NEXTO Jet

TAKE CONTROL OVER YOUR BUSINESS

MARKETS

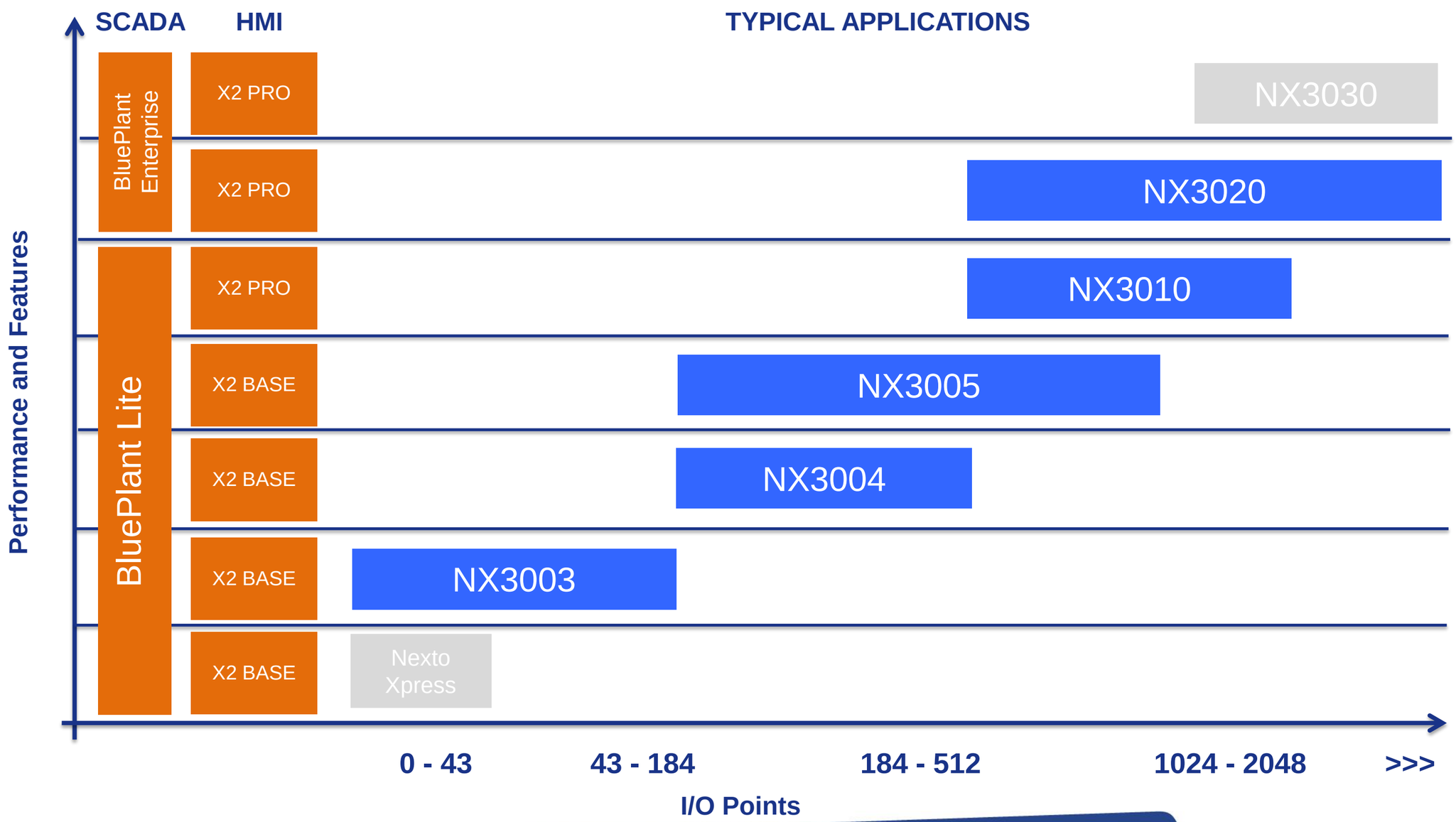
VERSATILE AND HIGH PERFORMANCE, NEXTO JET HAS NEXTO SERIES' INNOVATIVE FEATURES FOR SMALL AND MEDIUM APPLICATIONS, BEING IDEAL FOR:

