

TECHNICAL DATA

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Version 1.0 (March 2004)

Purpose This document is part of the user's guide to the installation and configuration of BinTec gateways running software release 7.1.1 or later. For up-to-the-minute information and instructions concerning the latest software release, you should always read our **Release Notes**, especially when carrying out a software update to a later release level. The latest **Release Notes** can always be found at www.bintec.net.

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R&TTE Directive 1999/5/EC

CE marking for all EU countries and Switzerland

You will find detailed information in the Declarations of Conformity at www.bintec.net.

How to reach BinTec

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1 VPN Access 5

All products of the **VPN Access Line** provide you with basically the same set of functions and differ only in terms of the supported number of active VPN tunnels. **VPN Access 5**, however, does not provide an ISDN interface. This means that features requiring an ISDN connection are not supported.

1.1 Delivery size

Your gateway is supplied with the following parts:

- Cable sets/power supply:
 - Ethernet cable (RJ45, red) for Ethernet connection
 - Serial cable (gray)
 - Power supply
- BinTec Companion CD
- Documentation:
 - **Basic Configuration**
 - **Release Notes**, if required
 - Safety Instructions

1.2 General Product Features

The general product features cover performance features and the technical requirements for installation and operation of your gateway.

These features are outlined in the following table:

Feature	Data
Product name	VPN Access Gateway 5

Feature	Data
Dimensions/weight (B x H x D): Dimensions without cables Weight Transport weight (incl. documentation, cabling, packaging)	200 mm x 30 mm x 150 mm 850 g approx. 3,0 kg
Memory	32 MB DRAM, 8 MB Flash-ROM
LEDs	9 (1 power, 8 function, 5 of them used)
Power consumption of equipment	10 W (with 230V)
Voltage supply	AC/DC adapter, Input: 230VAC / 50Hz, Output: 12VDC / 1A
Ambient requirements: Storage temperature Ambient temperature Relative humidity Room classification	-20° to +85°C 0 to 50 °C 20 to 90% non-condensing in operation 5 to 95% non-condensing in storage Operate only in dry rooms
MTBF	100 000 hours
Available interfaces: Serial interface V.24 2x Ethernet IEEE 802.3 LAN	Built-in, supports the following baud rates: 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200 bauds Built-in (twisted-pair only), 10/100 Mbps, auto sensing, MDIX
Plugs used: Serial interface Ethernet interface	8-pole miniDIN RJ45

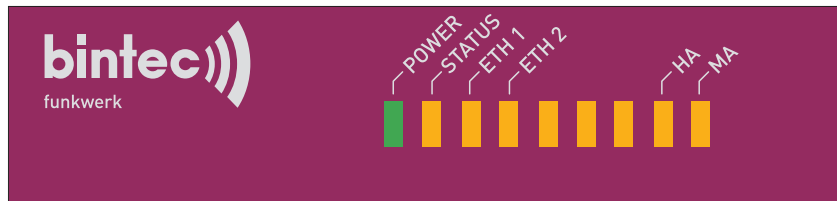
Feature	Data
SAFERNET™ Security Technology	Community Passwords, PAP, CHAP, MS-CHAP, Callback, Access Control Lists, CLID, NAT, TAF, MPPE Encryption, VPN using PPTP or IPsec
Software includes	BRICKware for Windows BRICKtools for Unix
Printed documentation included	Quick Install Guide
Documentation in PDF format	User Manual BRICKware for Windows Software Reference

Table 1-1: General product features

1.3 LEDs

The LEDs on your **VPN Access Gateway** indicate states and activity of the gateway.

They are arranged as follows:

Figure 1-1: LEDs on **VPN Access 5**

In operational mode the LEDs display the following status information:

LED	Status	Information
PWR	on	Power supply has been connected.

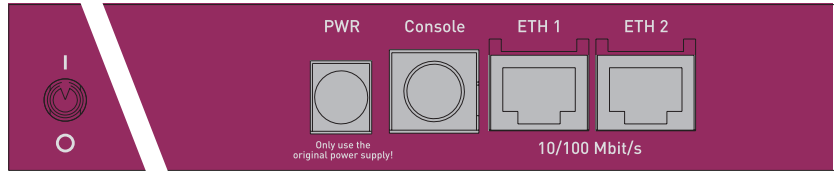
LED	Status	Information
Status	on flashing	The gateway is booting. The gateway is active.
ETH 1	on flashing	The gateway is connected to the Ethernet. Data traffic via the Ethernet interface.
ETH 2	on flashing	The gateway is connected to the Ethernet. Data traffic via the Ethernet interface.
HA	flashing	BRRP packets are received. The frequency of flashing corresponds to the data rate.
MA	on flashing	A user is logged in to the system. For Telnet and serial connection: on as long as the user is logged in. For HTML connection: on as long as the user is logged in and the HTML session has not timed out. For Telnet connection: Login attempt. For SNMP connection: SNMP packet is received.

