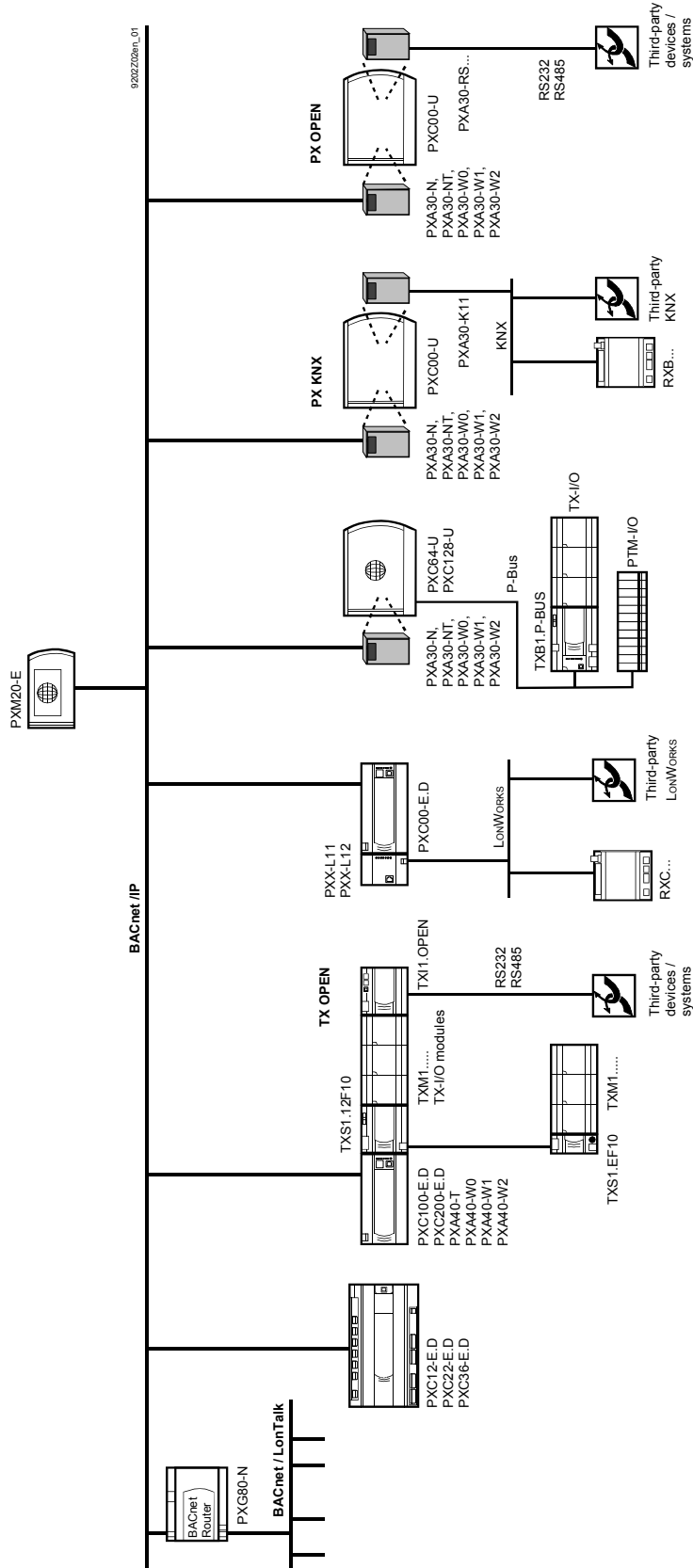


DESIGO™

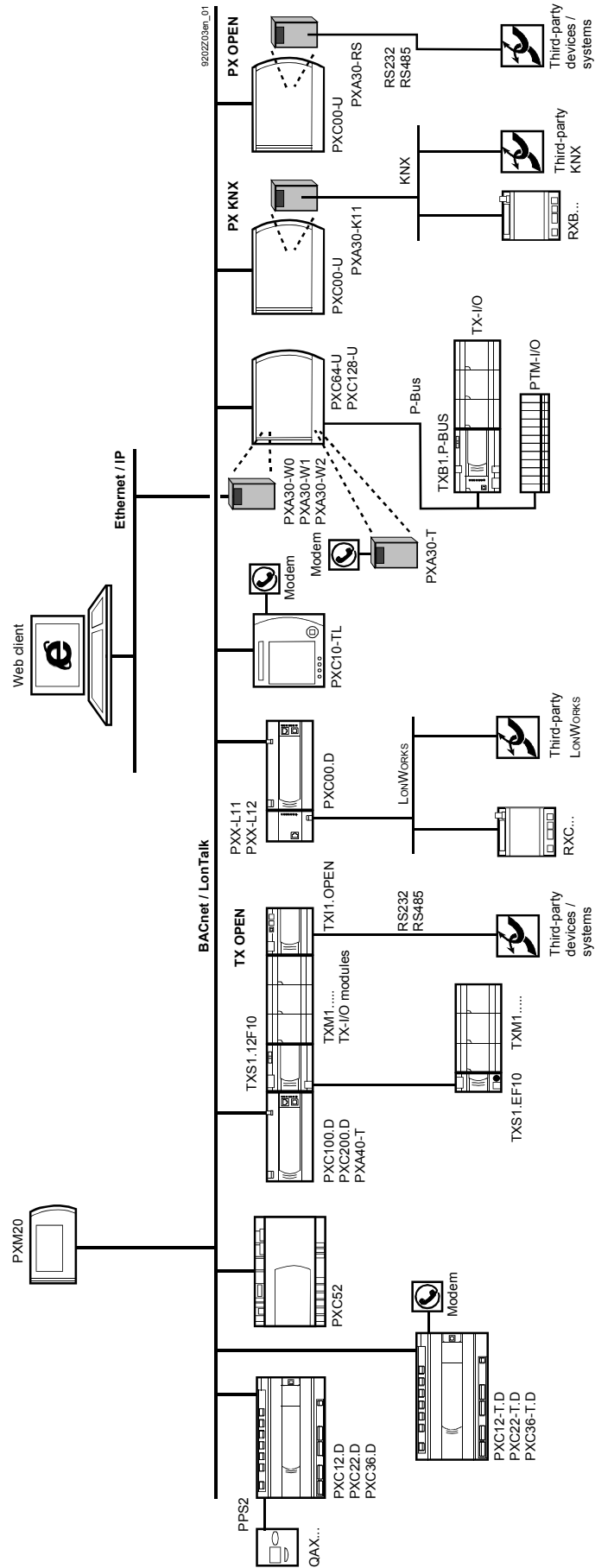
Hardware overview PX

Version 4

Overview BACnet / IP
As of V4



Overview BACnet /
LonTalk
as of V4



Automation stations		UI	DI	AO	DO	
<i>Compact range</i>						
PXC12.D	Automation station with 12 inputs / outputs, communications BACnet/LonTalk, with PPS2 interface	4	2	4	2	CA1N9215
PXC22.D	similar, with 22 inputs / outputs	12		4	6	CA1N9215
PXC36.D	similar, with 36 inputs / outputs	18	4	6	8	CA1N9215
PXC12-T.D	Automation station with 12 inputs / outputs, communications BACnet/LonTalk and BACnet /PTP, with PPS2 interface	4	2	4	2	CA1N9215
PXC22-T.D	similar, with 22 inputs / outputs	12		4	6	CA1N9215
PXC36-T.D	similar, with 36 inputs / outputs	18	4	6	8	CA1N9215
PXC12-E.D	Automation station with 12 inputs / outputs, communications BACnet/IP, with PPS2 interface	4	2	4	2	CA1N9215
PXC22-E.D	similar, with 22 inputs / outputs	12		4	6	CA1N9215
PXC36-E.D	similar, with 36 inputs / outputs	18	4	6	8	CA1N9215
PXC10-TL *)	Automation station with 10 physical data points and PPS2 interface	4	4		2	CA1N9212
PXC12 *)	Automation station with 12 physical data points and PPS2 interface	6		4	2	CA1N9211
PXC12-T *)	As PXC12 but with remote management-function	6		4	2	CA1N9211
PXC22 *)	Automation station with 22 physical data points and PPS2 interface	8	4	4	6	CA1N9211
PXC22-T *)	As PXC12 but with remote management-function	8	4	4	6	CA1N9211
PXC36 *)	Automation station with 36 physical data points and PPS2 interface	12	12	6	6	CA1N9211
PXC36-S *)	As PXC36 but with additional manual functions and LEDs on front side	12	12	6	6	CA1N9211
PXC52	Automation station for 52 physical data points and PPS2 interface	16	16	8	12	CA1N9211
<i>Modular range</i>						
PXC100.D	Automation station for up to 200 data points, island bus, communications BACnet/LonTalk					CM1N9222
PXC200.D	Automation station for over 200 data points, island bus, communications BACnet/LonTalk					CM1N9222
