Modular and compact PLCs

XC100 and XC200 modular PLCs stand out on account of their highly scalable design. Different CPU performance classes and a wide range of expansion modules are available. An important feature is their ability to be integrated in modern communication concepts. The data exchange via the Ethernet interface to OPC clients or the integrated web server allows the creation of innovative solutions.

The compact class with the EC4P controllers now offers the performance of a PLC in the housing of the renowned easy control relay. This enables the convenient creation of solutions for small and medium-sized control tasks.

XC100

The XC100 series modular PLC is a powerful automation system for small and medium-sized applications, and is locally expandable with up to 15 XI/OC modules.

XC100-FC

The XC-CPU101-FC is a modular PLC with an integrated CANopen fieldbus interface using fibre optic technology. It is therefore particularly suitable for use in environments susceptible to severe electromagnetic interference.

PLC		XC-CPU101-C64K-8DI-6DO	XC-CPU101-C128K-8DI-6DO	XC-CPU101-FC128K-8DI-6DO	XC-CPU101-C256K-8DI-6DO
Power supply:					
Input voltage	V DC	24			
Memory:					
Program code/program data	kByte	64/64	128/128		256/256
Marker/Retain data	kByte	4/4	8/8		
Cycle time for 1k instructions (Bit, Byte)	ms	< 0.5			
Operating system		proprietary			
Interfaces		RS232, CANopen			
RTC (Real Time Clock)		ja			
Digital inputs:					
Inputs	No.	8 (of which 4 interrupt inputs)			
Status indication		LED			
Digital outputs:					
Channels	No.	6			
Status indication		LED			
Utilization factor	g	1			
Article no.		**262152**	**262146**	**289169**	**274399**

XC-CPU-121

The XC-CPU121 is particularly suitable for applications where space is at premium and with high communication requirements. Two serial interfaces and two CAN interfaces are provided on the basic unit. This flexibility is -also reflected in terms of I/O expansion. Eight of the 18 digital I/Os can be used as either inputs or outputs. Eight analog inputs/outputs complete the I/O level.

PLC		XC-CPU121-2C256K
Power supply:		
Input voltage	V DC	
Memory:		
Program code/program data	kByte	256/244
Marker/Input/Output/Retain data	kByte	16/4/4/8
Cycle time for 1k instructions (Bit, Byte)	ms	< 0.3
Operating system		
Interfaces		RS232, COM2, CAN1/CAN2
RTC (Real Time Clock)		-
Digital inputs:		
Inputs	No.	-
Status indication		-
Digital outputs:		
Channels	No.	-
Status indication		-
Utilization factor	g	-
Article no.		**290446**

I/O expansion for XC121		XIO-EXT121-1			
Power supply:			**Analog inputs 0...20 mA**		
Input voltage	V DC	24	Number of channels		2
Digital inputs:			Primary voltage range	mA	0...20
Number		X2: 9 with plug BLI/O 3.5/10F or 10 with plug BLZF 3.5/180 X3: 8 (can also be used as outputs)	Resolution	Bit	10
			Overall accurancy		≤ ± 1 % (of full-scale value)
Potential isolation		no	**Pt100:**		
Digital outputs:			Number of channels		2
Number		at X3: 8 (can also be used as inputs)	Temperature range	°C	-200...+200
			Resolution	Bit	10
Utilization factor	g	1	Overall accurancy		≤ ± 2 %
Potential isolation		no	**Analog outputs:**		
Parallel connection capability		yes	Number of channels		2
Analog inputs 0...10 V:			Secondary voltage range	V	0...10
Number of channels		2			
Primary voltage range	V	0...10	Resolution	Bit	12
Resolution	Bit	10	Overall accurancy		≤ ± 1 % (of full-scale value)
Overall accurancy		≤ ± 1 % (of full-scale value)			
Article no.		**290450**			

XC200

The modular PLC of the XC200 series offers a high CPU performance and outstanding communication options. This includes an integrated Ethernet interface in addition to an RS232 interface and CANopen fieldbus interface.

