



Solar Monitor

SM2-MU Basic Specification

Max. number of devices¹	
SM2-MU Basic	1 device ¹
Supported devices¹	
Communication	Ethernet or serial bus connected Ethernet (TCP) up to 2 serial ports
Inverter protocols	AEG, Carlo Gavazzi, Danfoss, Delta, Diehl, Fronius, Kaco, Kostal, Mastervolt, Morningstar, Omnik, Omron, Pairan, Power-One, Power-Trap, Refusol, Riello UPS, Santerno, Satcon, Schneider-Electric, Siemens, Siliken, SMA, SolarEdge, Solarmax, Solutronic, Steca, Studer, Sungrow, Sunville, Sunways, Vacon, Xantrex
Meter protocols	ABB (REX521), Carlo Gavazzi (VMU-E/X), Fronius (Smart Meter), KMB (SMC-144, PA-144), Phoenix Contact (MA200/250), Schneider-Electric (SEPAM, PM9), Solar Controls (WattRouter), Yorix (GreenBonO), ZPA (IEC 62056-21)
Sensors	
	<i>with Standard models only</i>
Ethernet interface (LAN)	
Interface	RJ45 (100BASE-T) -100Mbit/s, compatible with networks 10/100/1000 Mbit/s, auto MDIX
Protocols	HTTP, SOAP, DNS, UDP Setup, Telnet, ARP, ICMP, SMTP, SNMP, Modbus
RS485 / RS422 / RS232	
Interfaces	2x RS485 or 1x RS422 ²
Speed	300 .. 115.200 bps (software configurable) ^{2, 3}
Termination	Yes, both for half and full duplex

1 A device represents an inverter, stringbox, MPP tracker, battery monitor, meter or any other device which can be detected on any serial bus or via ethernet communication.

2 Can be configured by software (web UI, XML).

3 Communication speeds are available according to selected device communication protocols.

	<i>Configurable with jumpers.</i>
Inputs	opto-electronically isolated
3x digital inputs (DI)	software configurable between dry contact or S0 pulse meter inputs (e.g. from electrometer)
Max. distance	30 m (depends on cable)
Outputs	
1x relay	32 V, 3 A, protected with power fuse
Electrical parameters	
Power supply	9-35 V DC, typ. 1.2 W @ 12V
DI1, DI2, DI3	8-80 V
RS485	Protected against transient voltages above 6.8V and against high currents with 10Ω resistors. Additional surge protection can be achieved with SM2-BE (bus extension) module with gas discharge tubes: Minimum DC Sparkover (100 V/s) 185 V Service life: 150 operations 8/20 μs 250 A, 1.2/50, 500 V (IEC61643-21) 20 operations 2/10 μs, 5 kV, 500 A 2 operations 8/20 μs, 1 kA
Mechanical parameters	
Dimensions	71.6 x 89.7 x 62.2 mm
Mounting	DIN rail
Screw terminals	0.5 mm ² - 1.5 mm ² cable cores
Protection rating	IP20
Operating temperature	0 .. +70 °C
LED diodes	Status, RS485
Extension options	<i>with Standard models only</i>

Mechanical Dimensions