INFRASTRUCTURE | BUILDING AUTOMATION | WATER & WASTEWATER

MACHINE AUTOMATION | DISTRIBUTED INDUSTRIAL AUTOMATION

PORTFOLIO

NEXTO SERIES



COMPACT APPLICATIONS

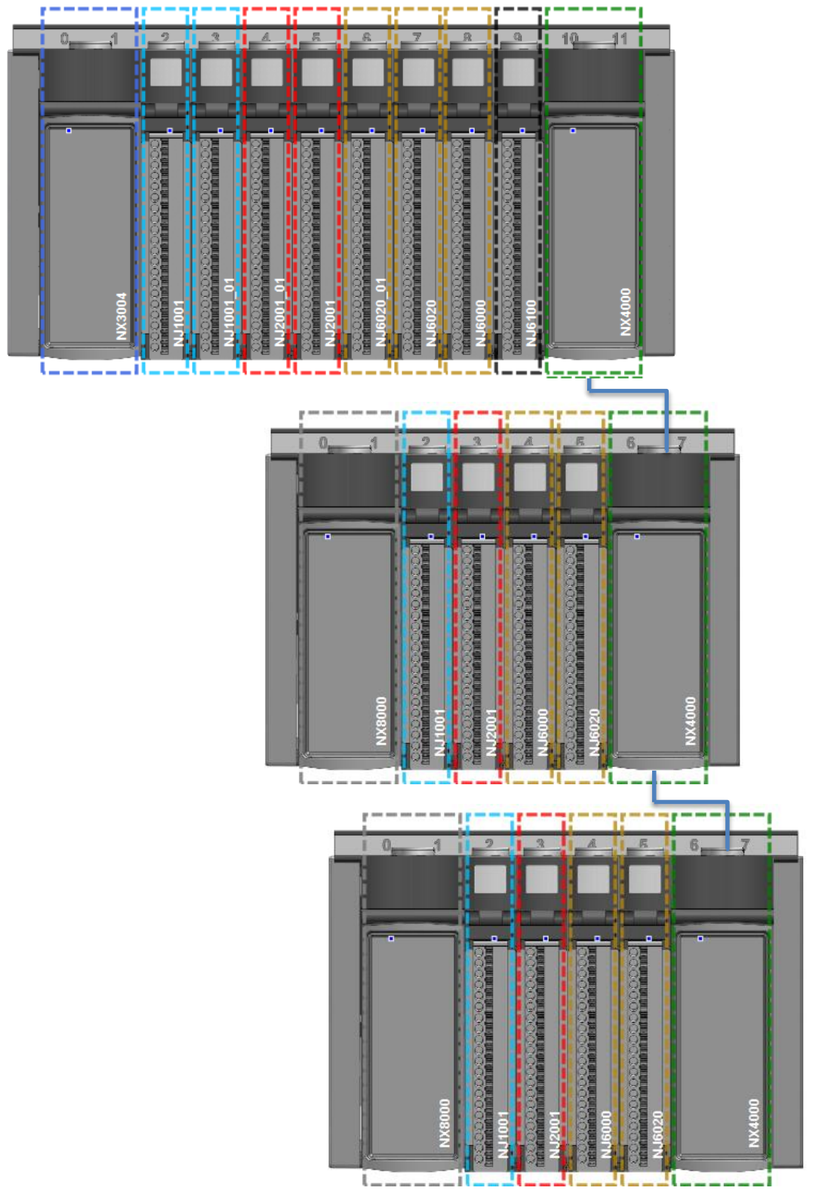
NEXTO JET

MAIN FEATURES

NEXTO JET

Features – I/O System

- Modular Architecture
- The CPUs, distributed I/Os and backplanes from Nexto Series can use Nexto Jet modules
- The available modules are:
  - 24Vdc Digital I/O
  - Analog tension & current I/O
  - Temperature analog input (RTD and TC)



MAIN FEATURES

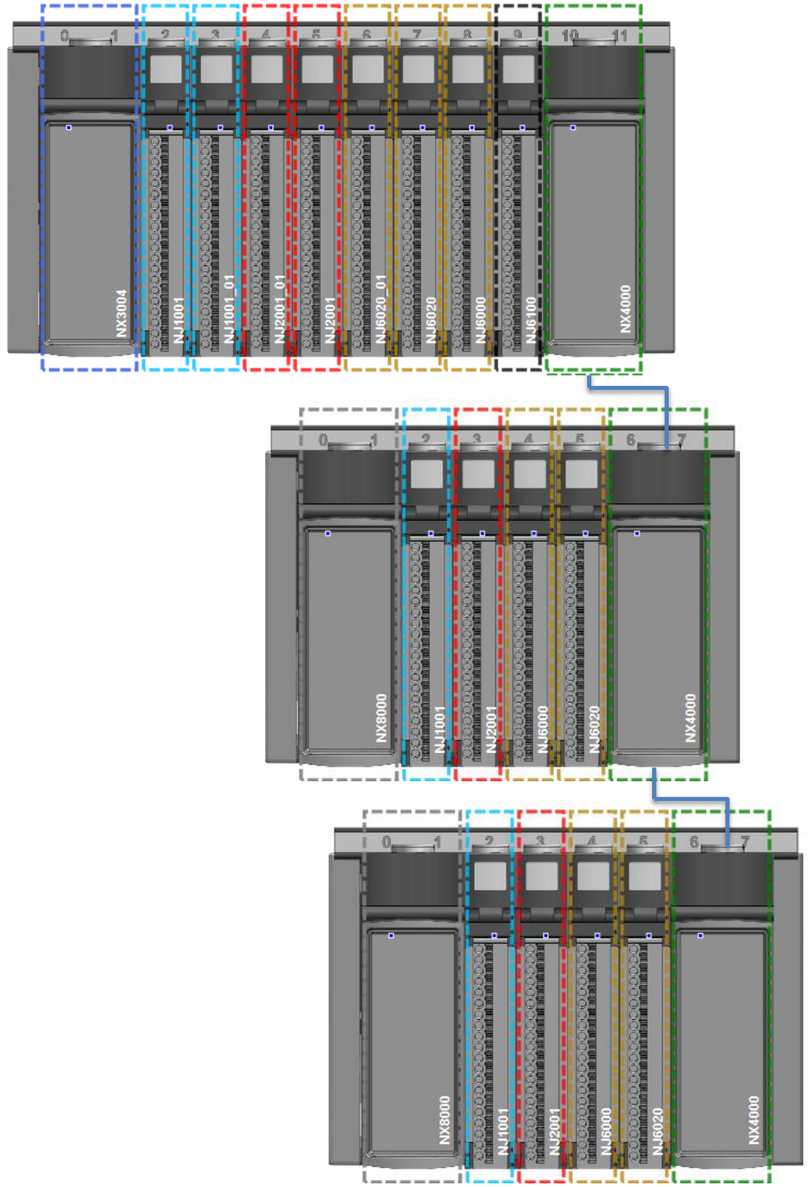
NEXTO JET

- The main differences from Nexto I/Os are:
  - **No** support for OTD diagnostics
  - **No** EPS functionality
  - **No** support for hot-swap
  - **No** relay output module

