Introducing the TD580 Series Rodless Linear Displacement Transducer.

**FEATURES**

- 75 to 1000 mm. stroke
- Mechanical linkage using joint with take up of play, M5 thread
- Independent linearity ± 0.3%
- Repeatability 0.01 mm.
- Infinite resolution
- Displacement speed: 10 meter/sec
- Working temperature: -50 to +120° C
- Electrical connections:
  - 4-pole connector DIN43650 Large (18mm)
  - 4-pole connector DIN43650 Mini (9.4mm)
  - 5-pole connector (DIN43322)
- Life duration: > 25x10⁶ meters or > 100x10⁶ operations, whichever is the smaller
- Grade of protection IP40

**DIMENSIONS**

Dimensions in Millimeters and are Reference Only.
SPECIFICATIONS

Useful electrical stroke
Independent electrical stroke: 75/100/130/150/175/200/225/250/275/300/350/375/400
425/450/500/550/600/650/700/750/800/900/1000
0.3%

Displacement speed
Displacement speed: 10 meters/sec

Displacement force
Displacement force: 1.2 N

Vibrations
Vibrations: 5 to 2000 Hz, A max = 0.75 mm, a max = 20 g
50 g, 11 ms.

Shock
Shock: 2.200 m/s max (20 g)

Tolerance on resistance
Tolerance on resistance: ± 20%

Recommended cursor current
Recommended cursor current: < 0.1 mA

Maximum cursor current
Maximum cursor current: 10 mA

Maximum applicable voltage
Maximum applicable voltage: 60 V

Electrical isolation
Electrical isolation: > 100 MΩ at 500 V =, 1 bar, 2 s

Dielectric strength
Dielectric strength: < 100 mA at 500 V~, 50 Hz, 2 s, 1 bar

Dissipation at 40°C
Dissipation at 40°C: 3 W (0 W at 120°C)

Temp. Coeff. of resistance
Temp. Coeff. of resistance: -200 ± 200 ppm/°C

Actual Temp. Coefficient of the output voltage
Actual Temp. Coefficient of the output voltage: < 1.5 ppm/°C

Working temperature
Working temperature: -50° to +120° C

Storage temperature
Storage temperature: -55° to +125° C

Case material Anodized 40

Cursor block material
Cursor block material: Nylon 66 GF

Mounting
Mounting: Brackets with variable longitudinal axis

MECHANICAL / ELECTRICAL DATA

| TDS80 SERIES | 75 | 100 | 130 | 150 | 175 | 200 | 225 | 250 | 275 | 300 | 350 | 375 | 400 | 425 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 900 | 1000 |
|--------------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Total Electrical Travel(T.E) | mm | 76 | 102 | 132 | 152 | 177 | 202 | 229 | 254 | 279 | 305 | 355 | 381 | 381 | 381 | 381 | 381 | 381 | 381 | 381 | 381 | 381 | 381 | 381 | 381 |
| Active Electrical Travel(A.E) | mm | 75 | 100 | 130 | 150 | 175 | 200 | 225 | 253 | 276 | 302 | 352 | 378 | 378 | 378 | 378 | 378 | 378 | 378 | 378 | 378 | 378 | 378 | 378 | 378 |
| Resistance± 20% | K ohm | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Linearity | 0.3% | 0.3% |
| Mechanical Travel(M.T) | mm | 79 | 104 | 135 | 150 | 179 | 204 | 231 | 256 | 281 | 307 | 357 | 384 | 404 | 429 | 460 | 505 | 555 | 607 | 657 | 707 | 759 | 809 | 859 | 912 |
| Resolution | Infinite |
| current | mA | <10 |
| Temperature | °C | -55------+125 |
| Dimension A | mm | 216 | 241 | 271 | 292 | 317 | 343 | 368 | 393 | 418 | 444 | 494 | 521 | 538 | 553 | 597 | 636 | 668 | 738 | 788 | 838 | 888 | 938 | 1038 | 1138 |
**ELECTRICAL CONNECTIONS**

![Diagram showing electrical connections]

**ACCESSORIES**

Includes 2 mounting feet w/M4x26 screws

**MATING CONNECTORS**

![Connectors diagram]

**ORDERING**

<table>
<thead>
<tr>
<th>Series</th>
<th>Connector</th>
<th>Length (inmm)</th>
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<tbody>
<tr>
<td>TD580M</td>
<td>D</td>
<td>150</td>
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<tr>
<td>D = 4 Pin Mini Din Connector</td>
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<td>4 = 4 Pin Large Din Connector</td>
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<td>S = 5 Pin Connector</td>
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**Consult factory for further options.**