Table 1-2: LED status display in operational mode

1.4 Connections

All connections are located on the rear of the gateway. **VPN Access 5** offers two Ethernet interfaces and no ISDN interface. The serial interface allows connecting a PC as well as connecting an analog or GSM modem for backup purposes.

The connections are arranged as follows:



1. PWR	Socket for power supply	3. ETH 1 / 2	10/100 Base-T Ethernet interface
2. Console	Serial interface	4. ISDN	ISDN Basic Rate interface

Figure 1-2: VPN Access 5 rear

1.5 Pin Assignments

1.5.1 Serial Interface

For connecting a console VPN Access 5 provides a serial interface. Baud rates between 1200 and 115200 are supported.

The connection is lead through as a MiniDIN socket:

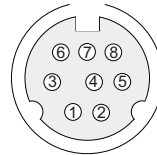


Figure 1-3: 8-pole MiniDIN socket

The pin assignment of the socket is as follows:

Pin	Function
1	For future applications.

Pin	Function
2	For future applications.
3	T
4	GND
5	R
6	NC
7	NC
8	NC

Table 1-3: Pin assignment of the serial socket

1.5.2 Ethernet Interface

LAN and WAN interfaces of VPN Access 5 are both implemented using Ethernet interfaces.

A RJ45 socket is used for connecting:

1 8

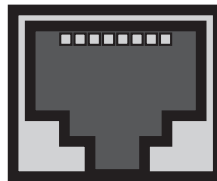


Figure 1-4: Ethernet 10/100Base-T interface (RJ45 socket)

The Ethernet interfaces (RJ45 socket) have the following pin assignment:

Pin	Function
1	TD +
2	TD -
3	RD +

Pin	Function
4	Not used
5	Not used
6	RD -
7	Not used
8	Not used

Table 1-4: RJ45 socket for LAN und WAN connections

2 VPN Access 25

2.1 Delivery size

Your gateway is supplied with the following parts:

- Cable sets/power supply:
 - Ethernet cable (RJ45, red) for Ethernet connection
 - ISDN cable (RJ 45, black) for ISDN connection
 - Serial cable (gray)
 - Power supply
- BinTec Companion CD
- Documentation:
 - **Basic Configuration**
 - **Release Notes**, if required
 - Safety Instructions

2.2 General Product Features

The general product features cover performance features and the technical requirements for installation and operation of your gateway.

These features are outlined in the following table:

Feature	Data
Product name	VPN Access Gateway 25
Dimensions/weight (B x H x D):	
Dimensions without cables	200 mm x 30 mm x 150 mm
Weight	850 g
Transport weight (incl. documentation, cabling, packaging)	approx. 3,0 kg

Feature	Data
Memory	32 MB DRAM, 8 MB Flash-ROM
LEDs	9 (1 power, 8 function)
Power consumption of equipment	10 W (with 230V)
Voltage supply	AC/DC adapter, Input: 230VAC / 50Hz, Output: 12VDC / 1A
Ambient requirements: Storage temperature Ambient temperature Relative humidity Room classification	-20° to +85°C 0 to 50 °C 20 to 90% non-condensing in operation 5 to 95% non-condensing in storage Operate only in dry rooms
MTBF	100 000 hours
Available interfaces: Serial interface V.24 2x Ethernet IEEE 802.3 LAN ISDN-WAN S ₀	Built-in, supports the following baud rates: 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200 bauds Built-in (twisted-pair only), 10/100 Mbps, auto sensing, MDIX Built-in
Plugs used: Serial interface Ethernet interface ISDN interface	8-pole miniDIN RJ45 RJ45
SAFERNET™ Security Technology	Community Passwords, PAP, CHAP, MS-CHAP, Callback, Access Control Lists, CLID, NAT, TAF, MPPE Encryption, VPN using PPTP or IPSec

