Compact, but has various functions and scalability
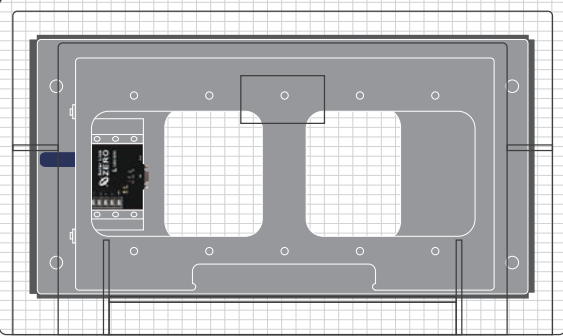
■How To Set up

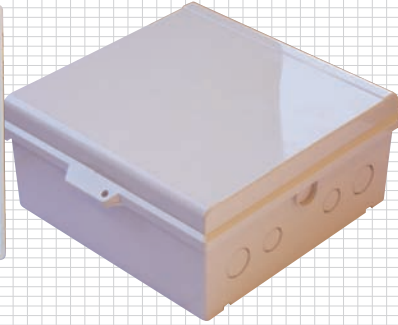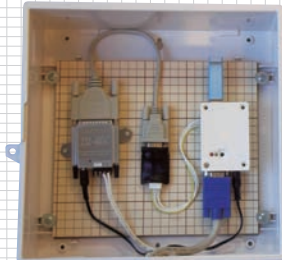| Solar Link ZERO-485	Solar Link ZERO-232C
Simple installation No need for signal converter, so simple set up. *We are able to supply a ZERO fitting display-hanging installation base *Front view of large display	**Fits perfectly in one box** Box inside: ZERO and its AC adaptor and signal converter (RS-485 to RS-232C).

■List of Specifications

		Solar Link ZERO-485	Solar Link ZERO-232C
Small Terminal Specification	Model	SLZ-485	SLZ-232C
	Processor	EP9307 (Cirrus Logic): core CPU: ARM920T	
	System Clock	200MHz	
	Memory	SDRAM:64MB, FLASH:8MB (NOR), 256MB(NAND)	
	Ethernet	10BASE-T/100BASE-TX	
	Serial Port	RS-485: 1 port /USB2.0: 2 channels	RS-232C: 2 ports /USB2.0: 2 channels
	Image Output	800x600 (full color), RGB: D-sub 15 pin (mini)	
	Size	W115.0xH81.0xD35.0mm	W83.0xH58.0xD24.3mm
	Power Supply	AC100V (using AC adapter)	
	Power Consumption	1.5W (normal operation)	
	Operating Temperature	0-60°C (USB memory and AC adapter:0-40°C)	
	Weight	Approx.140g	Approx. 70g
	MTBF	100,338.9h (approx. 11.5 years: Ta:25°C, cal. Based on MIL-HDBK-217F)	
	OS	Linux 2.6	
Installation	Model	Display hanging tool: FTK-NM-ST10 (Forvice Co.)	Storage Box P14-33 (NITTO KOGYO Co.）(*1)
	Size	330x630x79.8 (mm)	300x300x140 (mm)
Include		Small terminal, AC adapter, USB memory (*2)	Small terminal, AC adapter, signal converter (RS-485 to RS-232C), USB memory (*2)
Feature functions	Screen Contents	Two data contents and five user-provided contents screens (*3). Screen order and display interval of automatic scrolling can be changed by settings customization. For option, automatic rotating content is possible (*4). Annual data report screen can be displayed. Sign is displayed in case of power conditioner troubles.	
	Data Monitoring	By each power conditioner (*5) and data logger (M-system: R1 or R3)	By each power conditioner (*5) and data logger (M-system: R1 or R3). Two ports monitoring (the same model of power conditioners or power conditioner with a data-logger).
	Data Capacity	At least three years of data can be stored in USB memory (4GB).	
	Data Format	CSV format and Laplace format	
	Remote Control Function	Current generated electricity can be monitored via Web. Data-downloading available in CSV format. Web browser applied to Internet Explorer Ver.7 and Ver.8.	
	Data Sending Function	Able to send collected data to our rental data collection server. (*Server is an option)	
	Data Saving Items	Daily CSV, monthly CSV, annual CSV: Total generated electricity of all power conditioners and failure time. Detail CSV: Saves data of each power conditioner.	
	Setting Function	Via USB memory: Monitoring and Screen contents setting. Via LAN: Screen contents.	

