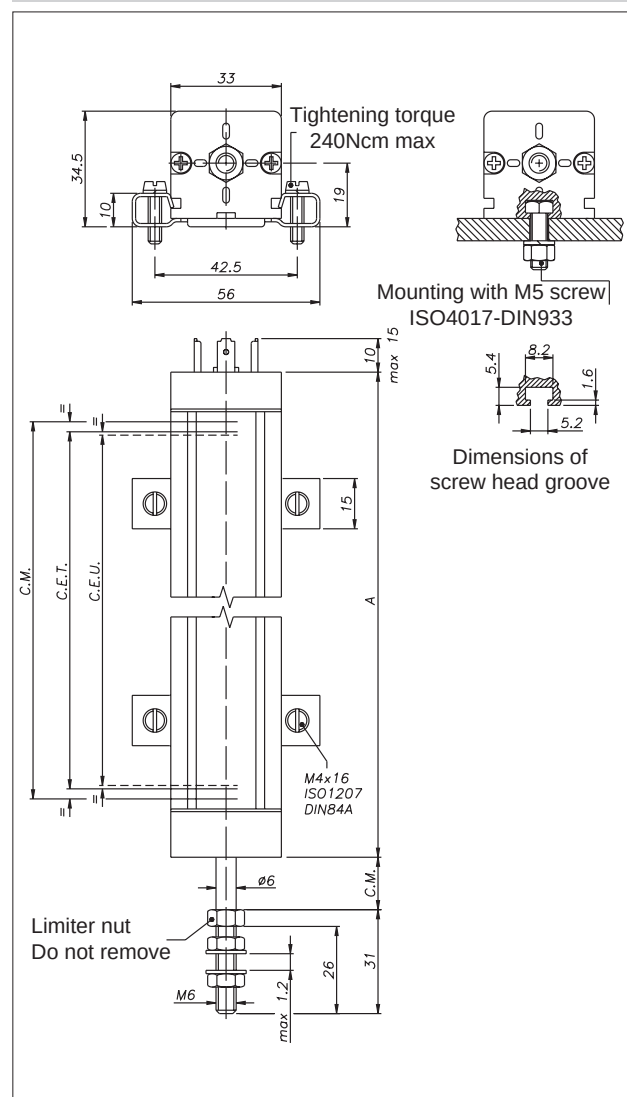
### Main features

- 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                                        | 0.01mm                                                                                                                      |
| Electrical connections                               | LTM 4-pole connector DIN43650<br>LTH 3-pole connector<br>LTB 5-pole connector DIN43322<br>LTF 1 meter 3-pole shielded cable |
| Displacement speed                                   | Standard ≤ 10m/s                                                                                                            |
| Protection level                                     | IP60 (IP65 on request)                                                                                                      |
| Life                                                 | >25x10 <sup>6</sup> m strokes, or<br>100x10 <sup>6</sup> maneuvers, whichever is less (within C.E.U.)                       |
| Displacement force                                   | ≤ 3,5N IP60 version<br>≤ 25N IP65 version                                                                                   |
| Vibrations                                           | 5...2000Hz, Amax = 0.75 mm<br>amax. = 20 g                                                                                  |
| Shock                                                | 50 g, 11ms.                                                                                                                 |
| Acceleration                                         | 200 m/s <sup>2</sup> 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                                  | < 100 µA 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 of the output voltage | ≤ 5ppm/°C typical                                                                                                           |
| Working temperature                                  | -30...+100°C                                                                                                                |
| Storage temperature                                  | -50...+120°C                                                                                                                |
| Material for transducer case                         | Anodised aluminium Nylon 66 G 25                                                                                            |
| Material for pull shaft                              | Stainless steel AISI 303                                                                                                    |
| Mounting                                             | Brackets with adjustable distance between 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  $I_c \leq 0.1 \mu A$

## 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

Connector output

Cable output

3 (+) blue

2 yellow

1 (-) brown

C.E.U.

C.E.T.

C.M.

Connection side

LTM Output

LTH Output

LTB Output

LTF Output

1 m 3-pole cable

- **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

Displacement transducer **LT**

|                                          |          |
|------------------------------------------|----------|
| 4-pole connector output DIN43650 ISO4400 | <b>M</b> |
| 3-pole connector output                  | <b>H</b> |
| 5-pole connector output DIN43322         | <b>B</b> |
| 3-pole PVC cable output 3x0.25 1m        | <b>F</b> |

**Model**

|              |          |
|--------------|----------|
| IP60 version | <b>S</b> |
| IP65 version | <b>P</b> |

|                                |          |
|--------------------------------|----------|
| No certificate attached        | <b>0</b> |
| Linearity curve to be attached | <b>L</b> |

|                          |              |
|--------------------------|--------------|
| Cable length: 1 m        | <b>0</b>     |
| Cable length: 2 m        | <b>2</b>     |
| Cable length: 3 m        | <b>3</b>     |
| Other lengths on request | <b>.....</b> |

|                                |          |
|--------------------------------|----------|
| Color of plastic heads (green) | <b>0</b> |
| Color of plastic heads (black) | <b>N</b> |

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

|                                                                                  |  |                |
|----------------------------------------------------------------------------------|--|----------------|
| <b>STANDARD</b>                                                                  |  | <b>Code</b>    |
| LT mounting kit, 2 brackets, screws                                              |  | <b>PKIT009</b> |
| <b>ON REQUEST</b>                                                                |  | <b>Code</b>    |
| LTM 4-pole 90° radial female connector DIN43650 IP65 PG9 clamp for Ø6-Ø8mm cable |  | <b>CON006</b>  |
| LTH 3-pole axial female connector IP40 clamp for Ø4-Ø6mm cable                   |  | <b>CON002</b>  |
| LTB 5-pole axial female connector DIN43322 IP40 clamp for Ø4-Ø6mm cable          |  | <b>CON011</b>  |
| LTB 5-pole axial female connector DIN43322IP65 PG7 clamp for Ø4-Ø6mm cable       |  | <b>CON012</b>  |
| LTB 5-pole 90° radial female connector DIN43322 IP40 clamp for Ø4-Ø6mm cable     |  | <b>CON013</b>  |
| Ball connection joint                                                            |  | <b>PKIT015</b> |

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

**GEFRAN**

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