

## Comparison between the New and Old Analog Silicon Irradiance Sensors



Summary	Si Sensors from October 2017	Si Sensors before October 2017
Measuring Range Irradiance	0...1,500 W/m <sup>2</sup>	Different per type
Measurement Uncertainty <sup>A</sup>	5 W/m <sup>2</sup> ± 2.5% from reading	5 W/m <sup>2</sup> ± 2.5% from reading
Measuring Range Temperature	-40...+90°C	Different per type
Measurement Uncertainty	Up to 1.3 K <sup>B</sup>	Up to 2.5 K

<sup>A</sup> Not valid for Si-mV-85 respectively Si-02 and for Si-mV-85(-Pt100 / -Pt1000) respectively Si-0(-Pt100 / -Pt1000) without external temperature compensation.

<sup>B</sup> Refer to data sheet for more detailed information.

Output Signal		Si Sensors from October 2017	Si Sensors before October 2017
<b>100 mV</b>	<b>Type</b>	<b>Si-mV-85(-Pt100 / -Pt1000)</b>	<b>Si-02(-Pt100 / -Pt1000)</b>
	Irradiance	0...appr. 85 mV for 0...1,500 W/m <sup>2</sup>	0...appr. 80 mV for 0...1,400 W/m <sup>2</sup>
	Temperature	Pt100 or Pt1000	Pt100 or Pt1000
<b>2 V</b>	<b>Type</b>	<b>Si-V-1.5TC(-T)</b>	<b>Si-01TC(-T)</b>
	Irradiance	0...1.5 V for 0...1,500 W/m <sup>2</sup>	0...1.4 V for 0...1,400 W/m <sup>2</sup>
	Temperature	0...2 V for -40...+90°C	0...2 V for -123.5...+76.5°C
<b>10 V</b>	<b>Type</b>	<b>Si-V-10TC(-T)</b>	<b>Si-13TC(-T)</b>
	Irradiance	0...10 V for 0...1,500 W/m <sup>2</sup>	0...10 V for 0...1,300 W/m <sup>2</sup>
	Temperature	0...10 V for -40...+90°C	0...10 V for -26.1...+89°C
<b>20 mA</b>	<b>Type</b>	<b>Si-I-420TC(-T)</b>	<b>Si-420TC(-T)</b>
	Irradiance	4...20 mA for 0...1,500 W/m <sup>2</sup>	4...20 mA for 0...1,200 W/m <sup>2</sup>
	Temperature	4...20 mA for -40...+90°C	4...20 mA for -123.5...+76.5°C

### Change Note regarding Measurement Range of Irradiance for Digital Si Sensors

Summary	Si Sensors from October 2017	Si Sensors before October 2017
Measuring Range Irradiance	0...1,500 W/m <sup>2</sup>	0...1,400 W/m <sup>2</sup>
Measurement Uncertainty	5 W/m <sup>2</sup> ± 2.5% from reading	5 W/m <sup>2</sup> ± 2.5% from reading
Measuring Range Temperature	-40...+90°C	-40...+90°C
Measurement Uncertainty	1 K (-35...+80°C)	1 K (-35...+80°C)