

Earth1006 Remote Monitoring Terminal

Features

- IP68 protection, dust-proof and water-proof;
- Multiple power supply options are available;
- Wireless transmission, no field wiring;
- Wide range measurement, pressure, temperature, level, flow, image, drain well cover etc.;
- Multi-channel, max. 8-way sensor parameters access;
- Remote setting for collection, transmission and image interval;
- Sensor available with upper and lower limit of threshold value and web real-time warning;
- PC and mobile terminal data application;
- Support customer self-built system and configuration application;
- Provide mounting accessories;
- Solution for underground well.



Introduction

Earth1006 Remote Monitoring Terminal is a compact device with battery supply, ultra-low power consumption, IP68 protection, wireless communication and various sensor data collection function, in specific circumstance, multiple power supply options are available. It is suitable for the monitoring fields without power supply condition and the harsh environment. It could realize the multi-function including data collection, storage, alarming and transmission for underground water, firefighting water, dam water, water supply and drainage pipeline.

With a wide coverage of wireless network, the product could detect the real-time data of many monitoring sites in a wide range of areas like tap-water pipeline pressure, flow, underground water, agricultural irrigation, dam level, water monitoring, wind, rain, ambient temperature and humidity, air quality monitoring, water flow monitoring, image and firefighting pipeline monitoring, especially suitable for Underground Well detection application in a harsh environment.

Specifications

Power

Power Supply	Non-Recyclable Battery	12V~28V DC	110V~240V AC	Solar Power
Battery Capacity	56Ah/14.4V	External Power Supply	External Power Supply	20.8Ah/14.4V Solar Panel: 20W
Battery Lifetime	3~5 years (Related to transmission frequency)	\	\	More than 1 month (Related to feed)
Feed	100mA/14.4V DC	100mA /12V~28V DC	100mA /12V DC	100mA/14.4V DC
Power Consumption	Sleep Current $\leq 30\mu\text{A}/14.4\text{V}$ Transmission Average Current $\leq 50\text{mA}/14.4\text{V}$			

<http://www.microsensor.cn>

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Interface Parameters

Interface	AI	DI/PI	RS485	Camera
Count	3	2	1	1
Signal	0V~5V DC/ 4mA~20mA DC	Switch/Pulse	ModBus RTU	\
Notes	Collection accuracy ±0.5%FS	\	Max.3-ch sensor parametric analysis, It's also used in parameter settings	RS485

Data Transmission

Communication Mode		Standard/Band	Transmission Distance
2G		GSM 850/900/1800/1900MHz	Global Bands
Multi-Bands	China	TDD-LTE B38/B39/B40/B41 FDD-LTE B1/B3/B8 TD-SCDMA B34/B39 WCDMA B1 CDMA 1X/EVDO BC0 GSM/GPRS/EDGE B3/B8	Global Bands
	EMEA/ Korea/ Thailand/ India	FDD-LTE B1/B3/B5/B7/B8/B20 WCDMA B1/B5/B8 GSM/GPRS/EDGE B3/B8	
	North America	FDD-LTE B2/B4/B12 WCDMA B2/B5	
	South America/ Australia/ New Zealand/ Taiwan	TDD-LTE B40 FDD-LTE B1/B2/B3/B4/B5/B7/B8/B28 WCDMA B1/B2/B5/B8 GSM/GPRS/EDGE B2/B3/B5/B8	
	Japan	FDD-LTE B1/B3/B8/B18/B19/B26	
NB-IoT		B1/B3/B8/B5/B20/B28	Global Bands
LoRa		433/470/868/915MHz	≤5km (According to site environment)

Wake-up mode: magnetic activation/ timing/ alarm wake-up

Collection interval: 1,5,10,30,60,360,720,1440 minutes optional

Transmission interval: 1,5,10,30,60,360,720,1440 minutes optional

Image interval: 30,60,720,1440 minutes optional

Upload information: sensor data, battery information, network status, self check information

Data Storage

Local storage, Flash 4 MB (more than 200,000 history storage space)

Configuration

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Configuration mode: local/remote

