

**XC300 modular PLC**

Extendable with the XN300 I/O system

[www.eaton.eu/XC300](http://www.eaton.eu/XC300)

# Communication is its strength



**EATON**

*Powering Business Worldwide*

# Always well connected

## XC300 - smart control system for series machine construction

The XC300 is Eaton's powerful and flexible control system, allowing machine and plant builders to achieve a slim and modern automation concept in combination with the compact XN300 I/O slices and the innovative XV300 touch panel.

A wide range of functions and interfaces enable the flexible use of the compact, high-performance control system in modular automation solutions. Ethernet interfaces for connection to different networks, along with the standard CAN and RS485 interfaces, turn the device into a universal control and communication point within the networked machine.

### Communication in a nutshell

**Status display indicator light** is located under the front panel

**Markers for individual labels**

**Micro SD and USB host**  
for saving process data and carrying out program updates

**ETH 2: 10/100/1000 MBit Ethernet interface**  
e.g. SCADA

**ETH 1: 10/100 MBit Ethernet interface**  
e.g. machine network

**ETH 0: 10/100MBit Ethernet interface**  
e.g. cellular network, I/O network

**Locking hooks for mounting** to the DIN rail

**I/O bus connector**  
to expand the local I/O level with up to 32 XN300 I/O slice modules

**RUN/STOP switch and terminating resistors**

**Four input/output channels with interrupt function**  
with individual power supplies

**RS485 interface**

**Two CAN interfaces**  
for connecting standard CAN components

**Pluggable connection level**



#### Versatile application

Three Ethernet adaptors serve as a connection to various Ethernet networks enabling secure, segmented communication.



#### Space-saving installation

In a small space, optimum system solutions are combined with the I/O devices of the XN300 system and its application-oriented functions.

