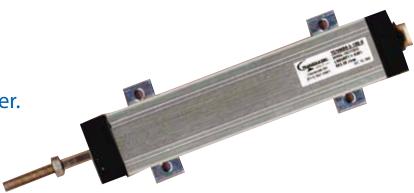


Introducing the TD590 Series Linear Displacement Transducer.



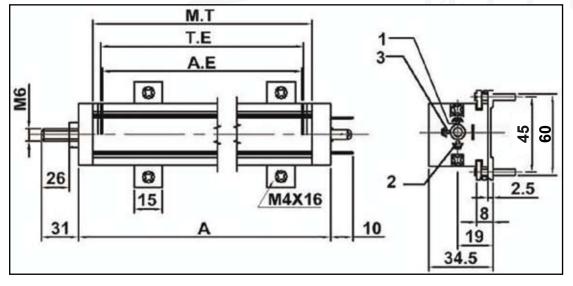
SERIES: TD590

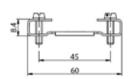
# **FEATURES**

- 50 to 1000 mm stroke.
- · Mechanical linkage using M6 thread
- Independent linearity ± 0.3%
- Repeatability 0.01 mm.
- Infinite resolution
- No variation of electrical signal outside theoretical electrical stroke
- Displacement speed 10 m/s
- Working temperature: -50 to +120° C

- Electrical connections:
- 4 pin connector DIN 43650 Large (18mm),
- 5 pin connector DIN 43322
- 4 pin connector mini DIN 43650 (9.4)
- Life duration:  $> 25x10^6$  meters or  $> 100x10^6$  operations whichever is the smaller
- Grade of protection for shaft: IP65

## **DIMENSIONS**





Dimensions In mm And Are Reference Only.



#### **SPECIFICATIONS**

Useful electrical stroke (in mm)

Independent linearity

Displacement speed Standard

Displacement force

**Vibrations** 

Shock

Operative acceleration

Tolerance on resistance

Recommended cursor current

Maximum cursor current

Maximum applicable voltage

**Electrical isolation** 

Dielectric strength

Dissipation at 40°C (0W at 120°C)

Temp. Coeff. of the resistance

**Actual Temperature Coefficient** 

of the output voltage

Working temperature

Storage temperature

Case material 40

Control rod material

**Fixing** 

50/75/100/130/150/175/200/225/250/275/300/350/375 400/425/450/500/550/600/650/700/750/800/900/1000

± 0.3%

10m/s

10N for shaft IP65

5 to 2000Hz, Amax =0.75 mm

amax. = 20 g

50 g, 11ms.

200 m/s2 max (20g)

± 20%

< 0.1 mA

10mA

60V

>100M at 500V=, 1bar, 2s

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

3W

-200 ± 200ppm/° C

< 1.5ppm/° C

-50 to +120° C

-55 to +125° C

Anodized aluminum Nylon 66 GF

Stainless steel AISI 303

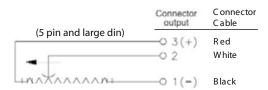
Brackets with variable longitudinal axis

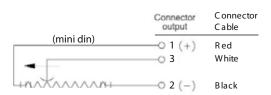
## MECHANICAL / ELECTRICAL DATA

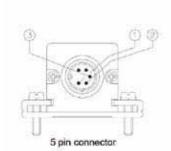
| Temperature<br>Dimension A       |          | 444      | -55 +125<br>114   139   164   195   215   241   266   291   316   341   367   417   444   467   494   520   570   622   672   722   772   825   875   977   1077 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |
|----------------------------------|----------|----------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
|                                  | °C       |          |  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |
| Current                          | mA.      |          | <10  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |
| Resolution                       |          | Infinite |  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |
| Mechanical<br>Travel(M.T)        | mm       | 58       | 79   | 104 | 135 | 155 | 179 | 204 | 231 | 256 | 281 | 307 | 357 | 384 | 404 | 429 | 460 | 506 | 508 | 612 | 662 | 712 | 765 | 815 | 917 | 1017 |
| Linearity                        |          |          | 0.3%   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |
| Resistance+-20%                  | K<br>ohm | 5.0      | 5.0  | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 10  | 10  | 10  | 10  | 10  | 10   |
| Active Electrical<br>Travel(A.E) | mm       | 51       | 75   | 100 | 130 | 150 | 175 | 200 | 226 | 253 | 276 | 302 | 352 | 378 | 403 | 428 | 455 | 505 | 555 | 607 | 657 | 707 | 759 | 809 | 912 | 1012 |
| Total Electrical<br>Traivel(T.E) | mm       | 51       | 76   | 102 | 132 | 152 | 177 | 202 | 229 | 254 | 279 | 305 | 355 | 381 | 405 | 430 | 457 | 507 | 557 | 610 | 660 | 710 | 762 | 812 | 914 | 1014 |
| TD590 SERIES                     |          | 50       | 75   | 100 | 130 | 150 | 175 | 200 | 225 | 250 | 275 | 300 | 350 | 375 | 400 | 425 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 900 | 1000 |



## **ELECTRICAL CONNECTIONS**



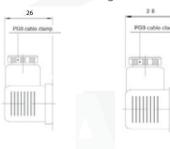




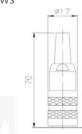


## **ACCESSORIES**

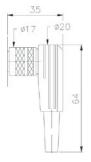
Includes 2 mounting feet w/M4x26 screws



4 pin IP65 TD4P9-00 mini din



TD5P-CS-00 5 pin straight



TD5P-CR-00 5 pin Right Angle

## **ORDERING**

| Series TD590M               | Connector   |  | eLength (in mm)                        |  |  |  |
|-----------------------------|---|--|--|--|--|--|
|                             | D= 4 pin mini Din<br>4= 4 Pin Large Din<br>5= 5 Pin | 50<br>75<br>100<br>130<br>150          | 350<br>375<br>400<br>425<br>450        |  |  |  |
|                             |   | 175<br>200<br>225<br>250<br>275<br>300 | 500<br>550<br>600<br>650<br>700<br>750 |  |  |  |
| **= Consult factory for fur | ther options.                                       |  | 800<br>900<br>1000                     |  |  |  |

4 pin IP65

TD4PL-00

large din

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