# Backplane Racks NX90xx

Nexto Series

Product Description

Nexto Series is a powerful and complete series of Programmable Logic Controllers (PLCs) with exclusive and innovative features, targeted for covering control systems requirements from medium to large applications or high performance industrial machines.

The backplane racks are the basic elements where Nexto Series modules are connected. The power supply and communication links are provided by these devices. Also, they are easy to install and maintain.

Nexto Series offers four different backplane rack sizes: 8, 12, 16 and 24-slot backplane rack. NX9010 (8-slot backplane rack with no hot swap) is the perfect choice in machinery applications, where the application is restricted to NX3004 CPU, NX3005 CPU or NX5100, NX5110 module and to I/O modules, except for NX2020 model. The NX9000 (8-slot backplane rack) is the perfect choice in applications with few or, even, no local I/O points. If higher I/O point density is required, or there's the need of more modules, the user can select larger backplane racks, like NX9001 (12-slot backplane rack), NX9002 (16-slot backplane rack) or NX9003 (24-slot backplane rack).
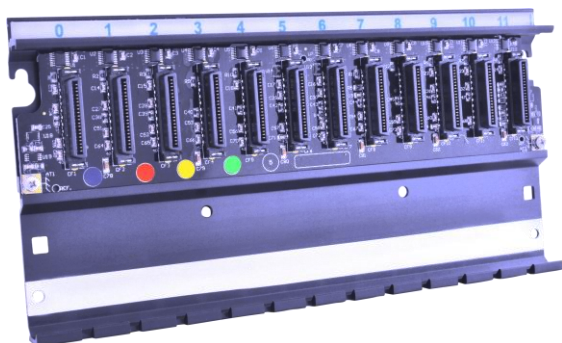
Its main features are:

- Available sizes for 8, 12, 16 or 24 slots
- Easy module insertion and removal
- Rugged and lightweight design
- Ready for CPU and PROFIBUS-DP head redundancy (except NX9010)
- High-speed backplane bus
- Automatic addressing
- Compact size

Ordering Information

Included Items

The product package contains the following items:

- One NX9010, NX9000, NX9001, NX9002 or NX9003 backplane rack

Product Code

The following code should be used to purchase the product:

Code	Description
NX9010	8-Slot Backplane Rack (No Hot Swap)
NX9000	8-Slot Backplane Rack
NX9001	12-Slot Backplane Rack
NX9002	16-Slot Backplane Rack
NX9003	24-Slot Backplane Rack

Related Products

The following products must be purchased separately when necessary:

Code	Description
NX9100	Left/Right Side Rack Ends
NX9102	Backplane Connector Cover

Notes:

NX9100: NX9100 is a pair of side rack ends designed for protecting the rack ends. NX9100 must be purchased separately.

NX9102: NX9102 was designed to protect unused backplane connectors against dust, moisture and ESD (Electric Static Discharge). It's highly recommended the use of backplane connector covers in all unused backplane connectors. NX9102 must be purchased separately.

Innovative Features

Nexto Series brings to the user several innovations in utilization, supervision and system maintenance. These features were developed focusing a new experience in industrial automation. Due to these features Nexto Series won the award shown below.

iF Product Design Award 2012: Nexto Series was the winner of iF Product Design Award 2012 in industry + skilled trades group. This award is recognized internationally as a seal of quality and excellence, considered the Oscars of the design in Europe.