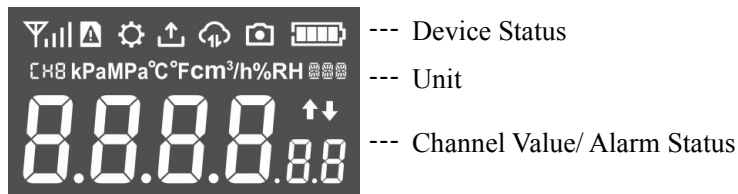
Environmental Conditions

Operation temp.: -20°C~70°C

Storage temp.: -40°C~85°C

Display

Segment LCD with backlight



Other Specifications

Protection: IP68

Housing: PA6+30% GF

Installation method: hoop and wall mounting

Outline dimension: 147×262.5×105.5mm

Weight: about 2.3kg

Accessories: fixed support×1, magnetic bar×1, M5 bolt×1, φ8mm expansion bolt×3, φ200mm hoop×2

System Topology



Above sensors can be used together with Earth 1006. It supports up to 8-way sensors input and the sensors can be selected according to customer's needs. And other sensors are also available.

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Outline Construction (Unit: mm)

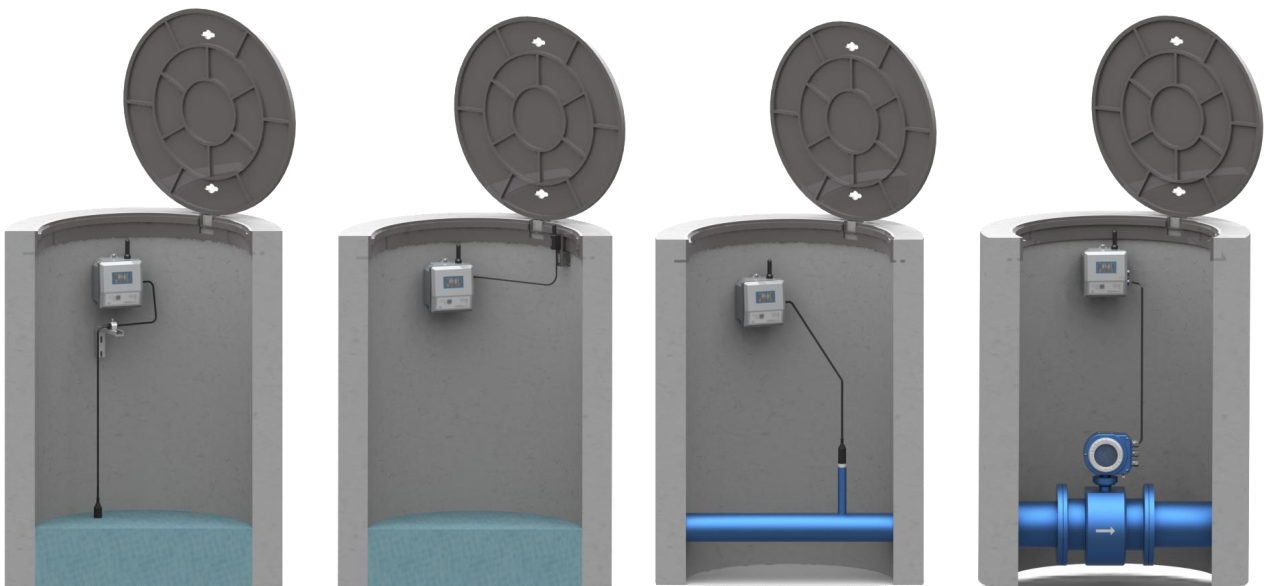


Installation Method



Earth1006 Remote Monitoring Terminal uses hoop and wall-mounting method which are easy for installation and convenient for maintenance and we also provide installation accessories.

Underground Well Applications



Level

Well Cover

Pressure

Flow

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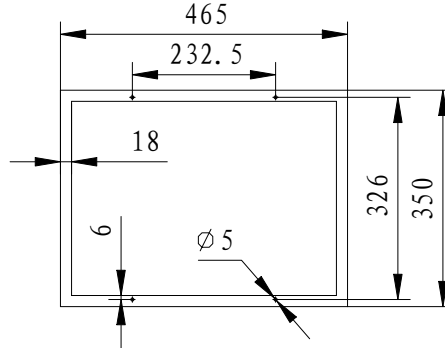
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Solar Power Application



