

**MODULARITY**

On request, all BlueNet WiFi/LAN products are also available with RCDs, RC circuit breakers, miniature circuit breakers, complete device protection or, for example, thermal fuse.

**METERING + SWITCHING**

3 switching groups of 16A each, can be switched manually or automatically depending on load, temperature and time. Optional permanent socket outlets.

**WIFI ANTENNA**

The BlueNet BN1000 module is available with an internal or external antenna.

**COMMUNICATION**

Ethernet interface as well as WiFi connectivity (802.11 b/g/n) and DDNS support.

**ALARM FUNCTION**

Reports e-mailed when values exceed or fall below electrical work, power or temperature. Measurement data available as .csv file.

**BLUENET BN1000 MODULE**

Power metering, temperature measurement, switchable socket outlets, web interface, mobile app for Android and iOS.

## BlueNet BN1000

### The complete solution for small and mid-sized IT network applications

**BlueNet**  
Efficient Power Management

The new BlueNet BN1000 module provides three separate switching and measuring groups for extended power metering and temperature measuring, and the switching of individual socket outlets and complete power strips.

The management interface is integrated in the web server and is operated via the web browser in the network or with Dynamic DNS via the Internet. The BlueNet WiFi app is available for mobile end devices. The maximum switching capacity is a full 16A per switching group. Switching can be performed both manually and automatically using load, temperature or time thresholds which can be set individually. The BlueNet BN1000 module can be integrated in virtually all Bachmann products.

External temperature sensors are available as accessories in lengths of 3, 10 and 20m.

An external RP-SMA antenna connection is provided for all Bachmann's IT BN1000 products. External WiFi antennas are also available as accessories.

Thanks to its compact design, the BN1000 module can be integrated in the modular Bachmann system and

#### The benefits at a glance

- Three switching groups of 16A each
- Temperature measurement and power metering
- Load management and cost control
- Management via web interface and smartphone app
- Remote online access via Dynamic DNS
- WiFi (802.11 b/g/n) and Ethernet connectivity
- Ethernet (LAN) connectivity

combined with connector systems, basic products and other components.

### Manual switching

The WiFi/LAN module is accessed by Internet browser or mobile app. A static or dynamic IP address of the local network is assigned to the WiFi/LAN module. A dynamic DNS is fully supported and allows access (including remote access) to connected WiFi/LAN products with all functions, such as switching the switching outputs and monitoring of temperature and power data at any time. Depending on product variant, can also be switched using local buttons.

### Time-controlled switching

The BN1000 module provides convenient programming of the timer via the web browser. Only the time is entered during daily switching (on/off). The socket outlet's system time can be automatically synchronised via the Internet on a daily basis. The days of the week can be set for weekly switching processes. The switching actions (on/off) are selected individually for each time. All settings are saved in an individual profile. Up to four profiles can be created with the BN1000 module.

