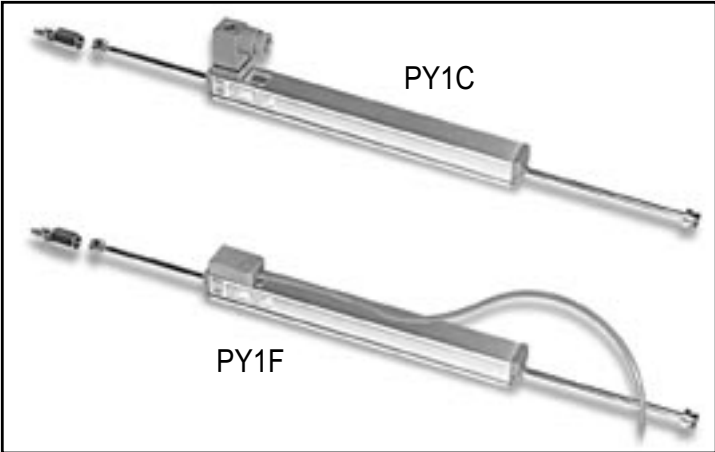


# PY1

## LINEAR MOTION POSITION SENSORS

Mini Series □ 18 Section, STANDARD 10-450mm

### Pull & Push 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.

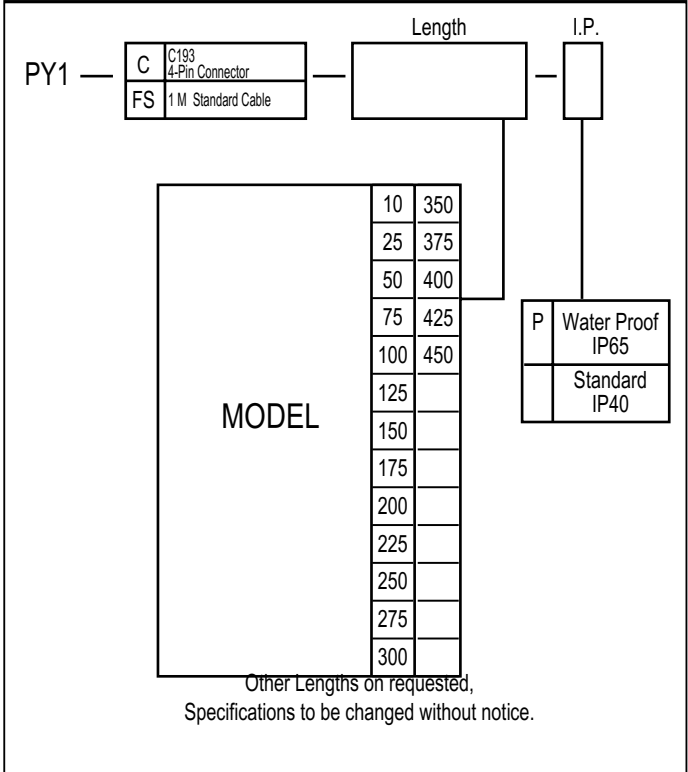
The fixing feet are adjustable to the desired position.

The pull & push rod mounting in 2 ways directions enables more stable movement, and extra low operating forces.

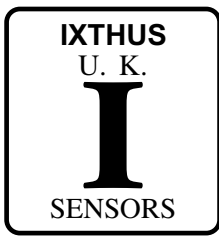
### Unique Features

- Mini design for limited space
- Anodised Aluminium Housing
- Double slide and bearing
- Standard Coupling Joints
- Very Long Life >100 x 10<sup>6</sup> Cycles
- Stroke : 10-450mm
- Outstanding Linearity up to : ±0.05%
- High Resolution : Infinite
- Excellent Repeatability : ± 0.01mm
- Max operating speed : 5m/s max.
- PY1C - 4-pin C193 connector
- PY1FS - standard 1m cable
- Sealing IP 40 standard (IP 65 optional)
- Fuse Protected optional
- "Pull" and "Push" Rod type
- Operating temperature : -30 ~100°C
- Storage Temperature : -50 ~120°C

### ORDER CODE



| Technical Specifications |                               |
|--------------------------|-------------------------------|
| Sealing - PY1C/PY1F      | IP40                          |
| Sealing - optional       | IP65                          |
| Current Resistance       | ≤ 10mA                        |
| Wiper                    | ≤ 1mA                         |
| Operating Force          | ≤ 1.2N (IP40)<br>≤ 5N (IP65)  |
| Power Consumption        | 3W-10W                        |
| Output Smoothness        | <± 0.1% against input voltage |
| Input Voltage            | 60 V Max                      |
| Insulation Voltage       | 500V-1 min Residue < 5 μA     |
| Vibration                | IEC 68-2-6:1982 10g           |
| Shock                    | IEC 68-2-29:1968 40g          |

