Catalog | May 2026

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

www.se.com

Schneider Electric

Modicon

Discover Modicon

Edge control for industrial internet of things (IoT)

Modicon IIoT-native edge controllers manage complex interfaces across assets and devices or directly into the cloud, with embedded functional safety and cybersecurity. **Modicon** provides performance and scalability for a wide range of industrial applications up to high-performance multi-axis machines and high-available redundant processes.

Explore our offer

- Modicon HVAC Controllers
- Modicon PLC
- Modicon Motion Controllers
- Modicon PAC
- Modicon Edge I/O
- Modicon I/O
- Modicon Networking
- Modicon Power Supply
- Modicon Wiring
- Modicon Safety

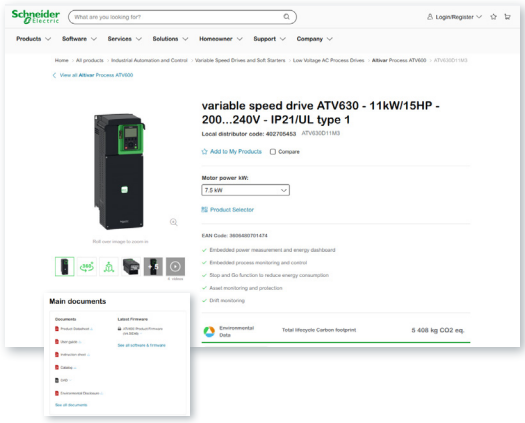
Schneider Electric

Quick access to product information

Get technical information about your product

Each commercial reference presented in a catalog contains a hyperlink. Click on it to obtain the technical information of the product:

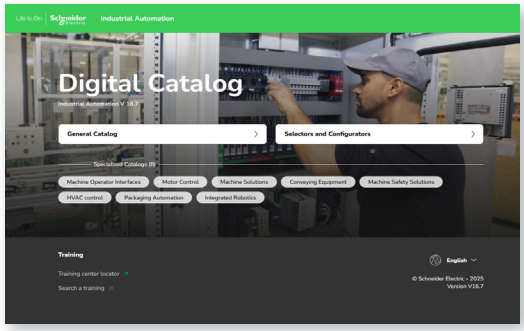
- Characteristics, Dimensions and drawings, Mounting and clearance, Connections and schemas, Performance curves
- Instruction sheets, User guides, Product certifications, End of life manuals, etc



View the Automation Catalog libraries

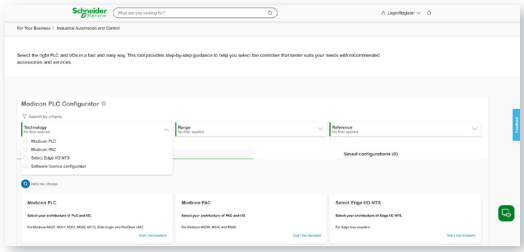
On Digi-Cat Online you can access the Industrial Automation and Control catalogs, in both English and French

- Up-to-date catalogs
- Optimized search by commercial references
- Integrated product selectors and configurators



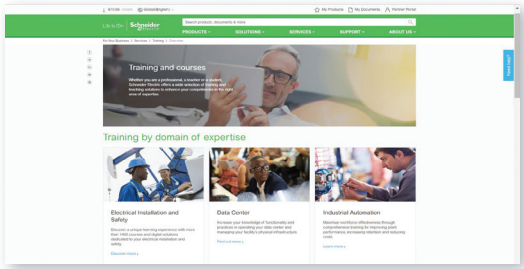
Direct access to Configurators Home pages

- Configure your motor control and protection solution
- Configure your control system with a PLC controller and I/O modules
- Configure your motion control and robotics system



Select your training

- Find the right Training for your needs on our Global website
- Locate the Training center with the selector tool



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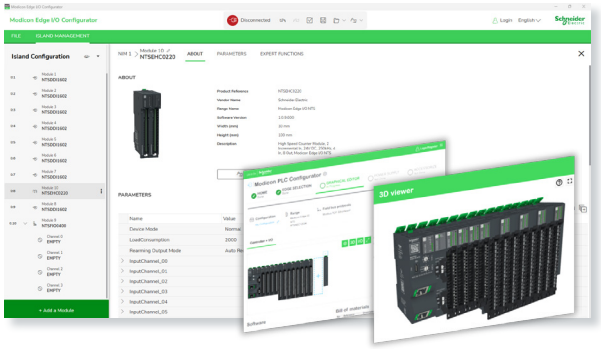
Your Resource Hub

Easily design your island

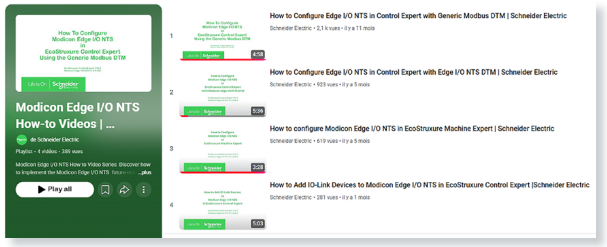


Select the right PLC and I/Os in a fast and easy way.

This tool provides a step-by-step guidance to help you select the controller that better suits your needs with recommended accessories and services.

Modicon PLC Configurator
(Click to open the tool)

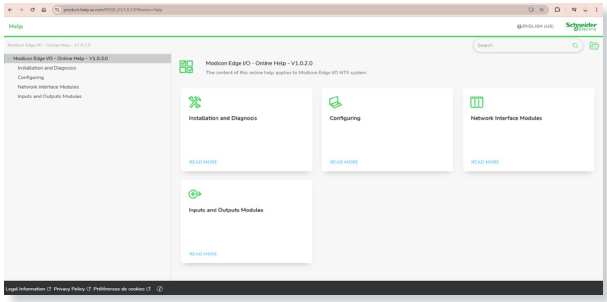
How-to videos



> How-to video playlist in YouTube is the easier way to get quick start-up and use of Modicon Edge I/O NTS.
> Add the playlist to your library for instant access—it's continuously updated with fresh tutorials to keep you ahead of the curve.