PXC100-E.D	Automation station for up to 200 data points, island bus, communications BACnet/IP					CM1N9222
PXC200-E.D	Automation station for over 200 data points, island bus, communications BACnet/IP					CM1N9222
PXA40-T	Option module for remote management					CM1N9222
PXA40-W0	Option module for Web function (graphic) on one AS					CM1N9222
PXA40-W1	Option module for Web function (generic)					CM1N9222
PXA40-W2	Option module for Web function (graphic)					CM1N9222
PXC64-U	Automation station for 64 load units, with P-bus and PPS2 connections					CA1N9221
PXC128-U	Automation station for 128 load units, with P-bus and PPS2 connections					CA1N9221
PXA30-T	Extension module for remote management					CA1N9261
PXA30-N	Extension module for BACnet over Ethernet / IP					CM1N9262
PXA30-NT	Extension module for BACnet over Ethernet / IP and remote management					CM1N9263
PXA30-W0	Extension module for BACnet over Ethernet / IP and Web function (graphic) on one AS					CM1N9266
PXA30-W1	Extension module for BACnet over Ethernet / IP and Web function (generic)					CM1N9264
PXA30-W2	Extension module for BACnet over Ethernet / IP and Web function (graphic)					CM1N9265
System controllers, router						
PXC00-U + PXA30-RS	System-Controller for integration of third-party systems, up to 100 data points					CA1N9221 + CM1N9281
PXC00-U + PXA30-RS1	System-Controller for integration of third-party systems, up to 400 data points					
PXC00-U + PXA30-RS2	System-Controller for integration of third-party systems, up to 1000 / 2000 DP					
PXC00-U + PXA30-K11	System-Controller for integration of KNX					CA1N9221 + CM1N9280
PXC00....D + PXX-L11	System controller for integration of 60 RXC devices					CM1N9222 + CM1N9282
PXC00....D + PXX-L12	System controller for integration of 120 RXC devices					CM1N9222 + CM1N9282
PXR11, PXR12 *)	System controller for integration of 60, 120 RXC devices					CA1N9235
PXE-CRS *)	System controller for integration of 3 rd party systems and devices					CA2N9771
PXG80-N	BACnet router for LONWORKS – Ethernet/IP					CA1N9260

