Wireless Inclinometer Selection Guide

BEANDEVICE® 2.4GHZ INC

Main features / Reference	BND-2.4GHZ-INC-30B-RB	BND-2.4GHZ-INC-90B-RB	BND-2.4GHZ-INC-30B-XT	BND-2.4GHZ-INC-90B-XT
Measurement Range	±30°	±90°	±30°	±90°
Sensor Tech.	Bi-axis MEMS Inclinometer			
Mounting option	Adhesive Mounting			
Sensor Resolution	±0.0025°			
Sensor repeatability (fullscale @25 °C)	±0.1°			
Max. wireless Range (L.O.S. and N.L.O.S.)	500 m in L.O.S, 30-100 meters in N.L.O.S			
Power Mode available	Active and Battery saver power modes		Battery Saver Mode	
Available Measurement mode	Low Duty Cycle and Alarm, mode 1s to 24h, Streaming (60SPS)		Low Duty Cycle and Alarm, mode 1s to 24h	
Data Logger Size	1 million logs			
Internal Battery	Internal Rechargeable, Lithium-Polymer battery, 950mAh		No Internal battery	
Casing	Waterproof IP67 aluminum enclosure , Dimensions in mm (LxWxH): 80x55x36 , Weight : 155g			

BEANDEVICE® 2.4GHZ HI-INC

Main features / Reference	BND-2.4GHZ-HI-INC-15B-RB	BND-2.4GHZ-HI-INC-15B-XT	BND-2.4GHZ-HI-INC-30B-XT	BND-2.4GHZ-HI-INC-30B-RB
Measurement Range	±15°	±15°	±30°	±30°
Sensor Tech.	Bi-axis MEMS Inclinometer			
Mounting option	Adhesive Mounting			
Sensor Resolution	±0.001°			
Sensor repeatability (fullscale @25 °C)	±0.005° for bi-axis ±15° version ±0.006° for bi-axis ±30° version			
Max. wireless Range (L.O.S. and N.L.O.S.)	500 m in L.O.S, 30-100 meters in N.L.O.S			
Power Mode available	Active and Battery saver power modes	Battery saver power mode		Active and Sleep power modes
Available Measurement mode	Low Duty Cycle and Alarm mode 1s to 24h, Streaming (60SPS)	Low Duty Cycle and Alarm mode 1s to 24h		Low Duty Cycle and Alarm mode 1s to 24h, Streaming (60SPS)
Data Logger Size	1 million logs			
Internal Battery	Rechargeable Lithium-Polymer battery 950mAh			
Casing	Waterproof IP67 aluminum enclosure , Dimensions in mm (LxWxH): 80x55x36 , Weight : 155g			

BEANDEVICE® 2.4GHZ HI-INC XRANGE

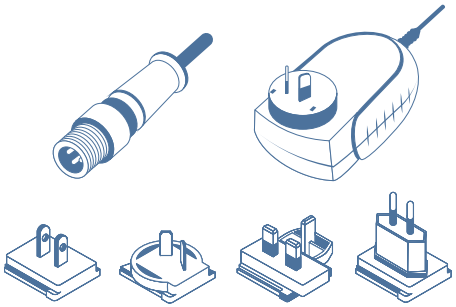
Main features / Reference	BND-2.4GHZ-HI-INC-15B-XR-RB-SCM	BND-2.4GHZ-HI-INC-30B-XR-RB-SCM	ND-2.4GHZ-HI-INC-15B-XR-XT-SCM	BND-2.4GHZ-HI-INC-30B-XR-XT-SCM
Measurement Range	±15°	±30°	±15°	±30°
Sensor Tech.	Bi-axis MEMS Inclinometer			
Mounting option	Screw Mounting			
Sensor Resolution	±0.001			
Sensor repeatability (fullscale @25 °C)	±0.005° for bi-axis ±15° version ±0.006° for bi-axis ±30° version			
Max. wireless Range (L.O.S. and N.L.O.S.)	High Gain Antenna : 400-500m (L.O.S), 60-120m (N.L.O.S.) / Integrated Radome Antenna : 200-300m (L.O.S), 30-60m (N.L.O.S.)			
Power Mode available	Active and Sleep power modes		Battery saver power mode	
Available Measurement mode	Low Duty Cycle and Alarm, mode 1s to 24h, Streaming (60SPS)		Low Duty Cycle and Alarm, mode 1s to 24h	
Data Logger Size	8 million logs			
Internal Battery	2 Ah, Lithium-Polymer battery		No Internal battery	
Casing	Waterproof IP67 aluminum enclosure , Dimensions in mm (LxWxH): 100 x 71 x 38 , Weight : 225g (screw mounting), 252g (magnetic mounting)			

Main features / Reference	BND-2.4GHZ-HI-INC-15B-XR-RB-MM	BND-2.4GHZ-HI-INC-30B-XR-RB-MM	BND-2.4GHZ-HI-INC-15B-XR-XT-MM	BND-2.4GHZ-HI-INC-30B-XR-XT-MM
Measurement Range	±15°	±30°	±15°	±30°
Sensor Tech.	Bi-axis MEMS Inclinometer			
Mounting option	Magnetic Mounting			
Sensor Resolution	±0.001°			
Sensor repeatability (fullscale @25 °C)	±0.005° for bi-axis ±15° version ±0.006° for bi-axis ±30° version			
Max. wireless Range (L.O.S. and N.L.O.S.)	High Gain Antenna : 400-500m (L.O.S), 60-120m (N.L.O.S.) / Integrated Radome Antenna : 200-300m (L.O.S), 30-60m (N.L.O.S.)			
Power Mode available	Active and Battery saver power modes		Battery saver power mode	
Available Measurement mode	Low Duty Cycle and Alarm mode 1s to 24h, Streaming (60SPS)		Low Duty Cycle and Alarm mode 1s to 24h	
Data Logger Size	8 million logs			
Internal Battery	2 Ah, Lithium-Polymer battery		No Internal battery	
Casing	Waterproof IP67 aluminum enclosure , Dimensions in mm (LxWxH): 100 x 71 x 38 , Weight : 225g (screw mounting), 252g (magnetic mounting)			

