LUWES
INOVASI MANDIRI

REALTIME MONITORING
FOR PREVENTIVE AND
PREDICTIVE MAINTENANCE

SOLUTION BASED COMPANY

WITH REAL-TIME MONITORING SYSTEM

REAL TIME MONITORING

Technological advancements enable the provision of real-time remote monitoring and measurement systems from locations that can transmit data to a monitoring room.

Continuous monitoring supports comprehensive data analysis and can be utilized as a system for damage prevention and condition prediction in the measurement area.

This system is supported by the integration of high-accuracy sensors capable of transmitting data via GPRS or radio to the monitoring room and multiplatform devices.

LUWES
INOVASI MANDIRI

SOLUTION BASED COMPANY

LUWES INOVASI MANDIRI has been a reliable partner for various industries since it was founded in 2014. We provide innovative solutions in real-time monitoring through superior products such as Automatic Water Level Recorder (AWLR), Automatic Weather Station (AWS), and Structural Health Monitoring (SHM).

Starting with the development of the Water Level Monitoring Station in 2015, our products have supported the Sea Highway program at more than 50 ports in Indonesia. Over time, we continue to update and expand our product line to meet customer needs, including strategic infrastructure monitoring such as overpasses and subway tunnels.

Our innovation received further recognition during the pandemic, when our AWLR won the Grand Final award for Best Concept Design from the Ministry of Industry.

This product is now used by government agencies, state-owned companies and private companies, and has even penetrated the international market in the United States, Brunei Darussalam and Timor Leste.

By 2024, our AWLR has been implemented in more than 1,500 strategic locations for monitoring dams, rivers and seas, supporting the PUPR Ministry and private companies. With 7 competitive product lines, we are ready to compete in domestic and global markets.

As a future-oriented company, we are committed to continuing to innovate, present the latest technology, and provide the best solutions for our customers. With a focus on quality, efficiency and sustainability, we believe we can help our partners achieve success and face the increasingly complex challenges of the modern era.

COMPANY PRINCIPAL

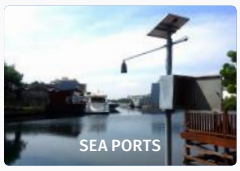
LUWES SYSTEMS

LUWES INOVASI MANDIRI has a platform that provides convenience for users, both from customizable devices, reliable systems, and fast after-sales service.

A system capable of real-time monitoring to predictions at an affordable price.

REALTIME WATER MONITORING

Designed for various functions including, for; Monitoring disasters such as tsunamis, storms, tidal waves, floods and robberies. Ocean monitoring, ports, tides, marine navigation, changes in sea level due to global warming, hydrographic surveys, oceanography. Monitoring river activity, dams and hydrological studies.



STRUCTURAL HEALTH MONITORING

The result of combining various micro technologies (MEMS) with measuring devices embedded in structures to obtain data, record and analyze in real-time. Over a long period of time, building structures that are in operation will experience an aging process.

TANK LEVEL MONITORING

Some industrial applications include transport and storage tanks such as, for example, tanks in water treatment plants.

RELIABLE SOLUTION WITH REAL TIME MONITORING

MACHINE HEALTH MONITORING

Machine Health Monitoring (MHM) is an integral part of machine maintenance activities in workshops. In the maintenance industry illustration, monitoring that involves monitoring is known as predictive maintenance. By carrying out continuous monitoring, symptoms of damage to the machine can be detected early.

PRECISE GNSS POSITIONING

GNSS Receiver, as a tool for determining the position of a coordinate point in the 3D plane. This data can be used to determine the territorial boundaries of an area, as well as to create reference coordinate points for measurements in the field.

LANDSLIDE MONITORING

A monitoring system specifically designed to detect potential landslide disasters. This system can provide early warning to industry and local communities when there are danger signs that landslides will occur.

PROJECT PORTFOLIO


PT MRT JAKARTA


Kec. Kby.


PT JASAMARGA


PT INTILAND


MCDERMOTT, BATU AMPAR, RIAU

HARITA NICKEL

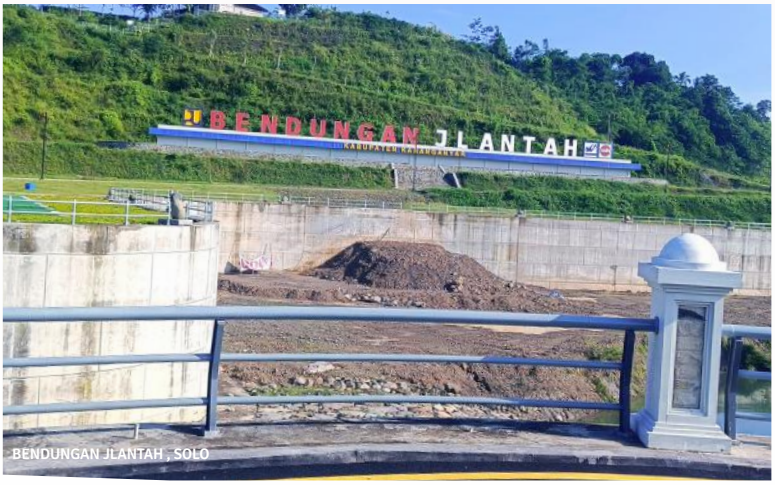

PT ALUR PELAYARAN BARAT SURABAYA (APBS)

