Model SPPM-420
Solar Panel Power Monitor with 4-20mA Output

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
- \( I_{oc}\) 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