Modicon Edge I/O NTS How-to Videos
(Click to access the videos)

Online Help



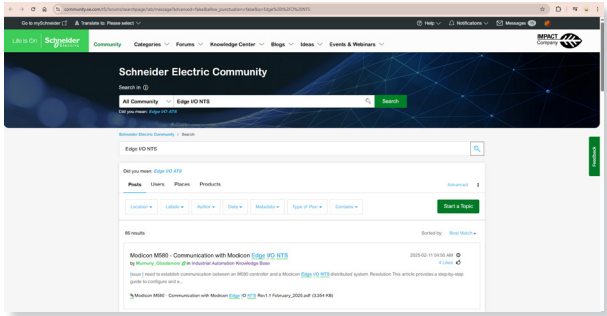
This online help applies to the Modicon Edge I/O NTS system and covers four main topics:

> Installation and Diagnosis
> Configuring
> Network Interface Modules
> Inputs and Outputs Modules

Each section provides detailed guidance accessible via "Read More" links.

Modicon Edge I/O NTS – Online Help
(Click to open the tool)

Schneider Electric Community



> Your hub to connect with peers and experts
> Get continuous support from experts, join active communities and showcase your expertise.

Schneider Electric Community
(Click to open the hub)

General content

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

EcoStruxure™ Industrial Automation

EcoStruxure

Optimize

Software & Services

Operate

Edge Computing & Control

Edge Nodes

Onboard

Intelligence Devices

Enterprise Software Planon RIB etap AVEVA SE ADVISORY SERVICES

EcoStruxure Plant Apps

Industrial Digital Transformation Services

Consulting, **EcoStruxure** Service Plan, **EcoFit**

APIs & 3rd party apps

EcoStruxure Automation Expert (incl. Foxboro SDA)

EcoStruxure Process Expert

EcoStruxure Control Expert

EcoStruxure Foxboro DCS

EcoStruxure Triconex Safety Systems

SCADA Systems

APIs & 3rd party apps

Harmony

Harmony Edge Box and Industrial PC

Modicon

Industrial Edge Control for IIoT

Edge I/O NTS

Foxboro

Edge I/O NTH

Altivar

Innovative & connected variable speed drives

TeSys

Innovative & connected solutions for motor starters

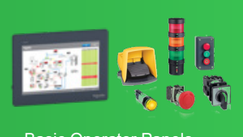
Set Series

Power Distribution and Motor Control Center

EcoStruxure

Process Instrumentation

Harmony



Basic Operator Panels, Push button & signaling

3rd party devices

Data Cube

Energy & Industrial Intelligence

Enterprise Data

Operational Data

Field Data + 3rd party Data

Building | **Data Center** | **Industry** | **Infrastructure**

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

I/O systems for logic, motion, and PAC controllers

I/O systems	**Type**	I/O expansion modules	The future-ready I/O system for data aggregation with built-in cybersecurity	Common platform of modules for Modicon M580 and Modicon M340 PACs
	Range	Modicon TM3	Modicon Edge I/O NTS	Modicon X80 I/O
				
Consult the catalog		DIA3ED2140109EN	DIA3ED2240601EN	DIA6ED2131203EN
Certifications and standards (depending on the model)	International certifications	> CE, UKCA, RCM, EAC, cULus, cULus Haz. Loc. > EN/IEC 61131-2, CSA C22.2 No. 142, ANSI/ISA 12-12-01, CSA C22.2 No. 213, IEC/EN 61010-2-201	> CE, UKCA, cULus, RCM > Power generation market	> CE, UL, CSA, RCM, EAC, UKCA > Power generation market: IEC 61000-6-5, IEC 61850-3
	> Safety standards > Safety performance level	> EN/IEC 60947-1, EN/IEC 60947-5-1 (TÜV with functional safety modules) > Up to PL e/Category 4 conforming to EN/ISO 13849-1 and SIL 3 conforming to EN/IEC 62061	> Hazardous Location: cULus Haz. Loc. Class 1 Div.2, ATEX/IECEx (Zone 2/22) (pending), CCC Ex (Zone 2/22) (pending)	> Hazardous Location Class I Division 2 Groups ABCD and for ATEX/UKEX/ IECEx (Zone 2/22) > SIL 3 standards according to IEC 61508
	Marine certification	> EU RO Mutual Recognition	> EU RO Mutual Recognition (Marine certification)	> IACS E10 and agencies: ABS, BV, DNV, GL, LR, RINA, RMRS, and CCS (Marine certification)
	Railway certification	–	> Rolling stock, Railway and stationary facilities	–
Line power supply		> External 24 VDC (power supplied by the controller via the bus expansion connector)	> Embedded power distribution module: 24 VDC	> Embedded power supply module: 24 VDC isolated, 24...48 VDC isolated, 100...150 VDC, or 100...240 VAC
Island configuration		With bus expansion modules (transmitter and receiver) and bus expansion cable	Up to 32 modules	With bus expansion modules (transmitter and receiver), backplane, and bus expansion cable
Performance		Up to 7 modules managed in 2 ms, 14 modules maximum	Up to 32 modules managed in 1 ms	Up to 7 expansion racks maximum, depending on the CPU performance level
Networks	EtherNet/IP	Yes	Yes	Yes
	CANopen bus	Yes	–	Yes
	Modbus Serial Line	Yes	–	–
	Modbus TCP	Yes	Yes	Yes
	Sercos III bus	–	Yes	–
	OPC UA	–	Explicit only	–
	Fiber converter	–	–	–
Communication modules	AS-interface Master	–	–	Yes
	Profibus DP bus	–	–	Yes
	IO-Link Master	–	Yes	–
	Modbus TCP	–	–	Yes
	Serial Line	–	Yes	Yes
I/O expansion capacity	Discrete I/O	Yes	Yes	Yes
	Analog I/O	Yes	Yes	Yes
	Expert I/O	> TeSys motor starter > High-speed counter	> Encoder > CAM > Encoder generator *(1)* > Fast I/O (Timestamping, Oversampling) > Pulse Output Generator *(1)*	> Counter > Timestamping > SSI encoder > Frequency input > Weighing
	Safety I/O	> Functional safety I/O modules for control of Emergency stop, switches, pressure-sensitive mats and edges, solid-state output safety light curtains, and pressure sensors with PNP+PNP or PNP+NPN outputs	–	> Safety I/O > Safety redundant power supply
Services		> Cybersecurity > Web Server	> Cybersecurity > Web Server (Including commisionning without PLC) > Integrated protection and diagnostics	> Cybersecurity > Web Server
Mounting		On DIN rail ⊐, on plate, or panel with dedicated accessory	Mounting: Directly on DIN rail, horizontally or vertically (refer to documentation for specific conditions): > top hat type TH35-7.5 rail, IEC 60715 > top hat type TH35-15 rail, IEC 60715	On rack with backplane (rack can be mounted on a panel or a plate)
I/O Connection		By removable screw terminal blocks, spring terminal blocks, and removable HE10 connectors (MIL20)	By removable screw or spring terminal blocks, with or without plastic cover By HE-10 terminal blocks for Discrete I/O *(2)*	By removable screw or spring terminal blocks
Hot-swapping capability		–	Yes	Yes
Compatibilty with controllers	Logic controllers	■ Modicon M221/M221 Book ■ Modicon M241 ■ Modicon M251 ■ Modicon M262	■ Modicon M241 ■ Modicon M251 ■ Modicon M262	–
	Motion controllers	■ Modicon M262	■ Modicon M262 ■ PacDrive LMC Eco/Pro2 ■ Modicon M660	–
	Programmable Automation Controllers	–	■ dPAC controller Modicon M262 ■ Modicon M580	■ Modicon M580 ■ Modicon M340
	Remote Terminal Units	–	■ SCADAPack™ 47x | 47xi | 470R	–