PT BINTAN OFFSHORE MARINE CENTRE

CONTROL ROOM

PT SAIPEM INDONESIA

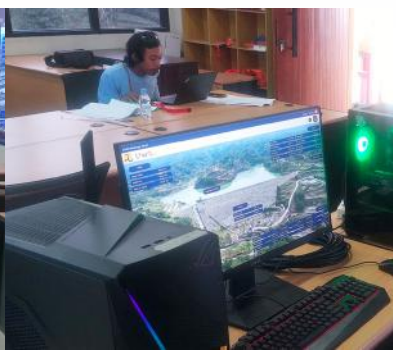
PUPR - BALAI AIR TANAH, BANDUNG



BENDUNGAN JLANTAH , SOLO

BALAI AIR TANAH, BATUJAJAR

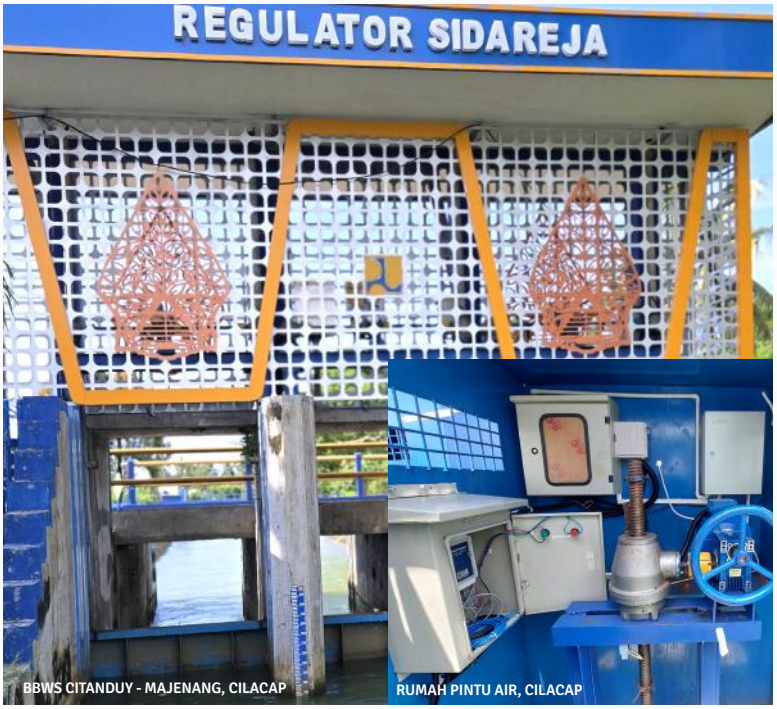
CONTROL ROOM



PROJECT PORTFOLIO

DINAS SUMBER DAYA AIR - DK JAKARTA

WADUK KAMPUNG RAMBUTAN



BBWS CITANDUY - MAJENANG, CILACAP

RUMAH PINTU AIR, CILACAP

BENDUNG MANGANTI

BENDUNG MANGANTI

PARUNGHALANG, KAB. BANDUNG

CIBEUREUM, TASIK MALAYA

PENGGUNA SISTEM

PEMERINTAH

- KEMENTERIAN KELAUTAN DAN PERIKANAN
- KEMENTERIAN PERHUBUNGAN
- KEMENTERIAN PEKERJAAN UMUM DAN PERUMAHAN RAKYAT
- UNIVERSITAS DIPONEGORO (FPIK)
- DIREKTORAT TOPOGRAFI ANGKATAN DARAT
- PUSAT HIDROGRAFI DAN OSEANOGRAFI TNI ANGKATAN LAUT (PUSHIDROSAL)
- BADAN PERTANAHAN NASIONAL
- UNIVERSITAS INDONESIA (FMIPA)