Solar Panel Dimension	Solar Panel Weight	Solar Panel Material	Mounting bracket&Pole
465×350×17mm	About 2kg	Monocrystal silicon	The customer could design and prepare

Order Guide

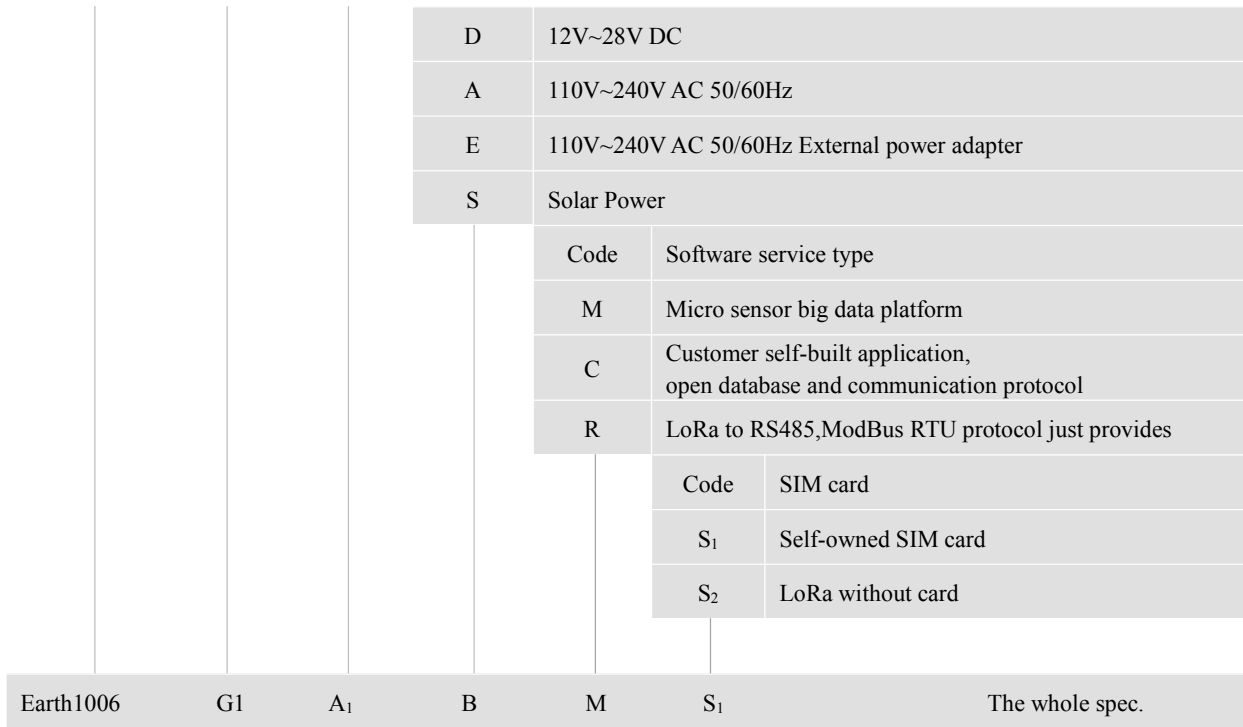
Earth1006	Remote Monitoring Terminal	
	Code	Communication mode
	G2	2G
	GC	Multi-Bands in China
	GE	Multi-Bands in EMEA/Korea/Thailand/India
	GA	Multi-Bands in North America
	GS	Multi-Bands in South America/Australia/New Zealand/Taiwan
	GJ	Multi-Bands in Japan
	GN	NB-IoT
	L3	LoRa[433MHz](select Earth1004 LoRa wireless router)
	L7	LoRa[470MHz](select Earth1004 LoRa wireless router)
	L8	LoRa[868MHz](select Earth1004 LoRa wireless router)
	L9	LoRa[915MHz](select Earth1004 LoRa wireless router)
	Code	Antenna type
	A ₁	Integrated antenna(Suggested)
	A ₂	External suction antenna(Antenna length 3m)
	Code	Power supply
	B	Non-recyclable battery(Suggested)

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Notes

1. Matching sensors are not included in this datasheet. Please purchase them separately.
2. The communication protocol is needed if users choose RS485 interface product.
3. If the user has special requirement, please feel free to contact our company.