SIEMENS

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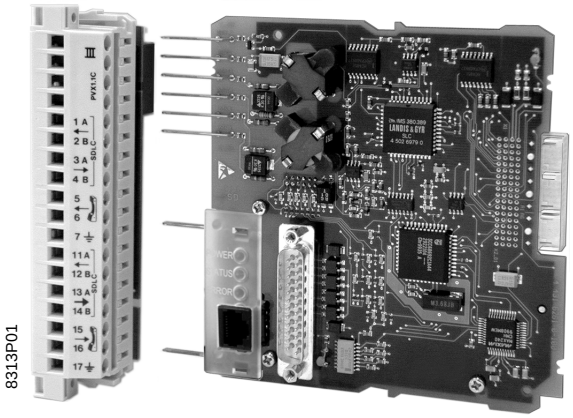


VISONIK®

COM1 communication cards BPS1.C1/1E..

For basic units PRV2... / BPS1.ECU

Cards for the basic units PRV2... or BPS1.ECU, for communication as a NetBPS from VISONIK DCS V20 or as a EcuBPS from VISONIK DCS V20.
Two versions with the following communication interfaces:

- **Ethernet interface 10BaseT + V.24 on TTY1 (for NetBPS)**
- **Ethernet interface 10BaseT + V.24 on TTY1 + SDLC ring (for EcuBPS)**

Use

Communication with Ethernet connection applies where the NetBPS or EcuBPS is used as a:

- Process station on an Ethernet (NetBPS).
- Communication device of a remote SDLC ring with connection to the VISONIK Data and Communication Server DCS via Ethernet (EcuBPS).

Functions

Depending on the device type and application, communication cards are used for the following:

- Communication with the VISONIK Data and Communication Server on the Ethernet.
- Report output to a local printer via TTY1.
- Operation and configuration of the process station via TTY1.
- Data communication with the process stations on the SDLC ring (EcuBPS only).
- Integration of L&S room control or third-party systems via TTY1 (NetBPS only).

Siemens Building Technologies
Landis & Staefa Division

Type summary

Communication card for PRV2..., Ethernet connection 10BaseT + 1 V.24 connection on TTY1.	**BPS1.C1/1E**
Communication card for BPS1.ECU, 10BaseT Ethernet connection + 1 V.24 connection on TTY1 + 1 connection for the SDLC ring (requires terminal block **PVX1.1C**).	**BPS1.C1/1ES**

Equipment combinations

Basic unit	**PRV2... / BPS1.ECU**	Data sheets N8305/N8307
Program card	**PVA3... / BPS1.M/E2...**	Data sheet N8317

Technical design

Depending on the type, the communication cards contain the following functional units either alone or in combination:
- Interface converter to Ethernet
- Interface converter to Building Level Network (SDLC)
- Interface converter for V.24 communication on TTY1.

The EEPROM stores the manufacturing and configuration data.
Interface specifications: See "Technical data".

Mechanical design

Plug-in circuit board cards. Connections for Ethernet and V.24 via circuit board plugs. Type BPS1.C1/1ES has additional connection tabs for SDLC connection via the PVX1.1C terminal block, slot III on the rear of the basic unit.

Engineering notes

Note the following during engineering:
- Use these cards only for applications as described in the brief description on the title page (bold print) and the section "Use".
- For the connections, the specifications in section "Technical data" apply.
- Conduct all wiring as described in section "Internal diagrams".
- For bus connections on the SDLC ring, read data sheet N8024 "Building Level Network, SDLC ring".

Mounting notes

The communication cards are delivered with mounting instructions. These instructions show where and how to insert the respective cards in the basic unit.

Do not touch electrical contacts or components on the open unit or card, as electrostatic discharges may destroy sensitive components!
When mounting, apply suitable safety measures such as using an earthed antistatic mat connected to your wrist.

Commissioning notes

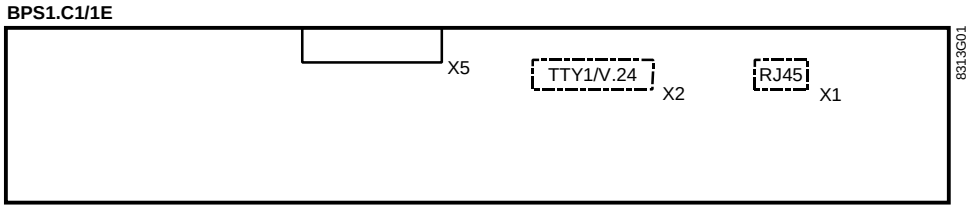
A program card from BPS V18 must be inserted in the NetBPS or EcuBPS to commission and test communications.

