

# XControl™ - modular PLCs

## The control system for series machine building



The I/O level of the XControl PLCs can be set up and perfectly adapted to the application using the slice-based modules of the XN300 system.

The XControl system comprises compact, high-performance controllers whose local I/O level can be flexibly adapted to the needs of the application using XN300. The standard interfaces of the controllers also enable the integration of XN300 remote stations and 3rd party devices. Modern, innovative automation concepts can be implemented in combination with the XV and XH series touch panels.

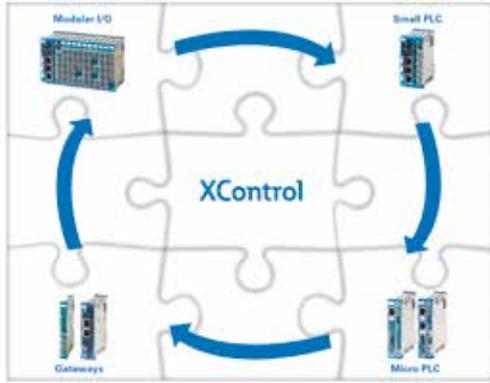
The XC-104, XC-204 and XC-303 PLCs and gateways can be expanded simple and flexible with the I/O slice modules of the XN300 system to form a control configuration tailored to your solution.

Ethernet interfaces with individual network adapters for connection in networks paired with the standard CAN and RS485 interfaces expand the features of the devices to a universal control and communication point of the networked plant.

 [Get more information](#)

## XControl

Eaton's XControl system includes the powerful, XSOFT-CODESYS programmable modular controllers of the XC100, XC200 and XC300 series, the slice-modular I/O system and gateways, with which modern automation concepts can be easily implemented.



### XC100 - The rapid control solution

The XC100 is the new "entry-level solution" in the XControl family. It can be used to efficiently implement small control and regulation functions with Ethernet-based networking. The modular controller can be expanded with up to six snap-on I/O modules from the XN300 system and is available as the XC-104 with an Ethernet interface on board.

### XC200 - Flexible solutions to standards

More complex automation solutions can be realized with the XC200, which can be supplemented with up to 16 XN300 I/O modules. Two configurable digital inputs/outputs additionally enable the implementation of special, time-critical applications. The compact modular controller, known as the XC-204, is available in different versions, which differ in terms of the integrated communication interfaces: This gives users the choice of whether they require one or two Ethernet interfaces or whether they want to integrate the controller into a network via Ethernet IP, Modbus TCP, EtherCAT, CANopen, Modbus RTU or RS485.

## XC300 - Powerful in communication



Thanks to the large number of interfaces, the XC300 controller is suitable as a universal and flexible data node for a wide range of applications. The integrated OPC server allows standardized data transmission in M2M (machine-to-machine) communication and the web server supports visualization in HTML 5 format. Up to three Ethernet interfaces with individual IP addresses enable network segmentation, whereby access by unauthorized persons is protected by current cyber security standards.



Designation	XN300 ext.	Retain Data	RTC	USB	SD SLOT	ETH 1GB/100MB	WEB-Visu	OPC UA	Ethernet/IP	Modbus TCP	EtherCAT	CAN	CANOPEN	RS485	Modbus RTU
<b>XC100 modular PLC</b>															
XC-104-C10-000	6 modules	4kB	•	•	-	-/1x	HTML5	Server	Scanner (MS)	Server/Client	-	-	-	-	-
<b>XC200 modular PLC</b>															
XC-204-C10-000	16 modules	32kB	•	•	-	-/1x	HTML5	Server	Scanner (MS)	Server/Client	-	-	-	-	-
XC-204-C11-003	16 modules	32kB	•	•	-	-/1x	HTML5	Server	Scanner (MS)	Server/Client	-	1x	MS/SL	•	MS/SL
XC-204-C20-002	16 modules	32kB	•	•	-	-/2x	HTML5	Server	Scanner (MS)	Server/Client	MS	-	-	•	MS/SL
XC-204-C21-001	16 modules	32kB	•	•	-	-/2x	HTML5	Server	Scanner (MS)	Server/Client	MS	1x	MS/SL	-	-
<b>XC300 modular PLC</b>															
XC-303-C11-000	32 modules	128kB	•	•	•	-/1x	HTML5	Server	Scanner (MS)	Server/Client	MS	1x	MS/SL	-	-
XC-303-C21-001	32 modules	128kB	•	•	•	-/2x	HTML5	Server	Scanner (MS)	Server/Client	MS	1x	MS/SL	•	MS/SL
XC-303-C32-002	32 modules	128kB	•	•	•	1x/2x	HTML5	Server	Scanner (MS)	Server/Client	MS	2x	MS/SL	•	MS/SL

# The right control solution for your application

Global competition, progressive digitalization and specific customer requirements continually creating new challenges for series machine and system manufacturers in the design of their machine concepts. Automation solutions must deliver the modularity required in the hardware and software solution in order to satisfy customer specifications. In addition to component costs, the development, design and product maintenance work also needs to remain manageable throughout the life cycle.



## CODESYS

### Seamless integration

The PLC can be programmed and visualized with XSOFT-CODESYS 3 via any Ethernet interface. Existing programs and libraries can be used across all XC devices.



Production machinery

### Digital transformation, networked production, Industry 4.0

In modern production, people, machinery and processes are intelligently networked with each other through information and communication technology. Eaton is there to assist you by supplying components and offering support in the development of communicating series machines.