A technological highlight of the range is that all XV-type devices come with an integrated web server.

PLC		XC-CPU201-EC256K-8DI-6DO / XC-CPU201-EC256K-8DI-6DO-XV	XC-CPU201-EC512K-8DI-6DO / XC-CPU201-EC512K-8DI-6DO-XV	XC-CPU202-EC4M-8DI-6DO-XV
Power supply:				
Input voltage	V DC	24		
Memory:				
Program code/program data		256 kByte/256 kByte	2 MB/512 kByte	4 MB/512 kByte
Marker/Retain data	kByte	16/32		16/64
Cycle time for 1k instructions (Bit, Byte)	ms	< 0.15		< 0.025
Operating system		Windows CE		
Webserver		yes (XV type only)		
Interfaces		Ethernet, RS232, USB, CANopen		
RTC (Real Time Clock)		yes		
Digital inputs:				
Inputs	No.	8, of which parameterizable: 2 counters, 50 kHz, 2 interrupt inputs, 1 incremental input		
Status indication		LED		
Digital outputs:				
Channels	No.	6		
Status indication		LED		
Utilization factor	g	1		
Article no.		**262155 / 262156**	**262157 / 262158**	**134238**

XI/OC – Simple Expansion

XI/OC are local expansion modules for direct connection to all XControl PLCs. Up to 15 modules can be connected directly to each PLC. You can also choose between a wide range of digital, analog and technology functions.

Analog I/O modules

Digital I/O modules

Counter modules

Network modules

Digital inputs		XIOC-8DI	XIOC-16DI	XIOC-32DI
Input type		DC input		
Input voltage	V DC	24		
Input channels	No.	8	16	32
Potential isolation		with optocouplers		
Indication		LED (green)		16 LED (green), switchable: 0 - 15, 16 - 31
Terminals		Plug-in terminal block		XIOC-TERM32 (connector and cable)
Article no.		**257891**	**257892**	**267411**

Digital outputs		XIOC-8DO	XIOC-16DO	XIOC-16DO-S	XIOC-32DO
Output type		Transistor (source type)			
Output voltage	V DC	24 (-15...+20 %)			
Output channels	No.	8	16		32
Channels with the same reference potential	No.	8	16		32
Overvoltage protection		Diode			
Potential isolation		with optocouplers			
Indication		LED (green)			16 LED (green), switchable: 0 - 15, 16 - 31
Terminals		Plug-in terminal block			XIOC-TERM32 (connector and cable)
Short-circuit protection		-		yes	-
Article no.		**257894**	**257896**	**257895**	**267413**

Digital output		XIOC-12DO-R
Output type		Relays
Output voltage	V DC	24
Output voltage	V AC	100/240
Maximum load current:		
per circuit	A	2
per common potential terminal	A	5
Output channels	No.	12
Overvoltage protection		external
Potential isolation		with optocouplers
Indication		LED (green)
Terminals		Plug-in terminal block
Article no.		**257897**

Input / output modules		XIOC-16DX
Power supply:		
Supply voltage		24 V DC (-15/+20%)
Potential isolation:		
between power supply and I/O bus		yes
between power supply and I/O		no
Indication		LED
Inputs:		
Input type		DC input
Inputs	No.	4, 12, configurable
Outputs:		
Output type		Transistor (source type)
Outputs	No.	max. 12 configurable
Short-circuit rating		yes
Number of outputs that can be switched in parallel		max. 3
Article no.		**262322**

Analog inputs		XIOC-8AI-I2	XIOC-8AI-U1	XIOC-8AI-U2	XIOC-4T-PT
Input voltage	V DC	-	0 to 10	-10 to +10	-
Input current	mA	4 - 20	-	-	-
Resolution digital	Bit	12			15 with sign
Total errors	%	≤ ± 1% (of full-scale value)			
Potential isolation:					
Circuit within each channel		with optocouplers			
between the input channels		no			
Input channels	No.	8			4
Platinum RTD		-			Pt100 (IEC 75t), Pt1000
Temperature measuring range		-			-20 to +40 °C/-50 to +400 °C (uninterrupted current: 2 mA)
Article no.		**262549**	**257899**	**257900**	**257901**

