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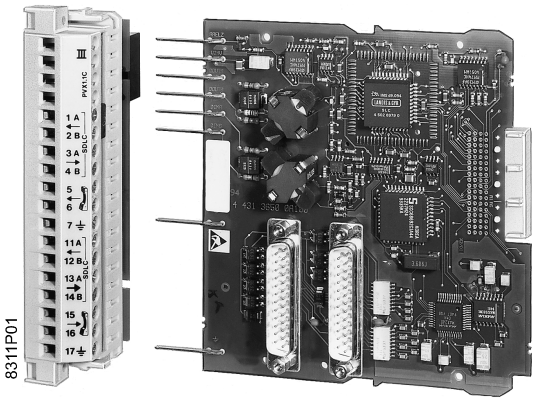


VISONIK®

COM1 communication cards

BPS1.C1/... PVC1...

For basic units PRV2... / BPS1.ECU

Cards with terminal block for the basic units PRV2... or BPS1.ECU, for communication as a VISONIK BPS from DCS V12 or as an EcuBPS from DCS V18.
Three versions with the following communication interfaces:

- **Building Level Network (SDLC ring)**
- **Building Level Network (SDLC) and V.24 on TTY1 and TTY2**
- **V.24 on TTY1 and TTY2**

Use

The COM1 communication cards are used when the BPS or EcuBPS is used as follows:

- As a partner station on a Building Level Network (BLN) or as a ring master and communication device in a separate SDLC ring
- When the BPS or EcuBPS communicates with peripheral devices (modem, printer)
- When the BPS or EcuBPS is to be used as a remote station or ring master via telephony

CM2N8311E
05.10.2000

Functions

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

- Communication with the VISONIK Data and Communication Server (DCS) and the VISONIK partner stations via the BLN or via modem/telephony
- Report printout to a connected printer

Type summary

Communication card with BLN connection (SDLC ring), Terminal block **PVX1.1C**	**PVC1.1S**
Communication card with BLN connection (SDLC ring), 2 V.24 connections on TTY1 and TTY2, Terminal block	**PVC1.1ST / BPS1.C1/1ST** **PVX1.1C**
Communication card with BLN connection 2 V.24 connections on TTY1 and TTY2	**PVC1.1T**

Note

The **BPS1.C1/1ST** card is valid **only** for the **BPS1.ECU** basic unit. It cannot be used in PRV2… basic units.

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, COM1 communication cards contain the following functional units either alone or in combination:

– Interface converter to Building Level Network (SDLC)
– Interface converter for V.24 communication on TTY1 and TTY2.

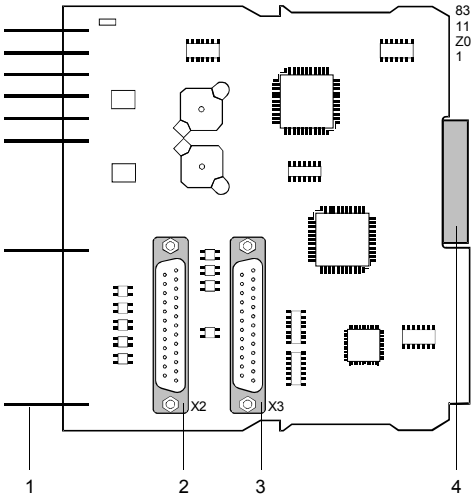
The EEPROM stores the manufacturing and configuration data.

Interface specifications: See "Technical data".

Mechanical design

Plug-in cards with connection tabs to the terminal block (except TYP PVC1.1T). The related terminal block is mechanically encoded to only allow for connection at the designated location (III) on the basic unit.

View of card PVC1.1ST/BPS1.C1/1ST



1 Plug connections to the terminal block III at the basic unit
2 TTY1 connection for modem or local operation, D-sub 25-pin
3 TTY2 connection for printer or local operation, D-sub 25-pin
4 Internal plug connection to the basic unit

Hardware differences

The above two COM1 cards differ as follows from the above illustration in terms of hardware:

- Type PVC1.1S no D-sub connection on pos. 2 and 3
- Type PVC1.1T no plug contacts on pos. 1

Engineering notes

STOP

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 in an overall system, 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.