Product Features

General Features

	NX9010	NX9000	NX9001	NX9002	NX9003
IP level	IP 20				
Operation temperature	0 to 60 °C				
Storage temperature	-25 to 75 °C				
Relative humidity	5 to 96%, non condensing				
Conformal coating	Yes				
Isolation **Logic to protective earth**	500 Vac / 1 minute				
Standards	IEC 61131-2 CE, Electromagnetic Compatibility (EMC) and Low-Voltage Directive (LVD) DNV-GL Type Approval CE RoHS ✓				
	UL Listed (file E473496) UL LISTED			No	
Products support	NX3004, NX3005, NX5100 and NX5110	All CPU and PROFIBUS-DP and MODBUS Head models			
PROFIBUS-DP head redundancy support	No	Yes	Yes	Yes	Yes
CPU redundancy support	No	Yes	Yes	Yes	Yes
Hot swap support	No	Yes	Yes	Yes	Yes
Module dimensions (W x H x D)	163.70 x 119.00 x 18.60 mm	163.70 x 119.00 x 18.60 mm	236.10 x 119.00 x 18.60 mm	308.50 x 119.00 x 18.60 mm	453.30 x 119.00 x 18.60 mm
Package dimensions (W x H x D)	230.00 x 184.00 x 35.00 mm	230.00 x 184.00 x 35.00 mm	304.00 x 184.00 x 35.00 mm	377.00 x 184.00 x 35.00 mm	520.00 x 184.00 x 35.00 mm
Weight	0.22 kg	0.27 kg	0.50 kg	0.60 kg	0.82 kg
Weight With Package	0.35 kg	0.40 kg	0.65 kg	0.76 kg	1.15 kg
Current consumption	-	0.065 A	0.085 A	0.130 A	0.170 A

Notes:

IP level: The IP level was defined considering that the backplane rack is fully inserted with Nexto Series modules.

CPU redundancy support: The backplanes support half-cluster redundancy, where a redundant CPU and a Redundancy Link Module must be placed side-by-side. These modules must be placed in the slots 2 and 4, occupying the slot numbers 2, 3, 4 and 5 (all modules with redundant features need 2 slots per module).

Conformal coating: The conformal coating protects the electronics inside the product from moisture, dust and other harsh elements in electronic circuits.

UL Listed Certification: The NX9002 and NX9003 racks don't have this certification, only the NX9000, NX9001 and NX9010 racks.

Compatibility with Other Products

There is an incompatibility between Backplane Racks and MasterTool IEC XE. The following table describes the main Altus' products compatible with Backplane Racks.

Backplane Racks	MasterTool IEC XE compatible version
NX9001, NX9002 e NX9003	1.00 or higher
NX9000	2.01 or higher
NX9010	2.02 or higher

ATTENTION:

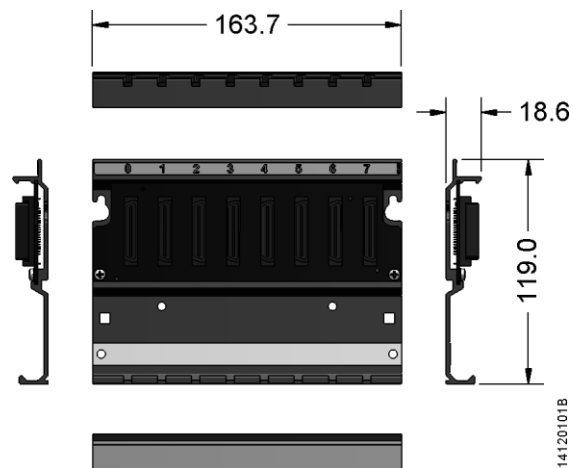The Backplane Rack NX9010 is compatible with, besides the previous table, only I/O modules, except for the NX2020.

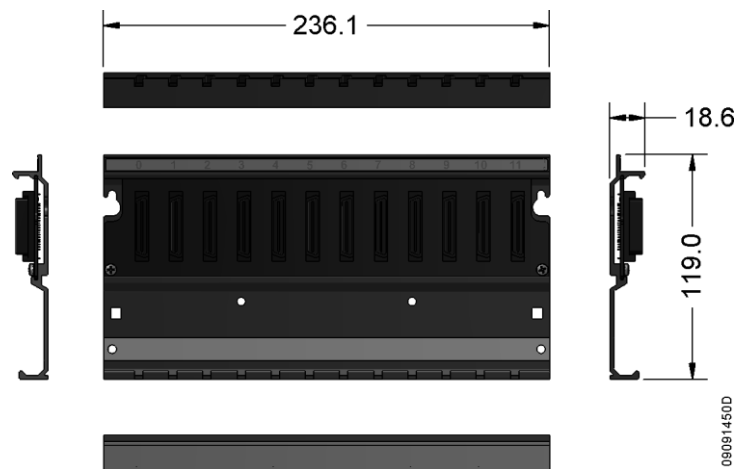## Physical Dimensions
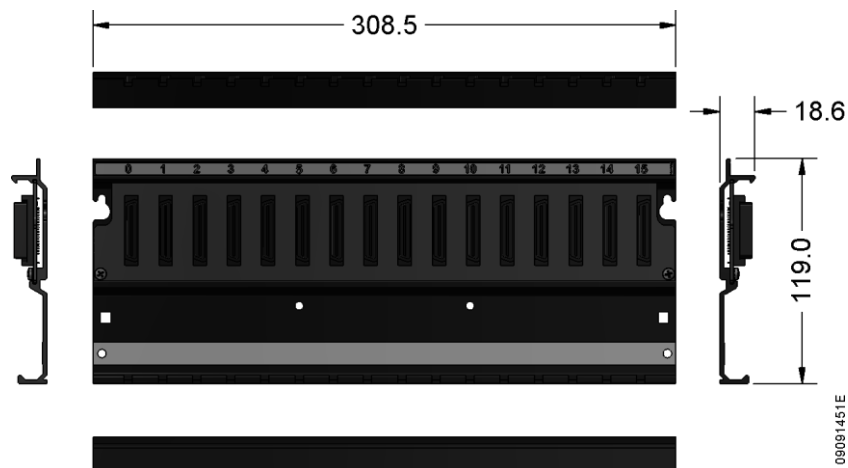
Dimensions are in mm.