- The Nexto Jet I/O modules **cannot** be mixed with Nexto I/O modules in the same backplane

- The Nexto I/O and Nexto Jet modules **cannot** be mixed with the same CPU (for example, using expansion racks)

- Nexto Jet I/O modules are available **only** in 18mm width size



MAIN COMPONENTS

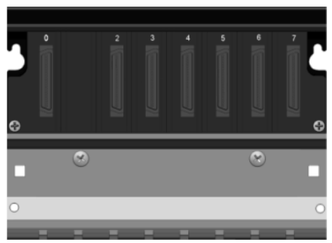
NEXTO JET

NEXTO SERIES

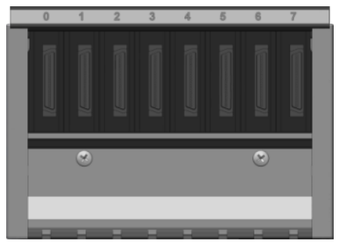
NX9020

- 2 slots
- Standalone applications without I/O modules
- CPUs NX3003, NX3004 e NX3005

NX9010



- 8 slots (no hot-swap)
- Compact OEM applications
- NX3003, NX3004 and NX3005: CPU
- NX5110: PROFIBUS-DP Head
- No support for rack expansion
- Support for 18mm I/O modules only

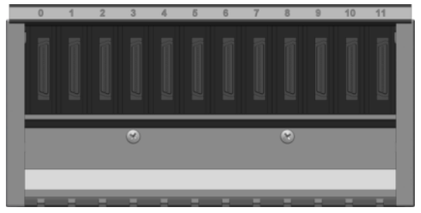


NX9000

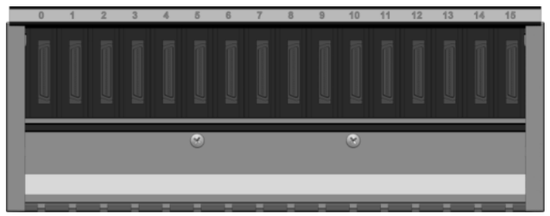
- 8 slots (hot-swap)
- Compact applications

