

# blue'Log X-Series



## Compatibility list

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### Details regarding the document

The original document is written in English. All other language versions are translations of the original document and are hereby identified as such.

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## Connections

### RS485 bus cabling

The blue'Log offers two separate RS485 interfaces (RS485-1 and RS485-2) which can be used for querying information recorded on various bus devices such as inverters, power quality analyzers, etc.

Please note the following regarding the bus cabling:

- Each RS485 interface supports only a single protocol (for example, Modbus).
- All devices on a bus must use the same protocol to communicate.
- The data logger functions exclusively as a master on the bus.
- The maximum permitted number of bus devices has to be observed (see driver information).
- The order of the bus devices on the bus is unimportant.
- The use of a repeater is necessary for every 32nd bus device and for long cable runs.
- The bus should be cabled with a twisted and shielded pair of wires.
- The shield of the bus cable must be grounded at one end of the connection only. The data logger does not have its own grounding.
- When wiring the bus wires, it is important that AC and DC cables are routed separately.
- Do not switch the buses signal wires.
- Different manufacturers interpret the RS485 interface's underlying standard differently. A and B wire labels may be different depending on different manufacturer. The + and – indicators, on the other hand, are unambiguous.
- To prevent reflections, the bus must always be terminated with a parallel terminator.

### Clamp connection

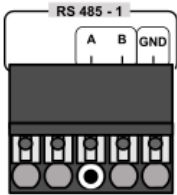


Figure 1 - Clamp assignment blue'Log

### RJ45 jack

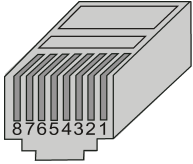


Figure 2 - RJ45 pin assignment

Please consider that the pin assignment of RJ45 jacks can be specific depending on the manufacturer.

# Inverters

## ABB PRO

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps, 38400 bps, 57600 bps, 115200 bps
Bus speed default:	19200 bps
Frame settings:	8N1, 8N2, 8E1, 8O1
Frame settings default:	8N1
Default address:	1

### Timings

Timeout:	1 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	Yes
-------------------	-----

### MEASUREMENT VALUES RECORDED

COS_PHI	Power factor (cos phi)
ERROR (1,...x)	Error (1,...x)
E_TOTAL	Total generated energy
F_AC	Grid frequency
I_AC	Current AC
I_DC	Current DC total
I_DCX_Y	Current DC (1,...x).(1,...x)
OT_AC_TOTAL	Total operating hours
P_AC	Power AC
Q_AC	Reactive power
R_ISO	Insulation resistance
STATE (1,...x)	Status (1,...x)
S_AC	Apparent power
T (1,...x)	Temperature (1,...x)
U_AC	Voltage AC
U_AC1	Voltage AC phase 1
U_AC2	Voltage AC phase 2
U_AC3	Voltage AC phase 3
U_AC_L1L2	Phase voltage L1L2
U_AC_L2L3	Phase voltage L2L3
U_AC_L3L1	Phase voltage L3L1
U_DC	Voltage DC

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

PRO series			
PRO-33.0-TL	PRO-33.0-TL-OUTD		PRO-33.0-TL-OUTD-S-400
PRO-33.0-TL-OUTD-SX-400			

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

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## PVS 980

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps, 38400 bps, 57600 bps, 115200 bps
Bus speed default:	9600 bps
Frame settings:	8N1, 8N2, 8E1, 8O1
Frame settings default:	8N1
Default address:	1

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1

Timings	
Timeout:	1 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	Yes
-------------------	-----

### MEASUREMENT VALUES RECORDED

COS_PHI	Power factor (cos phi)
ERROR	Error
E_DAY	Energy generated per day
E_TOTAL	Total generated energy
F_AC	Grid frequency
I_AC	Current AC
I_DC	Current DC total
I_DCX_Y	Current DC (1,...x).(1,...x)
OT_AC_TOTAL	Total operating hours
P_AC	Power AC
Q_AC	Reactive power
R_ISO	Insulation resistance
STATE (1,...x)	Status (1,...x)
S_AC	Apparent power
T (1,...x)	Temperature (1,...x)
U_AC	Voltage AC
U_AC1	Voltage AC phase 1
U_AC2	Voltage AC phase 2
U_AC3	Voltage AC phase 3
U_AC_L1L2	Phase voltage L1L2
U_AC_L2L3	Phase voltage L2L3
U_AC_L3L1	Phase voltage L3L1
U_DC	Voltage DC

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## ULTRA 750/1100/1500

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	19200 bps
Bus speed default:	19200 bps
Frame settings:	8N1
Frame settings default:	8N1
Default address:	3

### Timings

Timeout:	5 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\varphi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	Yes
-------------------	-----

### MEASUREMENT VALUES RECORDED

E_DAY	Energy generated per day
E_TOTAL	Total generated energy
F_AC	Grid frequency
I_AC	Current AC
I_AC1	Current AC phase 1
I_AC2	Current AC phase 2
I_AC3	Current AC phase 3
I_DC	Current DC total
P_AC	Power AC
P_DC	Power DC
Q_AC	Reactive power
STATE (1,...x)	Status (1,...x)
T (1,...x)	Temperature (1,...x)
U_AC	Voltage AC
U_AC1	Voltage AC phase 1
U_AC2	Voltage AC phase 2
U_AC3	Voltage AC phase 3
U_DC	Voltage DC

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

ULTRA series			
ULTRA 750	ULTRA 1100	ULTRA 1500	

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## AROS (Riello) SIRIO K12 - K800 central inverter

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps
Bus speed default:	9600 bps
Frame settings:	8N1
Frame settings default:	8N1
Default address:	1

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1

Timings	
Timeout:	1 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	Yes
-------------------	-----

### MEASUREMENT VALUES RECORDED

ERROR (1,...x)	Error (1,...x)
E_TOTAL	Total generated energy
F_AC	Grid frequency
I_AC1	Current AC phase 1
I_AC2	Current AC phase 2
I_AC3	Current AC phase 3
I_DC (1,...x)	Current DC string (1,...x)
I_DCX_Y	Current DC (1,...x).(1,...x)
OT_AC_TOTAL	Total operating hours
P_AC1	Power AC phase 1
P_AC2	Power AC phase 2
P_AC3	Power AC phase 3
Q_AC1	Reactive power phase 1
Q_AC2	Reactive power phase 2
Q_AC3	Reactive power phase 3
STATE (1,...x)	Status (1,...x)
T	Temperature
U_AC1	Voltage AC phase 1
U_AC2	Voltage AC phase 2
U_AC3	Voltage AC phase 3
U_DC (1,...x)	Voltage DC string (1,...x)

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

Sirio Central Inverters series		
Sirio K12	Sirio K15	Sirio K18
Sirio K25 Series	Sirio K33 Series	Sirio K40 Series
Sirio K64 Series	Sirio K80 Series	Sirio K100 Series
Sirio K200 Series	Sirio K250 Series	Sirio K330 Series
Sirio K500 Series	Sirio K800 Series	

Please contact Sales for details of compatibility with devices not listed.

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E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## Chint CPS SCA20/25KTL-DO

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	2400 bps, 4800 bps, 9600 bps, 19200 bps
Bus speed default:	9600 bps
Frame settings:	8N1
Frame settings default:	8N1
Default address:	1

### Timings

Timeout:	1 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\varphi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	Yes
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### MEASUREMENT VALUES RECORDED

COS_PHI	Power factor (cos phi)
ERROR (1,...x)	Error (1,...x)
E_DAY	Energy generated per day
E_TOTAL	Total generated energy
F_AC	Grid frequency
I_AC1	Current AC phase 1
I_AC2	Current AC phase 2
I_AC3	Current AC phase 3
I_DC (1,...x)	Current DC string (1,...x)
P_AC	Power AC
Q_AC	Reactive power
STATE (1,...x)	Status (1,...x)
S_AC	Apparent power
T (1,...x)	Temperature (1,...x)
U_AC_L1L2	Phase voltage L1L2
U_AC_L2L3	Phase voltage L2L3
U_AC_L3L1	Phase voltage L3L1
U_DC (1,...x)	Voltage DC string (1,...x)

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

CPS SC30KTL-DO	CPS SC36KTL-DO	CPS SCA20KTL-DO
CPS SCA25KTL-DO		

Please contact Sales for details of compatibility with devices not listed.

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## Delta M (SunSpec)

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps, 38400 bps
Bus speed default:	19200 bps
Frame settings:	8N1
Frame settings default:	8N1
Default address:	1

### Timings

Timeout:	1 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\varphi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	No
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### MEASUREMENT VALUES RECORDED

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

M15A	M20A	M30A
M42U	M50A	M60U
M80U	M88H	

Please contact Sales for details of compatibility with devices not listed.

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## Fronius Datamanager 2.0

### COMMUNICATION

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1
Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps
Bus speed default:	9600 bps
Frame settings:	8N1, 8E1, 8O1
Frame settings default:	8N1
Default address:	1
Timings	
Timeout:	1 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

# Huawei SUN2000

## COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	4800 bps, 9600 bps, 19200 bps
Bus speed default:	9600 bps
Frame settings:	8N1
Frame settings default:	8N1
Default address:	1
Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1

Timings	
Timeout:	1 seconds
Delay:	none

## POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

## ALARM MONITORING

Alarm monitoring:	No
-------------------	----

## MEASUREMENT VALUES RECORDED

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## SUPPORTED DEVICES

SUN2000 series		
SUN2000-8KTL	SUN2000-10KTL	SUN2000-12KTL
SUN2000-15KTL	SUN2000-17KTL	SUN2000-20KTL
SUN2000-23KTL	SUN2000-24.5KTL	SUN2000-24.7KTL-JP
SUN2000-28KTL	SUN2000-30KTL-A	SUN2000-33KTL
SUN2000-33KTL-A	SUN2000-33KTL-E001	SUN2000-33KTL-JP
SUN2000-33KTL-US	SUN2000-36KTL	SUN2000-36KTL-US
SUN2000-40KTL	SUN2000-40KTL-JP	SUN2000-40KTL-US
SUN2000-42KTL	SUN2000-43KTL-IN-C1	SUN2000-45KTL-US-HV-D0
SUN2000-50KTL	SUN2000-50KTL-C1	SUN2000-50KTL-JPM0
SUN2000-50KTL-JPM1	SUN2000-50KTL-M0	SUN2000-55KTL-HV-D1
SUN2000-55KTL-HV-D1-001	SUN2000-55KTL-IN-HV-D1	SUN2000-60KTL-HV-D1
SUN2000-60KTL-HV-D1-001	SUN2000-60KTL-M0	SUN2000-63KTL-JPM0
SUN2000-65KTL-M0	SUN2000-70KTL-C1	SUN2000-70KTL-INM0
SUN2000-75KTL-C1		

Please contact Sales for details of compatibility with devices not listed.

