## LPS

## Linear Potentiometer Spring Return

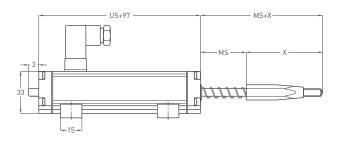


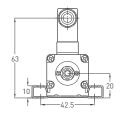
- Measuring range 30 150 mm
- ±%0.1 linearity
- 100 million movements life
- <0.01 mm repeatability</li>
- Infinite resolution

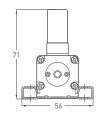


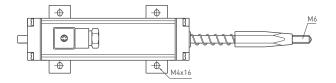
| Measurement stroke         30 - 150 mm           Linearity         ±%0.1 (150-200 mm), ±%0.2 (75-129 mm), ±%0.2 (75-129 mm), ±%0.5 (κ75 mm)           Repeatability         < 0.01 mm           Resolution         Infinite           Resistance         5 k0hm : 30 - 150 mm           Resistance tolerance         ± %20           Load resistance         100 k0hm min.           Recommended wiper current         <1 μA           Permissible applied voltage         28 VDC max.           Electrical connections         4 pin hydraulic type connector           Displacement speed         < 5 m/s           Mechanical life         100 million movement           Case diameter         33 mm x 33 mm           Case material         Anodized aluminium           Rod material         5 kinless steel           Rod diameter         Ø 6 mm           Mechanical fixing         Variable brackets           Protection level         IP 54           Operating temperature         -20°C +80°C           Storage temperature         -30°C +90°C  | Technical Specifications    |                                |
|--|-----------------------------|--------------------------------|
| Repeatability±%0.5 (<75 mm)ResolutionInfiniteResistance5 kOhm : 30 - 150 mmResistance tolerance±%20Load resistance100 kOhm min.Recommended wiper current<1 μA  | Measurement stroke          | 30 - 150 mm                    |
| ResolutionInfiniteResistance5 kOhm : 30 - 150 mmResistance tolerance± %20Load resistance100 kOhm min.Recommended wiper current<1 μA  | Linearity                   |                                |
| Resistance 5 kOhm : 30 - 150 mm  Resistance tolerance ± %20  Load resistance  Load resistance 100 kOhm min.  Recommended wiper current 1   | Repeatability               | < 0.01 mm                      |
| Resistance tolerance± %20Load resistance100 k0hm min.Recommended wiper current<1 μA  | Resolution                  | Infinite                       |
| Load resistance Recommended wiper current 41 µA Permissible applied voltage 28 VDC max. Electrical connections 4 pin hydraulic type connector Displacement speed 5 m/s Mechanical life 100 million movement Case diameter 33 mm x 33 mm Case material Anodized aluminium Rod material Stainless steel Rod diameter Ø6 mm Mechanical fixing Variable brackets Protection level Operating temperature 100 kOhm min. 100 kO | Resistance                  | 5 k0hm : 30 - 150 mm           |
| Recommended wiper current Permissible applied voltage 28 VDC max.  Electrical connections 4 pin hydraulic type connector  Displacement speed < 5 m/s  Mechanical life 100 million movement  Case diameter 33 mm x 33 mm  Case material Anodized aluminium  Rod material Stainless steel  Rod diameter Ø6 mm  Mechanical fixing Variable brackets  Protection level Operating temperature -20°C +80°C   | Resistance tolerance        | ± %20                          |
| Permissible applied voltage28 VDC max.Electrical connections4 pin hydraulic type connectorDisplacement speed< 5 m/s  | Load resistance             | 100 k0hm min.                  |
| Electrical connections  4 pin hydraulic type connector  Displacement speed  < 5 m/s  Mechanical life  100 million movement  Case diameter  33 mm x 33 mm  Case material  Anodized aluminium  Rod material  Rod diameter  Ø 6 mm  Mechanical fixing  Variable brackets  Protection level  Operating temperature  4 pin hydraulic type connector  5 m/s  Mod Mechanical fixing  4 pin hydraulic type connector  5 m/s  100 million movement  100 million m | Recommended wiper current   | <1 μΑ                          |
| Displacement speed <5 m/s  Mechanical life 100 million movement  Case diameter 33 mm x 33 mm  Case material Anodized aluminium  Rod material Stainless steel  Rod diameter Ø6 mm  Mechanical fixing Variable brackets  Protection level IP 54  Operating temperature -20°C +80°C   | Permissible applied voltage | 28 VDC max.                    |
| Mechanical life100 million movementCase diameter33 mm x 33 mmCase materialAnodized aluminiumRod materialStainless steelRod diameterØ6 mmMechanical fixingVariable bracketsProtection levelIP 54Operating temperature-20°C +80°C  | Electrical connections      | 4 pin hydraulic type connector |
| Case diameter 33 mm x 33 mm  Case material Anodized aluminium  Rod material Stainless steel  Rod diameter Ø6 mm  Mechanical fixing Variable brackets  Protection level IP 54  Operating temperature -20°C +80°C  | Displacement speed          | < 5 m/s                        |
| Case material Rod material Stainless steel Rod diameter Ø6 mm Mechanical fixing Variable brackets Protection level Operating temperature Anodized aluminium Stainless steel Stainless steel Variable brackets Protection level IP 54 Operating temperature   | Mechanical life             | 100 million movement           |
| Rod materialStainless steelRod diameterØ6 mmMechanical fixingVariable bracketsProtection levelIP 54Operating temperature-20°C +80°C  | Case diameter               | 33 mm x 33 mm                  |
| Rod diameterØ6 mmMechanical fixingVariable bracketsProtection levelIP 54Operating temperature-20°C +80°C   | Case material               | Anodized aluminium             |
| Mechanical fixing  Protection level  Operating temperature  Variable brackets  IP 54  -20°C +80°C  | Rod material                | Stainless steel                |
| Protection level IP 54 Operating temperature -20°C +80°C   | Rod diameter                | Ø6 mm                          |
| Operating temperature -20°C +80°C  | Mechanical fixing           | Variable brackets              |
| operating temperature  | Protection level            | IP 54                          |
| Storage temperature -30°C +90°C  | Operating temperature       | -20°C +80°C                    |
|  | Storage temperature         | -30°C +90°C                    |

## Mechanical Specifications

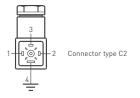


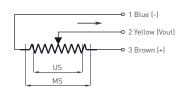






|   | LPS 30 | LPS 50 | LPS 75 | LPS 100 | LPS 150 |
|---|--------|--------|--------|---------|---------|
| Χ | 63 mm  | 68 mm  | 78 mm  | 88 mm   | 108 mm  |





| RTM (mm)                  | 30  | 50  | 75  | 100 | 125 | 150 |
|---------------------------|-----|-----|-----|-----|-----|-----|
| US<br>(Usefull stroke)    | 30  | 50  | 75  | 100 | 125 | 150 |
| MS<br>(Mechanical stroke) | 34  | 54  | 79  | 104 | 129 | 154 |
| L<br>(Total length)       | 227 | 272 | 332 | 392 | 452 | 512 |

## Ordering Procedure

| Mode | el | Measurement stroke (mm) | Linearity (%)   | Resistance (k0hm)    | Connector            |
|------|----|-------------------------|---|----------------------|----------------------|
| LPS  |    | 100                     | D   | 5K                   | C2                   |
| LPS  | i  | 30 - 150 mm             | A : ±%0.5 (<75 mm),<br>B : ±%0.2 (75-129 mm),<br>C : ±%0.1 (150-200 mm) | 5 k0hm : 30 - 150 mm | C2 : 4 pin connector |