8-Slot Backplane Rack (NX9010)
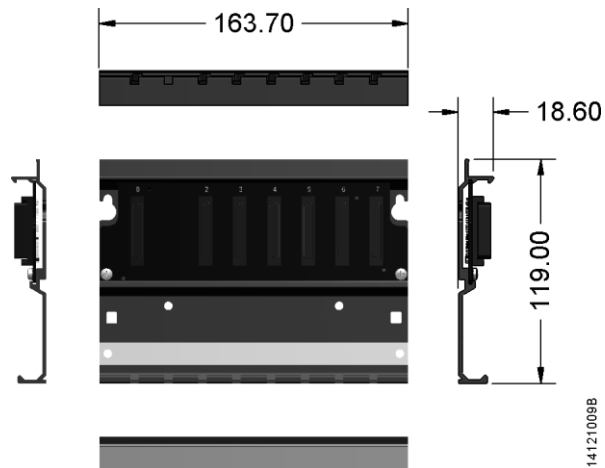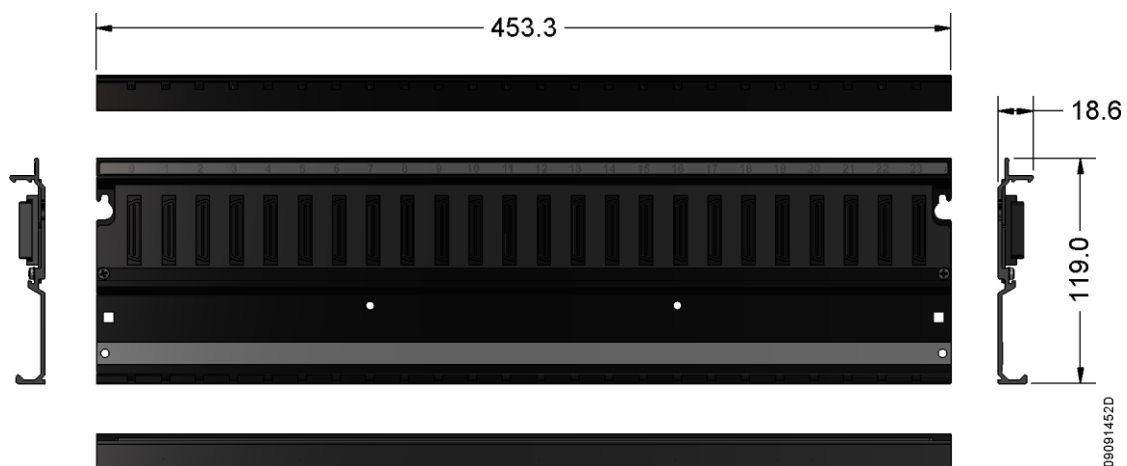

8-Slot Backplane Rack (NX9000)

Nexto Series

12-Slot Backplane Rack (NX9001)

16-Slot Backplane Rack (NX9002)

24-Slot Backplane Rack (NX9003)

Installation

Module Installation

Nexto Series has a variety of modules where some require two slots and others only one slot. The number of slots used per each module can be found at module's specific technical documentation.