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## KACO new energy Powador TL3, blueplanet (SunSpec)

### COMMUNICATION

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1

### Timings

Timeout:	1 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	No
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### MEASUREMENT VALUES RECORDED

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

#### blueplanet series

blueplanet 3.0 TL1	blueplanet 3.5 TL1	blueplanet 3.7 TL1
blueplanet 4.0 TL1	blueplanet 4.6 TL1	blueplanet 5.0 TL1
blueplanet 5.0 TL3	blueplanet 6.5 TL3	blueplanet 7.5 TL3
blueplanet 8.6 TL3	blueplanet 9.0 TL3	blueplanet 10.0 TL3
blueplanet 12.0 TL3	blueplanet 14.0 TL3	blueplanet 18.0 TL3
blueplanet 20.0 TL3	blueplanet 50.0 TL3	blueplanet 87.0 TL3 - S
blueplanet 92.0 TL3 - S	blueplanet 110 TL3 - S	blueplanet 125 TL3 - S
blueplanet 137 TL3 - S	blueplanet 150 TL3 - S	

#### Powador series

Powador 30.0 TL3	Powador 33.0 TL3	Powador 36.0 TL3
Powador 39.0 TL3	Powador 40.0 TL3	Powador 48.0 TL3 Park
Powador 60.0 TL3	Powador 72.0 TL3 Park	

Please contact Sales for details of compatibility with devices not listed.

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E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)



## Powador, blueplanet (KACO protocol)

### COMMUNICATION

Communication interface:	RS485
Protocol:	KACO
Bus speed:	9600 bps
Bus speed default:	9600 bps
Frame settings:	8N1
Frame settings default:	8N1
Default address:	1

### Timings

Timeout:	2 seconds
Delay:	0.5 seconds

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\varphi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	Yes
-------------------	-----

### MEASUREMENT VALUES RECORDED

E_DAY	Energy generated per day
I_AC	Current AC
I_DC	Current DC total
P_AC	Power AC
P_DC	Power DC
STATE (1,...x)	Status (1,...x)
T	Temperature
U_AC	Voltage AC
U_DC	Voltage DC

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

SGI 9k	SGI 10k	SGI 12k
SGI 13.5k-T	SGI 15k-T	SGI 25k-02 Home
SGI 30k-02 Home	SGI 33k-02 Home	SGI 1500T
SGI 1500Tplus-02	SGI 2000	SGI 2000plus-02
SGI 2500	SGI 2500plus-02	SGI 2500Tplus-02
SGI 3000	SGI 3000plus-02	SGI 3500
SGI 3500plus-02	SGI 3500T	SGI 3500Tplus-02
SGI 4000	SGI 4000plus-02	SGI 4000Tplus-02
SGI 4500	SGI 4500plus-02	SGI 4500T
SGI 4500Tplus-02	SGI 5500	SGI 5500plus-02
SPR-2600K-TL-1	SPR-3600K-TL-1	SPR-4600K-TL-1
SPR-5500K-TL-1	SPR-9000K-TL3	SPR-10000K-TL3
SPR-12500K-TL3	SUN3Grid 3000	SUN3Grid 3000-02
SUN3Grid 4000	SUN3Grid 4000-02	SUN3Grid 5000
SUN3Grid 5000-02	SUN3Grid 6000	SUN3Grid 6000-02
SUN3Grid 8000	SUN3Grid 8000-02	SUNstring 3000
SUNstring 3000-02	SUNstring 4000	SUNstring 4000-02
SUNstring 5000	SUNstring 5000-02	unknown inverter type

### blueplanet series

blueplanet 2.0 TL1	blueplanet 2.6 TL1	blueplanet 3.0 TL1 M1
blueplanet 3.0 TL1 M2	blueplanet 3.0 TL3	blueplanet 3.5 TL1
blueplanet 3.7 TL1	blueplanet 4.0 TL1	blueplanet 4.0 TL3
blueplanet 4.6 TL1	blueplanet 5.0 TL1	blueplanet 5.0 TL3
blueplanet 6.5 TL3	blueplanet 7.5 TL3	blueplanet 8.6 TL3 INT
blueplanet 9.0 TL3	blueplanet 10.0 TL3 INT	blueplanet 15.0 TL3
blueplanet 20.0 TL3	blueplanet 29.0 TL3 WM	blueplanet 32.0 TL3 M1 OD
blueplanet 32.0 TL3 M3 OD	blueplanet 40.0 TL3 M1 OD	blueplanet 40.0 TL3 M3 OD
blueplanet 50.0 TL3 M1 OD	blueplanet 50.0 TL3 M3 OD	blueplanet 50.0 TL3 RPO
blueplanet 50.0 TL3 WM	blueplanet 60.0 TL3 M1 OD	blueplanet 60.0 TL3 M3 OD
blueplanet 750 TL3	blueplanet 750 TL3	blueplanet 875 TL3
blueplanet 875 TL3	blueplanet 1000 TL3	blueplanet 1000 TL3
blueplanet 1502xi	blueplanet 2502xi	blueplanet 2901xi
blueplanet 3502xi	blueplanet 3601xi	blueplanet 5002xi
blueplanet 6400M	blueplanet 6400xi supreme	blueplanet 7600M

blueplanet 7600xi supreme  
blueplanet gridsave 50.0 TL3  
blueplanet XP10U-H6  
blueplanet XP100U-H2  
bp voltage source 50.0 TL3

blueplanet 7600xi supreme  
blueplanet PVI  
blueplanet XP83U-H6  
blueplanet XP100U-H4

blueplanet gridsave 50.0 TL3  
blueplanet XP10U-H4  
blueplanet XP90U-H6  
blueplanet XP100U-H6

Powador series

Powador 6.0 TL3  
Powador 10.0 TL3  
Powador 14.0 TR3  
Powador 18.0 TR3  
Powador 30.0 TL3Y  
Powador 30.0 TL3Y  
Powador 36.0 TL3 M1  
Powador 37.5 TL3Y  
Powador 39.0 TL3  
Powador 39.0 TL3Y  
Powador 40.0 TL3  
Powador 60.0 TL3  
Powador 1501xi  
Powador 2500xi  
Powador 3000xi  
Powador 3200  
Powador 3600xi  
Powador 4200  
Powador 4400  
Powador 5000xi  
Powador 5002  
Powador 5500  
Powador 6400 supreme  
Powador 6400xi Thinfilm HV  
Powador 6650xi  
Powador 7200 supreme  
Powador 7700  
Powador 7900 supreme  
Powador 8000xi Thinfilm  
Powador 8600 supreme  
Powador 20000xi  
Powador 25000xi  
Powador 30000xi  
Powador 33000xi  
Powador XP100 (100k)  
Powador XP200-HV  
Powador XP250-HV TL  
Powador XP550-HV TL

Powador 7.8 TL3  
Powador 12.0 TL3  
Powador 16.0 TR3  
Powador 20.0 TL3  
Powador 30.0 TL3Y  
Powador 33.0 TL3  
Powador 37.5 TL3  
Powador 37.5 TL3Y  
Powador 39.0 TL3 M1  
Powador 39.0 TL3Y  
Powador 48.0 TL3 Park  
Powador 72.0 TL3 Park  
Powador 2002  
Powador 2501xi  
Powador 3002  
Powador 3500xi  
Powador 4000 supreme  
Powador 4202  
Powador 4500xi  
Powador 5001xi  
Powador 5300  
Powador 6002  
Powador 6400xi  
Powador 6600  
Powador 6650xi Thinfilm  
Powador 7200xi  
Powador 7700 supreme  
Powador 8000 supreme  
Powador 8000xi Thinfilm HV  
Powador 9600  
Powador 20000xi  
Powador 25000xi  
Powador 30000xi  
Powador 33000xi  
Powador XP100 (XP100)  
Powador XP200-HV TL  
Powador XP350-HV TL

Powador 9.0 TL3  
Powador 14.0 TL3  
Powador 18.0 TL3  
Powador 30.0 TL3  
Powador 30.0 TL3Y  
Powador 36.0 TL3  
Powador 37.5 TL3Y  
Powador 37.5 TL3Y  
Powador 39.0 TL3Y  
Powador 39.0 TL3Y  
Powador 52.0 TL3  
Powador 78.0 TL3  
Powador 2002  
Powador 3000 SE  
Powador 3002  
Powador 3501xi  
Powador 4000xi  
Powador 4202  
Powador 4501xi  
Powador 5002  
Powador 5300 supreme  
Powador 6002  
Powador 6400xi Thinfilm  
Powador 6650 supreme  
Powador 6650xi Thinfilm HV  
Powador 7200xi Thinfilm HV  
Powador 7900  
Powador 8000xi  
Powador 8600  
Powador 9600 supreme  
Powador 20000xi  
Powador 25000xi  
Powador 30000xi  
Powador 33000xi  
Powador XP100-HV  
Powador XP250-HV  
Powador XP500-HV TL

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## LTi ReEnergy PVMaster II/III

### COMMUNICATION

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1

### Timings

Timeout:	1 seconds
Delay:	0.1 seconds

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\varphi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

PVMaster II series  
PVM2

PVMaster III series  
PVM3

PVMaster ISO-Container Station series  
PVI3

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## Santerno Sunway TG

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	1200 bps, 2400 bps, 4800 bps, 9600 bps, 19200 bps, 38400 bps, 57600 bps
Bus speed default:	38400 bps
Frame settings:	8N2
Frame settings default:	8N2
Default address:	1

### Timings

Timeout:	1 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\varphi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	Yes
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### MEASUREMENT VALUES RECORDED

COS_PHI	Power factor (cos phi)
ERROR	Error
E_TOTAL	Total generated energy
F_AC	Grid frequency
I_AC	Current AC
I_AC1	Current AC phase 1
I_AC2	Current AC phase 2
I_AC3	Current AC phase 3
I_DC	Current DC total
P_AC	Power AC
P_AC1	Power AC phase 1
P_AC2	Power AC phase 2
P_AC3	Power AC phase 3
P_DC	Power DC
Q_AC	Reactive power
Q_AC1	Reactive power phase 1
Q_AC2	Reactive power phase 2
Q_AC3	Reactive power phase 3
STATE (1,...x)	Status (1,...x)
S_AC	Apparent power
T (1,...x)	Temperature (1,...x)
U_AC	Voltage AC
U_AC1	Voltage AC phase 1
U_AC2	Voltage AC phase 2
U_AC3	Voltage AC phase 3
U_AC_L1L2	Phase voltage L1L2
U_AC_L2L3	Phase voltage L2L3
U_AC_L3L1	Phase voltage L3L1
U_DC	Voltage DC

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

#### Sunway TG series

Sunway TG 14 600V	Sunway TG 19 600V	Sunway TG 26 600V
Sunway TG 35 800V	Sunway TG 42 600V	Sunway TG 57 800V
Sunway TG 61 600V	Sunway TG 82 800V	Sunway TG 82 800V LT
Sunway TG 90 600V	Sunway TG 100 800V	Sunway TG 110 600V
Sunway TG 120 800V	Sunway TG 120 800V LT	Sunway TG 135 600V
Sunway TG 145 800V	Sunway TG 145 800V LT	Sunway TG 175 800V TE
Sunway TG 180 600V TE	Sunway TG 230 600V TE	Sunway TG 240 800V TE
Sunway TG 280 600V TE	Sunway TG 290 600V TE	Sunway TG 300 800V TE
Sunway TG 310 800V TE	Sunway TG 365 600V TE	Sunway TG 385 800V TE
Sunway TG 455 600V TE	Sunway TG 485 800V TE	Sunway TG 550 600V TE
Sunway TG 610 800V TE	Sunway TG 610 1000V TE	Sunway TG 610 1000V TE LT
Sunway TG 610 1100V TE	Sunway TG 730 800V TE	Sunway TG 750 900V TE