(1) Soon commercialized. (2) Planned commercialization.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Industrial automation controllers

Industrial automation controllers	**Applications**	Controllers for industrial machines						Programmable Automation Controllers	
	Type	Logic controllers			Logic/Motion controllers	Motion controllers	Advanced iPC* Motion Controllers	Mid-range PLCs for industrial process and infrastructure	Ethernet Programmable Automation Controllers
	Range	Modicon M221	Modicon M241	Modicon M251	Modicon M262	PacDrive LMC Eco, LMC Pro2	Modicon M660	Modicon M340	Modicon M580
									
Consult the catalog		DIA3ED2140106EN	DIA3ED2140107EN	DIA3ED2140108EN	DIA3ED2180503EN	DIA7ED2160303EN	DIA3ED2241201EN *industrial PC*	DIA6ED2110104EN	DIA6ED2151012EN
Memory		640 KB RAM, 2 MB Flash	64 MB RAM, 128 MB Flash	64 MB RAM, 128 MB Flash	192 MB RAM, 256 MB Flash	128 KB to 256 KB NV RAM, 512 MB DDR2 to 1 GB DDR3L	Up to 8 GB RAM (depending on processor type)	1,792 KB or 3,584 KB internal RAM (depending on processor type)	64 MB RAM
Supply voltage		24 VDC or 100...240 VAC	24 VDC or 100...240 VAC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC, 24...48 VDC, 125 VDC, 100...240 VDC, or 100...240 VAC	24 VDC, 24...48 VDC, 125 VDC, 100...240 VDC, or 100...240 VAC
Communication	Embedded communication fieldbuses and networks	> EtherNet/IP Adapter > Modbus TCP > RS 232/RS 485 serial link > Mini USB-B programming port	> EtherNet/IP > Modbus TCP > CANopen (master) and SAE J1939 > Serial link > Mini USB-B programming port	> EtherNet/IP > Modbus TCP > CANopen (master) and SAE J1939 > Serial link > Mini USB-B programming port	> EtherNet/IP > Modbus TCP > Sercos III > Serial link > Mini USB-B programming port	> EtherNet/IP > Sercos III > CANopen > Profibus > Profinet > EtherCAT	> Sercos III > EtherNet/IP	> EtherNet/IP > Modbus TCP > CANopen > Serial link > Mini USB-B programming port	> EtherNet/IP > Modbus TCP > CANopen > Profibus DP > FactoryCast > DNP3 (RTU) > Global Data > Serial link > AS-Interface > Mini USB-B programming port
	OPC Unified Architecture (OPC UA)	–	Server	Server	Server/Client (encrypted)	Server/Client (encrypted)	Client	Client	Client
	Cybersecurity	With external firewall	With external firewall	With external firewall	Embedded	With external firewall	Embedded	Embedded	Embedded
	Optional communication fieldbuses and networks	> 1 Serial link	> Ethernet > Profibus DP	> Ethernet > Profibus DP	> Ethernet, EtherNet/IP Adapter > CANopen Master	> CANopen > Profibus DP > RT-Ethernet	–	> EtherNet > Modbus TCP > Serial link > FactoryCast Modbus/TCP > RTU > AS-Interface	> EtherNet/IP and Modbus TCP > FactoryCast > IP forwarding > OPC UA > IEC 61850 > DNP3/IEC 60870-5-101/104 > Global Data
Embedded I/O (number and type)		> Up to 40 logic inputs > 2 analog inputs > Up to 16 relay outputs > Up to 16 transistor outputs	> Up to 24 logic inputs > Up to 16 transistor outputs > Up to 16 relay outputs > Up to 8 high-speed inputs > Up to 4 high-speed outputs	–	> 4 fast digital inputs > 4 fast digital outputs	> Up to 20 digital inputs > Up to 16 touch probe inputs > Up to 4 interrupt inputs > Up to 2 analog inputs > Up to 16 digital outputs > Up to 2 analog outputs	> 4 digital inputs	> Up to 1,024 discrete I/O > Up to 256 analog I/O > Up to 36 application-specific channels (process counter, motion control, and serial link or RTU)	> Up to 6,144 discrete I/O > Up to 1,536 analog I/O > Up to 216 application-specific channels (process counter, motion control, and serial link or RTU)
Embedded functional /severe environment		–/–	–/–	–/–	Yes/–	Yes/–	–/–	Yes /Yes	Yes /Yes
Synchronized axes		–	–	–	Up to 24 synchronized axes over Sercos III	Up to 130 synchronized axes over Sercos III	Up to 64 (planned 130) synchronized axes over Sercos III	–	–
Dedicated configuration software		EcoStruxure Machine Expert - Basic	EcoStruxure Machine Expert				EcoStruxure Machine Expert	EcoStruxure Control Expert	

