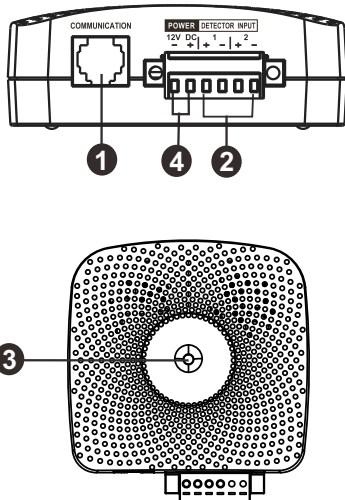# Power Shield®

Environmental Monitoring Device (PSEMD)
QUICK GUIDE

GEN IV

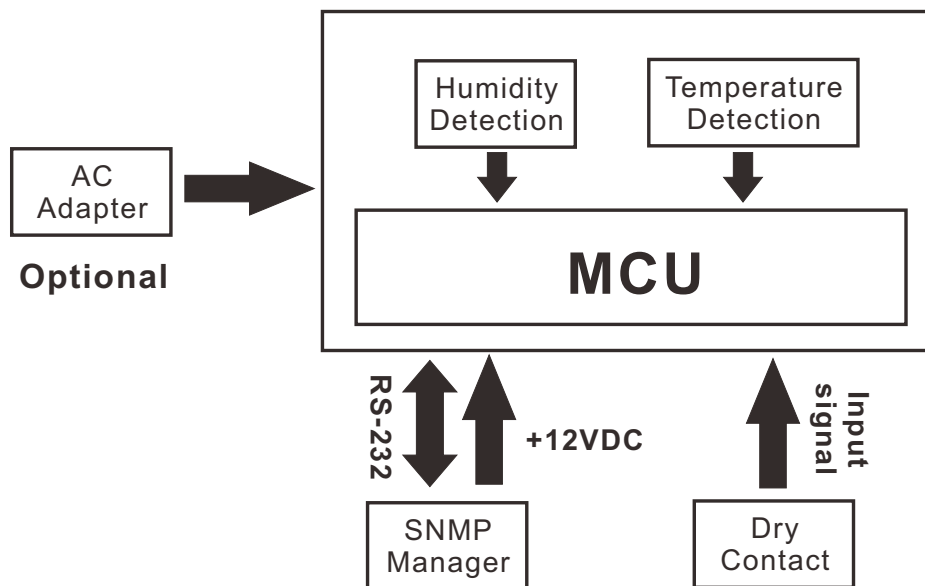## PRODUCT OUTLOOK

① ④ ②

③

① Communication port

② Input dry contact terminal

③ Device status indicator

④ DC input connector

PRODUCT INTRODUCTION

The PowerShield Environmental Monitoring Device (PSEMD) is a connectivity device to remote monitor temperature and humidity via PSSNMPv4 card. It also provides two dry contacts to receive signals from up to 2 compatible devices such as security and alarm systems.

- Plug and use for simple installation with PSSNMPv4 card
- Monitor temperature and humidity to protect your valuable equipment
- Allow two contact closure signals for user-defined usage
- Management software to remote monitor temperature and humidity status via web browser
- Measure temperatures between 0 to 100°C with an accuracy of ±1.5°C
- Measure relative humidity between 10 to 90% RH with an accuracy of ±3%

FUNCTION DIAGRAM

| | Humidity Detection | Temperature Detection |

AC Adapter

Optional

MCU

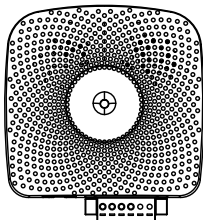**RS-232** **+12VDC** **Input signal**

SNMP Manager **Dry Contact**
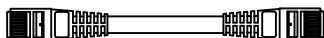
INSTALLATION

Inspection

Before installation, please inspect the unit. Be sure that nothing inside the package is damaged. You will find the following items inside of package.

Environmental monitoring device

Cable spec: UL2835 24AWG*4PAIRS+AEB
Plug Type: 4PCC 3U*2PCS

3m-length of phone cable

Pre-installation

Before making connection to the environmental monitoring device, make sure the UPS is already installed with PSSNMPv4 card. (Please check PSSNMPv4 card for PSSNMPv4 card installation).