Sunway TG 750 1000V TE  
Sunway TG 1200 1000V TE

Sunway TG 760 1000V TE  
Sunway TG 1200 1100V TE

Sunway TG 900 1500V TE  
Sunway TG 1800 1500V TE

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## SMA SC 1850-US / 2200-US / 2200 / 2500-EV / 2500-EV-US

### COMMUNICATION

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	3

### Timings

Timeout:	1 seconds
Delay:	0.1 seconds

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	Yes
-------------------	-----

### MEASUREMENT VALUES RECORDED

COS_PHI	Power factor (cos phi)
ERROR	Error
E_DAY	Energy generated per day
E_TOTAL	Total generated energy
FT_AC_TOTAL	Total feed-in hours
F_AC	Grid frequency
I_AC1	Current AC phase 1
I_AC2	Current AC phase 2
I_AC3	Current AC phase 3
I_DC	Current DC total
OT_AC_TOTAL	Total operating hours
P_AC	Power AC
P_DC	Power DC
Q_AC	Reactive power
R_ISO	Insulation resistance
STATE (1,...x)	Status (1,...x)
S_AC	Apparent power
T (1,...x)	Temperature (1,...x)
U_AC_L1L2	Phase voltage L1L2
U_AC_L2L3	Phase voltage L2L3
U_AC_L3L1	Phase voltage L3L1
U_DC	Voltage DC

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

Sunny Central series		
SC 1850-US	SC 2200	SC 2200-US
SC 2500-EV	SC 2500-EV-US	SC 2750-EV
SC 2750-EV-US		

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## Sunny Central (CP, CP-US, CP-JP, HE-20)

### COMMUNICATION

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1

### Timings

Timeout:	5 seconds
Delay:	1 seconds

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	No
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### MEASUREMENT VALUES RECORDED

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

#### Sunny Central series

SC 500CP	SC 500CP-JP	SC 500CP-US
SC 500CP-US 600V	SC 500HE-20	SC 630CP
SC 630CP-US	SC 630HE-20	SC 720CP
SC 720CP-US	SC 720HE-20	SC 750CP-US
SC 760CP	SC 760HE-20	SC 800CP
SC 800CP-US	SC 800HE-20	SC 850CP
SC 900CP		

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## SOLID-Q 50

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps
Bus speed default:	9600 bps
Frame settings:	8N1
Frame settings default:	8N1
Default address:	1

### Timings

Timeout:	1 seconds
Delay:	0.01 seconds

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\varphi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	Yes
-------------------	-----

### MEASUREMENT VALUES RECORDED

COS_PHI	Power factor (cos phi)
ERROR	Error
E_DAY	Energy generated per day
E_TOTAL	Total generated energy
FT_AC_TOTAL	Total feed-in hours
F_AC	Grid frequency
I_AC1	Current AC phase 1
I_AC2	Current AC phase 2
I_AC3	Current AC phase 3
I_DC (1,...x)	Current DC string (1,...x)
I_DCX_Y	Current DC (1,...x).(1,...x)
P_AC	Power AC
Q_AC	Reactive power
STATE (1,...x)	Status (1,...x)
T	Temperature
U_AC1	Voltage AC phase 1
U_AC2	Voltage AC phase 2
U_AC3	Voltage AC phase 3
U_DC (1,...x)	Voltage DC string (1,...x)

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.



## SOLID-Q PRO 60

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps
Bus speed default:	9600 bps
Frame settings:	8N1
Frame settings default:	8N1
Default address:	1

### Timings

Timeout:	1 seconds
Delay:	0.01 seconds

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	Yes
-------------------	-----

### MEASUREMENT VALUES RECORDED

COS_PHI	Power factor (cos phi)
ERROR	Error
E_DAY	Energy generated per day
E_TOTAL	Total generated energy
FT_AC_TOTAL	Total feed-in hours
F_AC	Grid frequency
I_AC1	Current AC phase 1
I_AC2	Current AC phase 2
I_AC3	Current AC phase 3
I_DC (1,...x)	Current DC string (1,...x)
I_DCX_Y	Current DC (1,...x).(1,...x)
P_AC	Power AC
Q_AC	Reactive power
STATE (1,...x)	Status (1,...x)
T	Temperature
U_AC_L1L2	Phase voltage L1L2
U_AC_L2L3	Phase voltage L2L3
U_AC_L3L1	Phase voltage L3L1
U_DC (1,...x)	Voltage DC string (1,...x)

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## STP 60, SHP 1 (SunSpec)

### COMMUNICATION

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	126

### Timings

Timeout:	1 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

Sunny Highpower series  
SHP 1

Sunny Tripower series  
STP 60

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## STP, SB, SBS, SI (SunSpec)

### COMMUNICATION

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	126

### Timings

Timeout:	10 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

#### Sunny Boy series

SB 2500TLST-21	SB 3000TL-21	SB 3000TL-US-22
SB 3000TLST-21	SB 3500TL-JP-22	SB 3600SE-10
SB 3600TL-21	SB 3800TL-US-22	SB 4000TL-21
SB 4000TL-US-22	SB 4500TL-JP-22	SB 5000SE-10
SB 5000TL-21	SB 5000TL-US-22	SB 6000TL-US-22
SB 7000TL-US-22	SB 7700TL-US-22	SB1.5-1VL-40
SB2.5-1VL-40	SB3.0-1AV-40	SB3.0-1SP-US-40
SB3.6-1AV-40	SB3.8-1SP-US-40	SB4.0-1AV-40
SB5.0-1AV-40	SB5.0-1SP-US-40	SB6.0-1SP-US-40
SB7.0-1SP-US-40	SB7.7-1SP-US-40	

#### Sunny Boy Storage series

SBS2.5-1VL-40

#### Sunny Island series

Sunny Island 3.0M  
Sunny Island 8.0H

Sunny Island 4.4M

Sunny Island 6.0H

#### Sunny Tripower series

STP 50-40	STP 50-JP-40	STP 50-US-40
STP 5000TL-20	STP 6000TL-20	STP 7000TL-20
STP 8000TL-20	STP 9000TL-20	STP 10000TL-10
STP 10000TL-20	STP 10000TLEE-JP-10	STP 10000TLEE-JP-11
STP 11000TL-20	STP 12000TL-10	STP 12000TL-20
STP 12000TL-US-10	STP 15000TL-10	STP 15000TL-30
STP 15000TL-US-10	STP 15000TLEE-10	STP 17000TL-10
STP 20000TL-30	STP 20000TL-US-10	STP 20000TLEE-10
STP 20000TLEE-JP-11	STP 24000TL-US-10	STP 25000TL-30
STP 25000TL-JP-30	STP 30000TL-US-10	

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## STP, SB, SMC (SMA Data)

### COMMUNICATION

Communication interface:	RS485
Protocol:	SMA_DATA
Bus speed:	1200 bps
Bus speed default:	1200 bps
Frame settings:	8N1
Frame settings default:	8N1
Default address:	0

### Timings

Timeout:	10 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\varphi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## SunGrow SG1 - SG125 (string inverter)

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps
Bus speed default:	9600 bps
Frame settings:	8O1, 8O2, 8N1, 8N2, 8E1, 8E2
Frame settings default:	8N1
Default address:	1
Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1
Timings	
Timeout:	5 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	Yes
-------------------	-----

### MEASUREMENT VALUES RECORDED

COS_PHI	Power factor (cos phi)
ERROR	Error
E_DAY	Energy generated per day
E_TOTAL	Total generated energy
F_AC	Grid frequency
I_AC	Current AC
I_AC1	Current AC phase 1
I_AC2	Current AC phase 2
I_AC3	Current AC phase 3
I_DC (1,...x)	Current DC string (1,...x)
I_DCX_Y	Current DC (1,...x).(1,...x)
OT_AC_TOTAL	Total operating hours
P_AC	Power AC
P_DC	Power DC
Q_AC	Reactive power
R_ISO	Insulation resistance
STATE (1,...x)	Status (1,...x)
T	Temperature
U_AC	Voltage AC
U_AC1	Voltage AC phase 1
U_AC2	Voltage AC phase 2
U_AC3	Voltage AC phase 3
U_AC_L1L2	Phase voltage L1L2
U_AC_L2L3	Phase voltage L2L3
U_AC_L3L1	Phase voltage L3L1
U_DC (1,...x)	Voltage DC string (1,...x)

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

String Inverter series		
LP_P34KSG	SG3KTL-EC	SG4KTL-EC
SG5KTL-EC	SG6KTL-EC	SG8KTL-EC
SG10KTL-EC	SG10KTL-M	SG12KTL-EC
SG12KTL-M	SG15KTLM	SG16K6J
SG20KTL	SG20KTLM	SG20KU
SG30KJ	SG30KTL	SG30KTL_V31
SG30KTL-M	SG30KU	SG33K3J
SG33KTL-M	SG34KJ	SG36KTL
SG36KTL-M	SG36KU	SG40KTL
SG40KTL_V21	SG40KTL-M	SG49K5J

SG50KTL  
SG60KTL-M  
SG80HV  
SG125HV

SG50KTL-M  
SG60KU  
SG80KTL

SG60KTL  
SG60KU-M  
SG80KTL-M

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## SG500 - SG2500 HV/MV (turnkey station)

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps
Bus speed default:	9600 bps
Frame settings:	8N1
Frame settings default:	8N1
Default address:	1

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1

Timings	
Timeout:	5 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

Turnkey Station series		
SG500MX-M	SG630MX-M	SG750MX
SG800MX	SG1000	SG1250
SG1250-MV	SG1500	SG2000
SG2000-MV	SG2500	SG2500-MV
SG2500HV	SG2500HV-MV	

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## SunSpec Alliance Compatible inverter

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps, 38400 bps, 57600 bps, 115200 bps
Bus speed default:	9600 bps
Frame settings:	8N1
Frame settings default:	8N1
Default address:	1

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1

Timings	
Timeout:	1 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	No
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### MEASUREMENT VALUES RECORDED

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

Model 101	Model 102	Model 103
Model 122	Model 123	Model 160

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)



## TMEIC SOLAR WARE 175

### COMMUNICATION

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1

### Timings

Timeout:	1 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	Yes
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### MEASUREMENT VALUES RECORDED

COS_PHI	Power factor (cos phi)
ERROR (1,...x)	Error (1,...x)
E_TOTAL	Total generated energy
F_AC	Grid frequency
I_AC1	Current AC phase 1
I_AC2	Current AC phase 2
I_AC3	Current AC phase 3
I_DC	Current DC total
P_AC	Power AC
P_DC	Power DC
Q_AC	Reactive power
STATE (1,...x)	Status (1,...x)
U_AC_L1L2	Phase voltage L1L2
U_AC_L2L3	Phase voltage L2L3
U_AC_L3L1	Phase voltage L3L1
U_DC	Voltage DC