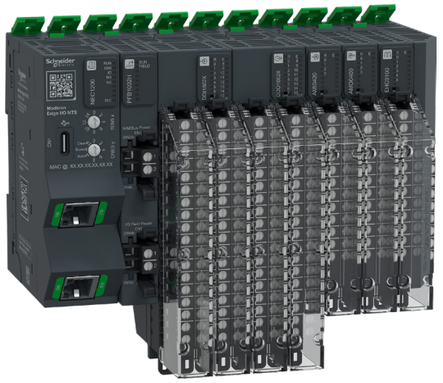
Compatibility with I/O systems *(click on the range name to open the catalog)*									
	Local I/O		■ Modicon TM3	■ Modicon TM3			–	–	■ Modicon X80	■ Modicon X80
	Remote I/O		■ Modicon TM3	■ Modicon TM3			–	–	■ Modicon X80	■ Modicon X80
	Distributed I/O	Over Ethernet	■ Modicon TM3	■ Modicon TM3 ■ Modicon Edge I/O NTS ■ Modicon TM5			■ Modicon TM5	–	■ Modicon Edge I/O NTS	■ Modicon Edge I/O NTS
		Over CANopen	–	■ Modicon TM3	■ Modicon TM3	■ Modicon TM3 ■ Modicon TM5 & Modicon TM7	■ Modicon TM3 ■ Modicon TM5 & Modicon TM7	–	–	–
		Over Sercos	–	–	–	■ Modicon Edge I/O NTS ■ Modicon TM5	■ Modicon Edge I/O NTS ■ Modicon TM5	■ Modicon Edge I/O NTS	–	–
		Over Modbus Serial Line	■ Modicon TM3	■ Modicon TM3	■ Modicon TM3	■ Modicon TM3	–	–	–	–
		Over Profibus	–	–	–	–	–	–	–	–
		Over AS-Interface master	–	–	–	–	–	–	–	–
	Safety I/O		■ Modicon TM3 (functional safety)	■ Modicon TM3 (functional safety)	■ Modicon TM3 (functional safety)	■ Modicon TM3 (functional safety) ■ Modicon TM5 & Modicon TM7	■ Modicon TM5 & Modicon TM7	–	■ Modicon X80	■ Modicon X80

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

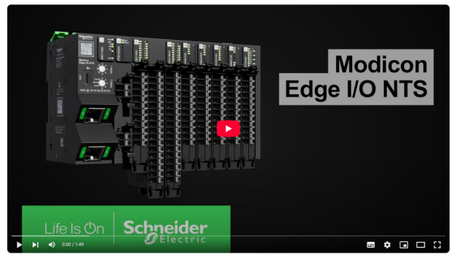
System components

- Modicon Edge I/O NTS is an I/O system designed to remain relevant and effective as technology and data requirements evolve over time.
  - This implies that the I/O (input/output) system can gather and consolidate data from various sources in a points that adapts to future advancements and changes in data technology.
  - This could involve scalability, flexibility, and compatibility with emerging data protocols and standards, helping to ensure that the system can continue to aggregate and process data effectively in the face of future developments.
  - Using open Ethernet protocols, Edge I/O NTS embeds the latest technologies to deliver optimum performance, availability, and cybersecurity.



- Modicon Edge I/O NTS provides flexibility and allows you to meet the requirements of a wide range of applications.
- The offer is delivered as a kit: a pre-assembly of a base (for mounting on the DIN rail, power bus, and data transmission) associated with an electronic module (main function).

- The offer is composed of I/O modules, bases, terminal blocks, mounting accessories, labels, spare parts, and a configuration software.
- The type of connection can be selected between spring or screw terminal blocks, with or without articulated transparent plastic cover.
- The offer is available in standard and hardened versions:
  - Standard version: -30 to 60 °C *(-22 to 140 °F)*
  - Hardened version provides an extended operating temperature and conformal coating, allowing operation in severe environments (up to GX): -40 to 70 °C *(-40 to 158 °F)*



Click to open video *(1:49)*

Modicon Edge I/O NTS is a future-ready unified I/O solution tailored for data aggregation.
With its distributed IP20 design, it provides a diverse range of options to accommodate various applications within a I/O family, helping to ensure adaptability and future readiness.