### Temperature monitoring, threshold value alarms and temperature-dependent switching

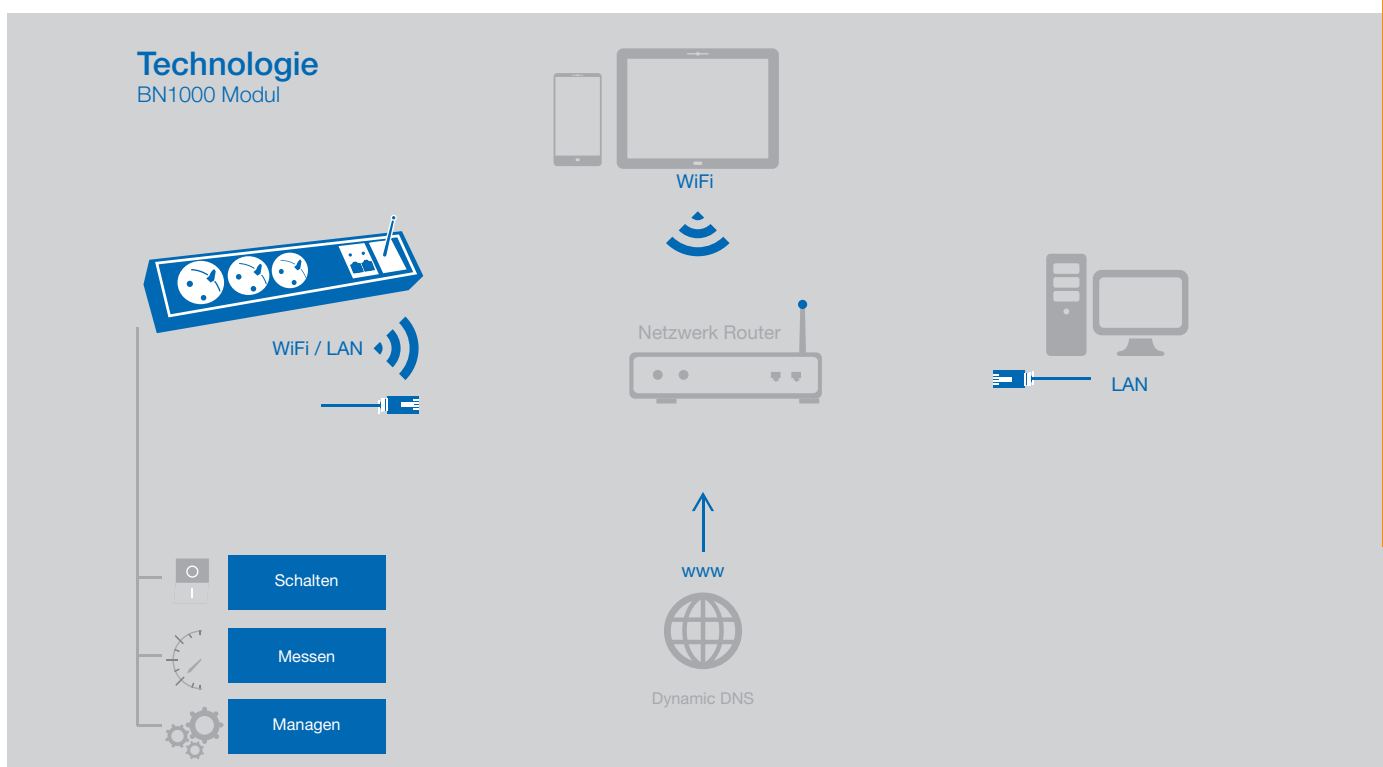
The ambient temperature is measured using the connected temperature sensor and displayed directly in the web browser and app. If values exceed or fall below personally defined threshold values, e-mails are sent automatically. Limit values, at which the selected switching groups are switched automatically, allow e.g. an air conditioning device or a heating fan to function in a particular temperature range with the aid of BN1000 technology.

### Power metering, issuing of threshold value alarms and load-dependent switching

Within the BN1000 module, the present electrical power of the three switching groups is measured and visualised via a web interface or app. Again automatic switching is possible following a freely definable effective power threshold value per switching group. E-mails can also be sent automatically if values exceed or fall below the measured power or electrical work.

### Key facts

- Measurement of: Temperature, voltage (V), current (A),  $\cos \Phi$ , effective power (W), apparent power (VA), work (kWh) and costs (€)
- Switching function: manual, by power, temperature or time; 3 switching groups of 16A each
- Communication: WiFi (802.11 b/g/n, Ethernet 10/100), supports DDNS
- SSL-encrypted e-mail messages when values exceed or fall below threshold values
- Integrated web server with graphic management interface
- Client applications for Android and iOS
- With internal or external antenna as an option
- Accuracy of measurement +/- 1%





### App for smartphones or tablet PCs

The app is available from the Play Store (for Android) or the App Store (for iOS) by searching for BlueNet WiFi. The present temperature, current switching statuses and current power metering data are displayed. The socket outlets can be switched on and off. If a Dynamic DNS address is entered, this entire functional scope can be accessed remotely via 3G or 4G.

