string.bloxx 116 EM 1000V / 1500V

16/32 Channel String Monitoring



Effective PV Monitoring requires constant, solid and traceable PV Plant monitoring data in order to determine actual performance and fulfil owner/investor expectations.

Operators are interested to identify errors and losses in a reliable way to trigger appropriate actions for maximizing energy harvest during the total system lifetime.

With the monitoring of PV Module strings, design and production errors will be recognized on the DC side with high resolution down to PV Module level.

Using DC shunts (vs. Hall Effect sensors) the string.bloxx provides current measurements typically 10 times more accurate and not susceptible to temperature variance. This equates to higher accuracy measurements and better understanding of true system performance. In addition, string voltage (up to 1000V) and DC power on every string can be continuously monitored ensuring maximum system productivity.

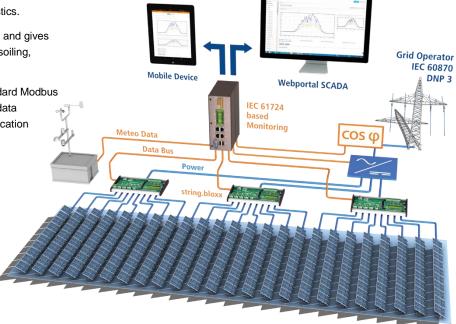
Continuous measurement of both cabinet and panel temperatures, along with overvoltage monitoring and main switch control greatly and improves system diagnostics.

This accurate measurement is inverter independent and gives feedback about losses due to inverter malfunction, soiling, shading, PV Module degradation etc. .

The string.bloxx communication uses industry standard Modbus protocols for easy and fast integration and reliable data exchange with the data logger. For longer communication distances fiber optic technology is used.

Key features:

- 16/32 Solar String Inputs
- Variants for 1000 VDC and for 1500 V system design 1000VDC system design "string.bloxx 116 EM 1000V" 1500VDC system design "string.bloxx 116 EM 1500V"
- 16 Analog inputs for current measurements
 - + 26 A string current (calibrated), + 416 A summary @60°C
- 1 Analog input for voltage measurements
 0-1000 / 0-1500 VDC string voltage
- 2 Digital inputs
 Monitoring of overvoltage protection and main switch
- Signal conditioning
 Calculated DC Power, linearization, mean value, scaling, alarm
- RS485 fieldbus interface
 up to 115,2 kbps: Modbus-RTU, (optional OEM protocols)
- Connectivity
 Data logger (e. g. Q.reader) and www.gantner-webportal.com
 for worldwide access or other 3rd party applications
- Electromagnetic Compatibility according to EN 61000-4 and EN 55011
- Power Supply 18 .. 36 VDC
- DIN rail or wall mounting according to DIN 50022







