

BATIGYR

BatiBUS Node

FOR RCE86.X-VISONIK CONNECTION

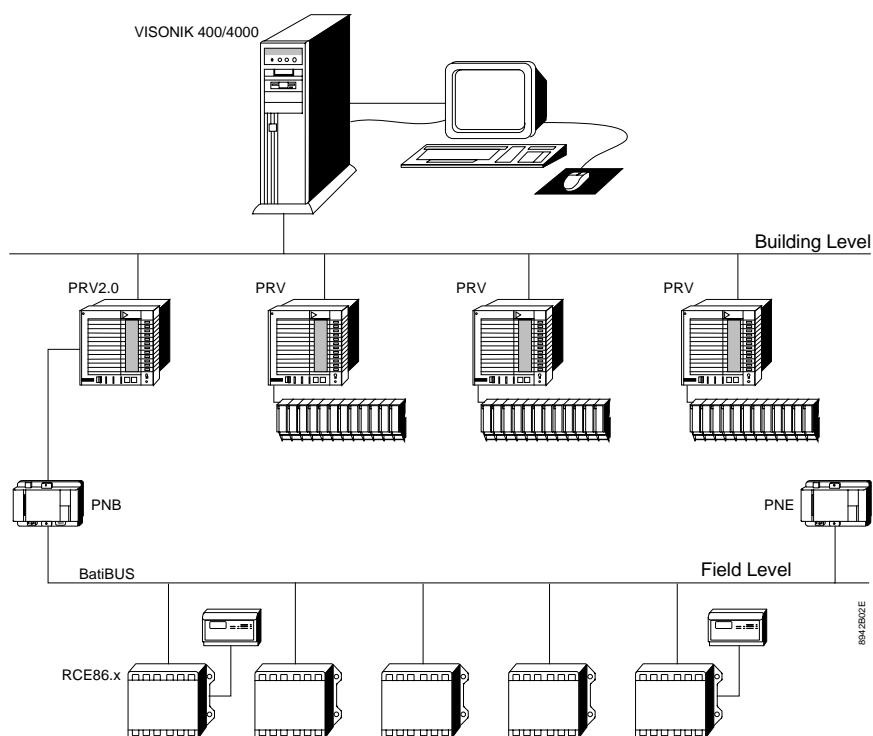
PNB



Scale 1 : 2

8942P015

System overview



The PNB is an interface between the BatiBUS and the PRV2.0. Any RCE86.x fan coil controllers connected to the BatiBUS are integrated into the PRV2.0, using the PNB.

System capacity

- A max. of 120 RCE86.x controllers per BatiBUS can be addressed and controlled by one PRV2.0.
- The RCE86.x address range is 0 to 239, of which the PRV2.0 can address the range from 1 to 239.
- In the PRV2, there can be up to 24 groups of controllers with max. 16 controllers per group.
- Additionally, up to 60 master / slave configurations with max. 10 controllers are possible.

Functions

- Mapping the RCE86.x values
A range of RCE86.x values are mapped to PRV2.0 points and can be used in the PRV2.0 and the VISONIK. As a result, the PRV2.0 contains a complete, accurate process image of all the RCE86.x controllers.
 - Temperature
 - Operating mode (Comfort / Eco / Standby)
 - setpoint Comfort heating
 - setpoint Comfort cooling
 - setpoint Eco heating
 - setpoint Eco cooling
 - Window contact
 - Changeover
 - VCF¹⁾
- Commands
Different values such as operating mode, setpoints etc. for groups of controllers can be remotely changed from the PRV2.0.
 - Operating mode (Comfort / Eco / Standby)
 - setpoint Comfort heating
 - setpoint Comfort cooling
 - setpoint Eco heating
 - setpoint Eco cooling
 - Changeover
 - Range for local setpoint changes
- Operation
Four Popcards allow simplified local operation of all RCE86.x connected to the BatiBUS. The same operations can also be configured on the VISONIK Insight
- Master / slave
Master / slave operation applies to rooms where more than one RCE86.x is installed. Master / slave functionality is used to synchronise these controllers. Any change in the master of the following parameters will be transmitted to its slaves.
 - Operating mode (Comfort / Eco / Standby)
 - setpoint Comfort heating
 - setpoint Comfort cooling
 - Changeover
 - VCF¹⁾

1) Master / slave information to make certain several controllers to not provide simultaneous heating and cooling for the same room.

If at least one window of a Master / slave configuration is open, all controllers will change to the operating mode Standby. If all windows are closed, the controllers will go back to the group value.

- Energy handling (optional)

Each RCE86.x transmits the electrical energy consumed and offers possibilities of influencing energy consumption.

Display Consumed Energy per controller and per group
 Electrical output limit
 Authorisation of electric air heater battery

Command Electrical output limit
 Authorisation of electric air heater battery

- Supervision of the communication

The PNB supervises the communication between the PNB and the different RCE86.x, and reports its status to the PRV2.0.

- Interface to other applications

In addition to applications already available, there is a clearly-defined interface for adding additional applications.

Access to RCE86.x parameters

The PRV2.0 has access to the following RCE86.x parameters:

<i>RCE86.x value</i>	<i>Event driven</i>	<i>Request for parameter</i>	<i>Change of parameter</i>
Temperature	every 5 min.	Yes	No
Operating mode	Yes	Yes	Yes
Comfort heating setpoint	Yes	Yes	Yes
Comfort cooling setpoint	Yes	Yes	Yes
Eco heating setpoint	No	Yes	Yes
Eco cooling setpoint	No	Yes	Yes
Window contact	Yes	Yes	No
Changeover	Together with mode	Yes	Yes for 2-pipe
VCF	Yes for masters	Yes	Yes
Consumed energy	No	Yes	No
Elec. output limit	No	Yes	Yes
Elec. heating authorisation	No	Yes	Yes

Popcard operation

Display one RCE86.x controller

Four Popcards operate the RCE86.x controllers from a PRV2.0.