Up to 32 modules per cluster
In addition to a Network Interface Module, main power supply, and Cluster termination

Network Interface modules	Power supply modules	Discrete I/O modules	Analog I/O modules	Counter modules	Motion Expert modules	Field Device Master modules	Passive modules	Accessories	Terminal Blocks
■ Enable communication between controllers and Edge I/O NTS islands ■ Embeded Web server: Edge I/O NTS – Web interface ■ OPC UA Server (Explicit) ■ Commissioning possible even without a PLC ■ Optional and Virtual module management	■ Distribute the bus power supply to the Network Interface Modules (NIM) and I/O modules ■ Distribute the field power supply in a cluster of modules ■ Simplified wiring	■ Internal or external field power supply ■ Range of options for different electrical ratings and wiring connections ■ With sensor or actuator power supply ■ Isolated channels ■ Protected ■ With diagnostics	■ Voltage or Current ■ Versatile modules (current or voltage configurable per channel) ■ Temperature (RTD, thermistor, or thermocouple) ■ HART (Tolerance or communication) ■ Versatile modules (current or voltage configurable per channel) ■ With sensor or loop power supply ■ Isolated channels	■ High-speed counter ■ Up to 250 kHz ■ Integrated reflex ouput based on dedicated functions	■ Encoder ■ CAM ■ Encoder generator *(1)* ■ Fast I/O ■ Pulse Output Generator	■ Seamlessly integrate the fieldbuses directly within the I/O islands (no need to add a gateway)	■ Provide flexibility and facilitate the wiring of modules with additional 0 VDC or 24 VDC connection ■ Reserve space physically for future expansion	■ Cluster termination (Provided with Network Interface Modules Kit) ■ Mounting accessories ■ Labels	■ Spring terminal blocks with or without cover ■ Screw terminal blocks with or without cover ■ Terminal Blocks for connecting discrete I/O modules to the Telefast ABE7 connection sub-bases *(2)*
□ EtherNet/IP Adapter □ Modbus TCP Server □ SERCOS III	□ 24 VDC □ Diagnostics *(1)*	□ Discrete inputs • 12/24/48 VDC • 24/48/120/230 VAC □ Discrete outputs • 24 VDC transistor • 100 to 240 VAC triac • 5 to 125 VDC, 24 to 240 VAC NO or NO/NC relay	□ Analog inputs • ±5 V, 0/1...5 V • -10/+10 VDC, 0/+10 VDC • 0-20 mA, 4-20 mA, ±20 mA □ Analog outputs • -10/+10 VDC, 0/+10 VDC • 0-20 mA, 4-20 mA □ Combo	□ 250 kHz high-speed counter □ with reflex output □ 24 VDC auxiliary inputs	□ RS-422 incremental encoder (1 MHz) □ SinCos (400 kHz) □ Hiperface (400 kHz) □ CAM switch □ Pulse output (400 kHz) □ EnDat V2.1 & V2.2 □ Timestamping □ Oversampling	□ Serial Line Master □ IO-Link Master	□ 0 VDC and 24 VDC common distribution □ Dummy		
See page 60	See page 56	See page 18	See page 28	See page 40	See page 44	See page 48	See page 52	See page 65	See page 64

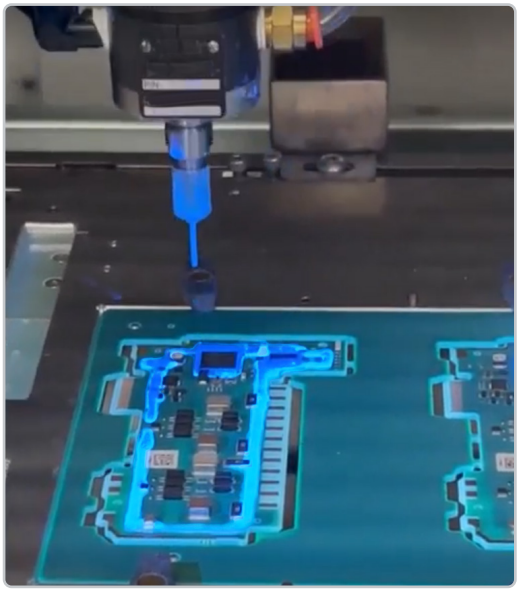
(1) Soon commercialized.

(2) Planned commercialization.

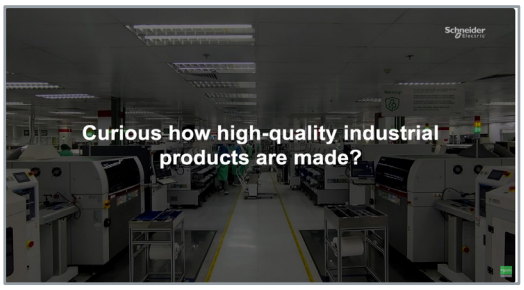
Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Robust – Performant



Conformal coating: Compliance is achieved for each hardened functional module by depositing resin film on the electronic components and on the seal around the module, for protection against dust, moisture, and corrosive environments.



High-quality manufacturing with Modicon Edge I/O NTS
Click to open video (1:34)

Robust

Supporting features

- Thermal Tolerance
  - Standard version: -30 to 60 °C *(-22 to 140 °F)* operating temperature
  - Hardened version: -40 to 70 °C *(-40 to 158 °F)* operating temperature
- Hardened -40 to 70 °C with conformal coating
- Wide range of certifications *(1)*
  - CE, UKCA, cULus, RCM
  - Power generation market
  - Hazardous Location: cULus Haz. Loc. Class 1 Div.2, ATEX/IECEx (Zone 2/22) (pending), CCC Ex (Zone 2/22) (pending)
  - EU RO Mutual Recognition (Marine certification)
  - Rolling stock, Railway and stationary facilities
  - cURus (for Terminal Blocks)
- EMC Tolerance: exceeds industrial standards resistance level (IEC 61000-6-2 and IEC 61000-6-4)
- Vibration Tolerance: up to 2 g (with accessory)
- Corrosive environment
  - Standard (non-hardened) modules, with exception
    - Floating mixed Gas G3
    - Floating mixed Gas C3
    - Mould growth 3B2
    - Dust & Sand 3S6
  - Hardened modules, with exception
    - Floating mixed Gas Gx
    - Floating mixed Gas Cx
    - Salt Spray Severity 2
    - Mould growth 3B3
    - Dust & Sand 3S7