BEANDEVICE® 2.4GHZ HI-INC-SR

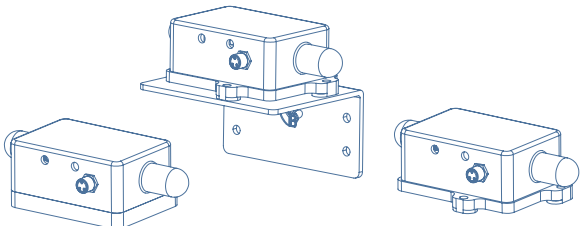
Main features / Reference	BND-2.4GHZ-HI-INC-SR-MR-PS-MO
Measurement Range	10T : Tri-axis ±10° / ±90°
Sensor Tech.	Tri-axis MEMS Inclinometer
Mounting option	Screw Mounting
Sensor Resolution	0.0055°
Noise density	for ±10° range : 0.0007 °/√Hz on Y Axis, 0.008 °/√Hz on X, Z Axis for ±90° range : 0.0012 °/√Hz on all axis
Sensor precision (full scale, @ 25°C, Static Measurement Mode every 2s)	±0.01° for ±10° measurement range ±0.02° for ±90° measurement range
Offset temperature dependency (temperature range –25°C to +85°C)	±0.0008 °/°C
Sensitivity temperature dependency (temperature range –25°C to +85°C)	±0.1 %
Offset LifeTime Drift (@25°C) ±0.23 ° Sensor	±0.08 °
Sensor frequency Response (-3 dB)	DC to 10 Hz for ±10° measurement range DC to 40 Hz for ±90° measurement range (Automatic Range) DC to 70 Hz for ±90° measurement range
Casing	Waterproof IP67 aluminum enclosure , Dimensions in mm (LxWxH): 100 x 71 x 38 , Weight : 225g (screw mounting), 252g (magnetic mounting)

Optional Accessories and Services



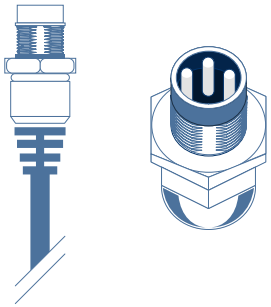
External Power Supply

Wall plug-in, Switchmode power Supply 12V @ 1,25A with sealed
M8 Plug (IP67/Nema 6) Ref : M8-PWR-12V



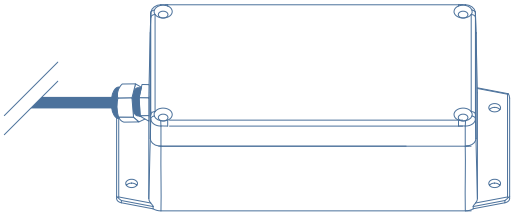
Mechanical Mounting Options

- 90° Bracket for BeanDevice (Xrange smart-sensor) with 4 x M5 screws + Locknut
Ref: SMART-BRACK-MNT
- Magnetic Mounting Lid



M8 extension cable for external power supply

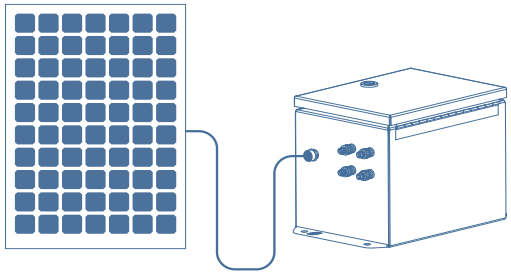
Molded cable with M8-3pins male plug
Material: PVC with shield protection
IP Rating : IP67 | Nema 6
Cable length : 2 meters , Ref: CBL-M8-2M
Cable length : 5 meters, Ref: CBL-M8-5M
Cable length : 10 meters, Ref: CBL-M8-10M



External Battery Pack

Waterproof IP67 battery box for long-term monitoring applications
Ref: PRIM-XTEND

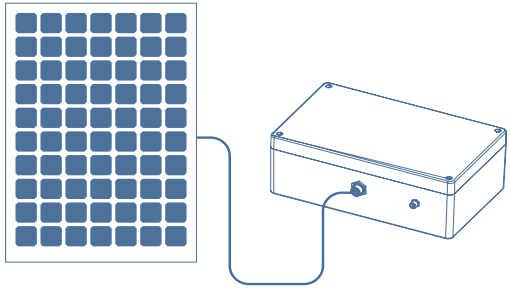
Datasheet



Solar Panel Kit (14AH)

X-Solar 14ah | Solar Panel with Solar Charging Controller
Ref: X-SOL-14AH-SLP-VOUT-CL

More info



Solar Panel Kit (7AH)

X-Solar 7ah | Solar Panel with Solar Charging Controller
Ref: X-SOL-7AH-SLP-VOUT-CL

More info

Calibration Certificate

Calibration certificate provided by Beanair GmbH
A static calibration method is used on a granite surface plate DIN876
Ref : CERT-CAL-SMART