*) These devices only support firmware upgrades up to V2.37!

Operator units		
PXM10	Local operator unit with easy operation via turn / push button	CM1N9230
PXM20	Operator unit with high resolution display and 13 buttons	CA1N9231
PXM20-E	Operator unit with high resolution display and 13 buttons, for Ethernet	CM1N9234
6FL4303-2CA11	DESIGO Touch Panel10" MP277 (in combination with PXA30-W0 / W2)	CM1N9240
PXA-C1	Cable (3 m) for operator units PXM10, PXM20	--
Room units with PPS2 interface		
QAX30.1	Room unit with temperature sensor	CA2N1741
QAX31.1	Room unit with temperature sensor and setpoint adjuster	CA2N1741
QAX32.1	Room unit with temperature sensor, setpoint adjuster and mode selector switch	CA2N1641
QAX33.1	Room unit with temperature sensor, setpoint adjuster, mode selector switch and manual fan control	CA2N1642
QAX34.1	Room unit with temperature sensor, switch for setpoint adjustment, mode selection and fan speed control, and LCD with room temperature and operating mode display	CA2N1645
QAX39.1	Universal setpoint adjuster	CA2N1646
QAX84.1	Flush mounting room unit with temperature sensor, switch for setpoint adjustment, mode selection and fan speed control, and LCD with room temperature and operating mode display	CA2N1649
QAX90.1	Wireless room unit with temperature sensor	CA2N1643
QAX91.1	Wireless room unit with temperature sensor and setpoint adjuster	CA2N1643
RXZ90.1	Receiver for wireless room units	CA2N1644
Accessories		
RXZ01.1	LONWORKS bus terminator 52,3 Ω	CA2N3861
RXZ02.1	LONWORKS LON bus terminator 105 Ω	CA2N3861
Engineering- and commissioning-Software		
CTT... / CTX...	DESIGOWORKS plus for BAU / DESIGOWORKS plus for CON	(Online help only)
PXA-C2	Firmware download adapter (Adapter RJ45 \leftrightarrow 9-pin-D)	--
DESIGO PX, further documentation		
	DESIGO PX System description, version 2.2	CA110394
	DESIGO PX System overview, version 2.3	CM110540
	DESIGO PX System overview, version 2.35	CM110756
	DESIGO PX System overview, version 2.36	CM110756_01
	DESIGO PX System overview, version 2.37	CM110756_02
	DESIGO PX System overview, version 4	CM110756_04
	DESIGO PX Planning and installation manual, version 2.2	CA110395
	DESIGO PX Planning and installation manual, version 2.3	CM110525
	DESIGO PX Planning and installation manual, version 2.35	CM110760
	DESIGO PX Planning and installation manual, version 2.36	CM110760_01
	DESIGO PX Planning and installation manual, version 2.37	CM110760_02
	DESIGO PX Planning and installation manual, version 4	CM110760_04
TX-I/O modules		
TXM1.8D, TXM1.16D	Digital input modules, 8 or 16 I/O points	CM2N8172
TXM1.8U TXM1.8U-ML	Universal module without / with local override facility and LCD	CM2N8173
TXM1.8X TXM1.8U-ML	Super universal module without / with local override facility and LCD	CM2N8174
TXM1.6R, TXM1.6R-M	Relay module with without / local override facility	CM2N8175
TXM1.8P	Resistance measuring module for Pt 100 4-wire	CM2N8176
TXS1.12F10	Power supply module 1.2 A, fuse 10A	CM2N8183
TXS1.EF10	Bus connection module, fuse 10A	CM2N8183
TXB1.P-BUS	P-Bus Interface module with power supply 1.2A, fuse 10A	CM2N8180
TXA1.IBE	Island bus expansion module	CM2N8184
TXI1.OPEN	TX OPEN RS232/485 module	CM2N8185
Accessories: see TX-I/= assortment overview		CM2N8170