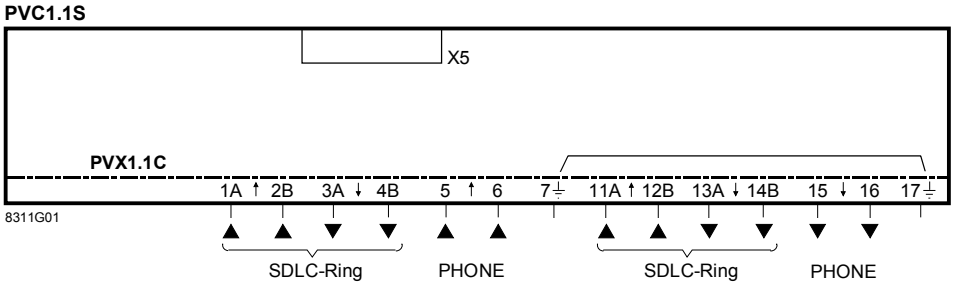
Commissioning notes

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

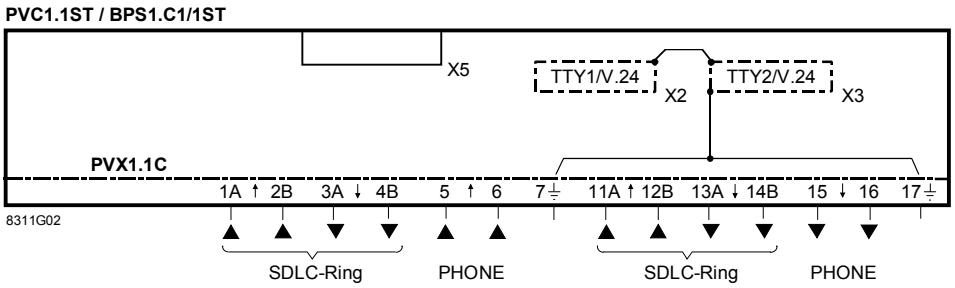
Technical data

General data	CE conformity	
	In accordance with the European Union directives	
	on electromagnetic compatibility	89/336/EEC
	Emissions	EN 50 081-1
	Immunity	EN 50 082-2
	Weight with terminal block, without packaging	0.25 kg
Note	The same environmental and general data as for the PRV2... or BPS1.ECU basic units apply. See "Technical data" in N8305 or N8307.	
Building Level Network (SDLC ring) connection	Interface type	SDLC/FSK (company-specific)
	Interface coupling	electrically isolated
	Rate of transmission (baud rates)	2400, 4800 bps
	BPS factory setting	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 if 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)
SDLC ring data and wiring	Refer to M8017 "Mounting and installation guide" and N8024 "Building Level Network, SDLC ring" for further information on wiring.	
Primary interface TTY1 (modem)	Signal definition	CCITT V.24 (subset)
	Signal level	CCITT V.28
	Supported signals	RXD, TXD, CTS, RTS DCD, DTR, and 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 (m) plug
Secondary interface TTY2 (printer)	Signal definition	CCITT V.24 (subset)
	Signal level	CCITT V.28
	Supported signals	RXD, TXD, CTS, RTS
	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 (m) plug

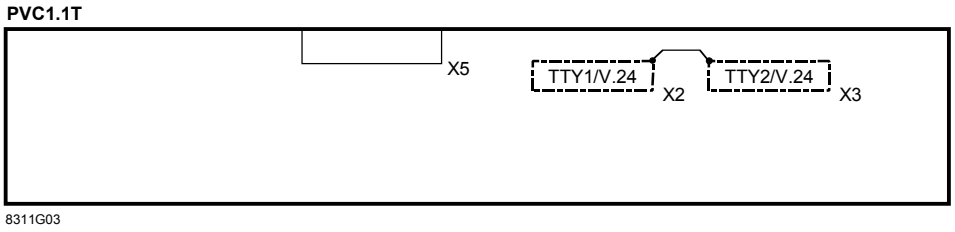
Card for BLN bus (SDLC)



Card for BLN bus (SDLC) and V.24 on TTY1 and TTY2



Card for V.24 on TTY1 and TTY2



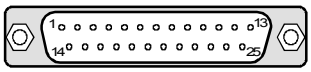
PVX1.1C connections, terminal block III

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

Plugs

X2 Primary interface TTY1 Modem connection
X3 Secondary interface TTY2, Printer connection
X5 Internal plug connection to basic unit PRV2... / BPS1.ECU

X2 and X3 pin assignment

Signals as per CCITT	Modem TTY1	Printer TTY2	Pin assignment
			 8311G04
TXD	Output	Output	2
RXD	Input	Input	3
RTS	Output	Output	4
CTS	Input	Input	5
DSR	Input	–	6
SGND	Ground	Ground	7
DCD	Input	–	8
DTR	Output	–	20
⏚	Shield	Shield	Housing