string.bloxx 116 EM 1000V / 1500V

16/32 Channel String Monitoring

Max. Number 16 Range .4A to + 26 A EM Accuracy 0.5 % Connection 0.25 mm² - 6 mm² push-in spring-cage connection Current measurement Max. 416 A (-20°C up to +60°C @ max 384 A current) Connection 2x M6 bolt connector for cable ring terminals Voltage measurement Voltage measurement Number 1 Range 0-1000 VDC / 0-1500VDC Accuracy 1 % Connection 0.25 mm² - 6 mm² push-in spring-cage connection Connection bigital inputs 1 Type 1 bigital, onboard, accuracy ±1°C, -40°C to 125°C Digital inputs State Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Power Supply State Connection 2.2 mm² - 1.5 mm² push-in spring-cage connection Power supply 18 up to 36 VDC, overvoltage and overload protection Power supply 18 up to 36 VDC, overvoltage and overload protection Connection	Input Current	
Accuracy 0.5 % Connection 0.25 mm² - 6 mm² push-in spring-cage connection Current measurement Max. 416 A (-20°C up to +60°C @ max 384 A current) Connection 2x M6 bolt connector for cable ring terminals Voltage measurement Number 1 Range 0-1000 VDC / 0-1500VDC Accuracy 1 % Connection 0.25 mm² - 6 mm² push-in spring-cage connection cabinet temperature Type 1 Digital, onboard, accuracy ±1°C, -40°C to 125°C Digital Inputs Number 2 Input State Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection 2 Input State Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Power Supply Power supply 18 up to 36 VDC, overvoltage and overload protection Power supply 18 up to 36 VDC, overvoltage and overload protection Power Supply 18 up to 36 VDC, overvoltage and overload protection Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Communication Interface Standard RS-485, 2-wire Data format 8n1 Protocols Modobus-RTU, 19k2 bps up to 115k2 bps Number of devices on the bus max. 32 Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Environmental Environmental For up to +85°C Relative humidity 5 % up to 95 % at 50°C, non-condensing Electromagnetic Compatibility according to EN 61000-4 and EN 55011 Maximum operating altitude Mechanical Case Polycarbonate Dimensions (B x H x D) (305 x 95 x 55) mm Weight	Max. Number	16
Connection	Range	-4A to + 26 A EM
Current measurement Max. 416 A (-20°C up to +60°C @ max 384 A current) Connection 2x M6 bolt connector for cable ring terminals Voltage measurement 1 Number 1 Range 0-1000 VDC / 0-1500VDC Accuracy 1 % Connection 0.25 mm² - 6 mm² push-in spring-cage connection cabinet temperature 1 Type 1 Digital, onboard, accuracy ±1°C, -40°C to 125°C Digital Inputs 2 Input State Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Power supply 8 up to 36 VDC, overvoltage and overload protection Power supply 18 up to 36 VDC, overvoltage and overload protection Power consumption approx. 1.5 W (0.4W at 30 seconds sample rate) Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Communication Interface Standard Standard RS-485, 2-wire Data format 8n1 Protocols Modbus-RTU, 19k2 bps up to 115k2 bps Number of devices on the bus max. 32 Connection	Accuracy	0.5 %
Max. 416 A (-20°C up to +60°C @ max 384 A current) Connection 2x M6 bolt connector for cable ring terminals Voltage measurement Number 1 Range 0-1000 VDC / 0-1500VDC Accuracy 1 % Connection 0.25 mm² - 6 mm² push-in spring-cage connection cabinet temperature 1 Type 1 Digital, onboard, accuracy ±1°C, -40°C to 125°C Digital Inputs Number 2 Input State Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Power Supply Power supply 18 up to 36 VDC, overvoltage and overload protection Power consumption approx. 1.5 mm² push-in spring-cage connection Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Data format 8n1 Protocols Modbus-RTU, 19k2 bps up to 115k2 bps Number of devices on the bus max. 32 Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Environmental	Connection	0.25 mm ² - 6 mm ² push-in spring-cage connection