Technical data

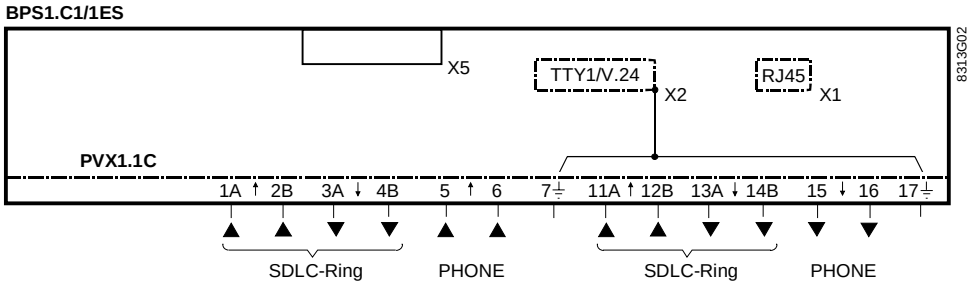
General data	Electromagnetic compatibility	
	Immunity	EN 50082-2
	Emissions	EN 50081-1
	CE conformity	
	Electromagnetic compatibility	89/336/EEC
	Further general data and environmental conditions	Same as for basic units PRV2... or BPS1.ECU; see data sheets N8305 or N8307
	Weight with terminal block, without packaging	0.35 kg
SDLC ring connection	Interface type	SDLC/FSK (company-specific)
	Interface coupling	electrically isolated
	Rate of transmission (baud rates) as set per	2400, 4800 bps
	default in the NetBPS/EcuBPS	4800 bps
	Format	SDLC (synchronous)
	Data bit	8
	Bit code	NRZI
	Ring cable min. dia. 0.6 mm, 1 x 4, or 2 x 2.	screened, 4-core twisted
	Ring cable when field telephone	screened,
	min. dia. 0.6 mm, 2 x 4, or 3 x 2.	8-core or 6-core twisted
	Connection facility	Screw terminals, rear of unit (terminal block III)
	Detailed information on the SDLC ring	Data sheet 8024
Ethernet connection	Interface type	10BaseT (10Mbit/s)
	Protocol type	TCP/IP (UDP)
	Connection	IEEE 802.3 compatible
	Plug	RJ45 plug, screened
	Cabling	Standard CAT5 UTP or STP
	Diagnostics	LEDs for voltage, state, error
TTY1 connection	Signal definition	CCITT V.24 (subset)
	Signal level	CCITT V.28
	Supported signals	RXD, TXD, CTS, RTS, DCD, DTR, DSR
	Format	
	Start bit	1
	Data bit	5, 6, 7 or 8
	Stop bit	1 or 2
	Parity	none, odd, even
	Rate of transmission (baud rate)	300 .. 19,200 bps
	Connection facility	D-Sub 25-pin plug

Internal diagrams

BPS1.C1/1E card



BPS1.C1/1ES card

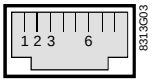


Plug

X1	Ethernet connection 10BaseT
X2	V.24 on TTY1
X5	Internal plug connection to basic unit PRV2... or BPS1.ECU

Ethernet connection

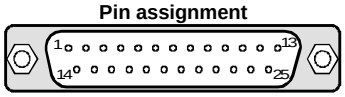
RJ45 plug, assigned as per AT&T256:



Pin	Signal
1	Tx+
2	Tx-
3	Rx+
6	Rx-

V.24 on TTY1 pin assignment

Signal as per CCITT	Function	Pin assignment
TXD	Output	2
RXD	Input	3
RTS	Output	4
CTS	Input	5
DSR	Input	6
SGND	Ground	7
DCD	Input	8
DTR	Output	20
⏚	Shield	Housing



PVX1.1C connections, terminal block III

Terminal	Signal	Designation	Terminal	Signal	Designation
1 A	IN A	SDLC ring	11 A	IN A	SDLC ring
2 B	IN B	SDLC ring	12 B	IN B	SDLC ring
3 A	OUT A	SDLC ring	13 A	OUT A	SDLC ring
4 B	OUT B	SDLC ring	14 B	OUT B	SDLC ring
5	IN A	PHONE (field telephone)	15	OUT A	PHONE (field telephone)
6	IN B	PHONE	16	OUT B	PHONE
7	⏚	Cable screen	17	⏚	Cable screen