

# SPECIFICATION SHEET: OPTICAL DISPLACEMENT SENSOR NODE



## Physical Specifications

<b>Dimensions (L x W X H)</b>	105 x 105 x 64 mm
<b>Total Mass</b>	440g (approx.)
<b>Housing Material</b>	PC plastic body and lid cover with die cast aluminium base
<b>Internal Protection Marking</b>	IP66 / IP67 IP68 (1 m for 24 hours)
<b>Mounting Options</b>	M4 holes in bottom, Plates and brackets available for magnetic fixing, trackbed, stake and pole mounting, and many other applications
<b>Operating Temperature Range</b>	-10°C to +40°C (full functionality) -25°C to +70°C (temperature and tilt only)

## Internal Battery

<b>Battery Type</b>	Lithium Thionyl Chloride, non-rechargeable, D-cell
<b>Nominal Voltage</b>	3.6 V
<b>Nominal Capacity</b>	19000 mAh
<b>Typical Battery Life</b>	10 years at 1 hour reporting interval when using radio preset 1 8 years at 30 minute reporting interval when using radio preset 1

## Optical Sensor Specifications

<b>Resolution</b>	0.1 mm
<b>Repeatability</b>	±0.15 mm
<b>Range</b>	50 metres (natural surface) 100 metres (white target) 150 metres (reflecting target)
<b>Laser Type</b>	Class 2, 655nm (visible red)

## Tilt Sensor Specification

<b>Resolution</b>	0.0001° (0.00175 mm/m)
<b>Repeatability (-IXH variant)</b>	±0.0025° (±0.0436 mm/m)
<b>Range</b>	±90°

## Sampling and Reporting

<b>Maximum Reporting Frequency</b>	30 seconds
<b>Sample Storage</b>	Stores up to 40,000 sampling cycles in a circular buffer

## Certifications

- Tested to conformity with all the essential requirements of the Radio Equipment Directive 2014/53/EU and RoHS Directive 2011/65/EU
- FCC Grant of Equipment Authorization
- ACB ISED Canada Certificate: 24373-LR3N
- RCM (Australia and New Zealand)