LT 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

GEFRAN

| Useful electrical | 50/75/100/130/150/175/200/225/ | | | | | | |
|---|--|--|--|--|--|--|--|
| stroke (C.E.U.) | 275/300/350/375/400/450/500/ | | | | | | |
| Independent linearity | 600/650/750/900 | | | | | | |
| Independent linearity | ± 0.05% | | | | | | |
| (within C.E.U.) | infinite | | | | | | |
| Resolution | infinite | | | | | | |
| Repeatability Electrical connections LTM | 0.01mm | | | | | | |
| | 4-pole connector DIN43650 | | | | | | |
| LTH | 3-pole connector | | | | | | |
| LTB | 5-pole connector DIN43322 | | | | | | |
| LTF | 1 meter 3-pole shielded cable | | | | | | |
| Displacement speed | Standard ≤ 10m/s | | | | | | |
| Protection level | IP60 (IP65 on request) | | | | | | |
| Life | >25x10°m strokes, or | | | | | | |
| | 100x10 ⁶ maneuvers, whichever | | | | | | |
| | is less (within C.E.U.) | | | | | | |
| Displacement force | ≤ 3,5N IP60 version | | | | | | |
| | ≤ 25N IP65 version | | | | | | |
| Vibrations | 52000Hz, Amax =0.75 mm | | | | | | |
| | amax. = 20 g | | | | | | |
| Shock | 50 g, 11ms. | | | | | | |
| Acceleration | 200 m/s ² max (20g) | | | | | | |
| Tolerance on resistance | ± 20% | | | | | | |
| Recommended cursor | < 0,1 μA | | | | | | |
| current | · •, · po · | | | | | | |
| Maximu | | | | | | | |
| cursor | 10mA | | | | | | |
| current | | | | | | | |
| Maximum applicable voltage | 60V | | | | | | |
| Electrical isolation | >100MΩ at 500V=, 1bar, 2s | | | | | | |
| Dielectric strength | < 100 µA at 500V~ ,50Hz, 2s, | | | | | | |
| 1bar | • | | | | | | |
| Dissipation at 40°C | 3W | | | | | | |
| (0W at 120°C) | 511 | | | | | | |
| Thermal coefficient | -200+ 200 ppm/°C typical | | | | | | |
| of resistance | | | | | | | |
| Actual Temperature Coefficient | ≤ 5ppm/°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 25 | | | | | | |
| | | | | | | | |
| Material for pull shaft | Stainless steel AISI 303 | | | | | | |
| | | | | | | | |
| Mounting | Brackets with adjustable distance | | | | | | |
| | between centers or with M5 screw | | | | | | |
| | ISO4017-DIN933 | | | | | | |
| | the catalogue linearity lifetime tempera | | | | | | |

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 Ic \leq 0.1 μ 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

| Displacement transducer | LT | | 7 | | | | | |
|---|----|--|--|------------|------------|--|--|--|
| 4-pole connector output DIN43650 ISO4400 | М | | No certificate attached Linearity curve to be attached | 0 L | | | | |
| 3-pole connector output | н | | Cable length: 1 m Cable length: 2 m | 0 | | | | |
| 5-pole connector output DIN43322 | В | | Cable length: 3 m Other lengths on request | 3 | | | | |
| 3-pole PVC cable output 3x0.25 1m | F | | Color of plastic heads (green) | 0 | | | | |
| Model | | | Color of plastic heads (black) Example: LT - M - 0300 - S | N 000X0 | 000X00 | | | |
| IP60 version S | | | LTdisplacement transducer, 4-pole connector output DIN43650 - ISO | | | | | |
| IP65 version | Р | | 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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