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

SOLAR WARE series  
PVL-L0175

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## SOLAR WARE 250

### COMMUNICATION

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1

### Timings

Timeout:	1 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	Yes
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### MEASUREMENT VALUES RECORDED

COS_PHI	Power factor (cos phi)
ERROR (1,...x)	Error (1,...x)
E_TOTAL	Total generated energy
F_AC	Grid frequency
I_AC1	Current AC phase 1
I_AC2	Current AC phase 2
I_AC3	Current AC phase 3
I_DC	Current DC total
P_AC	Power AC
P_DC	Power DC
Q_AC	Reactive power
STATE (1,...x)	Status (1,...x)
U_AC_L1L2	Phase voltage L1L2
U_AC_L2L3	Phase voltage L2L3
U_AC_L3L1	Phase voltage L3L1
U_DC	Voltage DC

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

SOLAR WARE series  
PVL-L0250

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## SOLAR WARE 490

### COMMUNICATION

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1

Timings	
Timeout:	1 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	Yes
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### MEASUREMENT VALUES RECORDED

COS_PHI	Power factor (cos phi)
ERROR (1,...x)	Error (1,...x)
E_TOTAL	Total generated energy
F_AC	Grid frequency
I_AC1	Current AC phase 1
I_AC2	Current AC phase 2
I_AC3	Current AC phase 3
I_DC	Current DC total
P_AC	Power AC
P_DC	Power DC
Q_AC	Reactive power
STATE (1,...x)	Status (1,...x)
U_AC_L1L2	Phase voltage L1L2
U_AC_L2L3	Phase voltage L2L3
U_AC_L3L1	Phase voltage L3L1
U_DC	Voltage DC

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

SOLAR WARE series  
PVL-L490

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## SOLAR WARE 500

### COMMUNICATION

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1

Timings	
Timeout:	1 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	Yes
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### MEASUREMENT VALUES RECORDED

COS_PHI	Power factor (cos phi)
ERROR (1,...x)	Error (1,...x)
E_TOTAL	Total generated energy
F_AC	Grid frequency
I_AC1	Current AC phase 1
I_AC2	Current AC phase 2
I_AC3	Current AC phase 3
I_DC	Current DC total
P_AC	Power AC
P_DC	Power DC
Q_AC	Reactive power
STATE (1,...x)	Status (1,...x)
U_AC_L1L2	Phase voltage L1L2
U_AC_L2L3	Phase voltage L2L3
U_AC_L3L1	Phase voltage L3L1
U_DC	Voltage DC

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

SOLAR WARE series		
PVL-L0500	PVL-L0500E	PVL-L0500E(J)
PVI-L0500E-D	PVL-L0500E-S	PVL-L0500U

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## SOLAR WARE 630

### COMMUNICATION

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1

Timings	
Timeout:	1 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	Yes
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### MEASUREMENT VALUES RECORDED

COS_PHI	Power factor (cos phi)
ERROR (1,...x)	Error (1,...x)
E_TOTAL	Total generated energy
F_AC	Grid frequency
I_AC1	Current AC phase 1
I_AC2	Current AC phase 2
I_AC3	Current AC phase 3
I_DC	Current DC total
P_AC	Power AC
P_DC	Power DC
Q_AC	Reactive power
STATE (1,...x)	Status (1,...x)
U_AC_L1L2	Phase voltage L1L2
U_AC_L2L3	Phase voltage L2L3
U_AC_L3L1	Phase voltage L3L1
U_DC	Voltage DC

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

SOLAR WARE series		
PVL-L0630E	PVL-L0630E(J)	PVL-L0630E-D
PVL-L0630E-S	PVL-L0630U	

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## SOLAR WARE 665

### COMMUNICATION

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1

Timings	
Timeout:	1 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	Yes
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### MEASUREMENT VALUES RECORDED

COS_PHI	Power factor (cos phi)
ERROR (1,...x)	Error (1,...x)
E_TOTAL	Total generated energy
F_AC	Grid frequency
I_AC1	Current AC phase 1
I_AC2	Current AC phase 2
I_AC3	Current AC phase 3
I_DC	Current DC total
P_AC	Power AC
P_DC	Power DC
Q_AC	Reactive power
STATE (1,...x)	Status (1,...x)
U_AC_L1L2	Phase voltage L1L2
U_AC_L2L3	Phase voltage L2L3
U_AC_L3L1	Phase voltage L3L1
U_DC	Voltage DC

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

SOLAR WARE series  
PVL-L0665E

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## SOLAR WARE 675

### COMMUNICATION

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1

### Timings

Timeout:	1 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	Yes
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### MEASUREMENT VALUES RECORDED

COS_PHI	Power factor (cos phi)
ERROR (1,...x)	Error (1,...x)
E_TOTAL	Total generated energy
F_AC	Grid frequency
I_AC1	Current AC phase 1
I_AC2	Current AC phase 2
I_AC3	Current AC phase 3
I_DC	Current DC total
P_AC	Power AC
P_DC	Power DC
Q_AC	Reactive power
STATE (1,...x)	Status (1,...x)
U_AC_L1L2	Phase voltage L1L2
U_AC_L2L3	Phase voltage L2L3
U_AC_L3L1	Phase voltage L3L1
U_DC	Voltage DC

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

SOLAR WARE series  
PVL-L0675E

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## SOLAR WARE 750

### COMMUNICATION

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1

Timings	
Timeout:	1 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	Yes
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### MEASUREMENT VALUES RECORDED

COS_PHI	Power factor (cos phi)
ERROR (1,...x)	Error (1,...x)
E_TOTAL	Total generated energy
F_AC	Grid frequency
I_AC1	Current AC phase 1
I_AC2	Current AC phase 2
I_AC3	Current AC phase 3
I_DC	Current DC total
P_AC	Power AC
P_DC	Power DC
Q_AC	Reactive power
STATE (1,...x)	Status (1,...x)
U_AC_L1L2	Phase voltage L1L2
U_AC_L2L3	Phase voltage L2L3
U_AC_L3L1	Phase voltage L3L1
U_DC	Voltage DC

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

SOLAR WARE series	
PVL-L0750E	PVL-L0750E-S

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)



## SOLAR WARE 833

### COMMUNICATION

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1

Timings	
Timeout:	1 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	Yes
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### MEASUREMENT VALUES RECORDED

COS_PHI	Power factor (cos phi)
ERROR (1,...x)	Error (1,...x)
E_TOTAL	Total generated energy
F_AC	Grid frequency
I_AC1	Current AC phase 1
I_AC2	Current AC phase 2
I_AC3	Current AC phase 3
I_DC	Current DC total
P_AC	Power AC
P_DC	Power DC
Q_AC	Reactive power
STATE (1,...x)	Status (1,...x)
U_AC_L1L2	Phase voltage L1L2
U_AC_L2L3	Phase voltage L2L3
U_AC_L3L1	Phase voltage L3L1
U_DC	Voltage DC

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

SOLAR WARE series  
PVL-L0833GR

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## SOLAR WARE 1000

### COMMUNICATION

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1

Timings	
Timeout:	1 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	Yes
-------------------	-----

### MEASUREMENT VALUES RECORDED

COS_PHI	Power factor (cos phi)
ERROR (1,...x)	Error (1,...x)
E_TOTAL	Total generated energy
F_AC	Grid frequency
I_AC1	Current AC phase 1
I_AC2	Current AC phase 2
I_AC3	Current AC phase 3
I_DC	Current DC total
P_AC	Power AC
P_DC	Power DC
Q_AC	Reactive power
STATE (1,...x)	Status (1,...x)
U_AC_L1L2	Phase voltage L1L2
U_AC_L2L3	Phase voltage L2L3
U_AC_L3L1	Phase voltage L3L1
U_DC	Voltage DC

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

SOLAR WARE series  
PVL-L1000E(J)

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## SOLAR WARE 1667

### COMMUNICATION

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1

Timings	
Timeout:	1 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	Yes
-------------------	-----

### MEASUREMENT VALUES RECORDED

COS_PHI	Power factor (cos phi)
ERROR (1,...x)	Error (1,...x)
E_TOTAL	Total generated energy
F_AC	Grid frequency
I_AC1	Current AC phase 1
I_AC2	Current AC phase 2
I_AC3	Current AC phase 3
I_DC	Current DC total
P_AC	Power AC
P_DC	Power DC
Q_AC	Reactive power
STATE (1,...x)	Status (1,...x)
U_AC_L1L2	Phase voltage L1L2
U_AC_L2L3	Phase voltage L2L3
U_AC_L3L1	Phase voltage L3L1
U_DC	Voltage DC

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

SOLAR WARE series		
PVL-L1667ER(J)	PVL-L1667GR	PVL-L1667GRQ

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## SOLAR WARE 1833

### COMMUNICATION

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1

Timings	
Timeout:	1 seconds
Delay:	none

### POWER CONTROL

Active power constraint:	No
Fast stop:	No
Reactive power control - Q control:	No
Power factor control - Cos $\phi$ control:	No

(i) Active/reactive power control is not supported by all inverter types. An exact list is available from the inverter manufacturer.

### ALARM MONITORING

Alarm monitoring:	Yes
-------------------	-----

### MEASUREMENT VALUES RECORDED

COS_PHI	Power factor (cos phi)
ERROR (1,...x)	Error (1,...x)
E_TOTAL	Total generated energy
F_AC	Grid frequency
I_AC1	Current AC phase 1
I_AC2	Current AC phase 2
I_AC3	Current AC phase 3
I_DC	Current DC total
P_AC	Power AC
P_DC	Power DC
Q_AC	Reactive power
STATE (1,...x)	Status (1,...x)
U_AC_L1L2	Phase voltage L1L2
U_AC_L2L3	Phase voltage L2L3
U_AC_L3L1	Phase voltage L3L1
U_DC	Voltage DC

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

SOLAR WARE series		
PVL-L1833ERM	PVL-L1833GRM	PVL-L1833GR
PVL-L1833GRQ		

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## Sensors

Brodersen

PT100 with converter PXT-10

### *COMMUNICATION*

Interface: Multi Input (MI), 0 - 10 V

#### Timings

Timeout: 2 seconds

Delay: 2 seconds

### *ALARM MONITORING*

Alarm monitoring: No

### *MEASUREMENT VALUES RECORDED*

T Temperature

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## PT1000 with converter PXT-11

### COMMUNICATION

Interface: Multi Input (MI), 0 - 20 mA

#### Timings

Timeout: 2 seconds  
Delay: 2 seconds

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

T Temperature

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Campbell Scientific CR-PVS1

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	19200 bps
Bus speed default:	19200 bps
Frame settings:	8N1
Frame settings default:	8N1
Default address:	11

### Timings

Timeout:	1 seconds
Delay:	none

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

I_SC1	Short circuit current 1
I_SC2	Short circuit current 2
SLI	Soiling loss
SLI_RAW	Soiling loss raw
SRAD1	Irradiance 1
SRAD2	Irradiance 2
T (1,...x)	Temperature (1,...x)

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

control elettronica srl  
CTT8

**COMMUNICATION**

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	2400 bps, 4800 bps, 9600 bps, 19200 bps
Bus speed default:	19200 bps
Frame settings:	8N1, 8N2, 8O1, 8E1
Frame settings default:	8N1
Default address:	1

Timings

Timeout:	0.75 seconds
Delay:	none

**ALARM MONITORING**

Alarm monitoring:	Yes
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**MEASUREMENT VALUES RECORDED**

ERROR (1,...x)	Error (1,...x)
T (1,...x)	Temperature (1,...x)

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.