BACKPLANES

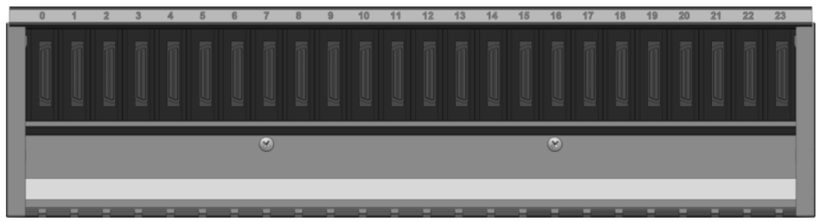
NEXTO SERIES



NX9001 - 12 slots

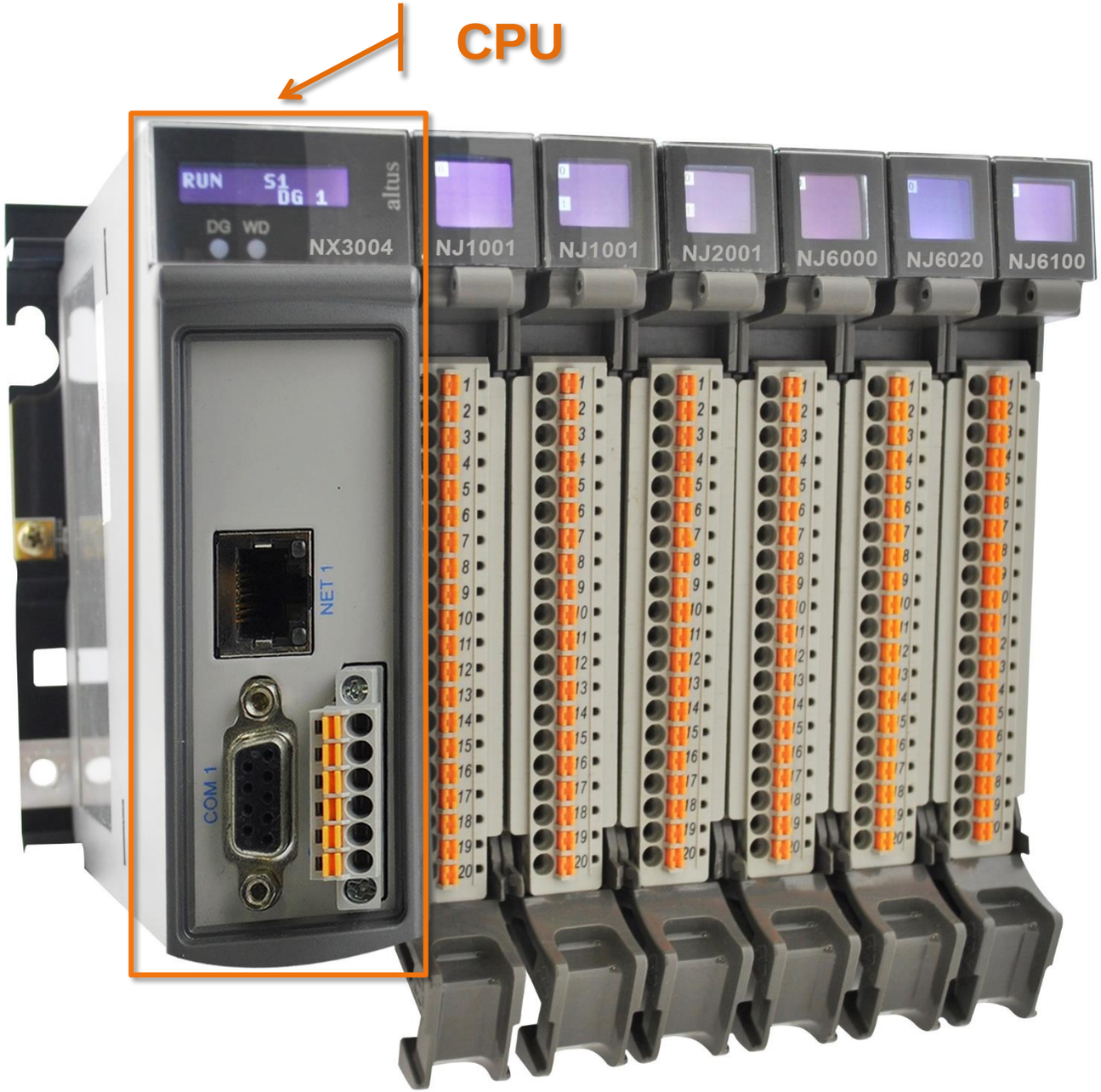


NX9002 - 16 slots



NX9003 - 24 slots

NEXTO JET


CPU
RUN
S1
DG 1
DG
WD
NX3004
altus
NET 1
COM 1
NJ1001
NJ1001
NJ2001
NJ6000
NJ6020
NJ6100

CPU NX3003

NEXTO JET SOLUTIONS

IDEAL CPU FOR SMALL APPLICATIONS WITH FEW I/O POINTS

- CPU with integrated power supply
- Supports up to 10 I/O modules
- 14 integrated digital inputs (4 fast inputs)
- 10 integrated digital outputs (4 fast outputs)
- One Ethernet port
- One serial port (MODBUS RTU / User)
- Support for MODBUS RTU, MODBUS TCP, MODBUS RTU/TCP, EtherNet/IP, SNTP, SNMP, MQTT, OPC DA and OPC UA protocols

CPU NX3004

NEXTO JET SOLUTIONS

IDEAL SOLUTION FOR HIGH PERFORMANCE MACHINES CONTROL AND SMALL SIZED AUTOMATIONS

- CPU with integrated power supply, reducing space and cost on your application
- Use with up to 32 I/O modules
- Ethernet Port
- Allows rack expansion (with NX4000)
- Access to PROFIBUS remotes (with NX5001)
- Support for MODBUS RTU, MODBUS TCP, MODBUS RTU/TCP, EtherNet/IP, SNTP, SNMP, MQTT, OPC DA and OPC UA protocols

CPU NX3005

NEXTO JET SOLUTIONS

IDEAL SOLUTION FOR APPLICATIONS WITH EMBEDDED WEB SUPERVISION

- CPU with integrated power supply
- Supports up to 64 I/O modules
- One Ethernet port
- Supports one rack expansion (NX4000)
- Supports one PROFIBUS-DP field network (NX5001)
- One serial port (MODBUS RTU / User)
- Embedded Web development in the CPU
- Support for IEC 60870-5-104 Servidor, EtherNet/IP, WebServer, MODBUS RTU, MODBUS TCP, MODBUS RTU/TCP, SNTP, SNMP, MQTT, OPC DA and OPC UA protocols

CPU NX3005

NEXTO JET SOLUTIONS

- REMOTE WEB ACCESS
- TELEMETRY
- WATER TREATMENT STATIONS

CPU NX3010

NEXTO JET SOLUTIONS

IDEAL CONTROL FOR MACHINES AND MEDIUM SIZED PROCESSES

- CPU without integrated power supply
- One Ethernet port
- Two serial ports (MODBUS RTU / User)
- MiniSD memory card slot
- Supports up to 128 I/O modules
- Supports rack expansion (NX4000)
- Support for Ethernet/IP, MODBUS RTU, MODBUS TCP, MODBUS RTU/TCP, SNTP, SNMP, MQTT, OPC DA and OPC UA protocols

CPU NX3020

NEXTO JET SOLUTIONS

LARGE APPLICATIONS WITH DISTRIBUTED I/O

- CPU without integrated power supply
- Two Ethernet ports
- Two serial ports (MODBUS RTU / User)
- MiniSD memory card slot
- Supports up to 128 I/O modules
- Use of up to 25 backplanes, each with a capacity of 20 I/O modules
- Architecture based on multiple backplanes, with electrical or optical connections and redundancy option
- Support for IEC 60870-5-104 Server, EtherNet/IP, EtherCAT Master, MODBUS RTU, MODBUS TCP, MODBUS RTU/TCP, SNTP, SNMP, MQTT, OPC DA and OPC UA

