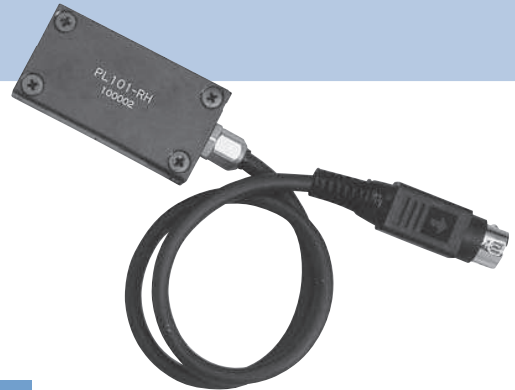


PL

PL101 Series

Magnescape® Digiruler®

Head cable unit



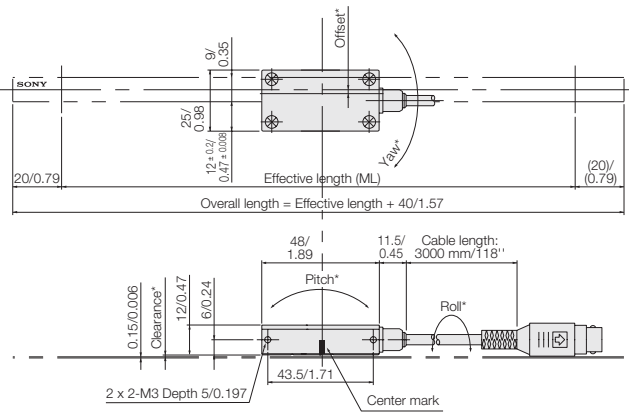
- Non-contact detection
- Magnetic detection system for excellent resistance to dust, oil, vibrations and shocks.
- Detects linear position and displacement and produces analog signal output when connected to the SL700 Series. Produces AB quadrature signal when connected to MJ500/600 Series interpolator
- A wide range of models is available so you can select the best model for your specific application.

Example for connection

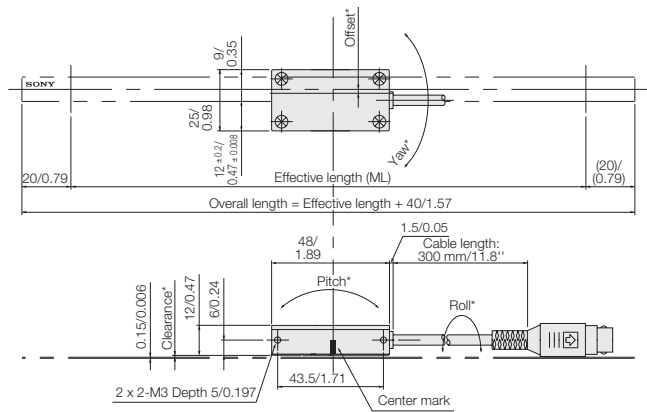
| Scale | Head | Cable | Interpolator |
|-------|-------|-------|---------------------------------------|
| SL700 | PL101 | CE08 | MJ500/600/620/700 MJ820/821 MJ830/831 |

Dimensions

PL101-RH (IP67 Type)



PL101-N/PL101-R (IP50 Type)



Unit : mm/inch

Specifications

| Model | PL101-N | PL101-R | PL101-RH | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|-----------------|--|--|------|------|------|----|------|------|------|----|------|------|------|----|---------|---|-----|----|---------|-----|-----|----|---|---|-----|
| Protective grade | Equivalent to IP50 | | Equivalent to IP67 (exclude Connector) | | | | | | | | | | | | | | | | | | | | | | | | |
| Reference point detection function | Not Included | Included | | | | | | | | | | | | | | | | | | | | | | | | | |
| Resolution (Connected to MJ500 and MJ600/620) | 1, 2, 5 or 10 μ m (MJ620), 1 μ m (MJ600), 2 or 10 μ m (MJ500) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Accuracy (20 °C) | $\pm 10 \mu$ m (when combined with the SL700) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clearance* | 0.35 ± 0.1 mm | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Offset | ± 0.2 mm | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Attitude change | Pitch* | $\pm 0.1^\circ$ | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Yaw* | $\pm 0.2^\circ$ | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Roll* | $\pm 0.2^\circ$ | | | | | | | | | | | | | | | | | | | | | | | | | |
| Output signal | 1 Vp-p Analog output Differential output <table border="1"> <thead> <tr> <th></th> <th>Min.</th> <th>Typ.</th> <th>Max.</th> </tr> </thead> <tbody> <tr> <td>Vi</td> <td>0.30</td> <td>0.52</td> <td>0.70</td> </tr> <tr> <td>Vr</td> <td>0.20</td> <td>0.68</td> <td>1.00</td> </tr> <tr> <td>Wi</td> <td>μm</td> <td>-</td> <td>800</td> </tr> <tr> <td>Wr</td> <td>μm</td> <td>200</td> <td>800</td> </tr> <tr> <td>Vo</td> <td>v</td> <td>-</td> <td>2.5</td> </tr> </tbody> </table> | | | | Min. | Typ. | Max. | Vi | 0.30 | 0.52 | 0.70 | Vr | 0.20 | 0.68 | 1.00 | Wi | μ m | - | 800 | Wr | μ m | 200 | 800 | Vo | v | - | 2.5 |
| | Min. | Typ. | Max. | | | | | | | | | | | | | | | | | | | | | | | | |
| Vi | 0.30 | 0.52 | 0.70 | | | | | | | | | | | | | | | | | | | | | | | | |
| Vr | 0.20 | 0.68 | 1.00 | | | | | | | | | | | | | | | | | | | | | | | | |
| Wi | μ m | - | 800 | | | | | | | | | | | | | | | | | | | | | | | | |
| Wr | μ m | 200 | 800 | | | | | | | | | | | | | | | | | | | | | | | | |
| Vo | v | - | 2.5 | | | | | | | | | | | | | | | | | | | | | | | | |
| Power supply voltage | DC 5V $\pm 5\%$ | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Power consumption | Max. 150 mA (0.8W) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Max. response speed | 6.4 m/s | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cable length | 300 mm | | 3000 mm | | | | | | | | | | | | | | | | | | | | | | | | |
| Mass | 60 g / 2.12oz | | 150 g / 5.29oz | | | | | | | | | | | | | | | | | | | | | | | | |
| Operating temperature | 0 to 45 °C / 32°F to 113° F | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Storage temperature | -20 to 50 °C / -4°F to 122° F | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Standard compliance | EMI: EN55011 Group 1 Class A EMS: EN50082-2 FCC Part 15 Subpart B Class A ICES-003 CLASS A DIGITAL DEVICE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Extension cable (Option) | CK-T12 ... 1 m CK-T13 ... 3 m CK-T14 ... 5 m CK-T15 ... 10 m CK-T16 ... 15 m (By extension cable, it can be extended up to Max 10 m) | | | | | | | | | | | | | | | | | | | | | | | | | | |

*Refer to Dimensions drawings below. *Cable length of more than 15m, Please consult our sales.