EKSPOR

- UNIVERSITY OF COLORADO BOULDER
- TIMOR LESTE
- BRUNEI DARUSSALAM

SWASTA

- PT SAIPEM INDONESIA
- PT HALMAHERA PERSADA LYGEND
- PT. MAHAKARYA GEO SURVEY
- PT NEWMONT NUSA TENGGARA
- PT. HALMAHERA PERSADA LYGEND
- PT BUKIT INTAN MANUNGAL
- PT. ALUR PELAYARAN BARAT SURABAYA
- PT. KPN PLANTATION
- CNOOC SES LTD
- PT INTILAND DEVELOPMENT TBK
- PT TIGENCO GRAHA PERSADA
- PT AMMAN MINERAL
- GEOTECHNIK LTD
- PT. RISEN ENGINEERING CONSULTANT
- PT CILIANDRY ANKY ABADI

BUMN

- PT TIMAH TBK
- PT TELKOM INDONESIA
- PT MRT JAKARTA
- PT JASA MARGA (PERSERO) TBK
- PT PERKEBUNAN NUSANTARA XIII
- PT PP PERSERO TBK
- PT HUTAMA KARYA (PERSERO) TBK
- PT WASKITA (PERSERO) TBK
- PT WIKAYA KARYA (PERSERO) TBK
- PT ADHI KARYA (PERSERO) TBK
- PT KELMAN MINARTA

LUWES
INOVASI MANDIRI

Global Reach, Local Expertise

Exporting **Precision Water Level Devices to the USA, Brunei, and Timor Leste**


USA


Brunei Darussalam


Timor Leste

luwesinovasimandiri luwesinovasimandiri luwesinovasimandiri

WATER LEVEL MONITORING

Designed for various functions, including Sea Level Monitoring, which can be applied in seaport areas to record data on tides, tidal waves, floods, seawater intrusion, storms, and tsunamis.

It is also used for ocean monitoring, marine navigation, and observing changes in sea level due to global warming.

Additionally, it supports hydrographic and oceanographic surveys, river and dam activity monitoring, and hydrology studies.

TKDN PROMITHEVO : 41,8%
Certificate No: 3009/SJ-IND.8/TKDN/3/2023
HS Code: 90261030
Reference No: TKDN-230114-45533

WATER MONITORING SPECIFICATIONS

Measurement Range	:	0 - 30m
Sensor Type	:	Radar
Measurement Resolution	:	+/- 1 mm
Accuracy	:	+/- 2 mm
Radar Beam Width	:	6°
Temperature Compensation	:	-40 to 70°C
Overload Capacity	:	>200%
Communication	:	GSM, Bluetooth LE, LoRa (AS923)
Memory	:	16GB (Capacity > 5 years)
Protection Level	:	IP67
Battery (rechargeable)	:	Lithium-Ion 3200mAh x 2 Units, 3.7V + VRLA 7.2Ah 12V x 2 Units
Power	:	300mW
Data Interval	:	1 minute (adjustable)
Solar Panel	:	20 WP

SPESIFIKASI WEATHER MONITORING

WEATHER SENSOR

Wind Speed
Measurement range : 0 ... 70 m/s
Accuracy : ± 3%
Output resolution : 0.1 m/s

Wind Direction
Azimuth : 0 ... 360°
Accuracy : ± 3.0°
Output resolution : 1°

Atmospheric Humidity
Measurement range : 0 ... 100 %RH
Accuracy : ± 5 %RH
Output resolution : 1 %RH

Atmospheric Temperature
Measurement range : -40 ... +80 °C
Accuracy : ± 0.5 °C
Output resolution : 0.1 °C

Atmospheric Pressure
Measurement range : 300 ... 1100 hPa
Accuracy : ± 1 hPa
Output resolution : 0.1 hPa

Rainfall
Intensity observation range : 0 ... 200 mm
Accuracy : ± 5%
Output resolution : 0.1 mm

Altitude
Measurement range : -500m ... 9000m
Accuracy : ± 5%
Output resolution : 1 m

Radiation
Intensity observation range : 0 ... 2000 W/m2
Accuracy : ± 5%
Output resolution : 0.1 W/m2

Illumination
Intensity observation range : 0 ... 200000 lux
Accuracy : ± 5%
Output resolution : 0.1 lux

UV
Intensity observation range : 0 ... 2000 W/m2
Accuracy : ± 10%
Output resolution : 0.1 W/m2

PM 2.5 & PM 10
Measurement range : 0 ... 2000 µg/m3
Accuracy : ± 5%
Output resolution : 1 µg/m3