## Dini Argeo DGT20

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	1200 bps, 2400 bps, 4800 bps, 9600 bps, 19200 bps, 38400 bps, 57600 bps, 115200 bps
Bus speed default:	9600 bps
Frame settings:	7E1, 7N1, 7E2, 7N2, 8E1, 8N1, 8E2, 8N2
Frame settings default:	8N2
Default address:	1
Timings	
Timeout:	1 seconds
Delay:	none

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

SNOW_LOAD1	Snow load 1
SNOW_LOAD2	Snow load 2
SNOW_LOAD3	Snow load 3
SNOW_LOAD4	Snow load 4

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## EKO Instruments MS series

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	4800 bps, 9600 bps, 19200 bps, 38400 bps, 57600 bps, 115200 bps
Bus speed default:	9600 bps
Frame settings:	8N1, 8N2, 8O1, 8E1
Frame settings default:	8N2
Default address:	1

### Timings

Timeout:	0.75 seconds
Delay:	none

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

SRAD	Irradiance
T	Temperature

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

MS-80 series			
MS-80	MS-80A		MS-80M

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## Huawei SmartLogger2000 EMI

### *COMMUNICATION*

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1

### Timings

Timeout:	1 seconds
Delay:	none

### *ALARM MONITORING*

Alarm monitoring:	No
-------------------	----

### *MEASUREMENT VALUES RECORDED*

E_W_D	Wind direction
E_W_S	Wind speed
SRAD	Irradiance
T (1,...x)	Temperature (1,...x)

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Hukseflux SR20-D1

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps, 38400 bps, 115200 bps
Bus speed default:	19200 bps
Frame settings:	8N1, 8O1, 8E1
Frame settings default:	8E1
Default address:	1

### Timings

Timeout:	6 seconds
Delay:	1 seconds

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

SRAD	Irradiance
T	Temperature

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## SR20-D2

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps, 38400 bps, 115200 bps
Bus speed default:	19200 bps
Frame settings:	8N1, 8O1, 8E1
Frame settings default:	8E1
Default address:	1

### Timings

Timeout:	6 seconds
Delay:	1 seconds

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

E_IH_REL	Internal relative humidity
SRAD	Irradiance
T	Temperature

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## SR20-TR/D2

### COMMUNICATION

Interface: Multi Input (MI), 0 - 20 mA

#### Timings

Timeout: 2 seconds  
Delay: 2 seconds

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

SRAD Irradiance

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## SR30

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps, 38400 bps, 115200 bps
Bus speed default:	19200 bps
Frame settings:	8N1, 8O1, 8E1
Frame settings default:	8E1
Default address:	1

### Timings

Timeout:	6 seconds
Delay:	1 seconds

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

E_F_S	Fan speed
E_IH_REL	Internal relative humidity
E_IP_ABS	Internal air pressure
E_TILT	Sensor tilt
SRAD	Irradiance
T	Temperature

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Kipp & Zonen DustIQ

### *COMMUNICATION*

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	1200 bps, 2400 bps, 4800 bps, 9600 bps, 19200 bps, 38400 bps
Bus speed default:	19200 bps
Frame settings:	8E1, 8N1, 8O1, 8E2, 8N2, 8O2
Frame settings default:	8E1
Default address:	1

### Timings

Timeout:	1 seconds
Delay:	30 seconds

### *ALARM MONITORING*

Alarm monitoring:	No
-------------------	----

### *MEASUREMENT VALUES RECORDED*

SLI1	Soiling loss 1
SLI2	Soiling loss 2

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.



## RaZON+

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps, 57600 bps, 115200 bps
Bus speed default:	19200 bps
Frame settings:	7E1, 7N1, 7O1, 8E1, 8N1, 8O1, 8E2, 8N2, 8O2
Frame settings default:	8E1
Default address:	1

### Timings

Timeout:	1 seconds
Delay:	none

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

E_SRAD	Global irradiation energy
SRAD1	Irradiance 1
SRAD2	Irradiance 2
SRAD3	Irradiance 3
SUN_H	Sunshine duration

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## SMPx (4 - 20 mA)

### COMMUNICATION

Interface: Multi Input (MI), 0 - 20 mA

#### Timings

Timeout: 2 seconds  
Delay: 2 seconds

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

SRAD Irradiance

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## SMPx (Modbus)

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	1200 bps, 2400 bps, 4800 bps, 9600 bps, 19200 bps, 38400 bps
Bus speed default:	19200 bps
Frame settings:	8N1, 8N2, 8O1, 8O2, 8E1, 8E2
Frame settings default:	8E1
Default address:	1

### Timings

Timeout:	1 seconds
Delay:	1 seconds

### ALARM MONITORING

Alarm monitoring:	Yes
-------------------	-----

### MEASUREMENT VALUES RECORDED

ERROR	Error
ERROR (1,...x)	Error (1,...x)
SRAD	Irradiance
T	Temperature

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Luff WSxxx

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	1200 bps, 2400 bps, 4800 bps, 9600 bps, 19200 bps
Bus speed default:	19200 bps
Frame settings:	8N1, 8N2, 8E1
Frame settings default:	8N1
Default address:	1

### Timings

Timeout:	5 seconds
Delay:	1 seconds

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

ERROR (1,...x)	Error (1,...x)
E_AH_ABS1	Humidity, absolute
E_AH_REL1	Humidity, relative
E_ALT1	Altitude
E_AP_ABS1	Air pressure, absolute
E_AP_REL1	Air pressure, relative
E_PRECIPITATION	Precipitation type
E_RF_ABS1	Precipitation quantity, absolute
E_RF_I1	Precipitation intensity
E_W_D1	Wind direction 1
E_W_S	Wind speed
SRAD	Irradiance
T	Temperature

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

WS100	WS200	WS300
WS301	WS302	WS303
WS304	WS310	WS400
WS401	WS500	WS501
WS502	WS503	WS504
WS510	WS600	WS601
WS700	WS800	

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

meteocontrol  
Hygro-Thermosensor compact

*COMMUNICATION*

Interface (E\_AH\_REL1): Multi Input (MI), 0 - 20 mA

Interface (T): Multi Input (MI), 0 - 20 mA

Timings

Timeout: 2 seconds

Delay: 2 seconds

*ALARM MONITORING*

Alarm monitoring: No

*MEASUREMENT VALUES RECORDED*

E\_AH\_REL1 Humidity, relative

T Temperature

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## PT100 compact

### COMMUNICATION

Interface: Multi Input (MI), 0 - 10 V

#### Timings

Timeout: 2 seconds

Delay: 2 seconds

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

T Temperature

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Si-12TC

### COMMUNICATION

Interface: Multi Input (MI), 0 - 10 V

#### Timings

Timeout: 2 seconds

Delay: 2 seconds

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

SRAD Irradiance

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Si-12TC-T

### COMMUNICATION

Interface (SRAD):	Multi Input (MI), 0 - 10 V
Interface (T):	Multi Input (MI), 0 - 10 V
Timings	
Timeout:	2 seconds
Delay:	2 seconds

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

SRAD	Irradiance
T	Temperature

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.



## Si-020TC

### COMMUNICATION

Interface: Multi Input (MI), 0 - 20 mA

#### Timings

Timeout: 2 seconds  
Delay: 2 seconds

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

SRAD Irradiance

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Si-020TC-T

### COMMUNICATION

Interface (SRAD):	Multi Input (MI), 0 - 20 mA
Interface (T):	Multi Input (MI), 0 - 20 mA
Timings	
Timeout:	2 seconds
Delay:	2 seconds

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

SRAD	Irradiance
T	Temperature

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Si-420TC

### COMMUNICATION

Interface: Multi Input (MI), 0 - 20 mA

#### Timings

Timeout: 2 seconds  
Delay: 2 seconds

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

SRAD Irradiance

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Si-420TC-T

### COMMUNICATION

Interface (SRAD):	Multi Input (MI), 0 - 20 mA
Interface (T):	Multi Input (MI), 0 - 20 mA
Timings	
Timeout:	2 seconds
Delay:	2 seconds

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

SRAD	Irradiance
T	Temperature

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Si-I-420

### COMMUNICATION

Interface: Multi Input (MI), 0 - 20 mA

#### Timings

Timeout: 2 seconds  
Delay: 2 seconds

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

SRAD Irradiance

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Si-I-420-T

### COMMUNICATION

Interface (SRAD):	Multi Input (MI), 0 - 20 mA
Interface (T):	Multi Input (MI), 0 - 20 mA
Timings	
Timeout:	2 seconds
Delay:	2 seconds

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

SRAD	Irradiance
T	Temperature

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Si-RS485TC-2T-MB

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps, 38400 bps
Bus speed default:	19200 bps
Frame settings:	8N1, 8E1
Frame settings default:	8N1
Default address:	1

### Timings

Timeout:	2 seconds
Delay:	none

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

SRAD	Irradiance
T (1,...x)	Temperature (1,...x)

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Si-RS485TC-T-MB

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps, 38400 bps
Bus speed default:	19200 bps
Frame settings:	8N1, 8E1
Frame settings default:	8N1
Default address:	1

### Timings

Timeout:	2 seconds
Delay:	1 seconds

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

SRAD	Irradiance
T	Temperature

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.



## Si-RS485TC-T-Tm-MB

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps, 38400 bps
Bus speed default:	19200 bps
Frame settings:	8N1, 8E1
Frame settings default:	8N1
Default address:	1

### Timings

Timeout:	2 seconds
Delay:	none

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

SRAD	Irradiance
T (1,...x)	Temperature (1,...x)

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Si-V-010

### COMMUNICATION

Interface: Multi Input (MI), 0 - 10 V

#### Timings

Timeout: 2 seconds  
Delay: 2 seconds

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

SRAD Irradiance

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Si-V-010-T

### COMMUNICATION

Interface (SRAD):	Multi Input (MI), 0 - 10 V
Interface (T):	Multi Input (MI), 0 - 10 V
Timings	
Timeout:	2 seconds
Delay:	2 seconds

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

SRAD	Irradiance
T	Temperature

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Tm-I-4090

### COMMUNICATION

Interface: Multi Input (MI), 0 - 20 mA

#### Timings

Timeout: 2 seconds  
Delay: 2 seconds

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

T Temperature

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Wind direction classic (0 - 10 V)

### COMMUNICATION

Interface: Multi Input (MI), 0 - 10 V

#### Timings

Timeout: 2 seconds  
Delay: 2 seconds

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

E\_W\_D Wind direction

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Wind direction classic (4 - 20 mA)

### COMMUNICATION

Interface: Multi Input (MI), 0 - 20 mA

#### Timings

Timeout: 2 seconds  
Delay: 2 seconds

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

E\_W\_D Wind direction

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Wind direction compact (0 - 10 V)

### COMMUNICATION

Interface: Multi Input (MI), 0 - 10 V

#### Timings

Timeout: 2 seconds  
Delay: 2 seconds

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

E\_W\_D Wind direction

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Wind direction compact (4 - 20 mA)

### COMMUNICATION

Interface: Multi Input (MI), 0 - 20 mA

#### Timings

Timeout: 2 seconds

Delay: 2 seconds

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

E\_W\_D Wind direction

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.



