

This device is a digital watt-meter allowing you to monitor the power consumption of electrical devices. It works with both AC and DC current. Regarding AC current, the device computes the real power consumption (not just the product of RMS voltage and current), so it can be used to monitor inductive loads. The Yocto-Watt can compute the power consumption during a given lapse of time. Accuracy is 1mWh, 1%.

This device is insulated, which means that the sensor part is electrically disconnected from the USB part: you can measure any voltage difference between -250V and 250V, without risk of frying your computer. The module provides immediate reading on USB and can

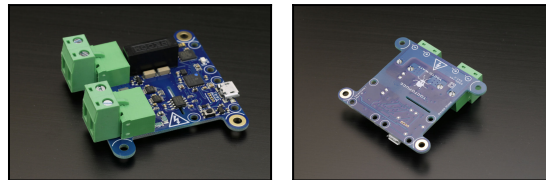
also store measures on the device internal flash for later retrieval when connected again by USB.

**Specifications**

Product ID	YWATTMK1
Hardware release <sup>1</sup>	Rev. D
USB connector	micro-B
Width	50 mm
Length	58 mm
Weight	22 g
Max Current (continuous)	16 A
Refresh rate	10 Hz
Measuring range (I)	-16...16 A DC/rms
Measuring range (U)	-250...250 V DC/rms
Max working voltage	250 V r.m.s.
Accuracy (AC, 50Hz/60Hz)	0.02 W / 1.5%
Accuracy (DC)	0.002 W / 1.5%
Measurement category	Cat II
IEC protection class	class II
USB insulation, clearance dist.	3.8 mm
USB insulation, creepage dist.	3.8 / 6 mm
USB insulation, dielectric strength (1 min.)	3 kV r.m.s.
Normal operating temperature	5...40 °C
Extended operating temperature <sup>2</sup>	-30...85 °C
Power derating	0,67A/°C above 61°C
RoHS	Yes
USB Vendor ID	0x24E0
USB Device ID	0x002A
Suggested enclosure	YoctoBox-Watt-Transp
Harmonized tariff code	8542.3190
Made in	Switzerland

<sup>1</sup> These specifications are for the current hardware revision. Specifications for earlier revisions may differ.

<sup>2</sup> The extended temperature range is defined based on components specifications and has been tested during a limited duration (1h). When using the device in harsh environments for a long period of time, we strongly advise to run extensive tests before going to production.



For more information: [www.yoctopuce.com/EN/products/yocto-watt](http://www.yoctopuce.com/EN/products/yocto-watt)