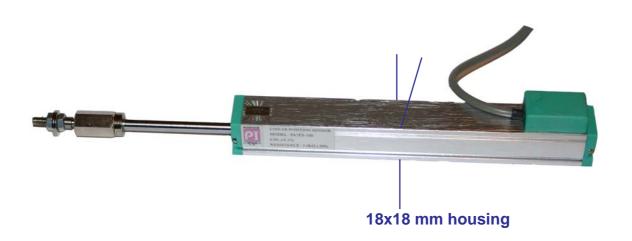
PA1 FS (Option IP65) LINEAR MOTION POSITION TRANSDUCER



___ 18mm Standard stroke range: 10...450mm

Pulling Rod Type



This mini position transducer is designed for direct absolute measurement and available in stroke Length up to 450mm. The mini design is suitable for mounting in instruments or machines with limited space.

An improved technique for making connection to resistance track (Double Trimming Technique) ensures the higher degrees of reliability and linearity, while multi-fingers wipers stabilize output signals, even in the most adverse working conditions.

The fixing feet are adjustable to the desired positions.

Unique Features

| • | Double | slide | and | bearing |
|---|--------|-------|-----|---------|
|---|--------|-------|-----|---------|

- Anodized Aluminium Housing
- · Mini design for limited space
- Standard Coupling joints

| Very Long Life >100 | X | 10⁰ | cycles |
|--|---|-----|--------|
|--|---|-----|--------|

 $> 25 \times 10^6 \,\mathrm{m}$

• Stroke 10....450mm

Outstanding Linearity ±0.2% to ±0.05%

High Resolution Infinite

Excellent Repetability ± 0.01 mm

Max operating speed 5m/s max.

• Fixed 3 wire connection 1m cable

(Poption with 3m cable)

Sealing to IP40 (Option IP65 = P)

Technical Specifications

Sealing- PA1 FS IP40

Option = IP65 = P after length

Current Resistance < 10mA

Wiper $< 1 \mu A$

Operating Force <1.2N

Power Consumption 3W-10W

Output Smoothness <± 0.1% against

input voltage

input Voltage 60V Max

Insulation Voltage 500V-1min Residue

<5 µA

Vibration FC 68-2-6:1982 10g

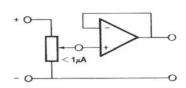
Shock FC 68-2-29:1968 40g

PA1 FS LINEAR MOTION POSITION TRANSDUCER

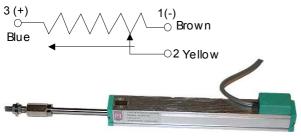


Important:

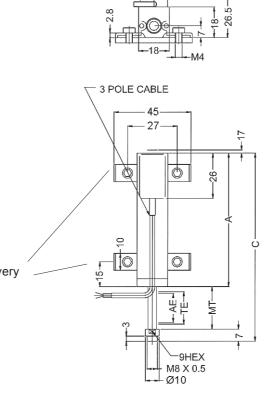
The published technical data are applicable only when the transducer is used correctly, and in accordance with the user manual / instructions. The PA1 linear Position transducers must be used as voltage dividers with a maximum current in the wiper contact of 1 μ A; should the system downstream require more current, further circuitry will be required.



Electrical connections



Mechanical Dimensions



2 sets of mounting feet included in the delivery

| PA1 series | | 10 | 25 | 50 | 75 | 100 | 125 | 150 | 175 | 200 | 225 | 250 | 275 | 300 | 350 | 375 | 400 | 425 | 450 |
|--------------------------------|----|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total Electrical Travel(T.E) | | 11 | 26 | 51 | 76 | 101 | 126 | 151 | 177 | 202 | 227 | 252 | 277 | 302 | 353 | 378 | 403 | 428 | 453 |
| Active Electrical Travel (A.E) | | 10 | 25 | 50 | 75 | 100 | 125 | 150 | 176 | 201 | 226 | 251 | 276 | 301 | 352 | 347 | 402 | 427 | 452 |
| Resistance ±20% | kΩ | 1 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Independent Linearity | ±% | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 |
| Mechanical Travel (M.T) | mm | 15 | 30 | 55 | 80 | 105 | 130 | 155 | 180 | 205 | 230 | 255 | 280 | 305 | 355 | 380 | 405 | 430 | 455 |
| Resolution | | infinite | | | | | | | | | | | | | | | | | |
| Recommended Cursor Current | μА | <1 | | | | | | | | | | | | | | | | | |
| Temperature Range | °C | -30 to +100 | | | | | | | | | | | | | | | | | |
| Dimensions (A) | mm | 59.5 | 74.5 | 99.5 | 124.5 | 149.5 | 174.5 | 199.5 | 224.5 | 249.5 | 274.5 | 299.5 | 324.5 | 349.5 | 399.5 | 424.5 | 449.5 | 474.5 | 499.5 |
| Dimensions (C) | mm | 83.2 | 113.2 | 163.2 | 213.2 | 263.2 | 313.2 | 363.2 | 413.2 | 463.2 | 513.2 | 563.2 | 613.2 | 663.2 | 763.2 | 813.2 | 863.2 | 913.2 | 963.2 |