TX-I/O functions												
Signal type	Description	IB	BIM	Number of I/O points per function	Max. number of functions per module							
					TXM1.8D	TXM1.16D	TXM1.8U	TXM1.8U-ML	TXM1.8X	TXM1.8X-ML	TXM1.8P	TXM1.6R
	IB Direct island bus integration											
	BIM Integration via P-Bus BIM											
Digital inputs												
D20 / BIM D20R	Status indication, volt-free maintained contact, N/O (BIM also N/C)	X	X	1	8	16	8	8	8	8		
D20S	Status indication, volt-free pulsed contact, N/O	X	X	1	8	16	8	8	8	8		
C	Count, volt-free pulse contact, mechanic or electronic, normally open, max. 10 Hz, with debouncing max. 25 Hz, with debouncing IB electronic max. 100 Hz	X	X	1	8	8	8	8	8	8		
		X	X	1								
		X		1								
Analog inputs												
Pt100_4	Temperature Pt100 Ω (4-wire)	X		1							8	
P100 (4-wire)	Resistance 250 Ω and temp. Pt 100	(X)	X	1							8	
R250 (2-wire)	Resistance 250 Ω	X		1							8	
Pt1K 375	Temperature Pt 1000	X		1			8	8	8	8	8	
Pt1K 385	Temperature Pt 1000	X		1			8	8	8	8	8	
Ni1K	Temperature LG-Ni 1000	X		1			8	8	8	8	8	
R2K5	Resistance 2500 Ω	X		1			8	8	8	8	8	
R1K	Temperature LG-Ni 1000	X	X	1			8	8	8	8	8	
P1K	Resistance 2500 Ω and temp. Pt 1000	X	X	1			8	8	8	8	8	
NTC10 K	Temperature NTC 10 K	X		1			8	8	8	8		
NTC100 K	Temperature NTC 100 K	X		1			8	8	8	8		
T1	Temperature T1 (PTC)	X	X	1			8	8	8	8		
U10	Voltage DC 0 .. 10V	X	X	1			8	8	8	8		
I420	Current DC 4 .. 20 mA	X	X	1					8	8		
I25	Current DC 0...20 mA (25 mA see CM10563)	X	X	1					8	8		
Digital outputs												
Q250	Maintained contact, changeover switch	X	X	1								6 6
Q250A-P / Q250-P	On/off pulse (N/O and N/C contact)	X	X	2								3 3
Q-M3	Maintained contact, three-stage	X	X	3								2 2
Q-M1...M4	Maintained contact, 1...4-stage	X		1...4							
Q250-P3	Pulse, three-stage	X	X	4								1 1
Q250-P1...P5	Pulse, 1...5-stage	X		2...6							
Y250T	Pulse, control signal, three-position output, internal stroke algorithm	X	X	2								3 3
Analog outputs												
Y10S	Proportional control signal DC 0..10 V	X	X	1			8	8	8	8		
Y420	Proportional control signal DC 4 ... 20 mA	X	X	1					4	4		
Indication and local override												
	Local override						X		X			X
	LCD display						X		X			
	Green I/O status LEDs				X	X	X	X	X	X	X	
	3-color I/O status LEDs (if supported by signal type)	X										X

Example of a read operation

The Y250T function (control signal, three-position output) uses 2 I/O points. One TXM1.6R relay module can accommodate 3 actuators.