Details

- Railway certification as evidence of robustness
- Choose between the Standard version for general-purpose use and the Hardened version for enhanced durability in demanding environments
- Minimizes the need for climate control equipment (e.g., air conditioners, heaters) in electrical or control panels
- I/O layouts can match process geography (altitude)
- No need to use specific offer to achieve a high level of robustness

Customer benefits

- Lower cost (less environmental conditioning needed)
- More freedom to place I/O closer to machine signals which reduces wiring costs
- Longer lifecycle

Performant

Supporting features

- Synchronized internal bus
- Simple motion without motion CPU
- Reflex output in some modules
- 16-bit resolution analog value

Details

- Precise control with High-resolution analog value
- CAM switch without motion controller
- Very fast response time (up to 20 µs)

Customer benefits

- Increased machine productivity - speed and throughput
- Lower cost of small/simple motion machine
- More freedom to place the right I/O where they are needed

(1) Consult the Offer Certification plan, see pages 72 and 73.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Available – Convenient – Sustainable

"How-to" playlist

Environmental Data Program

Available

Supporting features

- Patented passive base optimizing installation robustness
- Hot swap
- Modules with a detected fault do not affect rest of the island
- Integrated protection functions and diagnostics
- RSTP ring redundancy

Details

- Operate using a Modicon M580 Hot Standby system to ensure full PLC redundancy
- Designed for reliability - less downtime
- Higher MTTF and shorter MTTR
- Robust communication
- Improved failure detection, shorter time to start or restart

Customer benefits

- Less production lost to unplanned downtime
- Faster troubleshooting with less downtime

Convenient

Supporting features

- Removable teminal block staying in place even unplugged
- Numbering and easy identification of terminal pins
- Enlarged test probe hole
- Terminal Blocks stay in place even unplugged
- Choice of screw or spring terminals, with or without plastic cover
- Dummy module: reserve the space for future requirement
- Coding keys: help prevent assembly or wiring mistakes

Details

- Terminal Blocks can be removed allowing more tests (easier than rewiring)
- Wires are easy to insert in right place and to be identified
- Voltage test still possible even with spring

Customer benefits

- Save time during interventions
- Faster wiring
- Help to ensure functional safety during manipulation and testing, even with terminal blocks unplugged
- Facilitate wiring for users who are not familiar with the offer

Sustainable

Supporting features

- 89% of the overall plastics parts contain bio-based plastic, providing:
  - A lower carbon footprint (-5%) compared to conventional resin
  - Higher circularity versus conventional resin (at least 20% content of bio-based plastics *(1)*

Details

- New packaging style reducing by 58% the quantity of cardboard and plastic- free
- Paper of the Instruction sheet reduced by 75%
- Produced with high level quality by automated lines, in Schneider Electric Lighthouse Factory (WEF) implementing energy efficient and lean manufacturing and leveraging renewable energy

Customer benefits

- Easy to recycle with flat cardboard after opening
- Grade “A” repair index for a typical configuration (8,6/10)

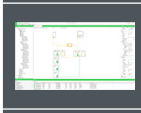
(1) Starting in H1 2026, new products will be consistently manufactured using bio-based plastics

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Integrated

Integrated

Sofware level		Tools
 EcoStruxure **Machine Expert**	- Create the design of the Edge I/O islands - Configure the modules - Store and retrieve the configuration file - Online parameter adjustment: Commissioning and Diagnostics -	EcoStruxure **Architecture Builder** *(The cloud-based collaboration tool for optimized quotations)*
 EcoStruxure **Control Expert/** *(Classic and Topology Manager)*		Modicon **PLC Configurator** *(Create your controller and I/O architecture by usage and application)*
 EcoStruxure **Automation Expert**		EcoStruxure **Automation Device Manager** *(Firmware updates)*
		EcoStruxure **Cybersecurity Admin Expert** *(Cybersecurity rules)*
Edge I/O level		
 Modicon **Edge I/O Configurator** *NTSCSW1000 (1)*		- Commissioning without PLC - Export EDS file for third-party use - Manage some cybersecurity rules -
 Modicon **Edge I/O NTS – Web interface**		

Supporting features

- Open to future, current, legacy and third-party offers
- Integrated in Control Expert, Machine Expert, Automation Expert, Automation Device Manager, PLC Configurator, and Architecture Builder
- Dedicated configurator mainly for third-party PLCs also accessible from embedded Web server
- Integrated diagnostics accessible from application and from embedded Web server
- OPC UA Server (Explicit)

Details

- An I/O system for all architectures and eco-systems
- Smooth journey from design to program versus programming from scratch
- Access to diagnostics - shorter downtime
- Access information in parallel with implicit communication

Customer benefits

- Save time and money in design and build phase
- Potential remote dignostics service offer
- Ability to build best-in-class machine control systems from best-in-class components

Software portfolio

Designation	Minimum version to use
EcoStruxure **Machine Expert**	V2.5
EcoStruxure **Control Expert**	V16.2 V16.2 Hotfix
EcoStruxure **Automation Expert**	V25.0 V25.0.1
EcoStruxure **Automation Device Manager**	V3.4.120
EcoStruxure **Cybersecurity Admin Expert**	V2.4.8

NOTE

These versions support seamless integration of Edge I/O NTS. However, availability depends on both the release dates of specific modules and the corresponding software versions. Because of these dependencies—and certain module-specific constraints—not all Edge I/O NTS modules are supported across all software releases. Always refer to the documentation for each software package to confirm compatibility.

Edge I/O NTS offers standard, open integration, making it suitable for third-party systems as well as older software and PLC versions.

A built-in filter in Modicon PLC Configurator lets you view only the modules supported by the software you select.

