

## RTL

Linear Potentiometer

Long Stroke Series 30 - 1.000 mm



## 1. TECHNICAL SPECIFICATIONS

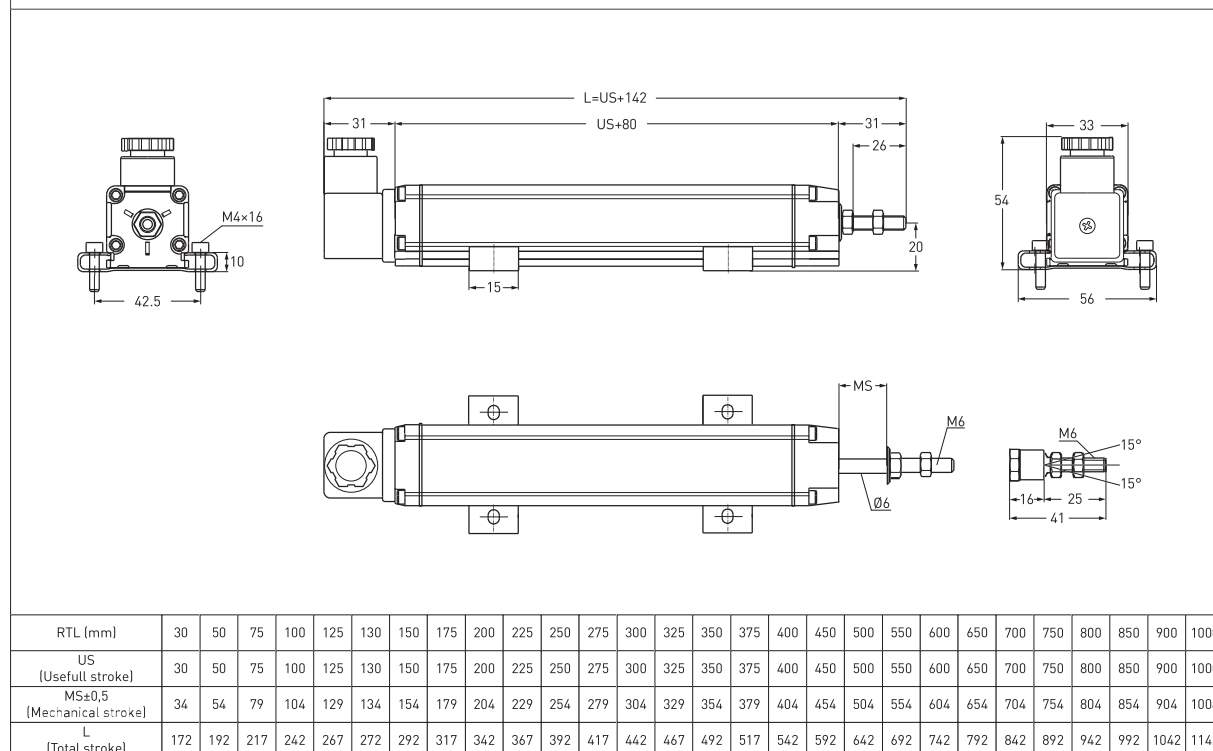


|                             |                                                                                                                       |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Measurement stroke          | 30 - 1.000 mm                                                                                                         |
| Resolution                  | Infinite                                                                                                              |
| Repeatability               | < 0.01 mm                                                                                                             |
| Permissible applied voltage | 28 VDC max.                                                                                                           |
| Electrical connections      | CH1: Hydraulic type, 4 pin connector output (standard)<br>CN5A (M12) or CN5B (M16), 5 pin connector output (optional) |
| Displacement speed          | < 5 m/s                                                                                                               |
| Mechanical life             | 100 million movement                                                                                                  |
| Protection level            | IP 65                                                                                                                 |
| Vibration                   | EN 60068-2-6<br>5-2000 Hz<br>200 m/s <sup>2</sup> (20g)<br>2h 30min each axis (x,y,z)                                 |
| Shock                       | EN 60068-2-2:2007<br>500 m/s <sup>2</sup> (50g)<br>11ms. (x,y,z axis)                                                 |
| Resistance                  | 5 kOhm: 30 - 600 mm<br>10 kOhm: 650 - 1.000 mm                                                                        |
| Resistance tolerance        | ± %20                                                                                                                 |
| Load resistance             | 100 kOhm min.                                                                                                         |
| Recommended wiper current   | <1 µA                                                                                                                 |
| Linearity                   | A: ±%0.5 (<75 mm)<br>B: ±%0.2 (100 - 125 mm)<br>C: ±%0.1 (130 - 225 mm)<br>D: ±%0.05 (≥250 mm)                        |
| Case dimensions             | 33 mm x 33 mm                                                                                                         |
| Case material               | Anodized aluminium                                                                                                    |
| Rod material                | Stainless steel AISI 303                                                                                              |
| Caps material               | ABS plastic                                                                                                           |
| Rod diameter                | Ø6 mm                                                                                                                 |
| Mechanical fixing           | Variable brackets                                                                                                     |
| Operating temperature       | -20°C ... +80°C                                                                                                       |
| Storage temperature         | -30°C ... +90°C                                                                                                       |