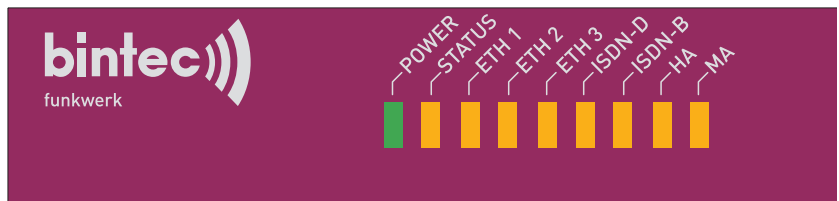
Feature	Data
Software includes	BRICKware for Windows BRICKtools for Unix
Printed documentation included	Quick Install Guide
Documentation in PDF format	User Manual BRICKware for Windows Software Reference

Table 2-5: General product features

2.3 LEDs

The LEDs on your **VPN Access Gateway** indicate states and activity of the gateway.

They are arranged as follows:

Figure 2-5: LEDs on **VPN Access 25**

In operational mode the LEDs display the following status information:

LED	Status	Information
PWR	on	Power supply has been connected.
Status	on flashing	The gateway is booting. The gateway is active.
ETH 1	on flashing	The gateway is connected to the Ethernet. Data traffic via the Ethernet interface.

LED	Status	Information
ETH 2	on flashing	The gateway is connected to the Ethernet. Data traffic via the Ethernet interface.
ETH 3	on flashing	The gateway is connected to the Ethernet. Data traffic via the Ethernet interface.
ISDN D	on	The ISDN D-channel is active.
ISDN B	on flashing	One ISDN B-channel is active. Both ISDN B-channels are active.
HA	flashing	BRRP packets are received. The frequency of flashing corresponds to the data rate.
MA	on flashing	A user is logged into the system. For Telnet and serial connection: on as long as the user is logged in. For HTML connection: on as long as the user is logged in and the HTML session has not timed out. For Telnet connection: Login attempt. For SNMP connection: SNMP packet is received.

Table 2-6: LED status display in operational mode

2.4 Connections

All connections are located on the rear of the gateway. **VPN Access 25** offers three Ethernet interfaces and no ISDN interface. The serial interface allows connecting a PC as well as connecting an analog or GSM modem for backup purposes.

The connections are arranged as follows:

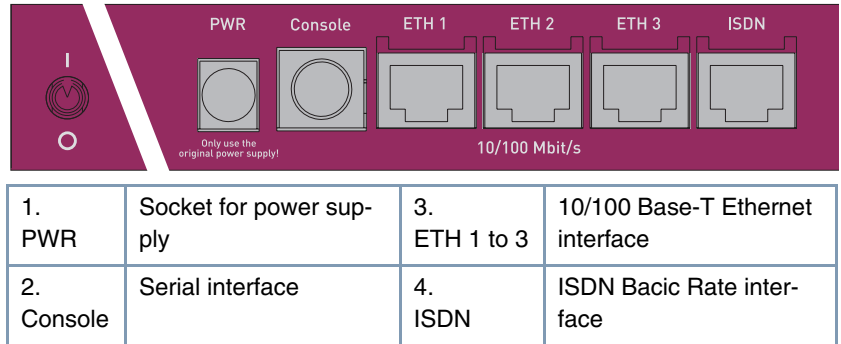


Figure 2-6: VPN Access 25 rear

2.5 Pin Assignments

2.5.1 Serial Interface

For connecting a console VPN Access 25 provides a serial interface. Baud rates between 1200 and 115200 are supported.

The connection is lead through as a MiniDIN socket:

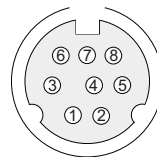


Figure 2-7: 8-pole MiniDIN socket

The pin assignment of the socket is as follows:

Pin	Function
1	For future applications.
2	For future applications.

Pin	Function
3	T
4	GND
5	R
6	NC
7	NC
8	NC

Table 2-7: Pin assignment of the serial socket

2.5.2 Ethernet Interface

LAN and WAN interfaces of VPN ACCess 25 are both implemented using Ethernet interfaces.