(1) Modicon Edge I/O Configurator Software type NTSCSW1000 is a free software, downloadable with this link

For details on the commercialized version, refer to the Software Seamless integration Table on page 70.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Cybersecure - Flexible

Cybersecure

Supporting features

- Built-in cybersecurity: integrated in the hardware by design
- Manufacturer certificate to authenticate each module
- Easy to integrate in IT cybersecurity infrastructure
- Ready for cybersecurity regulatory changes (such as the Cyber Resilience Act, NIS2.0, etc.)
- Compliance with:
  - GDPR
  - SB327
  - IEC 62443-4-1, IEC 62443-4-2 + 3-3

Details

- Embedded Trusted Platform Module (TPM)
- Secure boot
- Signed firmware, secure update
- Device genuineness
- Backbone bus based on OPC UA over TSN
- Encrypted communications (Services)
- Centralized user access management (RBAC)

Customer benefits

- Enhanced product cybersecurity increases overall machine cybersecurity
- Less downtime caused by cyberattacks
- Increased security for remote diagnostics, machine monitoring, communications, and other digital transformation activities

Flexible

Supporting features

- 75+ discrete/analog/specialist I/O modules
- Compact and high-end (more environmentally robust) versions available
- Modbus TCP, EtherNet/IP, SERCOS fieldbus network
- Spring or screw terminal blocks, with or without cover
- Same offer for classic, motion, and hardened I/O
- Adapted compactness for function provided

Details

- A I/O range for plant and machine systems
- Compact standard or high-end option available for more features, diagnostics, and easier wiring
- Open IP protocols
- Choice of Connection methods (spring or screw)
- Right balance between wire and finger size for the purposes of wiring and manipulation for maintenance
- Commissioning possible even without a PLC or virtual module

Customer benefits

- Lower spare part and supply chain costs
- Less staff training, increased effectiveness
- Enhanced network flexibility - the capability to select the most suitable network to fulfill overall requirements
- Choice of modules and terminal blocks that suit your requirements instead of adjusting your needs
- Meet typical application needs with fewer product references
- Compact design reduces costs and maintenance

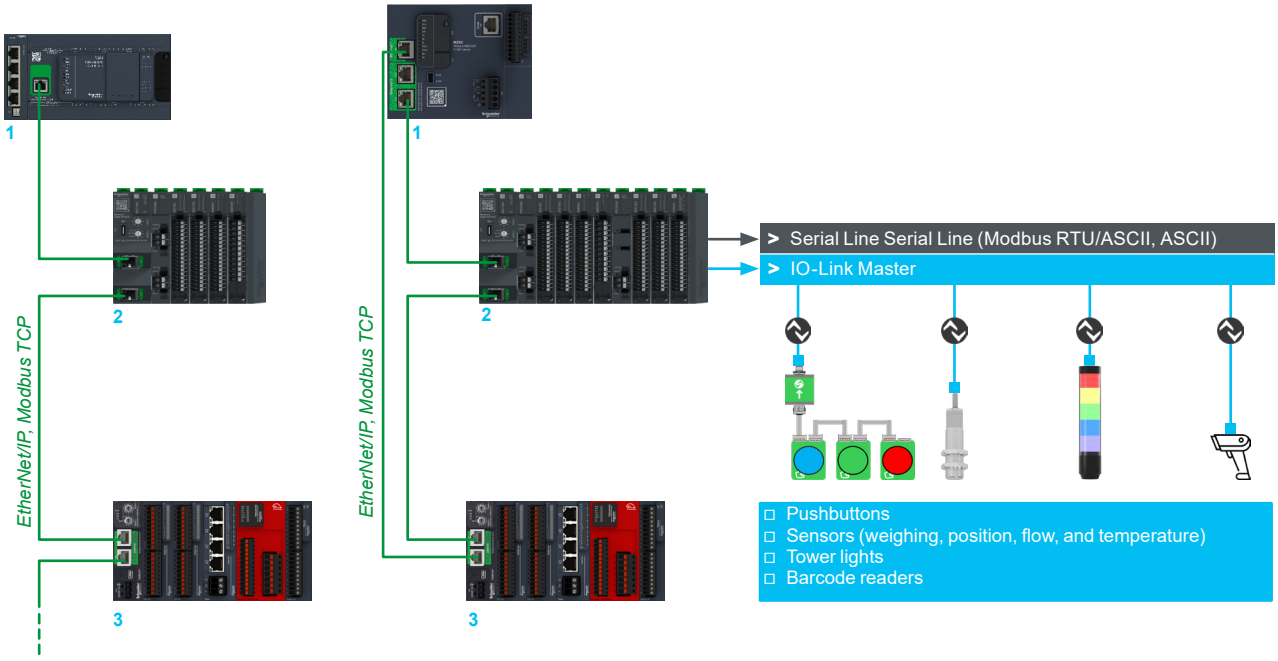
Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Machine architectures