Connection 2x M6 bolt connector for cable ring terminals Voltage measurement Number 1 Range 0-1000 VDC / 0-1500VDC Accuracy 1 % Connection 0.25 mm² - 6 mm² push-in spring-cage connection cabinet temperature 1 Type 1 Digital, onboard, accuracy ±1°C, -40°C to 125°C Digital Inputs 2 Input State Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Power Supply Power supply 18 up to 36 VDC, overvoltage and overload protection Power consumption approx. 1.5 W (0.4W at 30 seconds sample rate) Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Communication Interface Standard RS-485, 2-wire Data format 8n1 Protocols Modbus-RTU, 19k2 bps up to 115k2 bps Number of devices on the bus max. 32 Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Environmental Storage temperature -40°C up to +85°C Relative humidity 5 % up to 95 % at 50°C, non-condensing Electromagnetic Compatibility according to EN 61000-4 and EN 55011 Maximum operating altitude 000 m Mechanical	Current measurement	
Number 1 Range 0-1000 VDC / 0-1500VDC Accuracy 1 1% Connection 0.25 mm² - 6 mm² push-in spring-cage connection cabinet temperature Type 1 Digital, onboard, accuracy ±1°C, -40°C to 125°C Digital Inputs Number 2 Input State Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Power Supply Power supply 18 up to 36 VDC, overvoltage and overload protection Power consumption approx. 1.5 W (0.4W at 30 seconds sample rate) Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Communication Interface Standard RS-485, 2-wire Data format 8n1 Protocols Modbus-RTU, 19k2 bps up to 115k2 bps Number of devices on the bus max. 32 Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Environmental Storage temperature -40°C up to +85°C Relative humidity 5% up to 95 % at 50°C, non-condensing Electromagnetic Compatibility according to EN 61000-4 and EN 55011 Maximum operating altitude 6000 m Mechanical Case Polycarbonate Dimensions (B x H x D) (305 x 95 x 55) mm Weight approx. 600 g	Max.	416 A (-20°C up to +60°C @ max 384 A current)
Number 1 Range 0-1000 VDC / 0-1500VDC Accuracy 1 % Connection 0.25 mm² - 6 mm² push-in spring-cage connection cabinet temperature Type 1 Digital, onboard, accuracy ±1°C, -40°C to 125°C Digital Inputs Number 2 Input State Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Power Supply 18 up to 36 VDC, overvoltage and overload protection Power consumption approx. 1.5 W (0.4W at 30 seconds sample rate) Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Communication Interface Standard RS-485, 2-wire Data format 8n1 Protocols Modbus-RTU, 19k2 bps up to 115k2 bps Number of devices on the bus max. 32 Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Environmental Storage temperature Environmental 40°C up to +85°C Relative humidity 5 % up to 95 % at 50°C, non-condensing Electromagnetic Compatibility according to EN 61000-4 and EN 55011 Max	Connection	2x M6 bolt connector for cable ring terminals
Range 0-1000 VDC / 0-1500VDC Accuracy 1 % Connection 0.25 mm² - 6 mm² push-in spring-cage connection cabinet temperature Type 1 Digital, onboard, accuracy ±1°C, -40°C to 125°C Digital Inputs Number 2 Input State Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Power Supply 18 up to 36 VDC, overvoltage and overload protection Power consumption approx. 1.5 W (0.4W at 30 seconds sample rate) Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Communication Interface Standard RS-485, 2-wire Data format 81 Protocols Modbus-RTU, 19k2 bps up to 115k2 bps Number of devices on the bus max. 32 Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Environmental Storage temperature -40°C up to +85°C Relative humidity 5 % up to 95 % at 50°C, non-condensing Electromagnetic Compatibility accorrading to EN 61000-4 and EN 55011 Max	Voltage measurement	
Accuracy 1 % Connection 0.25 mm² - 6 mm² push-in spring-cage connection cabinet temperature Type 1 Digital, onboard, accuracy ±1°C, -40°C to 125°C Digital Inputs Number 2 Input State Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Power Supply Power supply 18 up to 36 VDC, overvoltage and overload protection power consumption approx. 1.5 W (0.4W at 30 seconds sample rate) Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Communication Interface Standard RS-485, 2-wire Data format 8n1 Protocols Modbus-RTU, 19k2 bps up to 115k2 bps Number of devices on the bus max. 32 Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Environmental Storage temperature -40°C up to +85°C Relative humidity 5 % up to 95 % at 50°C, non-condensing Electromagnetic Compatibility according to EN 61000-4 and EN 55011 Maximum operating altitude 6000 m Mechanical Case Polycarbonate Dimensions (B x H x D) (305 x 95 x 55) mm Weight	Number	1