Analog input / output modules		XIOC-2AI-1AO-U1	XIOC-2AI-1AO-U1-I1	XIOC-4AI-2AO-U1	XIOC-4AI-2AO-U1-I1
Inputs:					
Input voltage	V DC	0 - 10			
Input current	mA	-	0 - 20	-	0 - 20
Resolution	Bit	14			
Total errors	%	normally 0.4			
Potential isolation: Circuit within each channel		no			
Channels	No.	2		4	
Outputs:					
Output voltage	V DC	0 - 10			
Output current	mA	-	0 - 20	-	0 - 20
Resolution	Bit	12			
Errors	%	normally 0.4			
Potential isolation: Circuit within each channel		no			
Potential isolation: Between the output channels		no			
Number of channels		1		2	
Terminals		Plug-in terminal block			
Article no.		**262409**	**281545**	**262405**	**281544**

Analog outputs		XIOC-4AI-T
Number of channels		4
Temperature measuring range		Type K: -270...1370 Type J: -210...1200 Type B: 100...1800 Type N: -270...1300 Type E: -270...1000 Type R: -50...1760 Type T: -200...400
Voltage measurement		-50 mV...50 mV -100 mV...100mV -500 mV...500mV -1000 mV...1000mV
Cold-junction compensation		yes, built-in
Resolution	Bit	16
Total errors	%	±0.5 of measurement range
Article no.		**289933**

Analog outputs		XIOC-2AO-U1-2AO-I2	XIOC-4AO-U1	XIOC-2AO-U2
Output voltage	V DC	0 - 10		-10 - 10
Output current	mA	4 - 20	-	
Resolution	Bit	12		
Total errors		≤ ± 1 % (of full-scale value)		
Potential isolation:				
Circuit within each channel		with optocouplers		
Between channels		no		
Terminals		Plug-in terminal block		
Article no.		**257902**	**257903**	**257904**

Network modules		XIOC-NET-DP-M	XIOC-NET-DP-S	XIOC-NET-SK-M	XIOC-SER	XIOC-TC1
Interfaces		Profibus-DP, RS485, EN 50170		RS485	RS232(C), RS422, RS485	
Protocol		Profibus-DP master (class 1)	Profibus-DP slave	Suconet K, K1	Transparent mode, Modbus master/ slave, SUCOM-A, Suconet-K slave	Transparent mode, Modbus master/ slave, SUCOM-A, DNP3 protocol
Transfer rate	kBit/s	9.6 to 12000		187.5, 375	0.3...57.6 187.5, 375 (Suconet)	0.3...57.6
Potential isolation		yes			yes (RS485, RS422)	
Number of slaves		124	-	16	-	
Send/receive data		3500 Byte each	max. 244 Byte	250 Byte each	250 Byte per slave 120 Byte per slave (Suconet-K-Slave)	250/500
Number of modules		XC100: 1 XC200: 3		XC100: 2 XC200: 4		XC200: 4
Article no.		**257908**	**286419**	**289982**	**267191**	**135265**

Counter modules		XIOC-1CNT-100KHZ	XIOC-2CNT-100KHZ	XIOC-2CNT-2AO-INC
Inputs:				
Counter limits		0 - 4294967295 (32 Bit)		
Frequency	kHz	100 (25 with four times resolution)		400 (100 with four times resolution)
Number of channels		1	2	
Input voltage	V DC	12 - 24		-
Potential isolation		with optocouplers		-
Outputs:				
Output type		Transistor (open collector)		analog
Output channels	No.	2	4	2
Potential isolation		with optocouplers		-
Output voltage	V DC	-		-10 - 10
Resolution	Bit	-		12
Total errors		-		≥ 1 kΩ
Connection for external cabling		30-pin plug: XIOC-TERM30-CNT4		Plug-in terminal block
Article no.		**257906**	**257907**	**262417**