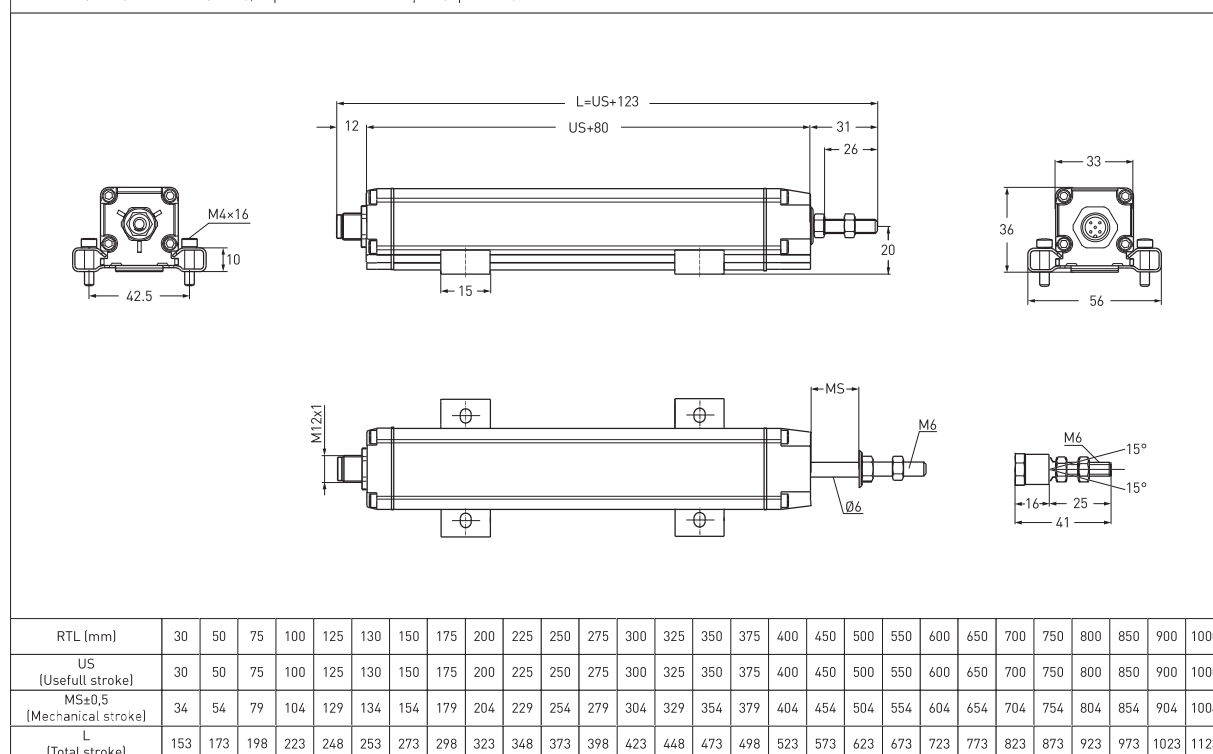
## 2.MECHANICAL SPECIFICATIONS



CH1: Hydraulic type, 4 pin connector output (standard)



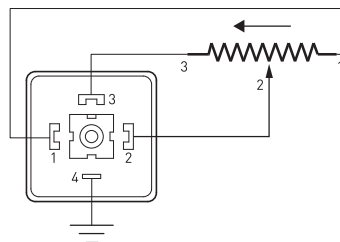
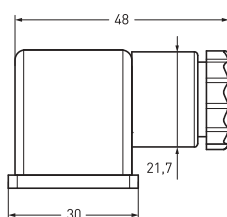
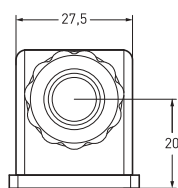
CN5A (M12) or CN5B (M16), 5 pin connector output (optional)



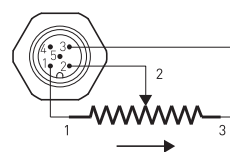
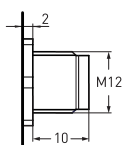
### 3.CONNECTORS, CABLE AND BRACKET



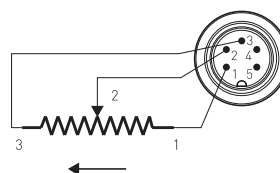
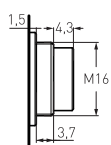
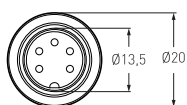
CH1: Hydraulic type, 4 pin connector (standard)