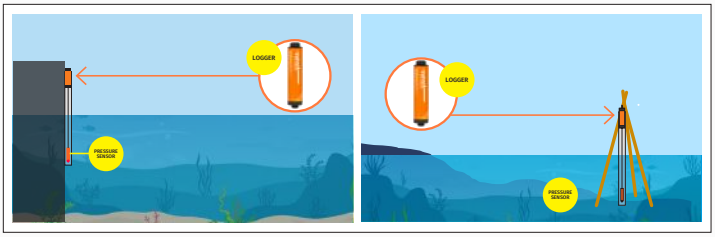
WATER LEVEL MONITORING

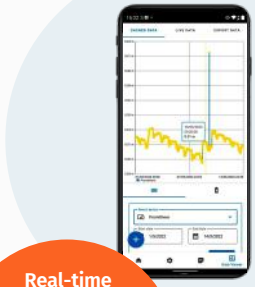
WATER MONITORING SPECIFICATION

Measurement Range	:	0.1 - 10 meters
Measurement Resolution	:	1 mm
Accuracy	:	0.25% FS
Temperature Compensation	:	-40 to 80°C
Overload Capacity	:	>200%
Communication	:	Bluetooth LE, LoRa (AS923)
Interval	:	1 minute (adjustable)
Memory	:	16GB (Capacity > 5 years)
Protection Level	:	IP67
Battery (rechargeable)	:	Lithium-Ion 3200mAh 3.7V 18650 x 2 units
Power	:	3.8mW
Response Time	:	≤ 10ms

BATTERY LIFE
- 4 months for hourly acquisition
- Depends on interval and Bluetooth access by the user

SOFTWARE
- Android application
- Used for settings, time synchronization, real-time data, downloading, and uploading data to the server





Real-time web-based data, accessible anytime, anywhere via Android.

LoRa

TKDN SYNOCH : 40.13%
Certificate No: 3010/SJ-IND.8/TKDN/3/2023
HS Code: 90261030
Reference No: TKDN-230114 - 15532

PORTABLE WATER MONITORING

SPESIFICATION

SENSOR
- Accuracy : ≤ 0.1% FS
- Resolution : 1 mm
- Range : 0.1 – 10 meters
- Cable : Polyethylene
- Type : Pressure Gauge
- Dimensions : ∅ 2.7 cm x 15 cm
- Operating Temperature: -40° to 80°C

DATA LOGGER
- Box : Water Resistant
- Dimensions : 30 cm x 24 cm x 21 cm
- Battery : Lithium-Ion 3200mAh 3.8V x 2 units + VRLA 7.2Ah 12V
- Power : 115mW
- Data Interval : 1 minute per day
- Solar Panel : 2 x 10 Watt peak
- Memory : 16GB
- Communication : GSM/GPRS, Bluetooth LE
- Data Interval : Minimum 1 minute (expandable)
- Waterproof IP Rating : IP67

GSM

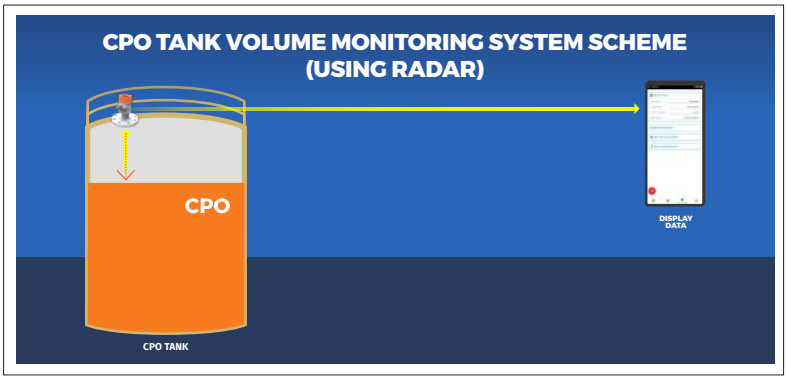
TANK LEVEL MONITORING

SPESIFICATION

Measurement Range	: 0-30m
Measurement Resolution	: 1 mm
Accuracy	: +/- 2 mm
Beam	: 6°
Operating Temperature	: -40 to 70°C
Communication	: Bluetooth Low Energy
Interval	: 1 minute to 1 day
Memory	: 8GB (Capacity > 5 years)
Protection Level	: IP68
Battery (rechargeable)	: Lithium-Ion
Power	: 3.8mW 3.8VDC

BATTERY LIFE
- 4 months for hourly acquisition
- Depends on interval and Bluetooth access by the user

SOFTWARE
- Android application
- Used for settings, time synchronization, real-time data, downloading, and uploading data to the server



TANK MONITORING + RTD SENSOR

SPESIFICATION

TANK LEVEL SENSOR

Measurement Range	: 0-30m
Measurement Resolution	: 1 mm
Accuracy	: +/- 2 mm
Beam	: 6°
Operating Temperature	: -40 to 70°C
Communication	: Bluetooth Low Energy
Interval	: 1 minute to 1 day
Memory	: 8GB (Capacity > 5 years)
Protection Level	: IP68
Battery (rechargeable)	: Lithium-Ion
Power	: 3.8mW 3.8VDC