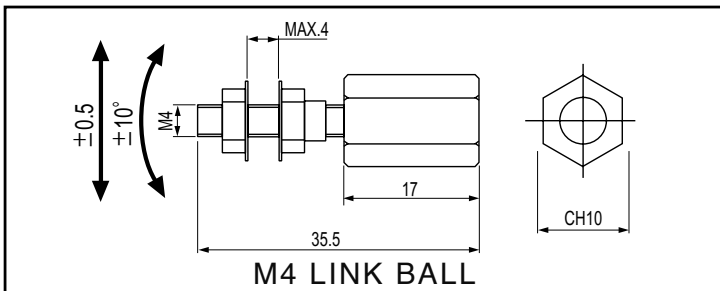
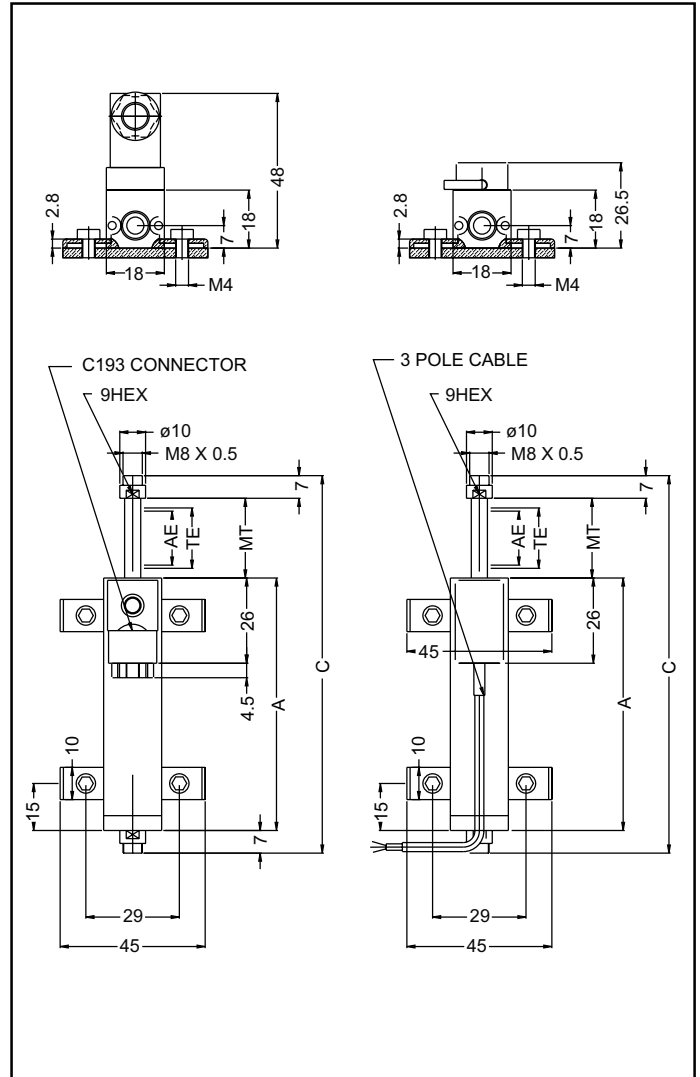
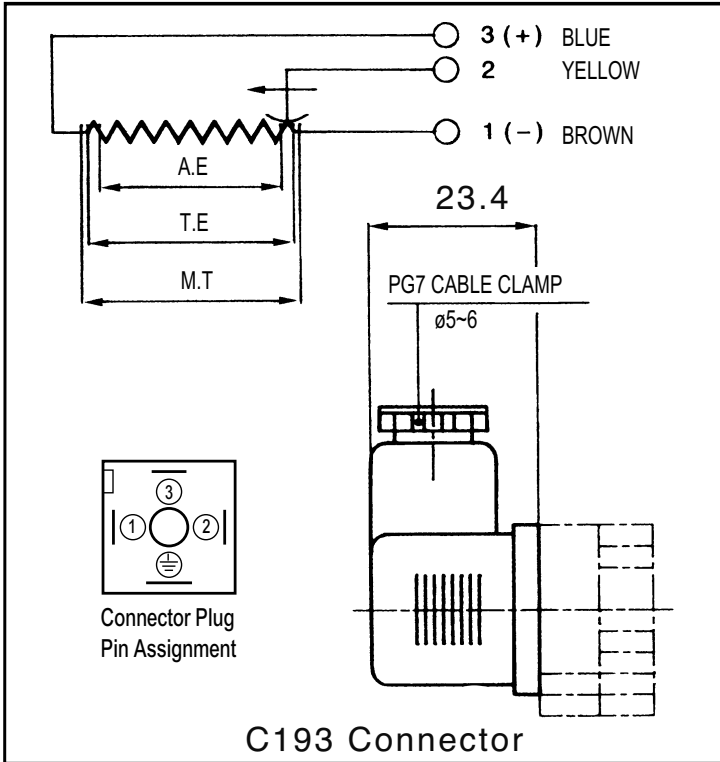


# PY1

## LINEAR MOTION POSITION SENSORS

Mini Series □ 18 Section, STANDARD 10-450mm

### ELECTRICAL CONNECTIONS



| PY1 series                     |    | 10          | 25  | 50  | 75  | 100 | 125  | 150  | 175  | 200  | 225  | 250  | 275  | 300  | 350  | 375  | 400  | 425  | 450  |
|--------------------------------|----|-------------|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Total Electrical Travel(T.E)   | mm | 11          | 26  | 51  | 76  | 101 | 126  | 151  | 177  | 202  | 227  | 252  | 277  | 302  | 353  | 378  | 403  | 428  | 453  |
| Active Electrical Travel (A.E) | mm | 10          | 25  | 50  | 75  | 100 | 125  | 150  | 175  | 201  | 226  | 251  | 276  | 301  | 352  | 377  | 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     | μA | < 1         |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Temperature Range              | °C | -30 to +100 |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Dimensions (A)                 | mm | 48          | 63  | 88  | 113 | 138 | 163  | 183  | 213  | 238  | 263  | 288  | 313  | 338  | 388  | 413  | 438  | 463  | 488  |
| Dimensions (C)                 | mm | 77          | 107 | 157 | 207 | 257 | 307  | 357  | 407  | 457  | 507  | 557  | 607  | 657  | 757  | 807  | 857  | 905  | 957  |

\* Dimensions for reference only