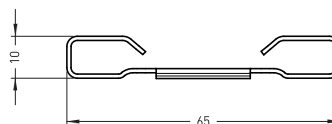
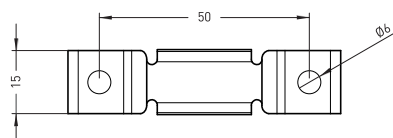
CN5A: 5 pin, M12 connector (optional)

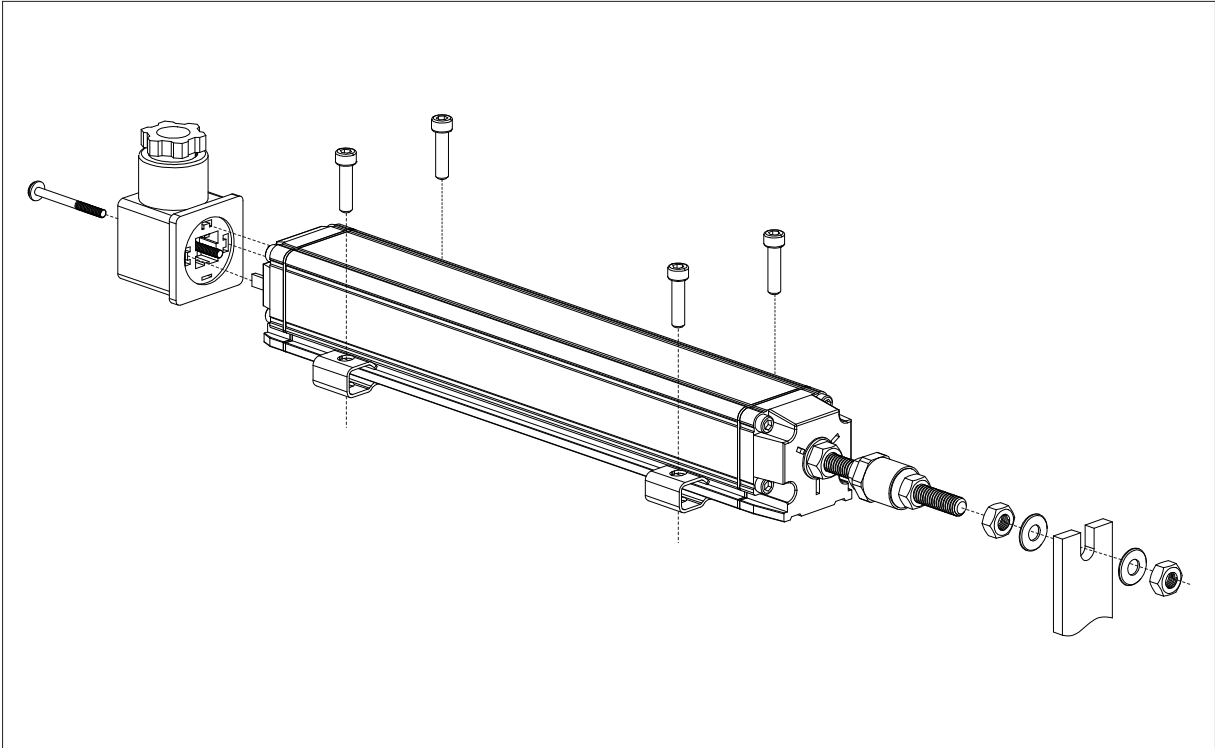


CN5B: 5 pin, M16 connector (optional)



BR02 : Brackets





5.ORDERING PRODECURE

|   |                                                                                                                                                       |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | <b>Model</b><br>RTL: Linear Potentiometer Long Stroke Series                                                                                          |
| 2 | <b>Measuring range</b><br>30 - 1.000 mm                                                                                                               |
| 3 | <b>Linearity</b><br>A: $\pm 0.5$ ( $\leq 75$ mm)<br>B: $\pm 0.2$ (100 - 125 mm)<br>C: $\pm 0.1$ (130 - 225 mm)<br>D: $\pm 0.05$ ( $\geq 250$ mm)      |
| 4 | <b>Resistance (kOhm)</b><br>5K: 5 kOhm (30 - 600 mm)<br>10K: 10 kOhm (650 - 1.000 mm)                                                                 |
| 5 | <b>Connector</b><br>CH1: Hydraulic type, 4 pin connector (standard)<br>CN5A: 5 pin, M12 connector (optional)<br>CN5B: 5 pin, M16 connector (optional) |

For example:

|     |     |   |    |     |
|-----|-----|---|----|-----|
| RTL | 500 | D | 5K | CH1 |
| 1   | 2   | 3 | 4  | 5   |