

## PV STRING MONITORING UNIT

## STR100

STR100 is an electronic monitoring device developed for DC combiner box where strings are combined in Photovoltaic Solar Power Plants. The device, which is mounted on the DC combiner box, allows live monitoring of the voltage and string currents in the panel. Thanks to the live current voltage monitoring, faulty strings or strings with low production can be detected very quickly. The device has a wired communication feature via the RS485 port and also has a port suitable for fiber optic cables. In addition, the innovative LoRa wireless communication technology, which provides healthy communication over long distances, is among the features of the product. Thanks to LoRa, healthy communication can be achieved even in large areas without the need for any communication cable installation.

- Compact size and light weight
- Easy mounting on DC combiner box (Retrofit possibility)
- High measurement accuracy in wide temperature range
- Internal power supply up to 1500Vdc
- Monitoring up to 32 strings.



### GENERAL

Supply Voltage	200 - 1500 Vdc 18 - 75 Vdc
Power Consumption	<15 W <6 W
Measurement Method	Resistive Hall Effect (Optional)

### ELECTRICAL SPECIFICATIONS

Maximum Measurement Voltage	1500 Vdc
Voltage Measurement Accuracy	%0.5
Maximum Measurement Current	25 A / String 40 A / String
Current Measurement Accuracy	%0.5
Communication	Modbus over RS485 Modbus over F/O LoRa
Communication Speed	9,600 – 38,400
IP Addressing	DIP-switch set

### DIMENSIONS

Height x Width x Depth	54x317x128 mm
Weight	640 gr
Assembly	DIN-Ray

### CONNECTION INTERFACES

RS485	1 port (Optional)
Fiber optic	1 port (Optional)
LoRa	1 port (Optional)
Digital Input	4x 24 Vdc (NO)
Analog Input 1	Pt100 Temperature Sensor
Analog Input 2	0 – 20 mA
Analog Input 3	0 – 10Vdc
Number Of Strings	16 pieces / 24 pieces / 32 pieces

### OPERATING CONDITIONS

Operating Temperature	-40°C...+85°C
Storage Temperature	-30°C...+70°C

### TESTING & CERTIFICATION

Type Tests	IEC 61000-4-2
	IEC 61000-4-3
	IEC 61000-4-4
	IEC 61000-4-5
	IEC 61000-4-6
	IEC 61000-4-8

### AREAS OF USE

Solar Power Plants

