

DESIGO™ PX

## Extension module for BACnet over Ethernet / IP and remote management

## PXA30-NT

Plugs into the modular automation stations, type PXC...-U

- For operation of the PXC...-U automation stations in the DESIGO building automation and control system, using BACnet over Ethernet / IP and modem
- Remote management with DESIGO INSIGHT
- Remote engineering, dial-in with DTS and X-Works

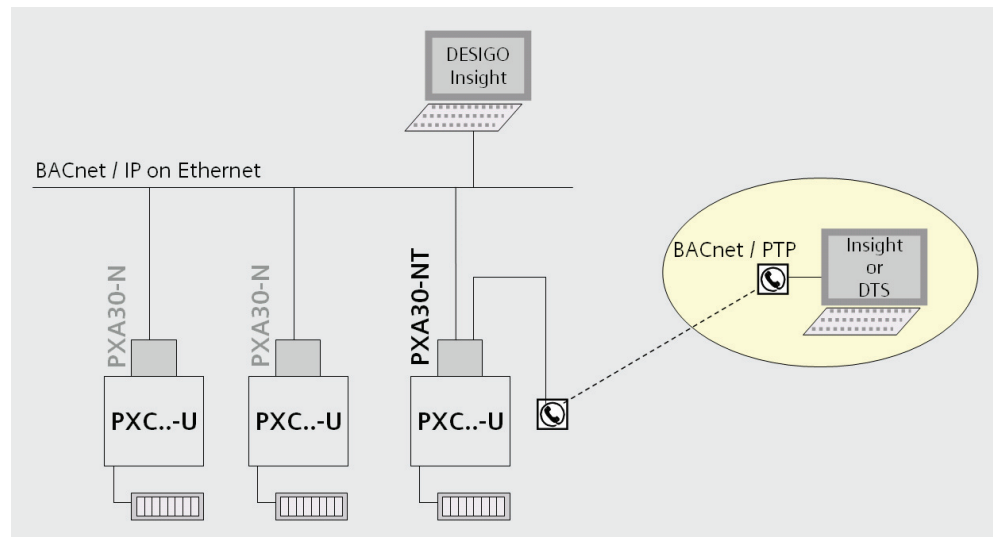
### Functions

With a PXA30-NT extension module connected, the PXC...-U automation station operates as a native BACnet/IP device (the LON function is disabled). As an option, full BBMD (BACnet Broadcast Management Device) functions can be activated in the automation station.

The following table shows the supported functions:

Interface	Protocol	Function
RS232 (Modem)	BACnet / PTP	<ul style="list-style-type: none"> <li>• Remote management DESIGO INSIGHT</li> <li>• Remote engineering (DTS, X-Works)</li> </ul>
RJ45 (Ethernet)	BACnet / IP	<ul style="list-style-type: none"> <li>• Remote management DESIGO INSIGHT</li> </ul>

## Topology



## Types

**PXA30-NT** Extension module

## Compatibility

The module is fitted into a PXC...-U automation station.

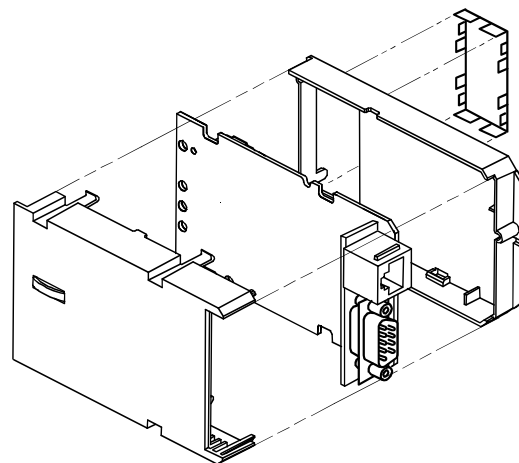
## Ordering

When ordering, please specify the quantity, product name and type code.

*Example:*

**20 Extension modules PXA30-NT**

## Design



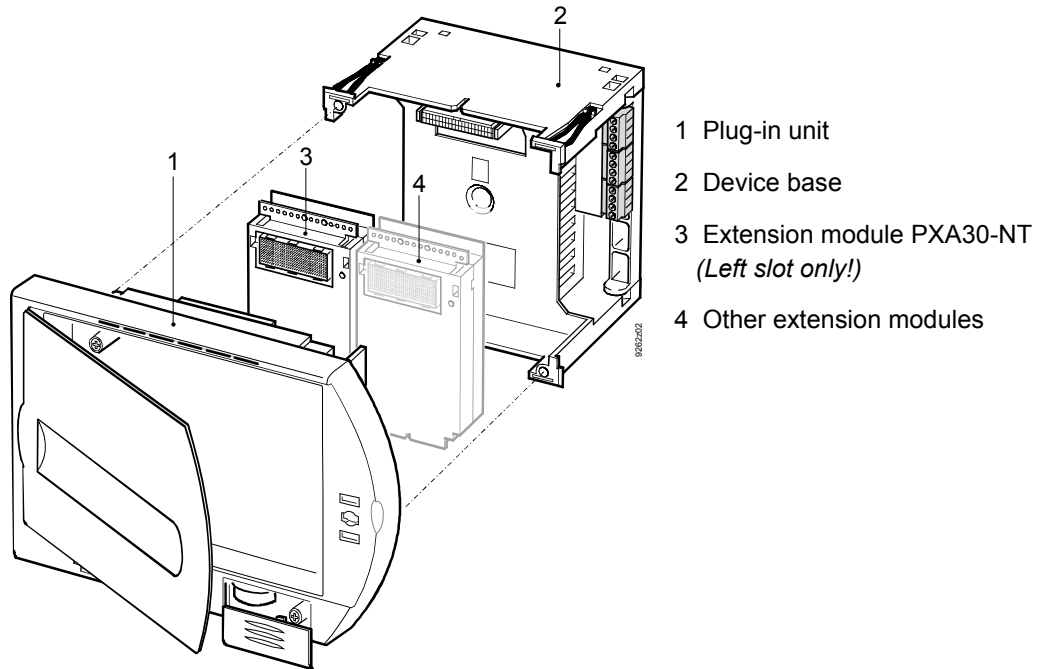
- Two-part snap-together housing (plastic)
- Cover for contact protection
- PCB with electronic components
- RJ45 socket
- RS232 socket (D-Sub 9)