NEXTO SERIES

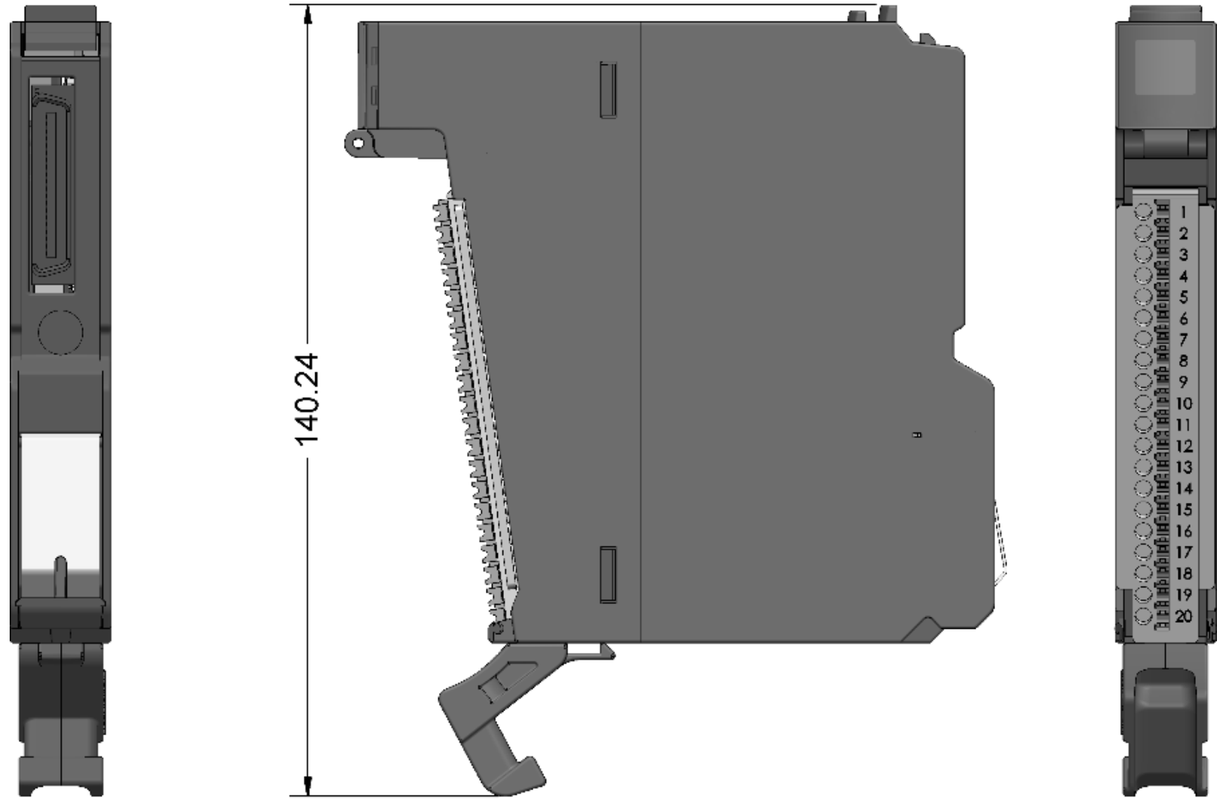
	NX3003	NX3004	NX3005	NX3010	NX3020
Program Memory	3 MB	3 MB	6 MB	4 MB	6 MB
Source Code Memory	32 MB	32 MB	40 MB	40 MB	80 MB
PROFIBUS-DP Master	-	1	1	1	4
Ethernet Interfaces	1	1	2	1	4
Redundancy (Field Network/Ethernet)	-	-	-	-	Yes
Sequence of Events (SOE)	-	-	-	-	Yes
Memory Card Support	-	-	-	Yes	Yes
Backplane Expansion Support	-	1	4	8	24
Maximum Number of I/O Modules	10	32	64	128	128
Integrated Digital Inputs	14	-	-	-	-
Integrated Digital Outputs	10	-	-	-	-

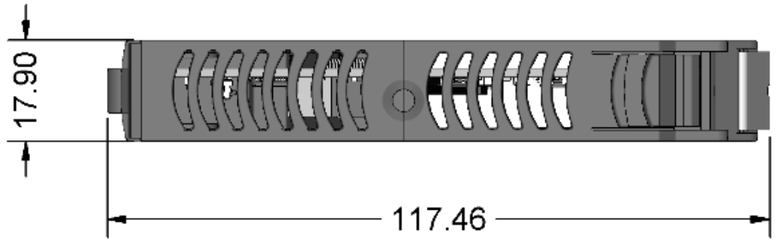
NEXTO JET

Digital and Analog I/O
RUN
S1
DG 1
DG WD
NX3004
altus
NET 1
COM 1
NJ1001
NJ1001
NJ2001
NJ6000
NJ6020
NJ6100

NEXTO JET

OPTIMIZING YOUR PANELS - 18 MM MODULE





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NEXTO JET

- **NJ1001**
  - 16 Digital Inputs Module (24 Vdc)
  - Optoisolated inputs (sink/source)

- **NJ1005**
  - 8 Digital Inputs and 8 Transistor Digital Outputs (24 Vdc)

NEXTO JET

- **NJ2001**
  - 16 Transistor Digital Outputs module
  - Outputs grouped into 2 groups, isolated between each other and logic
  - Maximum current por output – 1.5A @ 30Vdc
  - Maximum current per group – 6A @ 30 Vdc

NEXTO JET

- **NJ6000**
  - 8 Tension/Current 16 bits Analog Inputs module
  - Inputs isolated from logic
  - Internal protection for 24Vdc
  - Selectable scales via software:
    - 0 to 10 V
    - -5V to +5V
    - -10 V to +10 V
    - 0 to 20 mA
    - 4 to 20 mA
- **NJ6001**
  - 6 Tension/Current 12 bits Analog Inputs module
  - Inputs isolated from logic
  - Internal protection for 24Vdc
    - 0 to 10 V
    - 0 to 20 mA