TEMPERATUR SENSOR

Electrical Approval	: ATEX Ex d [II 2G Ex db, II 2D Ex tb]
Connection Head	: 1/4000 (Aluminum)
Cable Entry	: 1/2 NPT
Head Instrument Connection	: 1/2 NPT
Terminal Block/Transmitter	: Without / Prepared for Transmitter
Thread Size	: 1/2 NPT
N-Dimension	: 150 mm (approx. 6.0 inches)
Measuring Element	: Pt100, Class A (IEC 60751)
Wiring Configuration	: Single 3-wire
Temperature Range	: -30 to +300°C

GNSS PRECISE POSITIONING

SMARTPHONE RECEIVER GNSS RTK

HIGH ACCURACY
The multi-GNSS specification enables precise positioning according to the applied measurement method.

ANDROID-BASED CONFIGURATION
The GNSS RTK receiver smartphone is not only used for positioning but also integrates Android phone features to enhance GIS data acquisition and data communication functions.

COMMUNICATION OPTIONS
Designed for communication via WiFi and LTE.

INTEGRATED WITH GIS SOFTWARE
Connected to GIS software, making it easier for users to conduct surveys and field measurements.

SPECIFICATIONS	D303-RTK
Operating System	Android 5.1
CPU	Quad-core 64 bits 1.3GHz
RAM	2GB
Storage	16GB (extendable)
Constellations and frequencies	GPS L1/L2, GLONASS G1/G2, Galileo E1/E5b,BDS B1/B2/B3, QZSS
Channels	250
GNSS Mode	GPS + GLONASS + Galileo ; GPS + BOS+ Galileo
Time to First Fix (TTFF)	Cold Start <30 seconds ; Hot Start: 1 second ; Signal Re-acquisition <1 seconds
RTK initialization time	30 seconds
RTK accuracy	0.02m + lppm CEP horizontal ; 0.04m + lppm CEP vertical
Output rate	1Hz
Display	5 inch 1280x720, sunlight readable
Touch	Capacitive Multi-Touch
Bluetooth	4.0LE
WiFi	IEEE 802.11 a/b/g/n, 24GHz + 5GHz
Cellular Network	GSM: B2, B3, B8 ; WCDMA: B1, B8 ; TDD_LTE: B38, B39, B40 ; FDD_LTE: B1, B3
Camera	13M pixels, Auto focus, LED flash
Battery	3.7v 3200mAh 11.84mWh
Interface	1x MicroUSB port for data and power charging ; 1x MicroSD socket (32GB) ; 1x SMA for GNSS antenna
IP Rate	IP65, 1.2m drop
Temperature	Operating: -20 ~+60°C ; Storage: -30 ~+70°C
Humidity	5% - 95% non-condensing
Weight & Size	160mm x 83.6mm x 23mm, 295g
Standar Package	D303-RTK device (include battery) ; RF cable (1.5 meter) ; Waist strap

GNSS MOBILE CORS

SPECIFICATION GNSS RECEIVER	
Channel Number	192
Frequencies	GPS L1L2/ BDS B1B3/ GLONASS G1
Standard Positioning Accuracy	
• Horizontal (RMS)	1.5 m
• Vertical (RMS)	3.0 m
RTK Positioning Accuracy	
Horizontal (RMS)	10 mm+1 ppm
Vertical (RMS)	15 mm+1 ppm
Observations Accuracy	
• C/A Code (zenith direction)	10 cm
• P Code (zenith direction)	10 cm
• Carrier Phase (zenith direction)	1 mm
Time to First Fix (TTFF)	
• Cold start	< 50 s
• Warm start	< 30 s
Timing Accuracy (RMS)	20 ns
Initialization reliability	> 99.9%
Velocity Accuracy (RMS)	0.03 m/s
Differential Data Format	RTCM 2.X/3.2/CMR
Max. Update Rate	20Hz

DATA PROCESSING	
CPU	Intel Atom x5-Z8350 Processor
GPU	Intel HD Graphics 400
RAM	DDR3 2GB
ROM	Windows(C:) 32GB
OS	Support Windows 10 system
Ethernet	1000Mbps LAN
WIFI	IEEE 802.11a/b/g/n, 2.4G+5.8G

POWER SUPPLY	
OUTPUT	
Output power capacity	325Watts / 625VA
Estimate Power Backup	20 minutes
INPUT	
Nominal Input Voltage	230V
Input Frequency	45 - 65 Hz
Input Connections	IEC-320 C14
Cord Length	1.22meters
Input voltage range for main operations	151 - 299V
Number of Power Cords	1
Efficiency at Full Load	65.3%
Type of Input Protection Required	3-pole breaker
Maximum Input Current	3.0A

The system operates as a base for positioning using CORS (Continuously Operating Reference Station). This method enables users to determine positions in real-time with centimeter-level accuracy.