UNIGYR VISONIK 10 1	Controller number [1..239] <i>Attached to group number</i>
	Temperature [°C]
	Operating Mode 1=Comfort 2=Eco 3=Standby
	Setpoint Comfort heating [°C]
	Setpoint Comfort cooling [°C]
	Setpoint Eco heating [°C]
	Setpoint Eco cooling [°C]
	Change over 0=warm water in pipe 1=cold water in pipe
	Window contact 0=window closed 1=window open
	VCF 1=only heating 2=heating & cooling forbidden 3=only cooling 4=heating & cooling allowed
RCE86.x : Show Controller Ad.1 Pg.1	

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Set group values

UNIGYR VISONIK 10 2	Group number [1..24]	
	Operating Mode 1=Comfort 2=Economy 3=Standby	
	Setpoint Comfort heating [°C]	
	Setpoint Comfort cooling [°C]	
	Setpoint Eco heating [°C]	
	Setpoint Eco cooling [°C]	
	Change over 0=warm water in pipe 1=cold water in pipe	
	VCF 1=only heating 2=heating & cooling forbidden 3=only cooling 4=heating & cooling allowed = AUTO	
	RCE86.x : Group Settings Ad.1 Pg.2	

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Set values for all controllers

UNIGYR VISONIK 10 3	Operating Mode 1=Comfort 2=Economy 3=Standby	
	Setpoint Comfort heating [°C]	
	Setpoint Comfort cooling [°C]	
	Setpoint Eco heating [°C]	
	Setpoint Eco cooling [°C]	
	Range Comfort Setpoint [0..4.5 °C]	
	Limits : EH CH CC EC 10.. 14.5...23.5 20.5...29.5 ..30	
	Rules : EH 0.5 CH 2.0 CC 0.5 EC	
	RCE86.x : Settings for all controllers Ad.1 Pg.3	

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Energy handling

UNIGYR VISONIK	Controller number	[1..239]
	Consumed Energy	[kWh]
10	Limitation el. Output	[0..100 %]
	Authoris. el. heating	1=valve & electro 2=only valve 3=only electro
4	Group number	[1..24]
	Consumed Energy	[kWh]
	Reset to Zero	1=Reset
	Limitation el. Output	[0..100 %]
	Authoris. el. heating	1=valve & electro 2=only valve 3=only electro
RCE86.x : Energy handling		Ad.1 Pg.4

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Technical data

Operating voltage	24 V AC/DC \pm 15 %
Frequency	AC 50..60 Hz
Power consumption	max. 0.6 VA
Ambient temperature	
Operation	0..40 deg. C
Storage and transport	-20..70 deg. C
Weight	180 g
PNB protection	PTC resistor 200mA
Cable between PRV and PNB	max. 1.5 m
Regulator load (C)	1mA C=2
Capacitance (DS)	DS=3.3

Configuration work needed

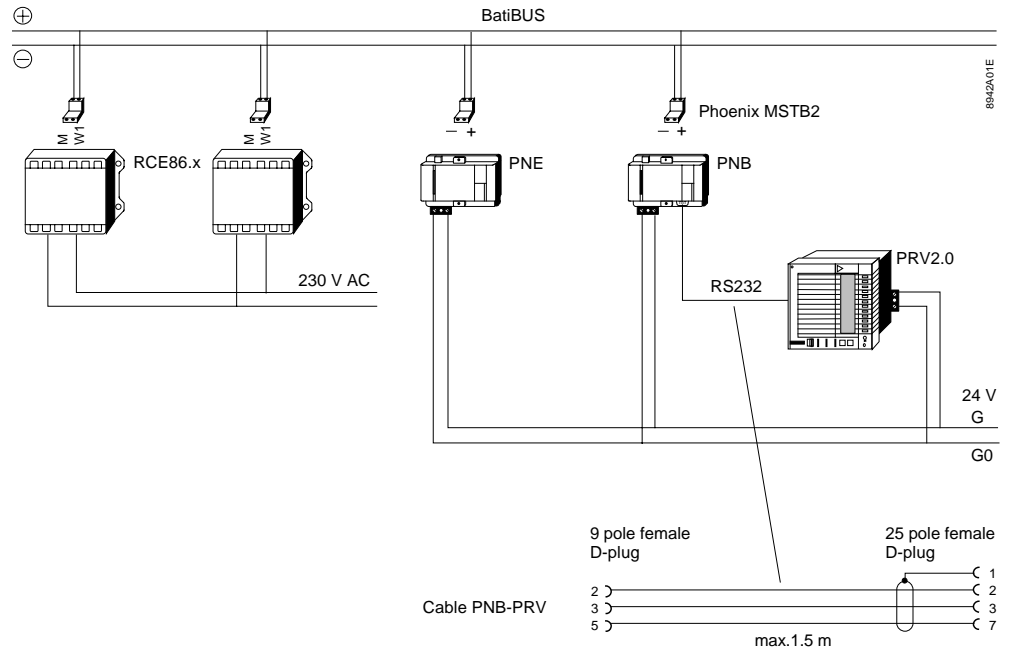
A COLBAS Task in the PRV2.0 is used for the project specific information:

- Which RCE86.x controllers are connected
- Definition of the groups
- Definition of master / slave

Accessories

<i>Name</i>	<i>Type reference</i>	<i>Data Sheet</i>
Power supply for BatiBUS	PNE	8943
2-pipe fan coil controller	RCE86.2 , RCE86.21	3532
4-pipe fan coil controller	RCE86.4 , RCE86.41	3534

Connection diagram



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

Dimensions