PTM-I/O modules									
I/O modules Basic function	Signal variables and ranges	Signal types and functions	LED display	Manual operation	Number of I/Os	Number of load units	Type ASN No.	Documentation	
Signaling	Potential-free maintained contact	Make contact	●		2	2	PTM1.2D20	CM2N8111	
		Make contact	●		4	1	PTM1.4D20	CM2N8112	
		Brake contact	●		4	1	PTM1.4D20R	CM2N8112	
		Make contact			8	1	PTM1.8D20E	CM2N8113	
	Potential-free impulse contact AC24 V / DC 48 V AC 250 V / DC 100 V	Make / brake contact	●		2	2	PTM1.2D20S	CM2N8114	
		Extra low voltage	●		2	2	PTM1.2D42	CM2N8117	
		Voltage	●		2	2	PTM1.2D250	CM2N8118	
Measuring	LG-Ni 1000	Temperature, passive			2	1	PTM1.2R1K	CM2N8121	
	LG-Ni 1000	Temperature, passive			4	1	PTM1.4R1K	CM2N8121	
	0..250Ω / Pt100 / Ni100	Resistance, passive			2	2	PTM1.2P100	CM2N8123	
	0..2500Ω / Pt1000 / Ni1000	Resistance, passive			2	2	PTM1.2P1K	CM2N8123	
	DC 0...10 V	Voltage measurement			2	1	PTM1.2U10	CM2N8127	
	DC 0...max 25 mA	Current measurement			2	1	PTM1.2I25/020	CM2N8129	
	DC 4...20 mA (fix)	Current measurement			2	1	PTM1.2I420	CM2N8129	
Counting	Potential-free (max. 25 Hz)	Counting value impulse			2	2	PTM1.2C	CM2N8136	
Switching	Potential-free maintained contact	Single stage	●		2	2	PTM1.2Q250-M	CM2N8141	
		Single stage (bi-stable)	●		2	2	PTM1.2Q250B	CM2N8159	
		Single stage	●	●	2	2	PTM1.2Q250	CM2N8141	
	Potential-free maintained contact	Single stage with feedback	●		2	2	PTM1.2QD	CM2N8143	
		Single stage with feedback	●		4	4	PTM1.4QD	CM2N8143	
		Single stage with feedback	●	●	2	2	PTM1.2QD-M	CM2N8146	
		Two stage with feedback	●	●	4	2	PTM1.4QD-M2	CM2N8146	
		Three stage	●	●	3	2	PTM1.3Q-M3	CM2N8149	
		Potential-free impulse contact	Single stage		●	4	2	PTM1.4Q250-P	CM2N8155
	Single stage		●	4	2	PTM1.4Q250A-P	CM2N8156		
	Three stage		●	4	2	PTM1.4Q250-P3	CM2N8157		
	Positioning	DC 0...10 V (modulating)	Positioning signal	●		2	1	PTM1.2Y10S	CM2N8162
			Positioning signal	●		4	1	PTM1.4Y10S	CM2N8162
Positioning signal			●	●	2	1	PTM1.2Y10S-M	CM2N8162	
DC 4...20 mA (modulating)		Positioning signal	●		2	1	PTM1.2Y420	CM2N8164	
		Positioning signal	●		2	2	PTM1.2Y250T	CM2N8171	
		Positioning signal	●	●	2	2	PTM1.2Y250T-M	CM2N8171	
Pneumatic 0...138 kPa		Positioning signal	●	●	1	2	PTM6.1PSI20-M	CM2N8167	
I/O compact units	I/O compact unit with 30 I/Os	12 DI, 6 AI, 8 DO, 4 AO	●		30	13	PTK1.30V01	CM2N8181	
	I/O compact unit with 23 I/Os	12 AI, 11 DO	●		17	17	PTK1.23V02	CM2N8182	

Accessories for I/O-Module system

CM2N8105

I/O-OPEN modules								
	I/O-OPEN Platform for integration of 3 rd party systems and devices (interface RS232 / RS485)		●		8		PTM1.RS232 PTM1.RS485	CA1N9780
	Interface module for integration of M-Bus heat meters		●		4		PTE-MBUS.60	CA1N9781
	Interface module for integration of SED2 variable speed drives		●		4		PTE-SED2	CA1N9782
	Interface module GRUNDFOS for 4 pumps		●		4		PTM52.32V01	CM2N8664
	Interface module WILO for 4 single / 2 twin pumps		●		4		PTM50.32V01	CM2N8666