Heating, ventilation and air conditioning technology

### Energy-efficient climate control

From the PLC and sensor systems through to the electrical drives: Eaton components are ideal for use in efficient climate control to create specified room conditions.



Pumps and compressors

### Operate systems reliably and efficiently

OPC UA represents a milestone in machine communication, playing a key role in significantly accelerating the digitalization process. Intelligent communication interfaces facilitate the flow of information and simplify the exchange of system components.

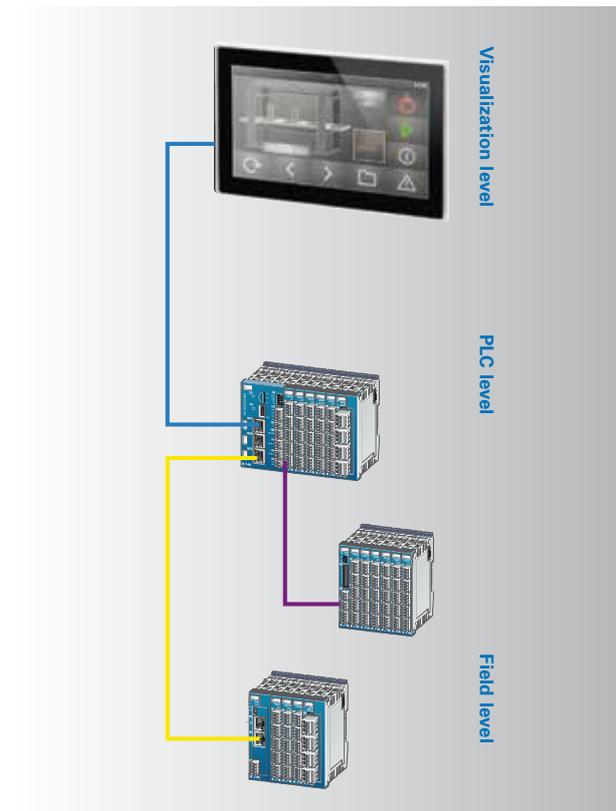
### Cybersecurity

In order to protect machines and systems against unauthorized access, Eaton complies with the latest standards in communications technology.



### Standardized data exchange

The use of data exchange standards ensure that the devices are suitable for universal use. The OPC UA server guarantees interoperability in M2M communications.



### HTML5-based visualization

The integrated web server offers remote visualization on mobile devices such as PCs, tablets and smartphones. The status of the system is transparent, and functions are easy to control - from (virtually) anywhere.

		Built-in interfaces	Part no.	Article no.
		ARM CORTEX A7 Dual Core @960MHz ARM CORTEX A7 (solo) @800MHz ARM CORTEX A7 (dual) @1000MH 1 x Ethernet (ETH 2) 10/100/1000 Mbit/s 1 x Ethernet (ETH 1) 10/100 Mbit/s 1 x Ethernet (ETH 0) 10/100 Mbit/s 1 x RS485 1 x USB host 2.0 1 x CANopen (M/S) (iso) 1 x CANopen (M/S)		
<b>Modular PLC</b>				
24 V DC power supply Can be locally and remotely expanded via the XN300 I/O system LINUX operating system RUN/STOP switch OPC server Web server XSOFTE-CODESYS V3 programming Approvals: CE, cULus				
<b>XC-104 modular PLC</b>				
	Can be locally expanded by up to 6 XN300 I/O modules Internal memory: 256 MB RAM / 4 GB FLASH / 4k NV-RAM External memory: USB storage	- ✓ - - - ✓ - ✓ - -	<b>XC-104-C10-000</b>	199971
<b>XC-204 modular PLC</b>				
	Can be locally expanded by up to 16 XN300 I/O modules Internal memory: 512 MB RAM / 8 GB FLASH / 32k NV-RAM External memory: USB storage	- - ✓ - - - ✓ ✓ - - - - ✓ - - - - ✓ - ✓ - ✓ - - - ✓ ✓ ✓ - ✓ - ✓ - - - ✓ - ✓ - -	<b>XC-204-C20-002</b> <b>XC-204-C21-001</b> <b>XC-204-C11-003</b> <b>XC-204-C10-000</b>	199977 199975 199974 199973
<b>XC-303 modular PLC</b>				
	Can be locally expanded by up to 32 XN300 I/O modules Internal memory: 512 MB RAM / 128 MB FLASH / 128 kB NV-RAM External memory: Micro SD card, USB storage	✓ - - ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ - - ✓ ✓ - ✓ ✓ ✓ - ✓ - - - ✓ - - - - ✓	<b>XC-303-C32-002</b> <b>XC-303-C21-001</b> <b>XC-303-C11-000</b>	191080 191081 191082
<b>Starter sets</b>				
	XC-104-C10-000 PLC, XN-322-8DIO-PD05 I/O module, patch cable, XSOFTE-CODESYS V3 software license, XControl flyer		<b>XC104 Starter Set</b>	199983
	XC-204-C21-001 PLC, XN-322-8DIO-PD05 I/O module, patch cable, XSOFTE-CODESYS V3 software license, XControl flyer		<b>XC204 Starter Set</b>	199985
	XC-303-C32-002 PLC, XN-322-8DIO-PD05 I/O module, patch cable, XSOFTE-CODESYS V3 software license, XControl flyer		<b>XC303 Starter Set</b>	197871
<b>Memory card</b>				
	MicroSD memory card with adapter, min. 2 GB		<b>MEMORY-SDU-A1</b>	191087