Connection 0.25 mm² - 6 mm² push-in spring-cage connection cabinet temperature Type 1 Digital, onboard, accuracy ±1°C, -40°C to 125°C Digital Inputs Number 2 Input State Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Power Supply Power supply 18 up to 36 VDC, overvoltage and overload protection Power consumption approx. 1.5 W (0.4W at 30 seconds sample rate) Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Communication Interface Standard RS-485, 2-wire Data format 8n1 Protocols Modbus-RTU, 19k2 bps up to 115k2 bps Number of devices on the bus max. 32 Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Environmental Storage temperature -40°C up to +85°C Relative humidity 5 % up to 95 % at 50°C, non-condensing Electromagnetic Compatibility according to EN 61000-4 and EN 55011 Maximum operating altitude 6000 m Mechanical Case Polycarbonate Dimensions (B x H x D) (305 x 95 x 55) mm Weight	Range	0-1000 VDC / 0-1500VDC
cabinet temperature 1 Digital, onboard, accuracy ±1°C, -40°C to 125°C Digital Inputs Number 2 Input State Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Power Supply 18 up to 36 VDC, overvoltage and overload protection Power consumption approx. 1.5 W (0.4W at 30 seconds sample rate) Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Communication Interface 8 Standard RS-485, 2-wire Data format 8n1 Protocols Modbus-RTU, 19k2 bps up to 115k2 bps Number of devices on the bus max. 32 Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Environmental Storage temperature -40°C up to +85°C Relative humidity 5 % up to 95 % at 50°C, non-condensing Electromagnetic Compatibility according to EN 61000-4 and EN 55011 Maximum operating altitude 6000 m Mechanical Case Polycarbonate Dimensions (B x H x D) (305 x 95 x 55) mm Weight approx. 600 g	Accuracy	1 %
Type 1 Digital, onboard, accuracy ±1°C, -40°C to 125°C Digital Inputs Number 2 Input State Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Power Supply Power supply 18 up to 36 VDC, overvoltage and overload protection approx. 1.5 W (0.4W at 30 seconds sample rate) Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Communication Interface Standard RS-485, 2-wire Data format 8n1 Protocols Modbus-RTU, 19k2 bps up to 115k2 bps Number of devices on the bus max. 32 Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Environmental Storage temperature -40°C up to +85°C Relative humidity 5 % up to 95 % at 50°C, non-condensing Electromagnetic Compatibility according to EN 61000-4 and EN 55011 Maximum operating altitude 6000 m Mechanical Case Polycarbonate Dimensions (B x H x D) (305 x 95 x 55) mm Weight approx. 600 g	Connection	0.25 mm ² - 6 mm ² push-in spring-cage connection
Number 2 Input State Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Power Supply 18 up to 36 VDC, overvoltage and overload protection Power consumption approx. 1.5 W (0.4W at 30 seconds sample rate) Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Communication Interface Standard RS-485, 2-wire RS-485, 2	cabinet temperature	
Number 2 Input State Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Power Supply 18 up to 36 VDC, overvoltage and overload protection Power consumption approx. 1.5 W (0.4W at 30 seconds sample rate) Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Communication Interface Standard RS-485, 2-wire Data format 8n1 Protocols Modbus-RTU, 19k2 bps up to 115k2 bps Number of devices on the bus max. 32 Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Environmental Storage temperature -40°C up to +85°C Relative humidity 5 % up to 95 % at 50°C, non-condensing Electromagnetic Compatibility according to EN 61000-4 and EN 55011 Maximum operating altitude 6000 m Mechanical Case Polycarbonate Dimensions (B x H x D) (305 x 95 x 55) mm Weight approx. 600 g	Туре	1 Digital, onboard, accuracy ±1°C, -40°C to 125°C
Input Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Power Supply Power supply 18 up to 36 VDC, overvoltage and overload protection Power consumption approx. 1.5 W (0.4W at 30 seconds sample rate) Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Communication Interface Standard RS-485, 2-wire Data format 8n1 Protocols Modbus-RTU, 19k2 bps up to 115k2 bps Number of devices on the bus max. 32 Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Environmental Storage temperature -40°C up to +85°C Relative humidity 5% up to 95% at 50°C, non-condensing Electromagnetic Compatibility according to EN 61000-4 and EN 55011 Maximum operating altitude 6000 m Mechanical Case Polycarbonate Dimensions (B x H x D) (305 x 95 x 55) mm Weight	Digital Inputs	
Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Power Supply Power supply 18 up to 36 VDC, overvoltage and overload protection approx. 1.5 W (0.4W at 30 seconds sample rate) Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Communication Interface Standard RS-485, 2-wire Data format 8n1 Protocols Modbus-RTU, 19k2 bps up to 115k2 bps Number of devices on the bus max. 32 Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Environmental Storage temperature -40°C up to +85°C Relative humidity 5% up to 95 % at 50°C, non-condensing Electromagnetic Compatibility according to EN 61000-4 and EN 55011 Maximum operating altitude 6000 m Mechanical Case Polycarbonate Dimensions (B x H x D) (305 x 95 x 55) mm Weight	Number	2
Power Supply Power supply 18 up to 36 VDC, overvoltage and overload protection approx. 1.5 W (0.4W at 30 seconds sample rate) Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Communication Interface Standard RS-485, 2-wire Data format 8n1 Protocols Modbus-RTU, 19k2 bps up to 115k2 bps Number of devices on the bus max. 32 Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Environmental Storage temperature -40°C up to +85°C Relative humidity 5 % up to 95 % at 50°C, non-condensing Electromagnetic Compatibility maximum operating altitude 6000 m Mechanical Case Polycarbonate Dimensions (B x H x D) Weight 18 up to 36 VDC, overvoltage and overload protection approx. 600 g	Input	State
Power supply 18 up to 36 VDC, overvoltage and overload protection approx. 1.5 W (0.4W at 30 seconds sample rate) Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Communication Interface Standard RS-485, 2-wire Data format 8n1 Protocols Modbus-RTU, 19k2 bps up to 115k2 bps Number of devices on the bus max. 32 Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Environmental Storage temperature -40°C up to +85°C Relative humidity 5 % up to 95 % at 50°C, non-condensing Electromagnetic Compatibility according to EN 61000-4 and EN 55011 Maximum operating altitude 6000 m Mechanical Case Polycarbonate Dimensions (B x H x D) (305 x 95 x 55) mm Weight approx. 600 g	Connection	0.25 mm ² - 1.5 mm ² push-in spring-cage connection
Power consumption approx. 1.5 W (0.4W at 30 seconds sample rate) Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Communication Interface Standard RS-485, 2-wire Data format 8n1 Protocols Modbus-RTU, 19k2 bps up to 115k2 bps Number of devices on the bus max. 32 Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Environmental Storage temperature -40°C up to +85°C Relative humidity 5 % up to 95 % at 50°C, non-condensing Electromagnetic Compatibility according to EN 61000-4 and EN 55011 Maximum operating altitude 6000 m Mechanical Case Polycarbonate Dimensions (B x H x D) (305 x 95 x 55) mm Weight approx. 600 g	Power Supply	
Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Communication Interface Standard RS-485, 2-wire Data format 8n1 Protocols Modbus-RTU, 19k2 bps up to 115k2 bps Number of devices on the bus max. 32 Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Environmental Storage temperature -40°C up to +85°C Relative humidity 5 % up to 95 % at 50°C, non-condensing Electromagnetic Compatibility according to EN 61000-4 and EN 55011 Maximum operating altitude 6000 m Mechanical Case Polycarbonate Dimensions (B x H x D) (305 x 95 x 55) mm Weight approx. 600 g	Power supply	18 up to 36 VDC, overvoltage and overload protection
Communication Interface Standard RS-485, 2-wire Data format 8n1 Protocols Modbus-RTU, 19k2 bps up to 115k2 bps Number of devices on the bus max. 32 Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Environmental Storage temperature -40°C up to +85°C Relative humidity 5 % up to 95 % at 50°C, non-condensing Electromagnetic Compatibility according to EN 61000-4 and EN 55011 Maximum operating altitude 6000 m Mechanical Case Polycarbonate Dimensions (B x H x D) (305 x 95 x 55) mm Weight	Power consumption	approx. 1.5 W (0.4W at 30 seconds sample rate)