## Wind speed classic (0 - 10 V)

### COMMUNICATION

Interface: Multi Input (MI), 0 - 10 V

#### Timings

Timeout: 2 seconds  
Delay: 2 seconds

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

E\_W\_S Wind speed

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Wind speed classic (4 - 20 mA)

### COMMUNICATION

Interface: Multi Input (MI), 0 - 20 mA

#### Timings

Timeout: 2 seconds  
Delay: 2 seconds

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

E\_W\_S Wind speed

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Wind speed compact (0 - 10 V)

### COMMUNICATION

Interface: Multi Input (MI), 0 - 10 V

#### Timings

Timeout: 2 seconds  
Delay: 2 seconds

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

E\_W\_S Wind speed

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Wind speed compact (4 - 20 mA)

### COMMUNICATION

Interface: Multi Input (MI), 0 - 20 mA

#### Timings

Timeout: 2 seconds  
Delay: 2 seconds

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

E\_W\_S Wind speed

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## NES SOZ-03

### COMMUNICATION

Interface: Multi Input (MI), 0 - 100 mV

#### Timings

Timeout: 2 seconds  
Delay: 2 seconds

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

SRAD Irradiance

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Sommer Messtechnik USH-8 (0 - 20 mA)

### COMMUNICATION

Interface: Multi Input (MI), 0 - 20 mA

#### Timings

Timeout: 2 seconds  
Delay: 2 seconds

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

E\_SNOW\_DEPTH Snow depth

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## USH-8 (4 - 20 mA)

### COMMUNICATION

Interface: Multi Input (MI), 0 - 20 mA

#### Timings

Timeout: 2 seconds  
Delay: 2 seconds

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

E\_SNOW\_DEPTH Snow depth

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## SunSpec Alliance Compatible sensor

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps, 38400 bps, 57600 bps, 115200 bps
Bus speed default:	9600 bps
Frame settings:	8N1
Frame settings default:	8N1
Default address:	1
Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1
Timings	
Timeout:	1 seconds
Delay:	none

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

Model 302	Model 303	Model 305
Model 307	Model 308	

Please contact Sales for details of compatibility with devices not listed.  
Phone: +49 (0)821 34666 - 80  
E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)



## Thermokon PT1000 with integrated converter

### *COMMUNICATION*

Interface: Multi Input (MI), 0 - 10 V

#### Timings

Timeout: 2 seconds  
Delay: 2 seconds

### *ALARM MONITORING*

Alarm monitoring: No

### *MEASUREMENT VALUES RECORDED*

T Temperature

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Vendor-neutral PT1000

### *COMMUNICATION*

Interface: Multi Input (MI), 0 - 10 Ohm

#### Timings

Timeout: 2 seconds  
Delay: 2 seconds

### *ALARM MONITORING*

Alarm monitoring: No

### *MEASUREMENT VALUES RECORDED*

T Temperature

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

# String monitoring

## ABB

### Ultra Solar Field Gathering

#### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	19200 bps
Bus speed default:	19200 bps
Frame settings:	8N1
Frame settings default:	8N1
Default address:	2

#### Timings

Timeout:	5 seconds
Delay:	none

#### ALARM MONITORING

Alarm monitoring:	Yes
-------------------	-----

#### MEASUREMENT VALUES RECORDED

D_IN	Digital input
I (1,...x)	Current DC (1,...x)
I_SUM	Sum of DC currents
STATE (1,...x)	Status (1,...x)
T	Temperature
U_DC	Voltage DC

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

#### SUPPORTED DEVICES

ULTRA series		
3G90	3L11	V11

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## KACO new energy blueplanet Argus (SunSpec)

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps, 38400 bps, 57600 bps, 115200 bps
Bus speed default:	38400 bps
Frame settings:	8N1
Frame settings default:	8N1
Default address:	1
Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	11
Timings	
Timeout:	1 seconds
Delay:	none

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

blueplanet Argus series  
blueplanet Argus L-20                      blueplanet Argus L-24                      blueplanet Argus XL-20  
blueplanet Argus XL-24

Please contact Sales for details of compatibility with devices not listed.  
Phone: +49 (0)821 34666 - 80  
E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## Powador Argus 16/24S DCS

### COMMUNICATION

Communication interface:	RS485
Protocol:	KACO
Bus speed:	9600 bps
Bus speed default:	9600 bps
Frame settings:	8N1
Frame settings default:	8N1
Default address:	1

### Timings

Timeout:	1 seconds
Delay:	none

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

I (1,...x)	Current DC (1,...x)
------------	---------------------

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

Powador Argus series	
Powador Argus 16S DCS	Powador Argus 24S DCS

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## Kernel sistemi ST1xxxx

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps
Bus speed default:	9600 bps
Frame settings:	8E1, 8N1
Frame settings default:	8N1
Default address:	1

### Timings

Timeout:	1 seconds
Delay:	none

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

D_IN (1,...x)	Digital input (1,...x)
I (1,...x)	Current DC (1,...x)
I_SUM	Sum of DC currents
P_DC	Power DC
T (1,...x)	Temperature (1,...x)
U_DC	Voltage DC

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

ST1 Series series			
ST1 0630	ST1 0830		ST1 1030
ST1 1430	ST1 1630		ST1 2422

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## meteocontrol i'catcher

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	2400 bps, 4800 bps, 9600 bps, 19200 bps
Bus speed default:	19200 bps
Frame settings:	8N1, 8E1, 8O1
Frame settings default:	8N1
Default address:	1

### Timings

Timeout:	5 seconds
Delay:	0.5 seconds

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

i'catcher series		
i'catcher 8-1B	i'catcher 8-1B	i'catcher 16-1B
i'catcher 24-1B		

Please contact Sales for details of compatibility with devices not listed.  
Phone: +49 (0)821 34666 - 80  
E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## String Monitoring Unit (Kernel Sistemi ST2xxxx)

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	2400 bps, 4800 bps, 9600 bps, 19200 bps
Bus speed default:	9600 bps
Frame settings:	8N1, 8O1, 8E1
Frame settings default:	8N1
Default address:	1

### Timings

Timeout:	1 seconds
Delay:	none

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

D_IN (1,...x)	Digital input (1,...x)
I (1,...x)	Current DC (1,...x)
I_SUM	Sum of DC currents
P_DC	Power DC
T (1,...x)	Temperature (1,...x)
U_DC	Voltage DC

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

SMU 0825	SMU 1225	SMU 1625
SMU 2422		

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)



## SMA String-Monitor (SSM-U)

### COMMUNICATION

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	120

### Timings

Timeout:	1 seconds
Delay:	0.1 seconds

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

D_IN (1,...x)	Digital input (1,...x)
I (1,...x)	Current DC (1,...x)
T (1,...x)	Temperature (1,...x)
U_DC	Voltage DC

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

SMA String-Monitor series		
SSM-U-1610	SSM-U-1615	SSM-U-2410
SSM-U-2415	SSM-U-3210	SSM-U-3215

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## SunSpec Alliance Compatible string monitoring

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps, 38400 bps, 57600 bps, 115200 bps
Bus speed default:	9600 bps
Frame settings:	8N1
Frame settings default:	8N1
Default address:	1

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1

Timings	
Timeout:	1 seconds
Delay:	none

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

Model 403

Model 404

Please contact Sales for details of compatibility with devices not listed.  
Phone: +49 (0)821 34666 - 80  
E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## Weidmüller Transclinic xi+

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps
Bus speed default:	19200 bps
Frame settings:	8E1, 8N1
Frame settings default:	8E1
Default address:	1

### Timings

Timeout:	1 seconds
Delay:	none

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

D_IN (1,...x)	Digital input (1,...x)
---------------	------------------------

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

Transclinic series		
Transclinic 8i+	Transclinic 14i+	Transclinic 16i+
Transclinic 16i+ 1k5 H	Transclinic 16i+ 1k5 L	

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

# Meters

## AEC

### USM-1

#### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps
Bus speed default:	9600 bps
Frame settings:	8N1
Frame settings default:	8N1
Default address:	1

#### Timings

Timeout:	1 seconds
Delay:	none

#### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

#### MEASUREMENT VALUES RECORDED

M_AC_E_EXP	Active energy (export)
M_AC_E_IMP	Active energy (import)
M_AC_F	Grid frequency
M_AC_I1	Current AC phase 1
M_AC_I2	Current AC phase 2
M_AC_I3	Current AC phase 3
M_AC_P	Power AC
M_AC_PF_COSPHI	Power factor (cos phi)
M_AC_PF_COSPHI1	Power factor (cos phi) phase 1
M_AC_PF_COSPHI2	Power factor (cos phi) phase 2
M_AC_PF_COSPHI3	Power factor (cos phi) phase 3
M_AC_Q	Reactive power
M_AC_S	Apparent power
M_AC_U1	Voltage AC phase 1
M_AC_U2	Voltage AC phase 2
M_AC_U3	Voltage AC phase 3

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

#### SUPPORTED DEVICES

USM-1

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## Bender LINETRAXX VMD460-NA

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	1200 bps, 2400 bps, 4800 bps, 9600 bps, 19200 bps, 38400 bps, 57600 bps
Bus speed default:	19200 bps
Frame settings:	8N1, 8E1, 8O1
Frame settings default:	8E1
Default address:	2

### Timings

Timeout:	1 seconds
Delay:	none

### ALARM MONITORING

Alarm monitoring:	Yes
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### MEASUREMENT VALUES RECORDED

ERROR	Error
M_AC_F	Grid frequency
M_AC_PF_COSPHI	Power factor (cos phi)
M_AC_U1	Voltage AC phase 1
M_AC_U2	Voltage AC phase 2
M_AC_U3	Voltage AC phase 3
M_AC_U_L1L2	Phase voltage L1L2
M_AC_U_L2L3	Phase voltage L2L3
M_AC_U_L3L1	Phase voltage L3L1

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Circuitor Cirwatt B series

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps, 38400 bps
Bus speed default:	9600 bps
Frame settings:	8N1
Frame settings default:	8N1
Default address:	1
 Communication interface:	 Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1
 Timings	
Timeout:	1 seconds
Delay:	none

### ALARM MONITORING

Alarm monitoring:	No
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### MEASUREMENT VALUES RECORDED