A RJ45 socket is used for connecting:

1 8

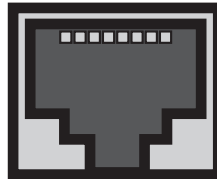


Figure 2-8: Ethernet 10/100Base-T interface (RJ45 socket)

The Ethernet interfaces (RJ45 socket) have the following pin assignment

Pin	Function
1	TD +
2	TD -
3	RD +
4	Not used

Pin	Function
5	Not used
6	RD -
7	Not used
8	Not used

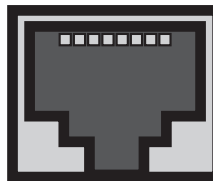
Table 2-8: RJ45 socket for LAN und WAN connections

2.5.3 ISDN Basic Rate Interface

VPN Access 25 provides an ISDN S_0 interface, which can be used, e.g., for backup purposes.

A RJ45 socket is used for connecting:

1 8

Figure 2-9: ISDN S_0 interface (RJ45 socket)

The ISDN interface (RJ45 socket) has the following pin assignment:

Pin	Function
1	Not used
2	Not used
3	Send (+)
4	Receive (+)
5	Receive (-)
6	Send (-)

Pin	Function
7	Not used
8	Not used

Table 2-9: RJ45 socket for ISDN connection

3 VPN Access 100

3.1 Delivery size

Your gateway is supplied with the following parts:

- Cable sets/power supply:
 - ISDN cable (RJ 45, black) for ISDN connection
 - Serial cable (gray)
 - Power supply
- BinTec Companion CD
- Documentation:
 - **Basic Configuration**
 - **Release Notes**, if required
 - Safety Instructions

3.2 General Product Features

The general product features cover performance features and the technical requirements for installation and operation of your gateway.

These features are outlined in the following table:

Feature	Data
Product name	VPN Access Gateway 100
Dimensions/weight (B x H x D):	
Dimensions without cables	200 mm x 30 mm x 150 mm
Weight	850 g
Transport weight (incl. documentation, cabling, packaging)	approx. 3,0 kg

Feature	Data
Memory	32 MB DRAM, 8 MB Flash-ROM
LEDs	9 (1 power, 8 function)
Power consumption of equipment	10 W (bei 230V)
Voltage supply	AC/DC adapter, Input: 230VAC / 50Hz, Output: 12VDC / 1A
Ambient requirements: Storage temperature Ambient temperature Relative humidity Room classification	-20° to +85°C 0 to 50 °C 20 to 90% non-condensing in operation 5 to 95% non-condensing in storage Operate only in dry rooms
MTBF	100 000 hours
Available interfaces: Serial interface V.24 2x Ethernet IEEE 802.3 LAN ISDN-WAN S ₀	Built-in, supports the following baud rates: 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200 bauds Built-in (twisted-pair only), 10/100 Mbps, auto sensing, MDIX Built-in
Plugs used: Serial interface Ethernet interface ISDN interface	8-pole miniDIN RJ45 RJ45
SAFERNET™ Security Technology	Community Passwords, PAP, CHAP, MS-CHAP, Callback, Access Control Lists, CLID, NAT, TAF, MPPE Encryption, VPN using PPTP or IPSec

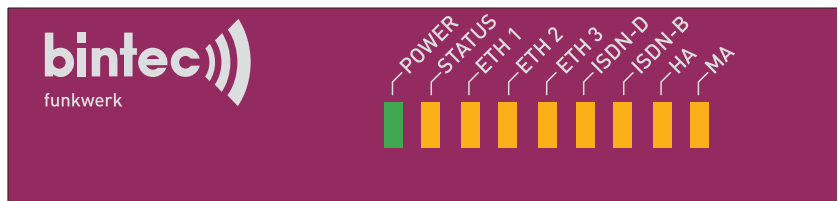
Feature	Data
Software includes	BRICKware for Windows BRICKtools for Unix
Printed documentation included	Quick Install Guide
Documentation in PDF format	User Manual BRICKware for Windows Software Reference

Table 3-10: General product features

3.3 LEDs

The LEDs on your **VPN Access Gateway** indicate states and activity of the gateway.

They are arranged as follows:

Figure 3-10: LEDs on **VPN Access 100**

In operational mode the LEDs display the following status information:

LED	Status	Information
PWR	on	Power supply has been connected.
Status	on flashing	The gateway is booting. The gateway is active.
ETH 1	on flashing	The gateway is connected to the Ethernet. Data traffic via the Ethernet interface.

