



**Key features:**

- Consistently designed for 1500V



**HIGH  
VOLTAGE  
1500V**

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.

- **Connection for up to 32 PV strings**
- **16 Analog inputs for current measurements**  
+ 26 A string current (calibrated), + 416 A summary @60°C
- **1 Analog input for voltage measurements**  
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, ASCII (optional OEM protocols)
- **Connectivity**  
Data logger (e. g. Q.reader) and gantner.webportal for worldwide access or other 3<sup>rd</sup> 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**

Valid from January 2016. Specification subject to change without prior notice.  
Warm Up Time All declarations are valid after a warm up time of 45 minutes.



## string.CB 16/32 1500V

16/32 Channel String Combiner Box

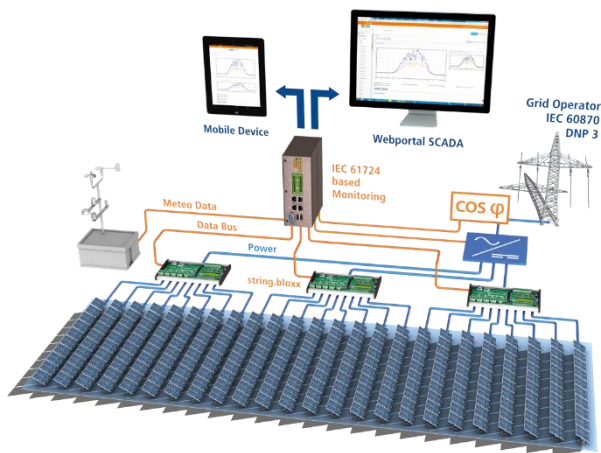


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# HIGH VOLTAGE 1500V



- Connection for 32 PV strings  
other versions available on request
- Consistent 1500 VDC layout
- Inputs for current, voltage and temperature
- Overvoltage protection  
1500 VDC and communication
- Signal contact monitoring  
Circuit breakers and SPD
- Signal conditioning  
calculated DC Power, linearization, mean value,  
Min/Max storage, alarm
- RS485 fieldbus interface  
Modbus-RTU (optional OEM)
- Finger Save Fuse Holder  
in positive and negative pole
- DC load break switch
- String connection terminals  
1,5 - 10 mm<sup>2</sup> (optional MC3, MC4)
- Housing  
heavy duty industrial quality material  
IP65, UV and weather resistant, -35°C bis +80°C

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