NEXTO JET

- **NJ6005**
  - 6 Tension/Current 12 bits Analog Outputs and 4 Tension/Current 12 bits Analog Inputs module
  - Inputs isolated from logic
  - Outputs isolated from logic
  - Selectable scales via software:
    - 0 to 10 V
    - 0 to 20 mA

NEXTO JET

- **NJ6100**
  - 4 Tension/Current 16 bits Analog Outputs module
  - Outputs isolated from logic
  - Scales selectable via software:
    - 0 to 10 V
    - -10 V to +10 V
    - 0 to 20 mA
    - 4 to 20 mA
- **NJ6101**
  - 4 Tension/Current 12 bits Analog Outputs module
  - Outputs isolated from logic
  - Scales selectable via software:
    - 0 to 10 V
    - 0 to 20 mA

NEXTO JET

- **NJ6010**
  - 8 thermocouple analog inputs module
  - Inputs isolated from logic
  - Support for thermocouples type:
    - J, K, B, E, T, R, S e N
  - Individual configuration per input
  - 24 bits A/D Converter Resolution

- **NJ6011**
  - 4 Thermocouple Analog Inputs module
  - Has the same features as NJ6010

NEXTO JET

- **NJ6020**
  - 8 RTD Analog Inputs module
  - Inputs isolated from logic
  - Supported RTD sensors:
    - Pt100, Pt200, Pt500, Pt1000
    - Ni100, Ni120, Ni200, Ni500, Ni1000
  - Support for resistance ranges:
    - 0 Ω to 400 Ω, 0 Ω to 4000 Ω, 0 Ω to 10000 Ω
  - Individual configuration per input
  - 24 bits A/D Converter Resolution

NEXTO JET

NX5101 – MODBUS TCP HEAD WITHOUT HOT-SWAP

- Compatible with any MODBUS TCP client device
- Integrated power supply
- Support for up to 22 I/O modules in the backplane
- Configuration via the same MasterTool IEC XE used for configuring Nexto Series CPUs

NEXTO JET

NX5110 – PROFIBUS-DP HEAD

- Compatible with any PROFIBUS-DP master device, following the standard EN50170
- Integrated power supply
- Support for up to 22 I/O modules in the backplane
- Automatic configuration and parameterization of all modules via PROFIBUS-DP Class 1 master

PROGRAMMING ENVIRONMENT

MASTERTOOL IEC XE

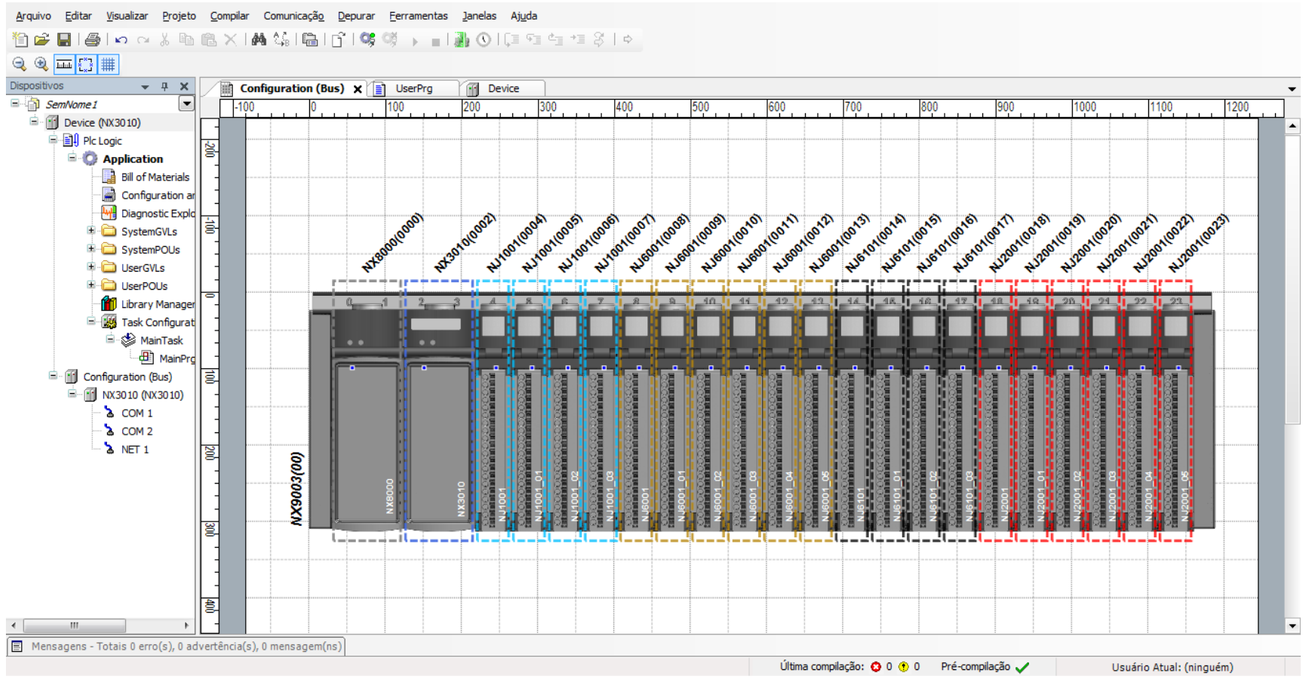
- An easy-to-use software environment for all your automation needs
- Friendly user interface
- Control platform with a modern programming environment
- 6 programming languages
- Online programming