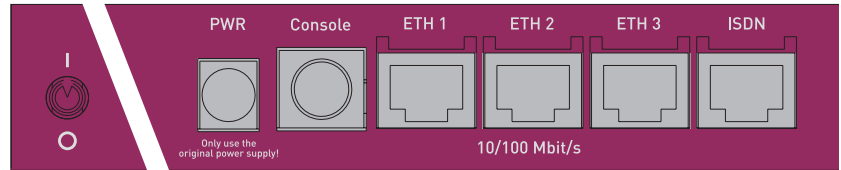
LED	Status	Information
ETH 2	on flashing	The gateway is connected to the Ethernet. Data traffic via the Ethernet interface.
ETH 3	on flashing	The gateway is connected to the Ethernet. Data traffic via the Ethernet interface.
ISDN D	on	The ISDN D-channel is active.
ISDN B	on flashing	One ISDN B-channel is active. Both ISDN B-channels are active.
HA	flashing	BRRP packets are received. The frequency of flashing corresponds to the data rate.
MA	on flashing	A user is logged in to the system. For Telnet and serial connection: on as long as the user is logged in. For HTML connection: on as long as the user is logged in and the HTML session has not timed out. For Telnet connection: Login attempt. For SNMP connection: SNMP packet is received.

Table 3-11: LED status display in operational mode

3.4 Connections

All connections are located on the rear of the gateway. **VPN Access 100** offers three Ethernet interfaces and no ISDN interface. The serial interface allows connecting a PC as well as connecting an analog or GSM modem for backup purposes.

The connections are arranged as follows:



1. PWR	Socket for power supply	3. ETH 1 to 3	10/100 Base-T Ethernet interface
2. Console	Serial interface	4. ISDN	ISDN Basic Rate interface

Figure 3-11: VPN Access 100 rear

3.5 Pin Assignments

3.5.1 Serial Interface

For connecting a console VPN Access 100 provides a serial interface. Baud rates between 1200 and 115200 are supported.

The connection is lead through as a MiniDIN socket:

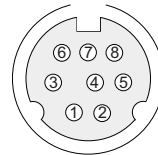


Figure 3-12: 8-pole MiniDIN socket

The pin assignment of the socket is as follows:

Pin	Function
1	For future applications.

Pin	Function
2	For future applications.
3	T
4	GND
5	R
6	NC
7	NC
8	NC

Table 3-12: Pin assignment of the serial socket

3.5.2 Ethernet Interface

LAN and WAN interfaces of **VPN ACCess 100** are both implemented using **Ethernet interfaces**.

A RJ45 socket is used for connecting:

1 8

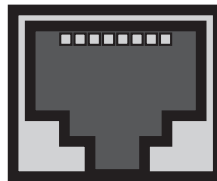


Figure 3-13: Ethernet 10/100Base-T interface (RJ45 socket)

The Ethernet interfaces (RJ45 socket) have the following pin assignment:

Pin	Function
1	TD +
2	TD -
3	RD +

Pin	Function
4	Not used
5	Not used
6	RD -
7	Not used
8	Not used

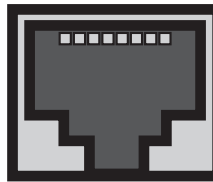
Table 3-13: RJ45 socket for LAN und WAN connections

3.5.3 ISDN Basic Rate Interface

VPN Access 100 provides an ISDN S_0 interface, which can be used, e.g., for backup purposes.

A RJ45 socket is used for connecting:

1 8

Figure 3-14: ISDN S_0 interface (RJ45 socket)

The ISDN interface (RJ45 socket) has the following pin assignment:

Pin	Function
1	Not used
2	Not used
3	Send (+)
4	Receive (+)
5	Receive (-)

Pin	Function
6	Send (-)
7	Not used
8	Not used

Table 3-14: RJ45 socket for ISDN connection

4 VPN Access 250

4.1 Delivery size

Your gateway is supplied with the following parts:

- Cable sets/power supply:
 - ISDN cable (RJ 45, black) for ISDN connection
 - Serial cable (gray)
 - IEC AC power cord
- BinTec Companion CD
- Documentation:
 - **Quick Install Guide** (printed)
 - **User Manual** (on CD)
 - **Release Notes**, if required
 - Safety Instructions

4.2 General Product Features

The general product features cover performance features and the technical requirements for installation and operation of your gateway.