### Smartphone interface



### Tablet interface



# Website interface

The screenshots show the following interface elements:

- Top Screenshot:**
  - Navigation menu: Home, Schalten, Überwachung, Einstellungen, Download, Update, Info.
  - Buttons: Manuell schalten, Zeitschaltuhr, Temperaturüberwachung, Leistungsmessung.
  - Status: Aktuelle Temperatur: 21°C.
  - Section: Temperaturschaltung konfigurieren.
  - Table of temperature values:
 

Temperaturwerte	Steckdose 1	Steckdose 2	Steckdose 3
Temperaturwert 1	23 °C	0 °C	44 °C
Temperaturwert 2	0 °C	16 °C	26 °C
  - Section: Steckdose in Abhängigkeit oberer und unterer Temperatur einschalten.
  - Table for socket configurations:
 

Steckdose 1	Steckdose 2	Steckdose 3
steckdose1	steckdose2	steckdose3
steckdose1: oberer/unterer Temperaturwert einschalten/überwachen (z.B. Sommer)	steckdose2: oberer/unterer Temperaturwert einschalten/überwachen (z.B. Sommer)	steckdose3: oberer/unterer Temperaturwert einschalten/überwachen (z.B. Sommer)
  - Button: Übernehmen.
- Middle Screenshot:**
  - Navigation menu: Home, Schalten, Überwachung, Einstellungen, Download, Update, Info.
  - Buttons: Temperaturüberwachung, Energieverbrauch, Energie, E-Mail-Konfig, Steckdose konfigurieren.
  - Section: E-Mail nach Systemstart.
  - Section: Temperaturüberwachung.
    - Temperaturwert 1: [input]
    - Temperaturwert 2: [input]
    - Ergänzender E-Mail-Text (Temperatur): [input]
  - Section: Arbeitsüberwachung.
    - Arbeit 1: [input] kWh
    - Arbeit 2: [input] kWh
    - Arbeit 3: [input] kWh
    - Arbeit (gesamt): [input] kWh
    - Ergänzender E-Mail-Text (Arbeit): [input]
- Bottom Screenshot:**
  - Navigation menu: Home, Schalten, Überwachung, Einstellungen, Download, Update, Info.
  - Section: Home websteckdose.
  - Status: Aktuelle Temperatur: 21°C. Aktuelles Profil: Bueroumgebung.
  - Links:
    - Temperaturüberwachung konfigurieren
    - Temperaturschaltung konfigurieren
    - Profil konfigurieren
  - Aktuelles Profil: 1: AUS 2: AN 3: AUS.
  - Links:
    - Manuell schalten
    - Zeitschaltuhr konfigurieren
    - Temperaturkurve
    - Downloadbereich
  - Section: Temperaturverlauf der letzten 24 Stunden.
    - max. Temperatur: 24°C
    - min. Temperatur: 19°C
  - Line graph showing temperature over time (11:00 to 18:00). The temperature starts at ~19°C, peaks at 24°C at 12:00, and then gradually decreases to ~21°C by 18:00.

## Power metering &amp; switching (BlueNet BN1000)

- Power metering
- Temperature monitoring
- Issuing of threshold value alarms
- Remote switching
- Time-controlled switching
- Temperature-dependent switching

For more information, see page 38

Article number	Cable type	Cable cross-section mm <sup>2</sup>	Cable length (m)	Plug	Phase(s)	Rated voltage (V)	Current (A)	Max power in kVA	SKD**	UTE	T13	C13	C19	Outlets in total	Dimensions (L x W x D)
820.028	H05VV-F	3G1,5	2	SKS*	1	230	16	3,7	3					3	437 x 44,4 x 46,2
820.030	H05VV-F	3G1,5	2	SKS*	1	230	16	3,7		3				3	522 x 44,4 x 46,2
820.032	H05VV-F	3G1,5	2	T12	1	230	16	3,7			3			3	437 x 44,4 x 46,2
820.029	H05VV-F	3G1,5	2	SKS*	1	230	16	3,7	6					6	522 x 44,4 x 46,2
820.031	H05VV-F	3G1,5	2	SKS*	1	230	16	3,7		6				6	607 x 44,4 x 46,2
820.033	H05VV-F	3G1,5	2	T12	1	230	16	3,7			9			9	522 x 44,4 x 46,2
820.044	H05VV-F	3G1,5	2	CEE16A	1	230	16	3,7				24	3	27	1160 x 44,4 x 46,2