> ATTENTION:
>
> For more information about how to select the recommended slot number for each kind of module (power supply, CPU, bus expansion, I/O modules, link between buses, Ethernet or PROFIBUS network), please check the item Placement Rules at Nexto Series User Manual – MU214600.

Electrical Installation

Information and orientations about correct electrical installation can be found at Nexto Series User Manual – MU214600.

Mechanical Assembly

The figure below indicates the position of all holes used to fasten Nexto Series backplanes in a given panel. More information about mechanical assembly can be found at Nexto Series User Manual – MU214600.

Dimensions are in mm.
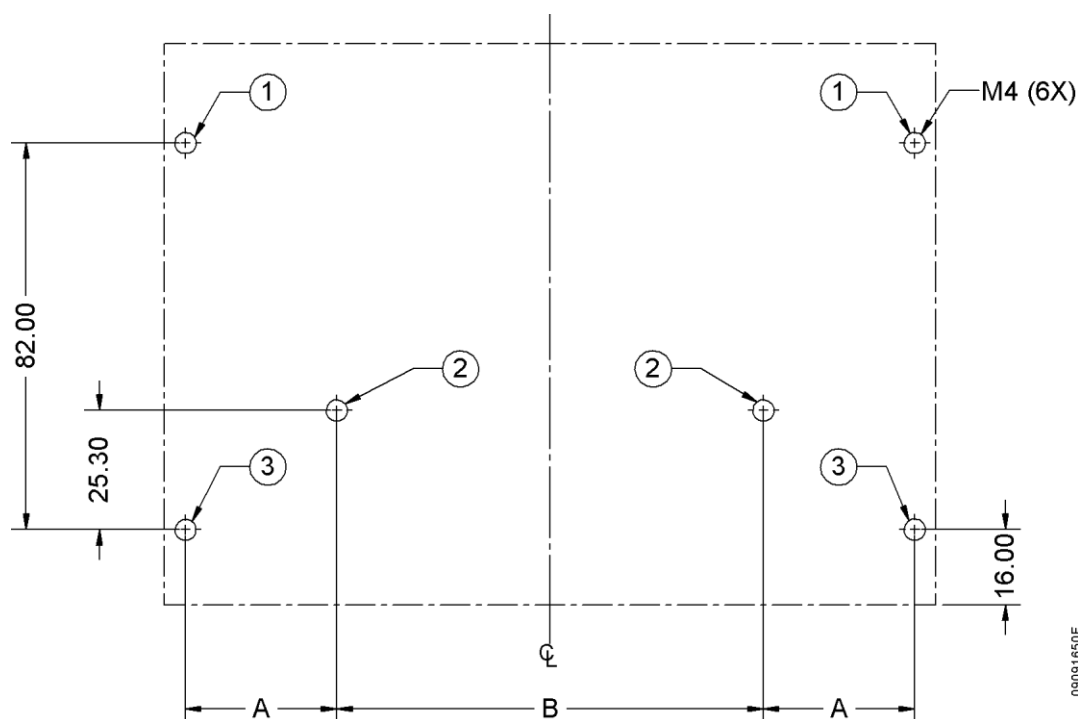
The table below must be consulted to find the respective dimension for A and B according the backplane model.

Code	Dimension A	Dimension B
NX9010	32.1 mm	90.5 mm
NX9000	32.1 mm	90.5 mm
NX9001	68.3 mm	90.5 mm
NX9002	104.5 mm	90.5 mm
NX9003	140.7 mm	162.9 mm

Manuals

For further technical details, configuration, installation and programming of Nexto Series, consult the table below.

This table is only a guide of some relevant documents that can be useful during the use and maintenance of NX9010, NX9000, NX9001, NX9002 and NX9003. The complete and updated table containing all documents of Nexto Series can be found at Nexto Series User Manual – MU214600.

Document Code	Description	Language
CE114000	Nexto Series – Features and Configuration	English
CT114000	Série Nexto – Características e Configurações	Portuguese
CS114000	Serie Nexto – Especificaciones y Configuraciones	Spanish
MU214600	Nexto Series User Manual	English
MU214000	Manual de Usuário Série Nexto	Portuguese
MU214300	Manual del Usuario Serie Nexto	Spanish