These features are outlined in the following table:

Feature	Data
Product name	VPN Access Gateway 250
Dimensions/weight (B x H x D):	
Dimensions without cables	433 mm x 43,5 mm x 273 mm
Weight	approx. 3,5 kg
Transport weight (incl. documentation, cabling, packaging)	approx. 6 kg

Feature	Data
Memory	64 MB DRAM (SODIMM), 2 MB Flash-ROM, 16 MB Smart Media Flash Card
LEDs	11 (3x2 Ethernet, 1x2 ISDN, 3x Status)
Power consumption of equipment	40W max, 22W typical
Voltage supply	Internal wide-range power supply without fan, 85 to 264 VAC, 47 to 440 Hz, max 1A (RMS) with 115 VAC, 18/36A with 115/230VAC
Ambient requirements: Storage temperature Ambient temperature Relative humidity Room classification	-20° to +85°C 0 to 40 °C 20 to 90% non-condensing in operation 5 to 95% non-condensing in storage Operate only in dry rooms
MTBF	100 000 hours
Available interfaces: Serial interface V.24 2x Ethernet IEEE 802.3 LAN ISDN-WAN S ₀	Built-in, supports the following baud rates: 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200 bauds Built-in (twisted-pair only), 10/100 Mbps, auto sensing, MDIX Built-in
Plugs used: Serial interface Ethernet interface ISDN interface	8-pole miniDIN RJ45 RJ45

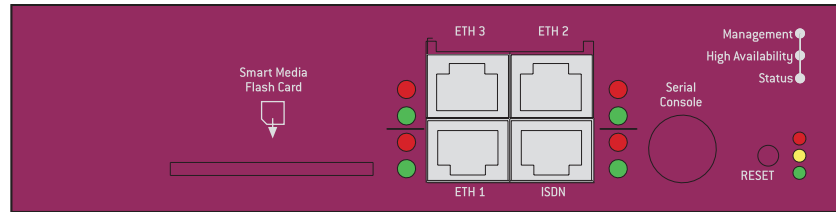
Feature	Data
SAFERNET™ Security Technology	Community Passwords, PAP, CHAP, MS-CHAP, Callback, Access Control Lists, CLID, NAT, TAF, MPPE Encryption, VPN using PPTP or IPsec
Software includes	BRICKware for Windows BRICKtools for Unix
Printed documentation included	Quick Install Guide
Documentation in PDF format	User Manual BRICKware for Windows Software Reference

Table 4-15: Genreal product features

4.3 LEDs and Connections

All connections (excluding the power supply socket) and the LEDs are located on the front of **VPN Access 250**. The LEDs indicate states and activity of the gateway.

The front of **VPN Access 250** looks as follows:



1. Smart Media Flash Card	Slot for inserting an SMFC	4. Serial Console	Serial interface
2. ETH 1 to 3	10/100 Mbps Fast Ethernet Interfaces with 2 LEDs each	5. Management High Availability Status	Status LEDs
3. ISDN	ISDN/WAN Basic Rate Interface with 2 LEDs	6. Reset	Reset switch

Figure 4-15: Front view of **VPN Access 250**

4.3.1 LEDs

In operational mode the LEDs display the following status information:

LED	Status	Information
ETH 1 red green	on on flashing	Data traffic via the Ethernet interface. The gateway is connected to a 10Base-T link. The gateway is connected to a 100Base-T link.

LED	Status	Information
ETH 2 red green	on on flashing	Data traffic via the Ethernet interface. The gateway is connected to a 10Base-T link. The gateway is connected to a 100Base-T link.
ETH 3 red green	on on flashing	Data traffic via the Ethernet interface. The gateway is connected to a 10Base-T link. The gateway is connected to a 100Base-T link.
ISDN red green	on flashing flashing	One ISDN B-channel is active. Both ISDN B-channel are active. The ISDN D-channel is active.
Management	on flashing	A user is logged in to the system. For Telnet and serial connection: on as long as the user is logged in. For HTML connection: on as long as the user is logged in and the HTML session has not timed out. For Telnet connection: Login attempt. For SNMP connection: SNMP packet is received.
HA	flashing	BRRP packets are received. The frequency of flashing corresponds to the data rate.
Status	on flashing	The gateway is booting. The gateway is running

Table 4-16: LED status display in operational mode

4.4 Pin Assignments

4.4.1 Serial Interface

For connecting a console **VPN Access 250** provides a serial interface. Baud rates between 1200 and 115200 are supported.