# BN1000 accessories

Art. no. | Description

BlueNet BN1000 accessories	
820.045	· External temperature sensor 3.0 m; jack plug 2.5 mm; measuring range of sensor max. -50 °C to 110 °C
820.046	· External temperature sensor 10 m; jack plug 2.5 mm; measuring range of sensor max. -50 °C to 110 °C; water-tight IP88
820.047	· External temperature sensor 20 m; jack plug 2.5 mm; measuring range of sensor max. -50 °C to 110 °C; water-tight IP88
820.048	· RP-SMA WiFi antenna; with pivoted joint; 802.11 b/g/n; boosting 2dBi
820.049	· RP-SMA WiFi antenna; with pivoted joint; 802.11 b/g/n; boosting 5dBi



## Connecting cables for power supply

Cable cross-section mm <sup>2</sup>	Cable length (m)	Plug	Coupling	Art. no.	Cable colour	Art. no.	Cable colour
1.0	0.50	C14	C13	356.119	black	356.900	grey
1.0	0.75	C14	C13	356.169	black	356.901	grey
1.0	1.00	C14	C13	356.120	black	356.902	grey
1.0	1.50	C14	C13	356.127	black	356.903	grey
1.0	2.00	C14	C13	356.171	black	356.904	grey
1.5	0.50	ECP*	C13	356.172	black	356.905	grey
1.5	0.75	ECP*	C13	356.1721	black	356.906	grey
1.5	1.00	ECP*	C13	356.1722	black	356.907	grey
1.5	1.50	ECP*	C13	356.1723	black	356.908	grey
1.5	2.00	ECP*	C13	354.127	black	356.909	grey
1.5	0.50	C20	C19	356.1731	black	356.910	grey
1.5	0.75	C20	C19	356.1732	black	356.911	grey
1.5	1.00	C20	C19	356.1733	black	356.918	grey
1.5	1.50	C20	C19	356.183	black	356.935	grey
1.5	2.00	C20	C19	356.1735	black	356.936	grey
1.5	0.50	ECP*	C19	356.1971	black	356.937	grey
1.5	0.75	ECP*	C19	356.1972	black	356.938	grey
1.5	1.00	ECP*	C19	356.1973	black	356.939	grey
1.5	1.50	ECP*	C19	356.1974	black	356.940	grey
1.5	2.00	ECP*	C19	356.1975	black	356.941	grey

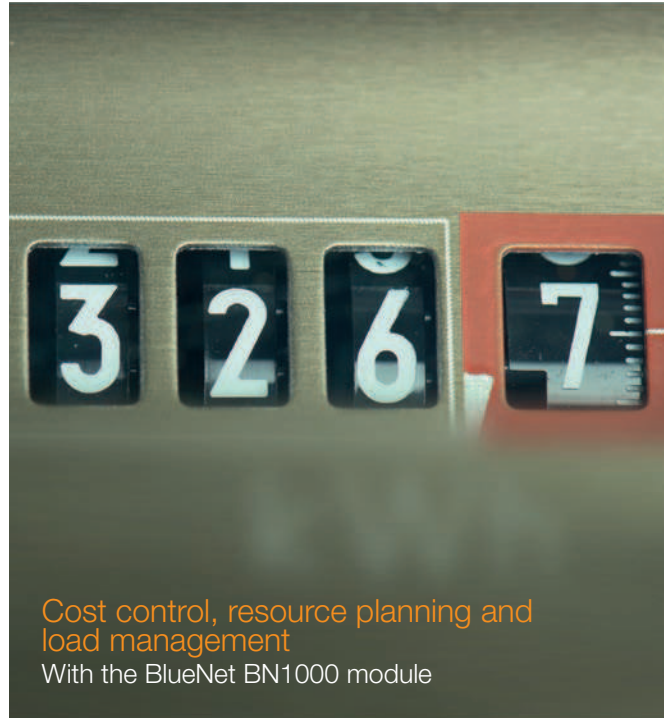


## Examples of use BN1000



### Safety and availability

The low-cost complete solution for server rooms or smaller IT infrastructures for metering, switching and managing.



### Cost control, resource planning and load management

With the BlueNet BN1000 module



### Comfort and energy-aware lifestyle

Thanks to automatic control of electrical consumers such as lights, circulating pumps and radiators.



### Safety

Through simulation of presence and e-mail notifications or automatic cut-off. For example, in the event of overload or underload or a preset temperature.