The GNSS-based technology functions as a geodetic reference network equipped with receivers capable of capturing signals from fully operational GNSS satellites continuously, 24 hours a day, 7 days a week.

The CORS system collects, records, and transmits data, allowing users to utilize it for positioning, either through post-processing or real-time applications.


Antena Choke Ring


Antena Geodetic

STRUCTURAL HEALTH MONITORING

INCLINOMETER
2,4 GHZ

Inclinometer Sensor Specifications	
Inclinometer Technology	Inclinometer based on MEMS Technology
Measurement resolution (Bandwidth 10 Hz)	0.001°
Noise density	0.0004 °/√Hz
Accuracy (Full scale)	±0.05° (±0.02° on customer request)
Offset temperature dependency (temperature range –25°C to +85°C)	±0.002 °/°C
Sensitivity temperature dependency (temperature range –25°C to +85°C)	±0.005 %/°C with temperature compensation ±0.013 %/°C without temperature compensation
Long term stability (@23°C)	< 0.004 °
Analog to Digital converter	-24-bit delta-sigma analog-to-digital with temperature compensation -Synchronous measurement channel
Sensor frequency Response (-3dB)	DC to 28 Hz
Noise spectral density DC to 100 Hz	0.0004 °/ √Hz
Onboard temperature sensor	Range -40°C to +65°C , accuracy ±1°C

RF Specifications	
Wireless Protocol Stack	IEEE 802.11 b/g/n
WSN Topology	Point-to-Point / Star / Cluster-Tree
Data rate	WPA2, WPS2
Maximum Radio Range	200m (L.O.S), Radio range be extended by adding Wifi Bridge/Repeater
Environmental and Mechanical	
Casing	Aluminum casing Dimensions in mm (LxWxH):35x59x65 mm without antenna & eyelet, Weight (with internal battery, w/o mounting option) : 220g
IP | NEMA Rating	Ip67 | Nema 6
Shock resistance	100g during 50 ms
Operating Temperature	-40 °C to +65 °C
Power Supply	
Rechargeable battery	High density Lithium-Ion rechargeable battery with a capacity of 780 mAh

ACCELEROMETER
2,4 GHZ

Accelerometer Sensor Specifications	
Accelerometer technology	High precision accelerometer based on MEMS technology
Accelerometer measurement range	two versions: ±2g and ±10g
Sensitivity	±2g Version : 660 mV/g ±10g version: 200 mV/g
Typical non-linearity	±0.1% FS
Sensor frequency response (-3 dB)	DC to 800 Hz
Maximum sampling rate	2 kSPS per axis
Noise spectral density	±2g Version : 45 µg/√Hz ±10g version: 100 µg/√Hz
Zero-g Offset Variation from RT over Temp	±2g Version : ±0.2 mg/°C ±10g version: ±0.1 mg/°C

RF Specifications	
Wireless Protocol Stack	IEEE 802.11 b/g/n
WSN Topology	Point-to-Point / Star / Cluster-Tree
Crypto Engine	WPA2, WPS2
Maximum Radio Range	200m (L.O.S), Radio range be extended by adding Wifi Bridge/Repeater
Environmental and Mechanical	
Casing	Aluminum casing Dimensions in mm (LxWxH):35x59x65 mm without antenna & eyelet, Weight (with internal battery, w/o mounting option) : 220g
IP | NEMA Rating	Ip67 | Nema 6
Shock resistance	100g during 50 ms
Operating Temperature	-40 °C to +65 °C
Power Supply	
Rechargeable battery	High density Lithium-Ion rechargeable battery with a capacity of 780 mAh

