# LINEAR POSITION SENSOR - VLP/VXP SERIES

## VLP SERIES



- **Outstanding repeatability and linearity**
- **Dual seal design for extended reliability and longer life**
- **Self-aligning pivot bearing mountings**

## VXP SERIES



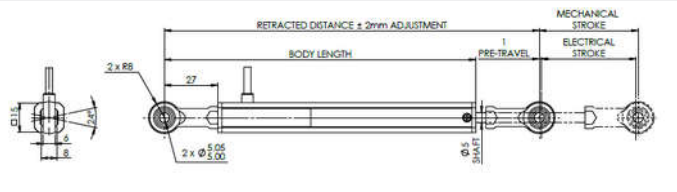
- **Elastomer damped wipers for shock and vibration durability**
- **Potentiometric output**
- **VXP series for extended environmental performance**

The well proven VLP/VXP series linear position sensor is available up to 250 mm stroke lengths in 25 or 50 mm increments. With self-aligning spherical bearing mounts and an improved O-ring sealing arrangement, the range provides up to +/- 0.1% independent linearity and positioning repeatability to 0.01 mm. Choose the VLP series for IP65 rating with temperature range -40 to +100°C, or the VXP series for extended environmental performance with IP67 rating and temperature range from -40 to +150°C - with a short term limit of 175°C. The conductive plastic resistance element technology utilised in the VLP/VXP series maintains complete and even contact with very low electrical noise, even under the most arduous physical and environmental conditions.

| Specifications | | | |
|---|---|---|---|
| Electrical stroke | 25 to 250 mm (8 range options) | Operating temperature | VLP = -40 to +100°C; VXP = -40 to +150°C and 175°C short term |
| Mechanical stroke | +1.5 mm of electrical stroke | Max supply voltage | 42 V DC |
| Typ. linearity | Up to +/- 0.1% (see table) | Cable type | Raychem 55, 24 AWG |
| Resolution | Infinite | Cable length | 600mm (screened) |
| Repeatability | Up to +/- 0.01 mm | Life | > 25 x $10^6$ Cycles |
| Max operating speed | 10 m/sec max. | Sealing | VLP = IP65; VXP = IP67 |
| Shock | 50 g, 10ms | | |

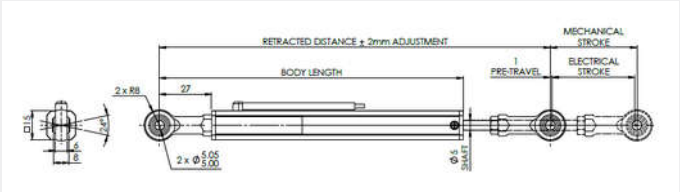
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## VLP50



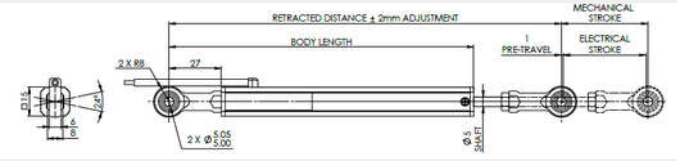



## VXP50






## VXP50 (RCE)





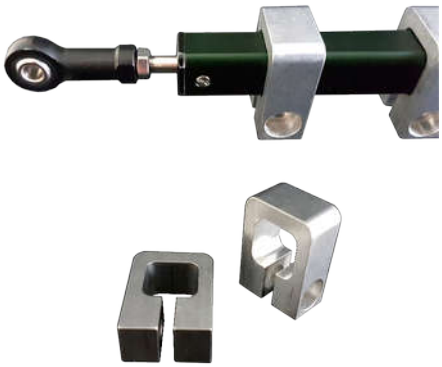




Black: GND/ 0V
Red: +VE Supply
White: Signal Out

**The VLP/VXP series linear position sensor is available with an optional mounting bracket and a protective cover.**

### Mounting bracket - Part-No. 15858



### Protective cover - Part-No. 4346 (For measuring ranges 50 - 100mm)



## Ordering information

**Sample Code** VLP - 150 -

**Series**

| | |
|---|---|
| VLP | |
| VXP | |

**Electrical stroke**

See table below*

**Mounting options**

| | |
|---|---|
| Blank | Standard |
| RCE | Rear cable exit |

| *Other information | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| VLP / VXP - model code | | 25 | 50 | 75 | 100 | 150 | 200 | 250 |
| Total electrical travel - TE | mm | 27 | 52 | 77 | 102 | 152 | 202 | 250 |
| Active electrical travel - AE | mm | 25 | 50 | 75 | 100 | 150 | 200 | 250 |
| Resistance +/- 20% | kΩ | 2.5 | 5 | 5 | 5 | 10 | 10 | 10 |
| Independant linearity | +/-% | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| Retracted mounting distance +/- 2 mm | mm | 173 | 198 | 223 | 248 | 298 | 351 | 401 |
| Body length | mm | 132.5 | 157.5 | 182.5 | 207.5 | 257.5 | 310.5 | 360.5 |