D_IN (1,...x)	Digital input (1,...x)
M_AC_E_EXP	Active energy (export)
M_AC_E_IMP	Active energy (import)
M_AC_F	Grid frequency
M_AC_I1	Current AC phase 1
M_AC_I2	Current AC phase 2
M_AC_I3	Current AC phase 3
M_AC_P	Power AC
M_AC_P1	Power AC phase 1
M_AC_P2	Power AC phase 2
M_AC_P3	Power AC phase 3
M_AC_PF_COSPHI	Power factor (cos phi)
M_AC_PF_COSPHI1	Power factor (cos phi) phase 1
M_AC_PF_COSPHI2	Power factor (cos phi) phase 2
M_AC_PF_COSPHI3	Power factor (cos phi) phase 3
M_AC_Q	Reactive power
M_AC_Q1	Reactive power, phase 1
M_AC_Q2	Reactive power, phase 2
M_AC_Q3	Reactive power, phase 3
M_AC_S	Apparent power
M_AC_S1	Apparent power phase 1
M_AC_S2	Apparent power phase 2
M_AC_S3	Apparent power phase 3
M_AC_U1	Voltage AC phase 1
M_AC_U2	Voltage AC phase 2
M_AC_U3	Voltage AC phase 3
M_AC_U_L1L2	Phase voltage L1L2
M_AC_U_L2L3	Phase voltage L2L3
M_AC_U_L3L1	Phase voltage L3L1
STATE (1,...x)	Status (1,...x)

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Frer C96...L

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps, 38400 bps
Bus speed default:	9600 bps
Frame settings:	8N1, 8N2, 8E1, 8E2, 8O1, 8O2
Frame settings default:	8N2
Default address:	1
Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1
Timings	
Timeout:	0.5 seconds
Delay:	0.015 seconds

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

M_AC_E_EXP	Active energy (export)
M_AC_E_IMP	Active energy (import)
M_AC_P	Power AC
M_AC_PF_COSPHI	Power factor (cos phi)
M_AC_Q	Reactive power

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Janitza UMG series

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps, 38400 bps, 57600 bps, 115200 bps
Bus speed default:	115200 bps
Frame settings:	8N1, 8N2
Frame settings default:	8N1
Default address:	1
Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1
Timings	
Timeout:	0.75 seconds
Delay:	none

### ALARM MONITORING

Alarm monitoring:	No
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### MEASUREMENT VALUES RECORDED

M_AC_E_EXP	Active energy (export)
M_AC_E_IMP	Active energy (import)
M_AC_F	Grid frequency
M_AC_I1	Current AC phase 1
M_AC_I2	Current AC phase 2
M_AC_I3	Current AC phase 3
M_AC_P	Power AC
M_AC_P1	Power AC phase 1
M_AC_P2	Power AC phase 2
M_AC_P3	Power AC phase 3
M_AC_PF_COSPHI	Power factor (cos phi)
M_AC_PF_COSPHI1	Power factor (cos phi) phase 1
M_AC_PF_COSPHI2	Power factor (cos phi) phase 2
M_AC_PF_COSPHI3	Power factor (cos phi) phase 3
M_AC_Q	Reactive power
M_AC_Q1	Reactive power, phase 1
M_AC_Q2	Reactive power, phase 2
M_AC_Q3	Reactive power, phase 3
M_AC_S	Apparent power
M_AC_S1	Apparent power phase 1
M_AC_S2	Apparent power phase 2
M_AC_S3	Apparent power phase 3
M_AC_U1	Voltage AC phase 1
M_AC_U2	Voltage AC phase 2
M_AC_U3	Voltage AC phase 3
M_AC_U_L1L2	Phase voltage L1L2
M_AC_U_L2L3	Phase voltage L2L3
M_AC_U_L3L1	Phase voltage L3L1

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

UMG series		
UMG 96RM	UMG 103 CBM	UMG 104
UMG 508	UMG 509	UMG 511
UMG 512	UMG 604	UMG 605

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)



## Meter Gateway L-Box

### COMMUNICATION

Communication interface:	Ethernet
Protocol:	http
Port:	8080
Default address:	0

### Timings

Timeout:	none
Delay:	60 seconds

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

M_AC_E_EXP	Active energy (export)
M_AC_E_IMP	Active energy (import)
M_AC_PF_COSPHI	Power factor (cos phi)
M_EV_E_EXP	Consumption of charging infrastructure

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Schneider Electric iEM3155 / iEM3255 / iEM3355

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps, 38400 bps
Bus speed default:	19200 bps
Frame settings:	8E1, 8N1, 8O1
Frame settings default:	8E1
Default address:	1

### Timings

Timeout:	1 seconds
Delay:	none

### ALARM MONITORING

Alarm monitoring:	No
-------------------	----

### MEASUREMENT VALUES RECORDED

M_AC_E_EXP	Active energy (export)
M_AC_E_IMP	Active energy (import)
M_AC_F	Grid frequency
M_AC_I1	Current AC phase 1
M_AC_I2	Current AC phase 2
M_AC_I3	Current AC phase 3
M_AC_P	Power AC
M_AC_P1	Power AC phase 1
M_AC_P2	Power AC phase 2
M_AC_P3	Power AC phase 3
M_AC_PF_COSPHI	Power factor (cos phi)
M_AC_Q	Reactive power
M_AC_S	Apparent power
M_AC_U1	Voltage AC phase 1
M_AC_U2	Voltage AC phase 2
M_AC_U3	Voltage AC phase 3
M_AC_U_L1L2	Phase voltage L1L2
M_AC_U_L2L3	Phase voltage L2L3
M_AC_U_L3L1	Phase voltage L3L1

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

iEM series			
iEM3155		iEM3255	iEM3355
PM3200 series			
PM3250		PM3255	

Please contact Sales for details of compatibility with devices not listed.  
Phone: +49 (0)821 34666 - 80  
E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## ION7X00/8X00 series

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	300 bps, 1200 bps, 2400 bps, 4800 bps, 9600 bps, 19200 bps, 38400 bps, 57600 bps,
115200 bps	
Bus speed default:	19200 bps
Frame settings:	8N1
Frame settings default:	8N1
Default address:	1
Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1
Timings	
Timeout:	1 seconds
Delay:	none

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

M_AC_E_EXP	Active energy (export)
M_AC_E_IMP	Active energy (import)
M_AC_F	Grid frequency
M_AC_I1	Current AC phase 1
M_AC_I2	Current AC phase 2
M_AC_I3	Current AC phase 3
M_AC_P	Power AC
M_AC_P1	Power AC phase 1
M_AC_P2	Power AC phase 2
M_AC_P3	Power AC phase 3
M_AC_PF_COSPHI	Power factor (cos phi)
M_AC_PF_COSPHI1	Power factor (cos phi) phase 1
M_AC_PF_COSPHI2	Power factor (cos phi) phase 2
M_AC_PF_COSPHI3	Power factor (cos phi) phase 3
M_AC_Q	Reactive power
M_AC_Q1	Reactive power, phase 1
M_AC_Q2	Reactive power, phase 2
M_AC_Q3	Reactive power, phase 3
M_AC_S	Apparent power
M_AC_S1	Apparent power phase 1
M_AC_S2	Apparent power phase 2
M_AC_S3	Apparent power phase 3
M_AC_U1	Voltage AC phase 1
M_AC_U2	Voltage AC phase 2
M_AC_U3	Voltage AC phase 3
M_AC_U_L1L2	Phase voltage L1L2
M_AC_U_L2L3	Phase voltage L2L3
M_AC_U_L3L1	Phase voltage L3L1

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

ION7X00/8X00 series		
ION7500	ION7600	ION8300
ION8400	ION8500	ION8600
ION8800		

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## ION7x5x series

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	300 bps, 1200 bps, 2400 bps, 4800 bps, 9600 bps, 19200 bps, 38400 bps, 57600 bps,
115200 bps	
Bus speed default:	19200 bps
Frame settings:	8N1
Frame settings default:	8N1
Default address:	1
Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1
Timings	
Timeout:	1 seconds
Delay:	none

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

M_AC_E_EXP	Active energy (export)
M_AC_E_IMP	Active energy (import)
M_AC_F	Grid frequency
M_AC_I1	Current AC phase 1
M_AC_I2	Current AC phase 2
M_AC_I3	Current AC phase 3
M_AC_P	Power AC
M_AC_P1	Power AC phase 1
M_AC_P2	Power AC phase 2
M_AC_P3	Power AC phase 3
M_AC_PF_COSPHI	Power factor (cos phi)
M_AC_PF_COSPHI1	Power factor (cos phi) phase 1
M_AC_PF_COSPHI2	Power factor (cos phi) phase 2
M_AC_PF_COSPHI3	Power factor (cos phi) phase 3
M_AC_Q	Reactive power
M_AC_Q1	Reactive power, phase 1
M_AC_Q2	Reactive power, phase 2
M_AC_Q3	Reactive power, phase 3
M_AC_S	Apparent power
M_AC_S1	Apparent power phase 1
M_AC_S2	Apparent power phase 2
M_AC_S3	Apparent power phase 3
M_AC_U1	Voltage AC phase 1
M_AC_U2	Voltage AC phase 2
M_AC_U3	Voltage AC phase 3
M_AC_U_L1L2	Phase voltage L1L2
M_AC_U_L2L3	Phase voltage L2L3
M_AC_U_L3L1	Phase voltage L3L1

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

ION7X5X series	
ION7550	ION7650

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## ION73X0 series

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	300 bps, 1200 bps, 2400 bps, 4800 bps, 9600 bps, 19200 bps, 38400 bps, 57600 bps,
115200 bps	
Bus speed default:	19200 bps
Frame settings:	8N1
Frame settings default:	8N1
Default address:	1
Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1
Timings	
Timeout:	1 seconds
Delay:	none

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

M_AC_E_EXP	Active energy (export)
M_AC_E_IMP	Active energy (import)
M_AC_F	Grid frequency
M_AC_I1	Current AC phase 1
M_AC_I2	Current AC phase 2
M_AC_I3	Current AC phase 3
M_AC_P	Power AC
M_AC_P1	Power AC phase 1
M_AC_P2	Power AC phase 2
M_AC_P3	Power AC phase 3
M_AC_PF_COSPHI	Power factor (cos phi)
M_AC_PF_COSPHI1	Power factor (cos phi) phase 1
M_AC_PF_COSPHI2	Power factor (cos phi) phase 2
M_AC_PF_COSPHI3	Power factor (cos phi) phase 3
M_AC_Q	Reactive power
M_AC_Q1	Reactive power, phase 1
M_AC_Q2	Reactive power, phase 2
M_AC_Q3	Reactive power, phase 3
M_AC_S	Apparent power
M_AC_S1	Apparent power phase 1
M_AC_S2	Apparent power phase 2
M_AC_S3	Apparent power phase 3
M_AC_U1	Voltage AC phase 1
M_AC_U2	Voltage AC phase 2
M_AC_U3	Voltage AC phase 3
M_AC_U_L1L2	Phase voltage L1L2
M_AC_U_L2L3	Phase voltage L2L3
M_AC_U_L3L1	Phase voltage L3L1