STRUCTURAL HEALTH MONITORING

LASER DISTANCE SENSORS

Integrated Interface

Optional Interface

PART NUMBER SPECIFICATION	DPE-10-500 500630	DPE-30-500 500636	DEN-10-500 500637	DEH-30-500 500638
Typical Accuracy @ ± 2σ (@ ± 1σ)	± 1 (± 0.5) mm	± 3 (± 1.5) mm	± 1 (± 0.5) mm	± 3 (± 1.5) mm
Typical repeatability @ ± 2σ (@ ± 1σ)	± 0.3 (± 0.15) mm	± 0.7 (± 0.35) mm	± 0.3 (± 0.15) mm	± 0.7 (± 0.35) mm
Measuring range on natural surfaces	0.05...~ 100 m	0.05...~ 100 m	0.05...~ 100 m	0.05...~ 100 m
Measuring range on reflective foil	~ 0.5...500 m	~ 0.5...500 m	~ 0.5...500 m	~ 0.5...500 m
Max. measuring rate	250 Hz	250 Hz	50 Hz	50 Hz
Max. output rate	1 kHz	1 kHz	50 Hz	50 Hz
Operating temperature	– 40... +60°C	–40 ... +60°C	–10 ... +50°C	–10 ... +60°C
Degree of protection	IP65	IP65	IP65	IP65
Power supply, voltage range	12...30 VDC	12...30 VDC	12...30 VDC	12...30 VDC
current consumption@ 24 VDC	0.5 A	0.5 A	0.15 A	0.15 A
Laser red, visible (Laser Class 2, < 1 mW)	✓	✓	✓	✓
Typical diameter of laser dot@ 10 m / @ 50 m	7 × 3 mm / 28 × 13 mm	7 × 3 mm / 28 × 13 mm	7 × 3 mm / 28 × 13 mm	7 × 3 mm / 28 × 13 mm
Dimension (L × W × H)	140 × 78 × 48 mm	140 × 78 × 48 mm	140 × 78 × 48 mm	140 × 78 × 48 mm
Weight	350 g	350 g	350 g	350 g

LANDSLIDE MONITORING

Laser Distance
Real-time, online monitoring with millimeter-level accuracy.

Inertial Measurement Unit (IMU)
based on Micro Electro Mechanical Systems (MEMS)
Detects movement on slopes, cliffs, and soil in a 3D vector.

DATA LOGGER
- Processor : Ultra-low-power 32-bit MCU Arm®-based Cortex®-M0+
- Memory : 92KB Flash, 20KB SRAM, 6KB EEPROM
- Dimension : 70mm x 70mm x 15mm
- Supply Voltage : 3.6 ~ 4.4VDC

LASER RANGEFINDER
- Range : 0.045 - 100m
- Resolution : 0.01mm
- Accuracy : ±2mm (within 10m), for distances greater than 10m: *±2 + 0.05(D-10)**, where D is the distance
- Single Measurement Time : 0.25s
- Spot Diameter : 6mm @10m
- Working Temperature : 0 ~ +40°C
- Storage Temperature : -20 ~ +60°C
- Weight : 60g
- Dimension : 48mm x 37mm x 18mm
- Supply Voltage : 3 ~ 3.3VDC

GYROSCOPE
- Range : -180° ~ 180°
- Resolution : 0.01°
- Accuracy : 1°
- Frequency : 100Hz
- Working Temperature : -20 ~ 85°C
- Storage Temperature : -40 ~ 125°C
- Dimension : 11.5mm x 15.5mm x 2.5mm
- Supply Voltage : 3 ~ 5VDC

WIRELESS VIBRATION MONITORING

PHANTOM VIBRATION MONITORING

FEATURES

- 10kHz FMax
- Full waveform and spectrum data
- Programmable Internal RMS Trigger
- Sample Rate: 25600 Hz
- Lines of resolution: 6400
- Battery life enough to take up to 100,000 measurements
- Internal temperature sensor
- Noise: 630 uG/√HzDimension: 48 x 34 mm

NEW MODBUS COMMUNICATION

- Scada systems for control automation
- PLC for machinery control and protection
- ERP software such as SAP- Integration with self-designed applications with free APIs
- Connecting wireless sensors for super big distances (kilometers) using the cloud. up to 100,000 measurements
- Internal temperature sensor
- Noise: 630 uG/√HzDimension: 48 x 34 mm

EPH V12BI-AXIAL SENSOR
Ultra Low Noise Sensor
15kHz Fmax

EPH V18 PHANTOM GEN 2
Smaller sensor (35 x 24 mm)

EPH V15-16 APEX
For Hazardous Area Apex Class II

ONLINE MONITORING

PROMITHEVO

TELEMETRY DATA LOGGERS

Designed for various functions, including Water Level Monitoring, which can be applied in seaports to record data on tides, storm surges, floods, coastal flooding, storms, and tsunamis.

It is also used for marine monitoring, navigation, and tracking changes in sea level due to global warming.

Additionally, it supports hydrographic and oceanographic surveys, as well as monitoring activities in rivers, dams, and hydrology studies.

