

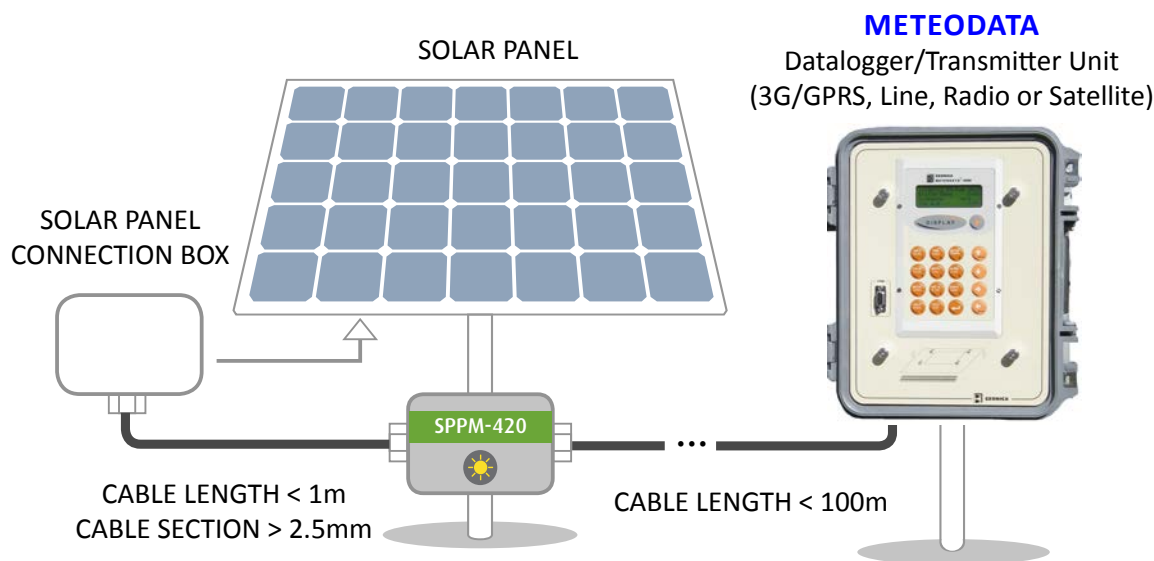
# Model SPPM-420

## Solar Panel Power Monitor with 4-20mA Output Suitable for Bifacial Solar Panels



**SPPM-V420** is an electronic module for the measurement, conditioning, isolation and transmission of VOC signal (typical measurement range: 40V) for reference solar panels.

**SPPM-I420** is an electronic module for the measurement, conditioning, isolation and transmission of ISC signal (typical measurement range: 10A) for reference solar panels.



### TECHNICAL SPECIFICATIONS

#### GENERAL

|                |                                    |
|----------------|------------------------------------|
| Output Signal: | 4-20mA                             |
| Accuracy:      | Better than 0.2% of selected range |

#### OPERATION

|                            |  |
|----------------------------|--|
| Supply voltage:            | 8.0...35 VDC   |
| Isolation voltage:         | 1.5 kVAC / 50 VAC  |
| Response time:             | 1...60 s (programmable)  |
| Warm-up time:              | 30 s   |
| Programming:               | Loop Link & HART   |
| EMC immunity influence:    | < ±0.1% of span  |
| Cable resistance per wire: | 5 Ω (max.) up to 50 Ω per wire is possible with reduced measurement accuracy |
| Mounting:                  | Mechanical kit for mounting on mast.   |

#### ENVIRONMENTAL

|  |                      |
|--|----------------------|
| Operating temperature:                 | -40°C to +85°C       |
| Relative humidity:                     | < 95% RH (non-cond.) |
| Protection degree:                     | IP66                 |
| Pressure compensation element included |                      |

#### SIGNAL

|                                       |                        |
|---------------------------------------|------------------------|
| Signal / Noise ratio:                 | Min. 60 dB             |
| $I_{sc}$ Input / Output signal range: | 0 to 14A (4 to 20 mA)  |
| $V_{oc}$ Input / Output signal range: | 0 to 60V (4 to 20 mA)  |
| Signal dynamics, input:               | 22 bit                 |
| Signal dynamics, output:              | 16 bit                 |
| Effect of supply voltage change:      | < 0.005% of span / VDC |