The connection is lead through as a MiniDIN socket:

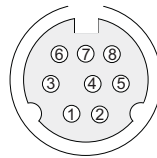


Figure 4-16: 8-pole MiniDIN socket

The pin assignment of the socket is as follows:

Pin	Function
1	For future applications.
2	For future applications.
3	T
4	GND
5	R
6	NC
7	NC
8	NC

Table 4-17: Pin assignment of the serial socket

4.4.2 Ethernet Interface

LAN and WAN interfaces of **VPN Access 250** are both implemented using Ethernet interfaces.

A RJ45 socket is used for connecting:

1 8

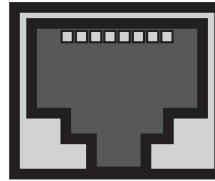


Figure 4-17: Ethernet 10/100Base-T interface (RJ45 socket)

The Ethernet interfaces (RJ45 socket) have the following pin assignment

Pin	Function
1	TD +
2	TD -
3	RD +
4	Not used
5	Not used
6	RD -
7	Not used
8	Not used

Table 4-18: RJ45 socket for LAN und WAN connections

4.4.3 ISDN Basic Rate Interface

VPN Access 250 provides an ISDN S₀ interface, which can be used, e.g., for backup purposes.

A RJ45 socket is used for connecting:

1 8

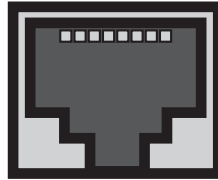


Figure 4-18: ISDN S₀ interface (RJ45 socket)

The ISDN interface (RJ45 socket) has the following pin assignment:

Pin	Function
1	Not used
2	Not used
3	Send (+)
4	Receive (+)
5	Receive (-)
6	Send (-)
7	Not used
8	Not used

Table 4-19: RJ45 socket for ISDN connection

5 VPN Access 1000

5.1 Delivery Size

Your gateway is supplied with the following parts:

- Cable sets/power supply:
 - ISDN cable (RJ 45, black) for ISDN connection
 - Serial cable (gray)
 - IEC AC power cord
- BinTec Companion CD
- Documentation:
 - **Quick Install Guide** (printed)
 - **User Manual** (on CD)
 - **Release Notes**, if required
 - Safety Instructions

5.2 General Product Features

The general product features cover performance features and the technical requirements for installation and operation of your gateway.

These features are outlined in the following table:

Feature	Data
Product name	VPN Access Gateway 1000
Dimensions/weight (B x H x D):	
Dimensions without cables	433 mm x 43,5 mm x 273 mm
Weight	approx. 3,5 kg
Transport weight (incl. documentation, cabling, packaging)	approx. 6 kg

Feature	Data
Memory	64 MB DRAM (SODIMM), 2 MB Flash-ROM, 16 MB Smart Media Flash Card
LEDs	11 (3x2 Ethernet, 1x2 ISDN, 3x Status)
Power consumption of equipment	40W max, 22W typical
Voltage supply	Internal wide-range power supply without fan, 85 to 264 VAC, 47 to 440 Hz, max 1A (RMS) with 115 VAC, 18/36A with 115/230VAC
Ambient requirements: Storage temperature Ambient temperature Relative humidity Room classification	-20° to +85°C 0 to 40 °C 20 to 90% non-condensing in operation 5 to 95% non-condensing in storage Operate only in dry rooms
MTBF	100 000 hours
Available interfaces: Serial interface V.24 2x Ethernet IEEE 802.3 LAN ISDN-WAN S ₀	Built-in, supports the following baud rates: 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200 bauds Built-in (twisted-pair only), 10/100 Mbps, auto sensing, MDIX Built-in
Plugs used: Serial interface Ethernet interface ISDN interface	8-pole miniDIN RJ45 RJ45

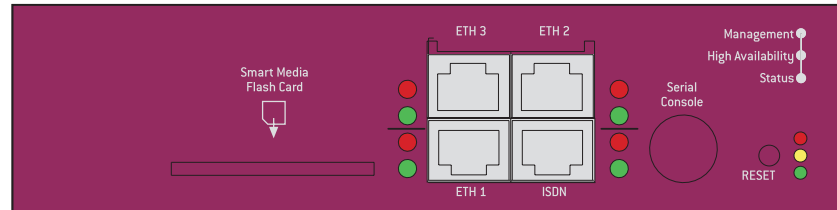
Feature	Data
Data compression	STAC and MPPC
SAFERNET™ Security Technology	Community Passwords, PAP, CHAP, MS-CHAP, Callback, Access Control Lists, CLID, NAT, TAF, MPPE Encryption, VPN using PPTP or IPsec
Software includes	BRICKware for Windows BRICKtools for Unix
Printed documentation included	Quick Install Guide
Documentation in PDF format	User Manual BRICKware for Windows Software Reference