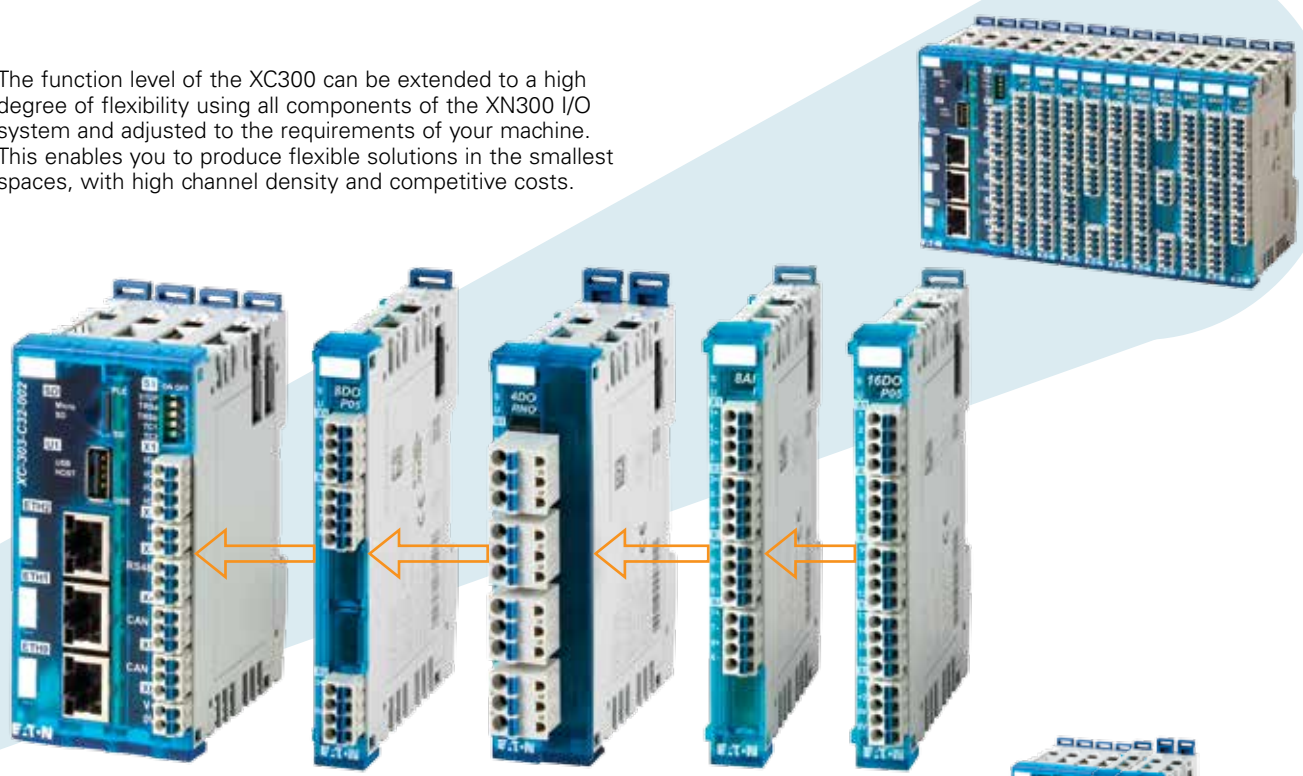


#### Fast mounting

Easy to use thanks to pluggable connection level and tool-free installation. This saves time and allows the system to be pre-assembled.

# as a made-to-measure solution for your machine

The function level of the XC300 can be extended to a high degree of flexibility using all components of the XN300 I/O system and adjusted to the requirements of your machine. This enables you to produce flexible solutions in the smallest spaces, with high channel density and competitive costs.

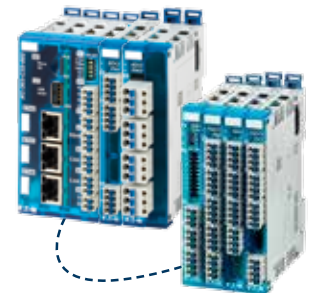


### Interfaces for every need

The connection to different Ethernet networks enables segmented machine architecture and simplifies security against unauthorized access. With the segmentation of individual networks for cell, machine, and SCADA, communication security and performance aspects can be optimally coordinated.

Standard CAN components can be integrated into the automation solution by means of two additional CAN interfaces, one of which is galvanically isolated.

There are also four input/output channels with their own power supplies, which complement the functions of the XC300 enabling it to be a universal control and communication point.



**It is possible to connect the XC300 controller with the XN300 system either locally or in a decentralized manner.**



### Simple to program

For series production, the device can be programmed using the micro SD card or the USB stick. The device automatically copies all relevant data.



### Seamless integration

The programming and visualization of the PLC is based on CODESYS 3 and can be done using any of the Ethernet interfaces. Existing programs and libraries can be used by all XC devices.



### Big efficiency in a small package

The components of the XN300 I/O system provide a broad range of functions, which can be used as either local or decentralized I/Os.

[www.eaton.eu/xn300](http://www.eaton.eu/xn300)





### Enhance productivity

With its Dual Core ARM CORTEX 7 CPU @960MHz, the XC300 processor enables task cycle times of under 1ms. This allows faster machine speeds and higher productivity rates.



### Flexible solution

The field level of the XC300 can be built and perfectly adapted to the application using the slice modules of the XN300 system with the digital, analog, and technological functions.



### Visualization in HTML5 standard

The integrated web server enables visualization on mobile devices such as PCs, tablets and smartphones.

## XC300 device variants

### Comprehensive features

- Operating system: Linux
- Processor: ARM CORTEX 7 DUAL Core @ 960 MHz
- Internal memory: 512 MB RAM / 128 MB FLASH / 128 kB NVRAM
- External memory: SD card
- Programming: CODESYS V3 (PLC and web visualization)
- Real-time clock: available (capacitively buffered)
- RUN/STOP button: available

### Communication / interfaces

The following interface configurations are supported:

Protocol		Interface
CANopen	Master / Device	CAN1, CAN2
easyNet	Master / Device	CAN1, CAN2
Modbus RTU	Master / Device	RS485
EtherCAT	Master (1x)	ETH0, ETH1, ETH2
Modbus TCP	Master / Device	ETH0, ETH1, ETH2
Ethernet / IP	Master	ETH0, ETH1, ETH2
OPC-UA / SCADA	Server	ETH0, ETH1, ETH2
WEB - VISU	HTML5 - Server	ETH0, ETH1, ETH2
Ethernet	HTTP, HTTPS, DHCP (Client), DNS, FTP, SFTP, SSL, TLS	ETH0, ETH1, ETH2

**Type:** XC-303-C32-002

**Article No.:** 191080

#### Interfaces:

- CAN1, CAN2, RS485, ETH0, ETH1, ETH2
- USB host
- 4 input/output channels (24 VDC, 0.5 A)



**Type:** XC-303-C21-001

**Article No.:** 191081

#### Interfaces:

- CAN1, RS485, ETH1, ETH2
- USB host



**Type:** XC-303-C11-000

**Article No.:** 191082

#### Interfaces:

- CAN2, ETH1



# Implement Industry 4.0

The first revolution in industrial production took place with the introduction of mechanical production facilities at the end of the 18th century. This was the foundation for the later implementation of mass production and the subsequent automation of production processes.

