BATIGYR

Power Supply

FOR BATIBUS AND PRV-LAN

Application

Power Supply for the BatiBUS or the PRV-LAN. For a system overview, please see PNB Data Sheet, CM2N8942E.

BatiBUS

BatiBUS is a fieldbus, especially designed for the communication between analogue and digital inputs and outputs of relatively simple devices. Applications are HVAC, lighting, blinds, intrusion detection, etc.

- **Bus voltage**: 15.5 V ± 10 %
- **Protocol**: CSMA/CA multi master (collision detection)
- **Transport security**: 1 parity bit per character and 16 bit checksum per frame
  - frame security of $10^{-10}$ frames
- **Baud rate**: 4,800 baud (approx. 10 frames per second)
- **Cable**
  - **Resistance**: 12 Ω max. between the power supply and the farthest device
  - **Capacitance**: Maximum capacitance of 250 nF
  - **Length**
    - From power supply to farthest user with 0.6 mm² cross-section: 200 m
    - From power supply to farthest user with 1.5 mm² cross-section: 500 m
    - Maximum length of all lines with 0.6 mm² cross-section: 1500 m
- **Connector**: Phoenix MSTB 2 (Landis & Gyr BatiBUS devices are supplied with a female and a male connector)
- **Topology**: Bus, star, ring and combinations of these (see example)
- **Polarity**: Must be observed
Address range 240 addresses
Note: The following coding is often used:
1/1 1/2...1/16
2/1 2/2...2/16
...15/16

Device power supply A device can be powered by an external power supply or by BatiBUS. If a device is powered through BatiBUS, the current consumed has to be less than to 2 mA.

Device capacity The total capacitance of all devices should not exceed 150 nF. Often, “DS” is used to characterise the capacitance of a device, where 500 pF corresponds to DS=1. As an example, the RCE86 has DS=2.2, which means a capacitance of 1.1 nF.

Device current The total current of all devices should not exceed 150 mA. Often, “C” is used to characterise the current of a device, where 500 uA corresponds to C=1. As an example, the RCE86 has C=0.06, which means a current of 30 uA.

Technical data PNE

Operating voltage 24 V AC/DC ±15 %
Frequency AC 50..60 Hz
Output to LAN 300 mA (max. 15 V)
Normal power consumption 0.8 VA
Maximum power consumption 5 VA
Ambient temperature
  Operation 0..40 deg. C
  Storage and transport -20..70 deg. C
Weight 180 g

Accessories

<table>
<thead>
<tr>
<th>Name</th>
<th>Type reference</th>
<th>Data Sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>BatiBUS Node</td>
<td>PNB</td>
<td>8942</td>
</tr>
<tr>
<td>2-pipe fan coil controller</td>
<td>RCE86.2 , RCE86.21</td>
<td>3532</td>
</tr>
<tr>
<td>4-pipe fan coil controller</td>
<td>RCE86.4 , RCE86.41</td>
<td>3534</td>
</tr>
</tbody>
</table>

Topology example
The connection to BatiBUS is done by a Phoenix MST B2, which is part of the delivery.
Dimensions

Dimensions in mm

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