Wall-mounting

There is a mounting hole on the back of the unit. Simply mount the unit by positioning the key-hole slot over the mounting screw. (See Chart 1)
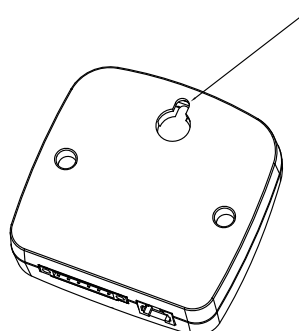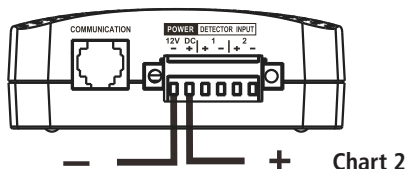
Key-hole

Chart 1

Chart 2

Connect to power

Please follow Chart 2 to connect an external 12VDC power source. If connecting to the PSSNMPv4 card, there is power from the PSSNMPv4 card so there is no need to connect an external power source.

NOTE: To guarantee safe operation, please use the appropriate DC wire with UL2468 #24AWG spec.
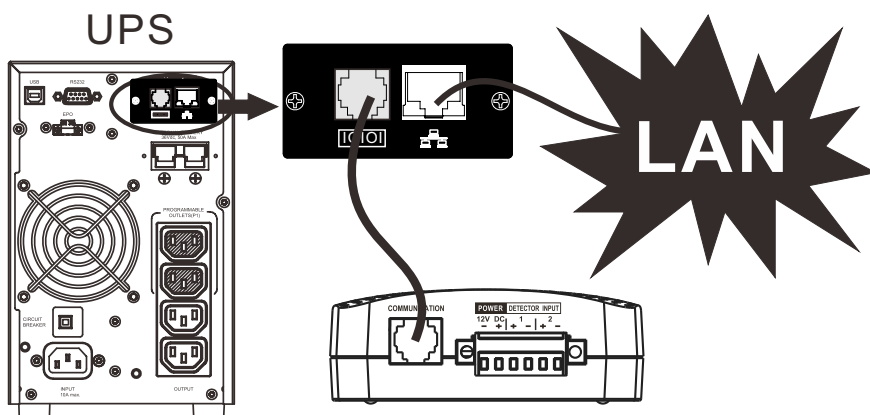
PSSNMPv4 Connection

Connect supplied cable from the communication port of the environmental monitoring device to the RS-232 port of the PSSNMPv4 card. Use another network cable to connect from the RJ45 port of PSSNMPv4 card to LAN. (Refer to Chart 3)

NOTE: If supplied cable is not long enough for your application, you may substitute another longer cable (not exceeding 15m).

Operation

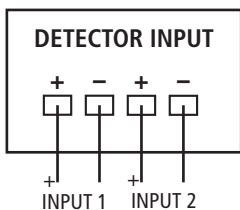After making connection, status LED will light up and the unit will start to operate.

Chart 3

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSES	SOLUTIONS
It displays 0 in the environmental information section of software.	PSSNMPv4 card is not connected well.	Make sure PSSNMPv4 card is firmly connected in the UPS.
	Network cable or DC input connection is not connected well.	Make sure network cable is connected well and DC input connection is ok.
LED is not lighting or LED is flashing.	Input power is not stable.	Check if DC input is connected firmly. If the problem persists, please contact local dealer.
Temperature or humidity accuracy is out of range.	Temperature or humidity sensor is broken.	Please contact local dealer directly.

SPECIFICATIONS

MODEL	PSEMD
Nominal DC input	12VDC
DC input current	0.5 A min.
Temperature measurement range	0 ~ 100°C
Temperature measurement accuracy	±1.5°C
Humidity measurement range	10% ~ 90% RH
Humidity measurement accuracy	±3%
Communication	RS232 with ASCII protocol
Acceptable cable length	15m
Dimension (DxWxH) mm	80 x 78 x 28.5
Net weight	68g
Noise Level	Less than 40dB

INPUT DRY CONTACT TERMINAL

DETECTOR INPUT

+ − + −

+ INPUT 1   + INPUT 2

Input signal specification

Input voltage	Maximum	Minimum
	12V	5V

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