Table 5-20: General product features

5.3 LEDs and Connections

All connections (excluding the power supply socket) and the LEDs are located on the front of **VPN Access 1000**. The LEDs indicate states and activity of the gateway.

The front of **VPN Access 1000** looks as follows:



1. Smart Media Flash Card	Slot for inserting an SMFC	4. Serial Console	Serial interface
2. ETH 1 to 3	10/100 Mbps Fast Ethernet Interfaces with 2 LEDs each	5. Management High Availability Status	Status LEDs
3. ISDN	ISDN/WAN Basic Rate Interface with 2 LEDs	6. Reset	Reset switch

Figure 5-19: Front view of **VPN Access 1000**

5.3.1 LEDs

In operational mode the LEDs display the following status information:

LED	Status	Information
ETH 1 red green	on on flashing	Data traffic via the Ethernet interface. The gateway is connected to a 10Base-T link. The gateway is connected to a 100Base-T link.

LED	Status	Information
ETH 2 red green	on on flashing	Data traffic via the Ethernet interface. The gateway is connected to a 10Base-T link. The gateway is connected to a 100Base-T link.
ETH 3 red green	on on flashing	Data traffic via the Ethernet interface. The gateway is connected to a 10Base-T link. The gateway is connected to a 100Base-T link.
ISDN red green	on flashing flashing	One ISDN B-channel is active. Both ISDN B-channel are active. The ISDN D-channel is active.
Management	on flashing	A user is logged in to the system. For Telnet and serial connection: on as long as the user is logged in. For HTML connection: on as long as the user is logged in and the HTML session has not timed out. For Telnet connection: Login attempt. For SNMP connection: SNMP packet is received.
HA	flashing	BRRP packets are received. The frequency of flashing corresponds to the data rate.
Status	on flashing	The gateway is booting. The gateway is running

Table 5-21: LED status display in operational mode

5.4 Pin Assignments

5.4.1 Serial Interface

For connecting a console **VPN Access 1000** provides a serial interface. Baud rates between 1200 and 115200 are supported.

The connection is lead through as a MiniDIN socket:

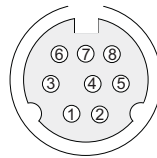


Figure 5-20: 8-pole MiniDIN socket

The pin assignment of the socket is as follows:

Pin	Function
1	For future applications.
2	For future applications.
3	T
4	GND
5	R
6	NC
7	NC
8	NC

Table 5-22: Pin assignment of the serial socket

5.4.2 Ethernet Interface

LAN and WAN interfaces of **VPN Access 1000** are both implemented using Ethernet interfaces.

A RJ45 socket is used for connecting:

1 8

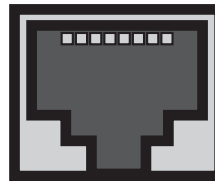


Figure 5-21: Ethernet 10/100Base-T interface (RJ45 socket)

The Ethernet interfaces (RJ45 socket) have the following pin assignment:

Pin	Function
1	TD +
2	TD -
3	RD +
4	Not used
5	Not used
6	RD -
7	Not used
8	Not used

Table 5-23: RJ45 socket for LAN und WAN connections

5.4.3 ISDN Basic Rate Interface

VPN Access 1000 provides an ISDN S_0 interface, which can be used, e.g., for backup purposes.

A RJ45 socket is used for connecting:

1 8

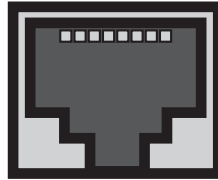


Figure 5-22: ISDN S₀ interface (RJ45 socket)

The ISDN interface (RJ45 socket) has the following pin assignment:

Pin	Function
1	Not used
2	Not used
3	Send (+)
4	Receive (+)
5	Receive (-)
6	Send (-)
7	Not used
8	Not used

Table 5-24: RJ45 socket for ISDN connection