CONFIGURATION TOOL

MASTERTOOL IEC XE

ALLOWS QUICK AND SMART SYSTEM CONFIGURATION:

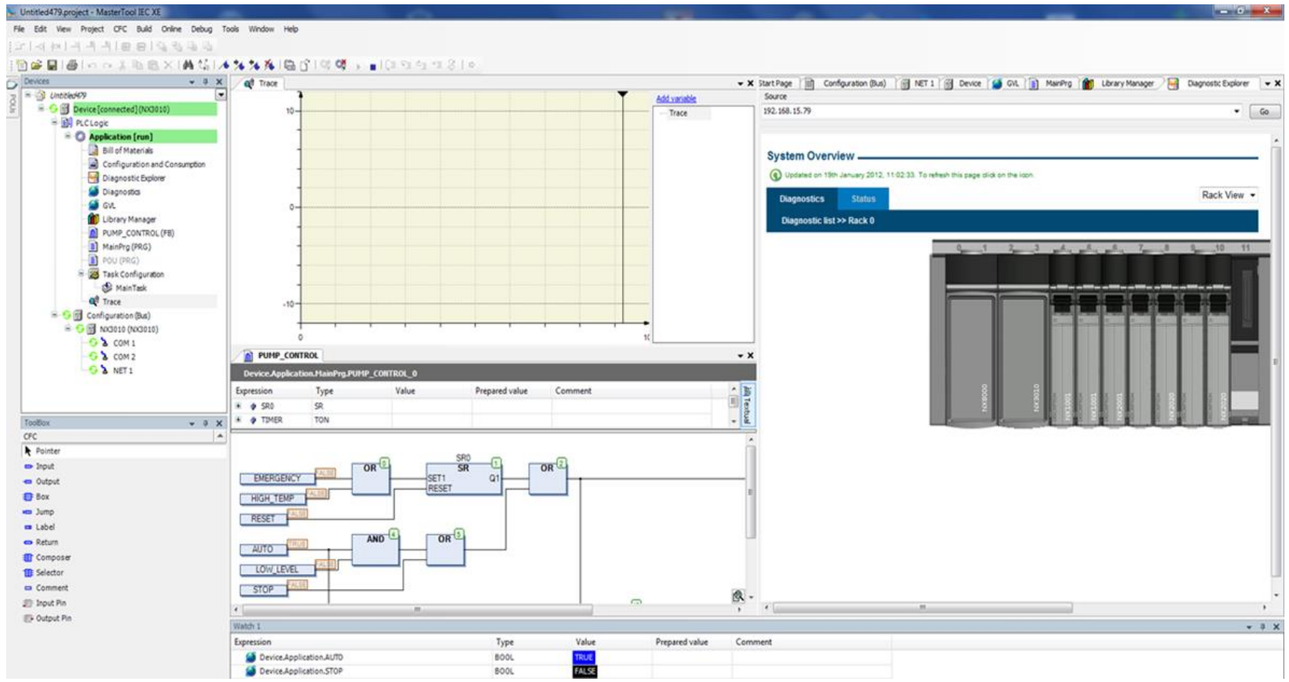
- Advanced editing resources, integrating communication protocols and field backplane configuration on the same environment
- Graphical configuration interface (including remote backplanes)
- Auto-complete and quick help files resources integrated



PROGRAMMING TOOL

MASTERTOOL IEC XE

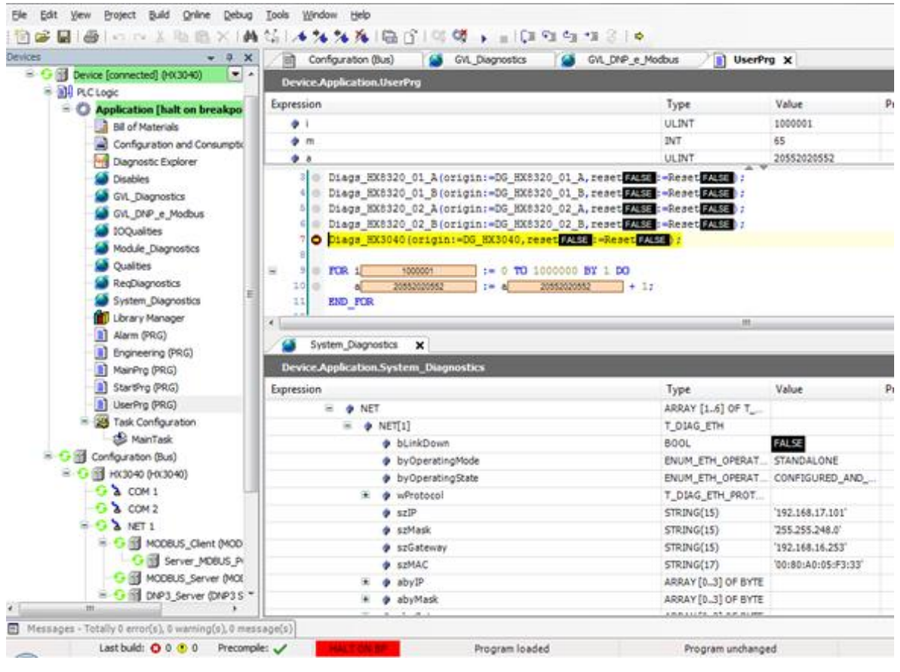
- Object-oriented programming
- Simulation tool, without the need of a connected controller
- Printing of application documents, such as BOM, programs (POU), parameters, tags and descriptions
- Docking View: MasterTool IEC XE environment’s customization by the user