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

ION73X0 series		
ION73X0	ION7330	ION7350

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## PM51xx/PM53xx/PM55xx

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps, 38400 bps
Bus speed default:	19200 bps
Frame settings:	8E1, 8N1, 8O1
Frame settings default:	8E1
Default address:	1

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1

Timings	
Timeout:	1 seconds
Delay:	none

### ALARM MONITORING

Alarm monitoring:	No
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### MEASUREMENT VALUES RECORDED

M_AC_E_EXP	Active energy (export)
M_AC_E_IMP	Active energy (import)
M_AC_F	Grid frequency
M_AC_I1	Current AC phase 1
M_AC_I2	Current AC phase 2
M_AC_I3	Current AC phase 3
M_AC_I_N	Current, neutral conductor
M_AC_P	Power AC
M_AC_P1	Power AC phase 1
M_AC_P2	Power AC phase 2
M_AC_P3	Power AC phase 3
M_AC_PF_COSPHI	Power factor (cos phi)
M_AC_PF_COSPHI1	Power factor (cos phi) phase 1
M_AC_PF_COSPHI2	Power factor (cos phi) phase 2
M_AC_PF_COSPHI3	Power factor (cos phi) phase 3
M_AC_Q	Reactive power
M_AC_Q1	Reactive power, phase 1
M_AC_Q2	Reactive power, phase 2
M_AC_Q3	Reactive power, phase 3
M_AC_S	Apparent power
M_AC_S1	Apparent power phase 1
M_AC_S2	Apparent power phase 2
M_AC_S3	Apparent power phase 3
M_AC_U1	Voltage AC phase 1
M_AC_U2	Voltage AC phase 2
M_AC_U3	Voltage AC phase 3
M_AC_U_L1L2	Phase voltage L1L2
M_AC_U_L2L3	Phase voltage L2L3
M_AC_U_L3L1	Phase voltage L3L1

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

PM5000 series		
PM5100	PM5110	PM5111
PM5310	PM5320	PM5330
PM5331	PM5340	PM5341
PM5560	PM5561	

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## PM325x

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps, 38400 bps
Bus speed default:	19200 bps
Frame settings:	8E1, 8N1, 8O1
Frame settings default:	8E1
Default address:	1

Timings	
Timeout:	1 seconds
Delay:	none

### ALARM MONITORING

Alarm monitoring:	No
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### MEASUREMENT VALUES RECORDED

M_AC_E_EXP	Active energy (export)
M_AC_E_IMP	Active energy (import)
M_AC_F	Grid frequency
M_AC_I1	Current AC phase 1
M_AC_I2	Current AC phase 2
M_AC_I3	Current AC phase 3
M_AC_P	Power AC
M_AC_P1	Power AC phase 1
M_AC_P2	Power AC phase 2
M_AC_P3	Power AC phase 3
M_AC_PF_COSPHI	Power factor (cos phi)
M_AC_PF_COSPHI1	Power factor (cos phi) phase 1
M_AC_PF_COSPHI2	Power factor (cos phi) phase 2
M_AC_PF_COSPHI3	Power factor (cos phi) phase 3
M_AC_Q	Reactive power
M_AC_Q1	Reactive power, phase 1
M_AC_Q2	Reactive power, phase 2
M_AC_Q3	Reactive power, phase 3
M_AC_S	Apparent power
M_AC_S1	Apparent power phase 1
M_AC_S2	Apparent power phase 2
M_AC_S3	Apparent power phase 3
M_AC_U1	Voltage AC phase 1
M_AC_U2	Voltage AC phase 2
M_AC_U3	Voltage AC phase 3
M_AC_U_L1L2	Phase voltage L1L2
M_AC_U_L2L3	Phase voltage L2L3
M_AC_U_L3L1	Phase voltage L3L1

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

iEM series			
iEM3155	iEM3255		iEM3355
PM3200 series			
PM3250	PM3255		

Please contact Sales for details of compatibility with devices not listed.  
Phone: +49 (0)821 34666 - 80  
E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## PM800 series

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps, 38400 bps
Bus speed default:	9600 bps
Frame settings:	8E1, 8N1, 8O1
Frame settings default:	8E1
Default address:	1

Timings	
Timeout:	1 seconds
Delay:	0.5 seconds

### ALARM MONITORING

Alarm monitoring:	No
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### MEASUREMENT VALUES RECORDED

M_AC_E_EXP	Active energy (export)
M_AC_E_IMP	Active energy (import)
M_AC_F	Grid frequency
M_AC_I1	Current AC phase 1
M_AC_I2	Current AC phase 2
M_AC_I3	Current AC phase 3
M_AC_I_N	Current, neutral conductor
M_AC_P	Power AC
M_AC_P1	Power AC phase 1
M_AC_P2	Power AC phase 2
M_AC_P3	Power AC phase 3
M_AC_PF_COSPHI	Power factor (cos phi)
M_AC_PF_COSPHI1	Power factor (cos phi) phase 1
M_AC_PF_COSPHI2	Power factor (cos phi) phase 2
M_AC_PF_COSPHI3	Power factor (cos phi) phase 3
M_AC_Q	Reactive power
M_AC_Q1	Reactive power, phase 1
M_AC_Q2	Reactive power, phase 2
M_AC_Q3	Reactive power, phase 3
M_AC_S	Apparent power
M_AC_S1	Apparent power phase 1
M_AC_S2	Apparent power phase 2
M_AC_S3	Apparent power phase 3
M_AC_U1	Voltage AC phase 1
M_AC_U2	Voltage AC phase 2
M_AC_U3	Voltage AC phase 3
M_AC_U_L1L2	Phase voltage L1L2
M_AC_U_L2L3	Phase voltage L2L3
M_AC_U_L3L1	Phase voltage L3L1

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

PM800 series			
PM810	PM820		PM850
PM870			

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)



## SunSpec Alliance Compatible meter

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	9600 bps, 19200 bps, 38400 bps, 57600 bps, 115200 bps
Bus speed default:	9600 bps
Frame settings:	8N1
Frame settings default:	8N1
Default address:	1
Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1
Timings	
Timeout:	1 seconds
Delay:	none

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

Model 201	Model 202	Model 203
Model 204		

Please contact Sales for details of compatibility with devices not listed.  
Phone: +49 (0)821 34666 - 80  
E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## Vendor-neutral S0 energy meter

### COMMUNICATION

Communication interface: Digital Input (DI), Multi Input (MI)

#### Timings

Timeout: 2 seconds  
Delay: none

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

E\_INT Energy generated per interval

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Woodward MFR 300

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	2400 bps, 4800 bps, 9600 bps, 19200 bps, 38400 bps, 57600 bps, 115200 bps
Bus speed default:	19200 bps
Frame settings:	8N1
Frame settings default:	8N1
Default address:	1

Timings	
Timeout:	1 seconds
Delay:	0.01 seconds

### ALARM MONITORING

Alarm monitoring:	Yes
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### MEASUREMENT VALUES RECORDED

ERROR (1,...x)	Error (1,...x)
M_AC_E_EXP	Active energy (export)
M_AC_E_IMP	Active energy (import)
M_AC_F	Grid frequency
M_AC_I1	Current AC phase 1
M_AC_I2	Current AC phase 2
M_AC_I3	Current AC phase 3
M_AC_P	Power AC
M_AC_P1	Power AC phase 1
M_AC_P2	Power AC phase 2
M_AC_P3	Power AC phase 3
M_AC_PF_COSPHI	Power factor (cos phi)
M_AC_PF_COSPHI1	Power factor (cos phi) phase 1
M_AC_PF_COSPHI2	Power factor (cos phi) phase 2
M_AC_PF_COSPHI3	Power factor (cos phi) phase 3
M_AC_Q	Reactive power
M_AC_Q1	Reactive power, phase 1
M_AC_Q2	Reactive power, phase 2
M_AC_Q3	Reactive power, phase 3
M_AC_S	Apparent power
M_AC_U1	Voltage AC phase 1
M_AC_U2	Voltage AC phase 2
M_AC_U3	Voltage AC phase 3
M_AC_U_L1L2	Phase voltage L1L2
M_AC_U_L2L3	Phase voltage L2L3
M_AC_U_L3L1	Phase voltage L3L1
STATE (1,...x)	Status (1,...x)

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

MFR 300 series			
MFR 300-11M	MFR 300-15M		MFR 300-71M
MFR 300-75M			

Please contact Sales for details of compatibility with devices not listed.

Phone: +49 (0)821 34666 - 80

E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

## MRA4 / MCA4

### COMMUNICATION

Communication interface:	RS485
Protocol:	ModbusRTU
Bus speed:	1200 bps, 2400 bps, 4800 bps, 9600 bps, 19200 bps, 38400 bps
Bus speed default:	19200 bps
Frame settings:	8N1, 8N2, 8E1, 8E2, 8O1, 8O2
Frame settings default:	8E1
Default address:	1
Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1
Timings	
Timeout:	1 seconds
Delay:	0.01 seconds

### ALARM MONITORING

Alarm monitoring: No

### MEASUREMENT VALUES RECORDED

M_AC_E_EXP	Active energy (export)
M_AC_E_IMP	Active energy (import)
M_AC_F	Grid frequency
M_AC_I1	Current AC phase 1
M_AC_I2	Current AC phase 2
M_AC_I3	Current AC phase 3
M_AC_P	Power AC
M_AC_PF_COSPHI	Power factor (cos phi)
M_AC_Q	Reactive power
M_AC_S	Apparent power
M_AC_U1	Voltage AC phase 1
M_AC_U2	Voltage AC phase 2
M_AC_U3	Voltage AC phase 3
M_AC_U_L1L2	Phase voltage L1L2
M_AC_U_L2L3	Phase voltage L2L3
M_AC_U_L3L1	Phase voltage L3L1

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

### SUPPORTED DEVICES

MCA4	MCDGV4	MCDTV4
MRA4	MRDT4	MRI4
MRM4	MRMV4	MRU4

Please contact Sales for details of compatibility with devices not listed.  
Phone: +49 (0)821 34666 - 80  
E-mail: [sales@meteocontrol.com](mailto:sales@meteocontrol.com)

# Batteries

## ADS-TEC

### StoraXe Master

#### COMMUNICATION

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1

#### Timings

Timeout:	1 seconds
Delay:	none

#### ALARM MONITORING

Alarm monitoring:	Yes
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#### MEASUREMENT VALUES RECORDED

B_CHARGE_LEVEL	Charging status
B_E_EXP	Energy from storage system
B_E_IMP	Energy to storage system
B_I_DC	Charging current (DC)
B_P_DC	Power consumption
B_U_DC	Battery voltage
ERROR (1,...x)	Error (1,...x)
STATE (1,...x)	Status (1,...x)
T (1,...x)	Temperature (1,...x)

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

## Deif ASC-Genset

### *COMMUNICATION*

Communication interface:	Ethernet
Protocol:	ModbusTCP
Port:	502
Default address:	1

### Timings

Timeout:	1 seconds
Delay:	0.02 seconds

### *ALARM MONITORING*

Alarm monitoring:	No
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### *MEASUREMENT VALUES RECORDED*

(i) The actually recorded values may vary due to the inverter model or the inverter firmware.

