

STRING COMBINER TOTAL POWER MONITORING

MONITORING RENEWABLES

HSC (Higeco string combiner) is an array combiner for strings of photovoltaic panels. It is installed between PV panels and the inverter and provides DC current aggregation and complete monitoring solution. It can be paired with monitoring devices to measure the current, voltage and optionally temperature inside the panel to ensure the availability of the strings and to maximize generation.

HSC is available as standard product with 8, 16 or 24 inputs. Furthermore, thanks to the modularity of the design, it is possible to choose to use the auxiliary power supply (if available) or the one derived from the string itself. Communication with the monitoring system can also be wired, or as an option in radio frequency with LoRa technology.

MAIN BENEFITS

- Scalable number of inputs
- Current and voltage monitoring
- Up to 1500Vdc
- Monitoring system ready, compatible with all manufacturers
- LoRa wireless system (optional)
- Self-powering option that uses the PV string power instead of an external power supply (optional)



HSC - TECHNICAL SPECIFICATIONS

Cabinet material	polyester reinforced with fiberglass
Dimensions	370x1200x180mm depends on the model
Maximum Voltage	1500Vdc
Aux Current	230Vac / 24Vdc
Maximum Current Out	160 A
DC inputs	8 - 16 - 24
Communication Protocol	Modbus RTU - RS485



MONITORING PLATFORM

Depending on the application, HSC can be used in conjunction with the monitoring platform of Higeco More. This will maximize performance thanks to a detailed SCADA alerting system.



REVAMPING

Our monitoring technology based on the Hall effect, can be adopted also for existing string combiners. HSM (Higeco string monitor) is available in 4 and 8 current inputs and it can be freely used to create 12, 16 and more input combinations. This flexibility will guarantee an easy revamping for mechanical string combiners that need to be upgraded to the modern monitoring technology. Communication protocol is modbus RTU



HSM TECHNICAL SPECIFICATIONS	
Power supply	24 DC +/-10% SELV with ground negative
Protection	Internal, with PTC 0,5A
Communication	RS485 RTU
Sensors	4/8 Hall Effect Sensors. 2 Digital inputs and Internal temperature sensor (Optional)
LED and Switches	1 LED Green/Yellow/Red for diagnostic
Connectors	1x 4-poles clamp for RS-485 and power supply 1x 4-poles clamp for digital I/O
Current measurement	4 or 8 channels version 30 A DC each channel Precision: +/-2% full scale Reading speed: 100ms (for 8 channels)
Voltage measurement	conversion voltage-frequency 1x Voltage reading channel Carrying capacity 1500 V DC Precision : +/- 5% full scale Reading speed : 10ms
Mechanical	Plastic ABS case, resined, IP54 degree protection. Free mounting.