## Mounting

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The extension module is plugged into a PXC...-U modular automation station. It is important to follow the instructions supplied with the device, in particular:

- Avoid touching the connector pins (ESD precautions)
- Push the module firmly into position (1.5 mm) and check that it is securely in place so that the fine contact pins interlock properly.



## Engineering notes

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The automation station can be operated with static or dynamic (DHCP) addressing. (DCHP = Dynamic Host Configuration Protocol.) A fixed address must be used for automation stations for which the BBMD functions have been enabled. The use of static address settings is generally recommended (for troubleshooting and diagnostic purposes).

It should also be noted that BACnet communicates over IP via a static UDP port number. The UDP port number is determined during commissioning. This port must be unblocked in routers and firewalls.

## Installation notes

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It is essential to adhere to the instructions described in the mounting and installation guide (CA110396). For example, the Ethernet connection to the next switch must not exceed 100 m.

## Commissioning

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The automation station is commissioned and configured with DTS (DESIGO TOOLSET) / XWP (XWORKS plus) by use of IP datagrams.

DTS / XWORKS plus must be connected to the same IP segment as the automation station.

## Operating notes

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The automation station supports ICMP (Internet Control Message Protocol). This allows you to ping the IP nodes of all PCs for diagnostic purposes. SNMP (Simple Network Management Protocol) is not supported, however.

If the Ethernet/IP network is used by other systems (e.g. data processing), the associated loads must be taken into account. The bus load associated with a data processing system is typically many times higher than the bus load associated with the BACnet devices.

## Disposal

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The device includes electrical and electronic components and must not be disposed of as domestic waste.

**Current local legislation must be observed.**

## Technical data

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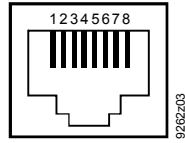
Ethernet connection	Interface type	100BaseTX, IEEE 802.3 compatible	
	Bit rate	10 / 100 Mbit/s, auto-sensing	
	Protocol	BACnet over UDP/IP	
	Connection	RJ45 socket, screened	
	Wiring		
	Cable type	Standard CAT5 UTP <sup>1)</sup> or STP <sup>2)</sup>	
	Cable length	Max. 100m	
Serial connection	Interface type	RS232	
	Baud rate / Data bits / Stop bit	Max. 115 200 bps / 8 / 1	
	Parity / Flow control	None / None	
	Wiring		
	Cable type	9-core standard screened cable	
	Cable length	Max. 3m	
Housing protection standard	Protection standard to EN 60529	IP 30	
Protection class	Insulation protection class	III	
Environmental conditions	IEC 721	Operation: Class 3K5	Transport: Class 2K3
	Temperature	0 ... 50 °C	- 25 ... 65 °C
	Humidity	< 85 % rh	< 95 % rh
Standards	Product safety		
	Automatic electronic controls for household and similar use	EN 60730-1	
	Special requirements for energy controllers	EN 60730-2-11	
	EMC Directive		
	Immunity	EN 61000-6-2 (Industry)	
	Emissions	EN 61000-6-3 (Residential)	
	Meets the requirements for <b>CE</b> marking:		
	EMC Directive	2004/108/EG	
	UL-Approbation	UL 916: PAZX, PAZX7	
Dimensions	<i>See "Dimensions"</i>		
Weight	With / without packaging	75 g / 95 g	

<sup>1)</sup> UTP Unshielded Twisted Pair      <sup>2)</sup> STP Shielded Twisted Pair

## Pins

Ethernet

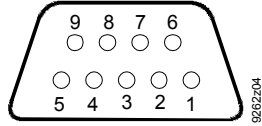
RJ45 socket screened, standard connection in accordance with AT&T256



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|---------------|---------------|
| 1. Tx+        | 5. Unoccupied |
| 2. Tx-        | 6. Rx-        |
| 3. Rx+        | 7. Unoccupied |
| 4. Unoccupied | 8. Unoccupied |

RS232 serial

RS232 socket



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|-------|---------------------|-------|-----------------|
| 1 DCD | Data carrier detect | 6 DSR | Data set ready  |
| 2 RXD | Received data       | 7 RTS | Request to send |
| 3 TXD | Transmit data       | 8 CTS | Clear to send   |
| 4 DTR | Data terminal ready | 9 NC  | Not connected   |
| 5 GND | Signal ground       |       |                 |

## Dimensions

Dimensions in mm