DISPLAY DATA

4G WIFI LoRa

LOGGER SPESIFICATION

TKDN PROMITHEVO :
41,8%

Certificate number :
3010/SJ-IND.8/TKDN/3/2023
HS Code:
90261030
Refference Number :
TKDN-230114 - 45533

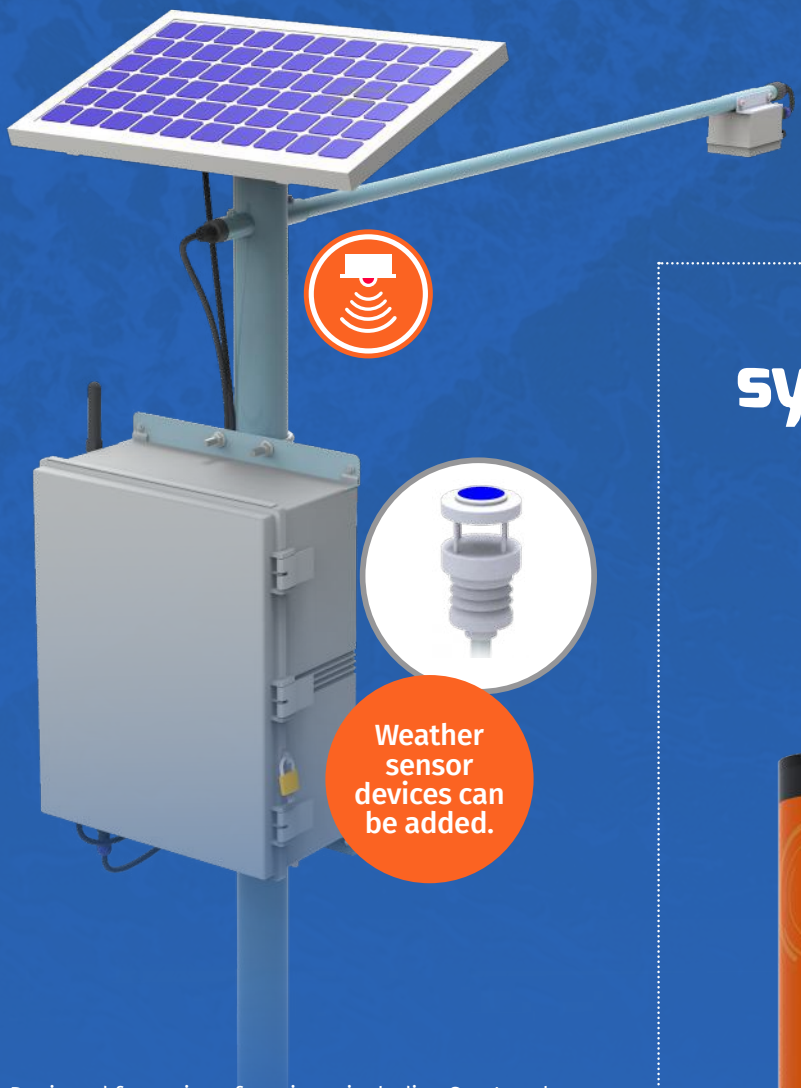
NO	COMPONENT	PROMITHEVO
1	Processor	Ultra Low Power ARM-based 32-bit MCU
2	Wifi	o
3	GSM/3G/4G	o
4	Wi-Fi	o
5	LoRa	o
6	Bluetooth	V (BLE)
7	GPS	o
8	RS485	V (1)
9	RS232	V (1)
10	UART	o (up to 3)
11	USB	o
12	Time Stamp	RTC, GNSS, LTE/3G/GSM
13	Ethernet	o
14	Digital Input	V (1)
15	Internal Battery	V (2 NCR)
16	IP Rating	IP66/67

X : Not Available
V : Available
o : Optional

WATER LEVEL MONITORING

PROMITHEVO
SEA LEVEL MONITORING

TKDN 41,8%



Designed for various functions, including Sea Level Monitoring, which can be applied in seaports to record data on tides, storm surges, floods, coastal flooding, storms, and tsunamis.

It is also used for marine monitoring, navigation, and observing changes in sea surface levels due to global warming.

Additionally, it supports hydrographic and oceanographic surveys, as well as monitoring

TKDN PROMITHEVO : 41,8%
Certificate No: 3009/SJ-IND.8/TKDN/3/2023
HS Code: 90261030
Reference No: TKDN-230114-45533

synoch PRESSURE
WATER LEVEL SENSOR

TKDN 40,13%

Real-time web-based data, accessible anytime, anywhere via Android.

BATTERY LIFE
- 4 months (for hourly data acquisition)
- Depends on the interval and Bluetooth access by the user

SOFTWARE
- Android application
- Used for settings, time synchronization, real-time data, downloading, and uploading data to the server.

TKDN SYNOCH : 40.13%
Certificate No: 3010/SJ-IND.8/TKDN/3/2023
HS Code: 90261030
Reference No: TKDN-230114 - 15532

LUWES
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