

# ECO-i<sup>®</sup> Data Logger

Quality, Reliability & Stability - Our Core



www.hdls.com.my

Model:

S701 Series



Highly reliable and cost-effective controller for data collection, communication, logging, alarming, control and analysis applications.



Housing in a robust IP65 protection enclosure, the product is ideally used in outdoor extreme temperature and humidity locations.



ECO-I is ready for GSM, Satellite, 4G/5G, LAN, Wi-Fi or any other serial or IP base communication.



ECO-i series is an upgrade version of HMI Remote Terminal Unit (RTU) equipped with more powerful features than before.

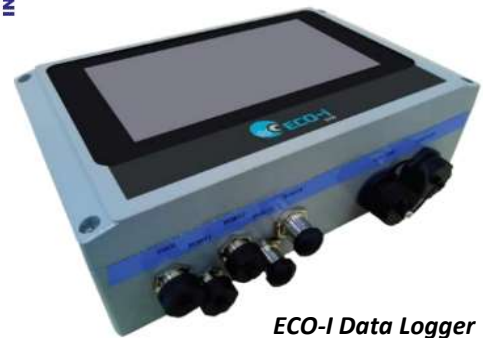


## GENERAL

- ✓ CPU: 64bit Quad core and more than 1.5 GHz
- ✓ Enclosure: Rated IP65
- ✓ Storage Capacity: 32GB
- ✓ Operating Temp: 0 to +60°C (standard)
- ✓ Security Feature: Intrusion Alarm
- ✓ Power: Voltage : 9-30 V DC  $\pm$  10%, 1.5 A
- ✓ Single Board Computer (SBC) Raspberry Pi:
  - Radio Equipment-Directive 2014/53/EU
  - RoHS-Directive 2011/65/EU
  - Equipment Class B
  - CE marking
  - SIRIM (MCMC)



## Specifications



ECO-I Data Logger  
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## ANALOG INPUT CHANNEL (4 PORT)

- ✓ Input Type: 4-20 mA & 0-50 volt
- ✓ 4 Analogue input channels (Expendable to 8 channels)
- ✓ Each channel is independent and support one isolated 3-wire or 4-wire input



## MEMORY

- ✓ 4 GB LPDDR4 RAM
- ✓ Removable Micro SD slot (Supporting SD 3.0) (Up to 128 GB)
- ✓ Logging capacity more than 10,000,000 records
- ✓ Data retention 5-10 years
- ✓ Endurance 100,000 cycle per byte



## ANALOG OUTPUT CHANNEL (2 PORT)

- ✓ Output Type: 4-20 mA & 0-50 volt
- ✓ 2 Analogue output channels (Expandable to 4 channels)
- ✓ Each channel is independent and support one
- ✓ Isolated 3-wire or 4-wire input
- ✓ Analog Output Isolated Programmable 16-bit DAC



## DIGITAL INPUTS (8 PORT)

- ✓ 8 Digital input channels (Opto-isolated)
- ✓ 3 Speed counter
- ✓ 5 to 30V



## DIGITAL OUTPUTS (8 PORT)

- ✓ 8 Digital output channels (Opto-isolated)

ECO-i Datasheet V2.4 110924

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## Manufacture:

HDL Solutions Sdn Bhd  
No. C-1-22, Jalan SP 11/2  
Seri Pristana, 47000 Sg. Buloh,  
Selangor Darul Ehsan, Malaysia

## Distributor:

Made in Malaysia

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## SERIAL CHANNEL

- ✓ SDI-12 Inputs, Shared with digital Channels
- ✓ Each input can support multiple SDI-12 Sensors



## NETWORK WIFI SERVICES

- ✓ Wireless Standards: IEEE 802.11b, IEEE 802.11g, IEEE 802.11n, IEEE 802.11ac
- ✓ Wireless LAN
- ✓ Frequency: 2.400-2.4835GHz



## INPUT / OUTPUT: RS485 PORT

- ✓ Device RS485 data collection, connecting Up to 8 SMR digital analysers and Transmitter and optional 2 Modbus Instruments
- ✓ 19,200bps, 8 bits, no parity, 1 stop bit
- ✓ Surge protection: 4000 VDC
- ✓ Protocol: Modbus RTU



## NETWORK (TCP/IP) SERVICES

- ✓ 1x10/100/1000 Base T Ethernet Port (Gigabit Ethernet)
- ✓ Host RS232 (PPP) ports



## LCD DISPLAY

- ✓ Touchscreen DSI Display (7 inch) Featuring a resolution of 800x480 Pixels
- ✓ Display: Sensor and transmitter Values, I/O status, system and Communication status, unit



## RS232 PORT

- ✓ RS 232 System configuration, diagnosis and data load/ download
- ✓ 115,200bps, 8 bits, no parity, 1 stop bit Protocol: Modbus RTU or proprietary device drivers
- ✓ Baud rate: 300 to 115,200



## FUNCTION

- ✓ Data Collection: Rainfall, Water Level, Flow, Water Quality, Evaporation, Siren
- ✓ Communication: Data transmission; SMS alarm notification, data upload/ Download; store and forward
- ✓ FTP: Send data to Telemetry Gateway Server at maximum 4 Destination. (Different Destination or Server)
- ✓ Log: 10,000,000 data values, rotating store; periodical, event, alarm
- ✓ Fail Recovery: In case of any server down, data will be kept in the RTU until the server recover; and all data sent are able to be traced back in the RTU
- ✓ Control: IF\_THEN\_ELSE, PID, set points, time table, alarm output, manual ON/OFF
- ✓ NTP Protocol: RTU real time clock is sync with NTP protocol to ensure time accuracy on data sampling



## HOUSING

- ✓ Material: Aluminium alloy
- ✓ Dimension: 230(W) x150(H) x75(D) mm
- ✓ Weight: 1.6 kg



## FTP SERVER

- ✓ Access logged data from any FTP client or web browser



## FIRMWARE UPGRADE

- ✓ Access logged data from any FTP client or web browser



## APPLICATION

- ✓ Rainfall, Water Level, Flow Measurement, Weather, Evaporation, Siren, Tidal Gauge, Soil Moisture and other applications

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