Standard RS-485, 2-wire Data format 8n1 Protocols Modbus-RTU, 19k2 bps up to 115k2 bps Number of devices on the bus max. 32 Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Environmental Storage temperature -40°C up to +85°C Relative humidity 5 % up to 95 % at 50°C, non-condensing Electromagnetic Compatibility according to EN 61000-4 and EN 55011 Maximum operating altitude 6000 m Mechanical Case Polycarbonate Dimensions (B x H x D) (305 x 95 x 55) mm Weight	Connection	0.25 mm ² - 1.5 mm ² push-in spring-cage connection
Data format Protocols Modbus-RTU, 19k2 bps up to 115k2 bps Number of devices on the bus max. 32 Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Environmental Storage temperature -40°C up to +85°C Relative humidity 5 % up to 95 % at 50°C, non-condensing Electromagnetic Compatibility according to EN 61000-4 and EN 55011 Maximum operating altitude 6000 m Mechanical Case Polycarbonate Dimensions (B x H x D) (305 x 95 x 55) mm Weight	Communication Interface	
Protocols Modbus-RTU, 19k2 bps up to 115k2 bps Number of devices on the bus max. 32 Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Environmental Storage temperature -40°C up to +85°C Relative humidity 5 % up to 95 % at 50°C, non-condensing Electromagnetic Compatibility according to EN 61000-4 and EN 55011 Maximum operating altitude 6000 m Mechanical Case Polycarbonate Dimensions (B x H x D) (305 x 95 x 55) mm Weight	Standard	RS-485, 2-wire
Number of devices on the bus Connection 0.25 mm² - 1.5 mm² push-in spring-cage connection Environmental Storage temperature -40°C up to +85°C Relative humidity 5 % up to 95 % at 50°C, non-condensing Electromagnetic Compatibility according to EN 61000-4 and EN 55011 Maximum operating altitude 6000 m Mechanical Case Polycarbonate Dimensions (B x H x D) (305 x 95 x 55) mm Approx. 600 g	Data format	8n1
Connection Environmental Storage temperature -40°C up to +85°C Relative humidity 5 % up to 95 % at 50°C, non-condensing Electromagnetic Compatibility according to EN 61000-4 and EN 55011 Maximum operating altitude 6000 m Mechanical Case Polycarbonate Dimensions (B x H x D) (305 x 95 x 55) mm Approx. 600 g	Protocols	Modbus-RTU, 19k2 bps up to 115k2 bps
Environmental Storage temperature -40°C up to +85°C Relative humidity 5 % up to 95 % at 50°C, non-condensing Electromagnetic Compatibility according to EN 61000-4 and EN 55011 Maximum operating altitude 6000 m Mechanical Case Polycarbonate Dimensions (B x H x D) (305 x 95 x 55) mm Weight approx. 600 g	Number of devices on the bus	max. 32
Storage temperature -40°C up to +85°C Relative humidity 5 % up to 95 % at 50°C, non-condensing Electromagnetic Compatibility according to EN 61000-4 and EN 55011 Maximum operating altitude 6000 m Mechanical Case Polycarbonate Dimensions (B x H x D) (305 x 95 x 55) mm Approx. 600 g	Connection	0.25 mm ² - 1.5 mm ² push-in spring-cage connection
Relative humidity 5 % up to 95 % at 50°C, non-condensing Electromagnetic Compatibility according to EN 61000-4 and EN 55011 Maximum operating altitude 6000 m Mechanical Case Polycarbonate Dimensions (B x H x D) (305 x 95 x 55) mm Weight approx. 600 g	Environmental	
Electromagnetic Compatibility according to EN 61000-4 and EN 55011 Maximum operating altitude 6000 m Mechanical Case Polycarbonate Dimensions (B x H x D) (305 x 95 x 55) mm Weight approx. 600 g	Storage temperature	-40°C up to +85°C
Maximum operating altitude 6000 m Mechanical Case Polycarbonate Dimensions (B x H x D) (305 x 95 x 55) mm Weight approx. 600 g	Relative humidity	5 % up to 95 % at 50°C, non-condensing
Mechanical Case Polycarbonate Dimensions (B x H x D) (305 x 95 x 55) mm Weight approx. 600 g	Electromagnetic Compatibility	according to EN 61000-4 and EN 55011
Case Polycarbonate Dimensions (B x H x D) (305 x 95 x 55) mm Weight approx. 600 g	Maximum operating altitude	6000 m
Dimensions (B x H x D) (305 x 95 x 55) mm Weight approx. 600 g	Mechanical	
Weight approx. 600 g	Case	Polycarbonate
	Dimensions (B x H x D)	(305 x 95 x 55) mm
Mounting DIN EN-rail or wall mounting	Weight	approx. 600 g
	Mounting	DIN EN-rail or wall mounting

Warm Up Time

All declarations are valid after a warm up time of 45 minutes.

Specification subject to change without prior notice.