*1: Only for regular specification. The box size and model will be changed, if the system includes use of an extender and logger.
*2: Recommend replacement of USB memory every three years.
*3 Three basic screen contents are preinstalled. User-provided screens can be changed depending upon user's purpose.
*4 Display interval is the same for all content. No exceptions.
*5 We cover most home and industrial power conditioners. For further information, please contact us.

The New Era of Photovoltaic Monitoring and Presentation System.

The Origin of New Era

full scale

—— Compact Sized Photovoltaic Monitoring and Presentation System ——

Solar Link ZERO

COMPACT, thus

● cost-saving
● space-saving
● power-saving

but

● various screens
● extended functions
● high reliability

full scale

Laplace·System

Solar Link ZERO

Solar Link ZERO is a small terminal that provides a PV monitoring and presentation system.
Despite its compact enclosure, Solar Link ZERO handles data collection and display on a large screen, and is even available for networks.

"Solar Link" series: A series of monitoring systems using graphical displays which Laplace System is the pioneer of. With innovative ideas and technologies, we lead and contribute to the field of PV systems.

Features of RS-485

Monitoring

Equipped with RS-485 Port thus No Need for Signal Converter.

Maximum five power conditioners on a single port.
Also corresponds with analog devices (4-20mA) which measure generated electricity, solar radiation, and temperature.

RGB Cable

Large Display

LAN Cable

PC in the network

Solar Link ZERO
Laplace-System

PC

RS-485 Cable

USB Memory

※Unable to collect data from power conditioners and a data logger simultaneously.

Case 2:
Collecting data from analog measuring devices (4-20mA).

Case 1:
Collecting data directly from power conditioner.

Data Logger
Transducer
Thermometer
Pyranometer

Solar Module

Home Power Conditioner

※Analog signal monitoring
*Only for generated electricity, solar radiation and temperature.

Power Conditioner
*Max five power conditioners by one port.

Outstanding Functions and Scalability

Display

Available for large displays

Two monitoring screens and five user-provided content screens scroll automatically.
JPEG or BMP format images are available in user-provided content screens.
In addition, annual data report can be displayed.

●Clear and simple screens.

LAN Connection

Scalability enables remote control via web browser

Monitoring, data downloading and changing of display settings are possible by remote control. (the screens on the web browser differs from that on the large display)
Send data to a server automatically.

*A server included with the system is an option. Please contact us for more information.

Data Saving

Collected data can be easily used for various purposes

At least three years of data can be saved in USB memory. Data is easy to check using Excel (CSV). Furthermore, graphs and ledger sheets can be printed using the PC version of Solar Link (Laplace format).

Data Saving
three years of data

Setting Function

Equipped with useful functions for flexible setting changes

PC version setting-tool installed on USB memory enables changing function settings.

●Example of screen settings.

Setting Function

Features of RS-232C

Monitoring

Monitoring features supporting two port input.

Able to collect data from two RS-232C ports with max of five power conditioners (same model only).
Connecting with data-logger enables monitoring analog signals (4-20mA): generated electricity, solar radiation and temperature.

Large Display

RGB Cable

RS-232C Cable

PC in the network

LAN Cable

PC

USB Memory

Signal converter may be necessary to connect power conditioners.

Signal Converter
232-485C

Data Logger

Solar Module

Transducer

RS-485

Thermometer

Pyranometer

Able to collect data from two RS-232C ports.

Power Conditioner
*Total of five power conditioners on two ports.