Industry 4.0 is the fourth industrial revolution. Modern information and communication technologies are now used in production processes, and enable communication between humans, machines, plants, logistics, and products. This networking helps to optimize the entire value chain.

The transition to Industry 4.0 offers a range of advantages for machine and plant operators:

- **Process optimization along the value chain**
- **Customized series production**
- **Improvement of machine availability**
- **Optimization of the product life cycle (big data)**



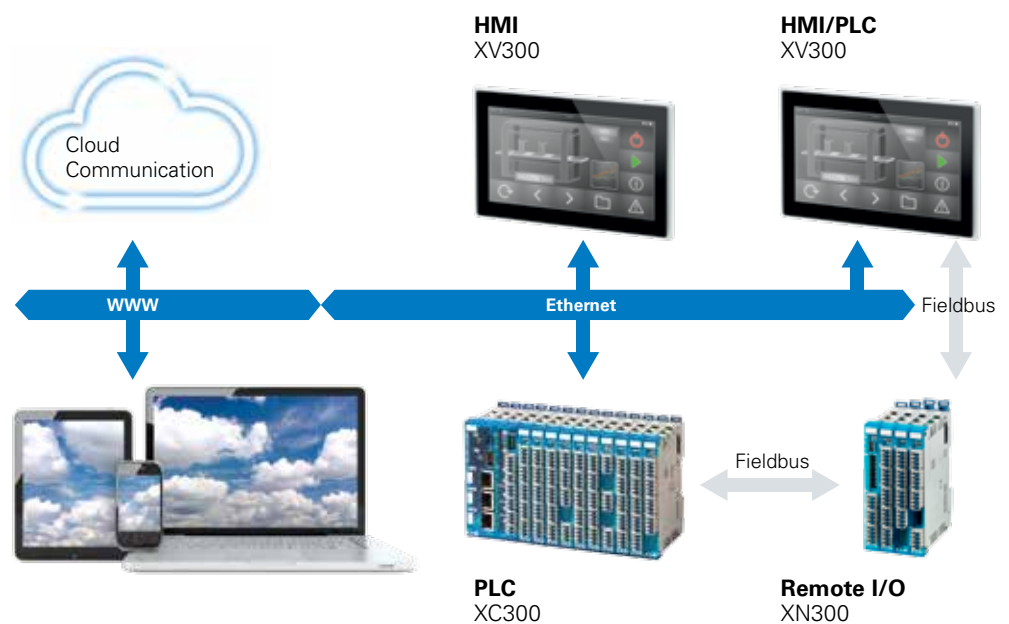
More information on Industry 4.0 can be found in our white paper, at [www.eaton.eu/en/iw/iiot](http://www.eaton.eu/en/iw/iiot)

## Step up to Industry 4.0 with XC300

### System solutions from a single source

Applications in the automation sector are associated with a high level of complexity. Various system concepts can be implemented flexibly with Eaton control and visualization products.

The inclusion of Industry 4.0 capabilities in this type of system is becoming increasingly important. Eaton will support you to achieve this and help you to look to the future. Benefit from a comprehensive portfolio of automation components, relevant software packages and qualified support before, during, and after commissioning.



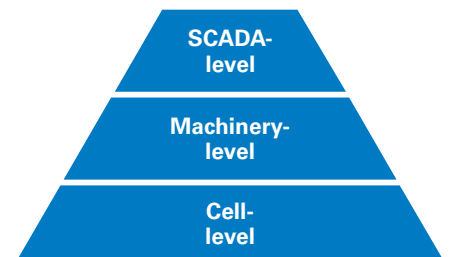
### Standardized data exchange

Data exchange standards form the basis for the universal use of equipment. The OPC UA server ensures interoperability in the machine's M2M communications.



### Cyber Security

In order to protect machines and systems against access by unauthorized persons, Eaton is committed to complying with the latest standards in communications and cyber security technologies.



### Data nodes across all levels

Eaton automation components support various system concepts for the horizontal and vertical networking, control, and visualization of your machine.

At Eaton, we're energized by the challenge of powering a world that demands more. With over 100 years experience in the electrical power management, we have the expertise to see beyond today. From groundbreaking products to turnkey design and engineering services, critical industries around the globe count on Eaton.

We power business with reliable, efficient and safe electrical power management solutions. combined with our personal service, support and bold thinking, we are answering tomorrow's needs today. Follow the charge with Eaton. Visit **eaton.eu**.

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