Precision Linear Transducers, Designed for Mounting in Hydraulic or Pneumatic Cylinder, Conductive Plastic (Unsealed Series/Ø 16 mm)

These unsealed sensors are suitable for installation in the high pressure chamber of cylinders.

**FEATURES**
- Large range of strokes from 25 mm to 2000 mm
- High accuracy
- Very good repeatability
- Continuous resolution
- Easy mounting

**QUICK REFERENCE DATA**

<table>
<thead>
<tr>
<th>Sensor type</th>
<th>LINEAR, conductive plastic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output type</td>
<td>Wires</td>
</tr>
<tr>
<td>Market appliance</td>
<td>Industrial</td>
</tr>
<tr>
<td>Dimensions</td>
<td>L x 16 mm dia. (with L = TET + 70 mm)</td>
</tr>
</tbody>
</table>

**ELECTRICAL SPECIFICATIONS**

- Theoretical electrical travel (TET) = E
- From 25 mm to 2000 mm in increments of 25 mm
- Independent linearity (over TET)
  - On request: ≤±0.1 %
  - ≤±0.05 % if E ≥ 100 mm, ≤±0.025 % if E ≥ 200 mm
- Actual electrical travel (AET)
  - TET + 6 mm ± 0.5
- Total resistance $R_T$
  - 150 Ω/cm
- Resistance tolerance at 20 °C
  - ±20 %
- Repeatability
  - ≤0.01 %
- Maximum power rating
  - 0.05 W/cm at 70 °C, 0 W at 125 °C
- Wiper current
  - Recommended: a few μA - 1 mA max. (continuous)
- Load impedance
  - 1000 times $R_T$ minimum
- Insulation resistance
  - > 1000 MΩ at 500 VDC
- Dielectric strength
  - > 300 V RMS at 50 Hz

**MECHANICAL SPECIFICATIONS**

- Mechanical travel (MT)
  - MT = TET
- Body
  - Anodized aluminum
- Rod internal diameter
  - 16 LH: Ø 16 mm
- Support
  - 2 screws
- Operating force
  - 1 N typical
- Electrical outputs
  - Wires 300 mm long
- Oil
  - Insulating mineral hydraulic
- Pressure
  - 300 bars continuous, 1000 bars accidentally
- Wiper
  - Precious metal multifinger

**PERFORMANCE**

- Life
  - 25 million cycles typical/1 Hz/T° = 20 °C ± 5 °C/80 % TET
- Temperature limits
  - -20 °C to +80 °C
- Speed at 20 °C
  - 1.5 m/s max.

**Note**
- Nothing stated herein shall be construed as a guarantee of quality or durability.
DIMENSIONS in millimeters, general tolerance ± 1 mm

MOUNTING IN ACTUATOR

On these models:
Cylinder sealing and electrical connections required

ELECTRICAL CONNECTIONS

TET = THEORETICAL ELECTRICAL TRAVEL
AET = ACTUAL ELECTRICAL TRAVEL

ORDERING INFORMATION/DESCRIPTION

SAP PART NUMBERING GUIDELINES
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