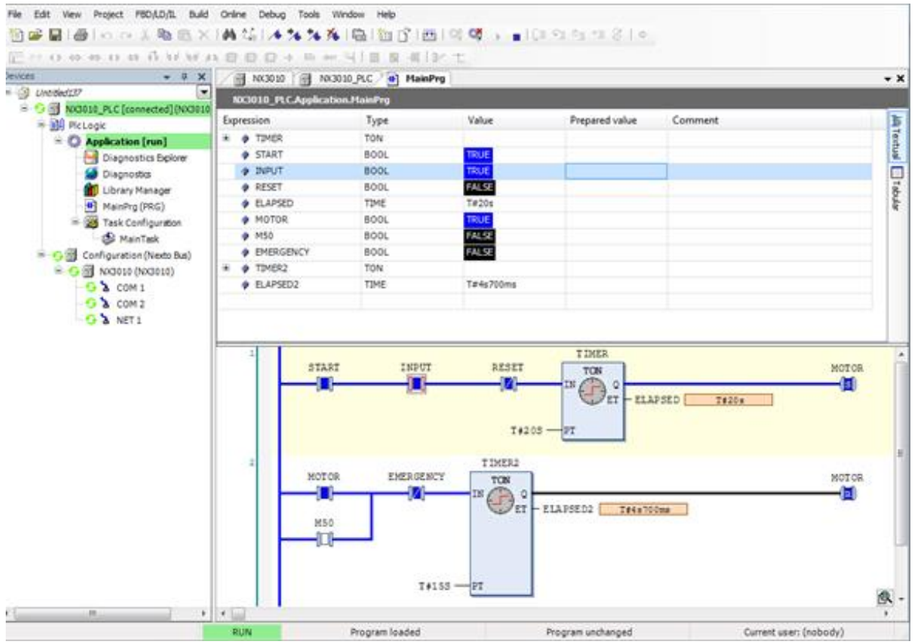


PROGRAMMING TOOL

MASTERTOOL IEC XE

- Application’s offline simulation
- Application’s online debugging
- Monitoring of:
  - I/O variables
  - Symbolic variables
  - System diagnostics
  - Modules Diagnostics
- Use of breakpoint and step-by-step execution
- Simulation of communication with SCADA and HMI using OPC DA

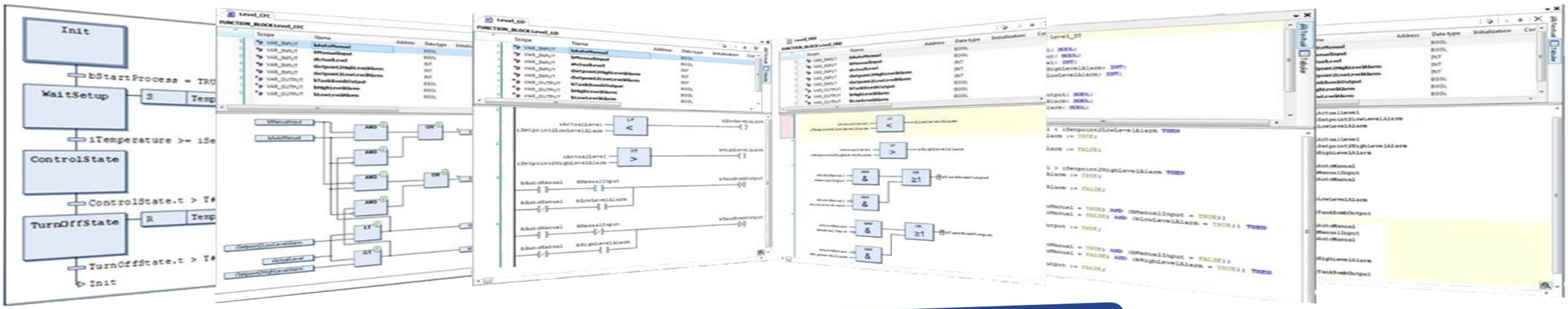




MASTERTOOL IEC XE

IEC 61131-3 – PROGRAMMING LANGUAGES

- Structured Text (ST)
- Sequential Function Chart (SFC)
- Function Block Diagram (FBD)
- Ladder Diagram (LD)
- Instruction List (IL)
- Continuous Function Chart (CFC)
- Support for different languages on the same project



MASTERTOOL IEC XE

Features	Lite	Basic	Pro	Adv
Free Version	YES	NO	NO	NO
CPUs	XPRESS NX3003 NX3004 NX3005 NX3010	XPRESS NX3003 NX3004 NX3005 NX3010 NX3020	ALL	ALL
Rack Expansion	NO	YES	YES	YES
Additional Ethernet Modules	NO	YES	YES	YES
PROFIBUS DP Interfaces	NO	NX3004 NX3005 NX3010 NX3020	NX3004 NX3005 NX3010 NX3020	NX3004 NX3005 NX3010 NX3020
Max. Number of I/O points	320	2048	NO LIMIT	NO LIMIT

USER DOCUMENTATION

NEXTO SERIES

- **Technical Features**
  - All modules have their own technical documentation with the technical features available in Portuguese, English and Spanish

- **User Manuals**
  - Extensive technical literature available in Portuguese and English
  - Over 1,000 pages, covering:
    - Nexto Series User Manual
    - MasterTool IEC XE User Manual
    - IEC 61131-3 Programming Manual
    - Nexto CPUs User Manual
    - PROFIBUS-DP Master User Manual

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