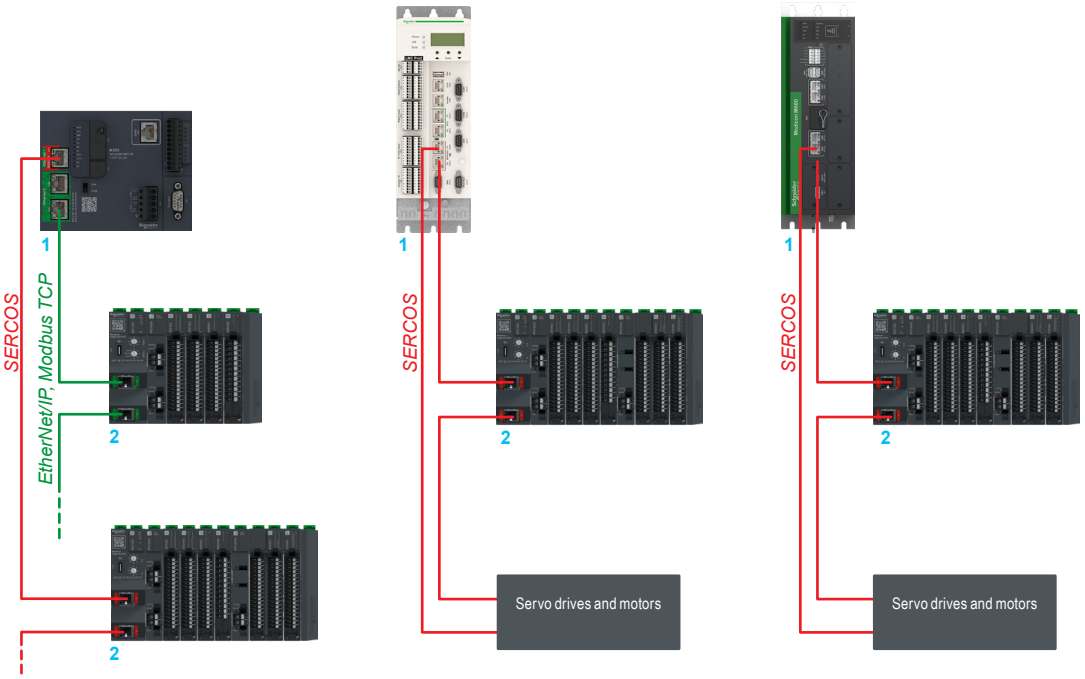
Machine architectures

Over Modbus TCP and EtherNet/IP



1 PLC: Modicon M241, Modicon M262, or third-party controller
2 Modicon Edge I/O NTS: Cluster composed of a Network Interface Module and a Power supply module, plus discrete modules, analog modules, counter modules, motion expert modules, Field Device Master modules, or passive modules based on a modular configuration.
3 Modicon TM3

Synchronized Motion Control over SERCOS



1 Motion controllers: Modicon M262, PacDrive LMC, or Modicon M660
2 Modicon Edge I/O NTS: Cluster composed of a Network Interface Module and a power supply module, plus discrete modules, analog modules, counter modules, motion expert modules, Field Device Master modules, or passive modules based on a modular configuration.

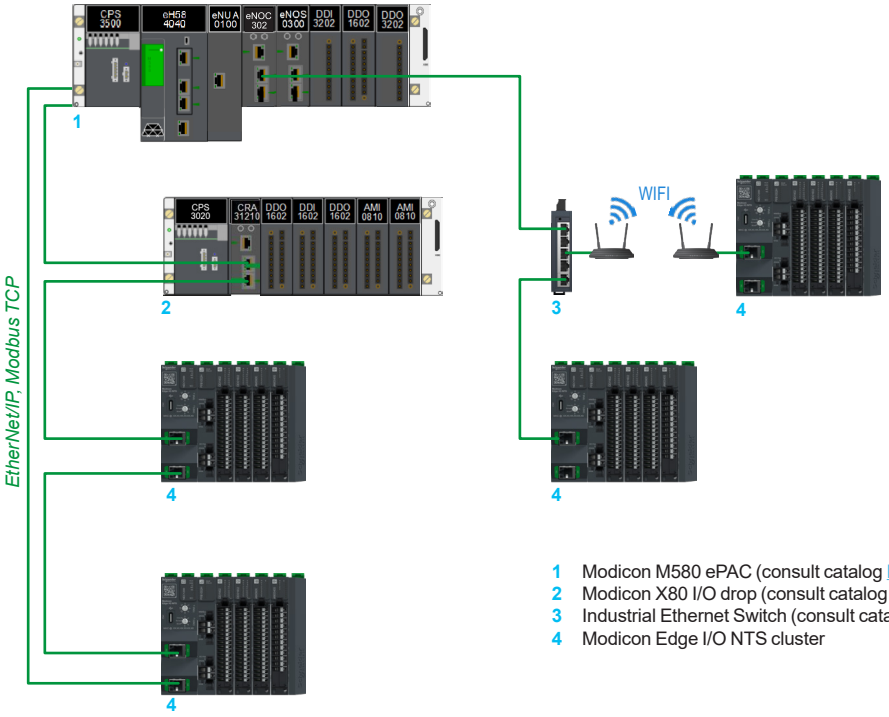
Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Plant architectures

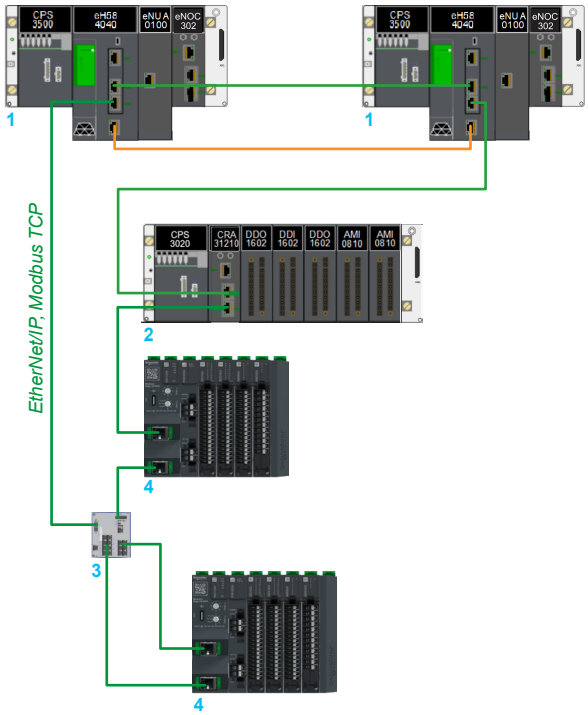
Plant architectures

Architecture with Modicon M580 ePAC (Distributed I/O, ring topology)



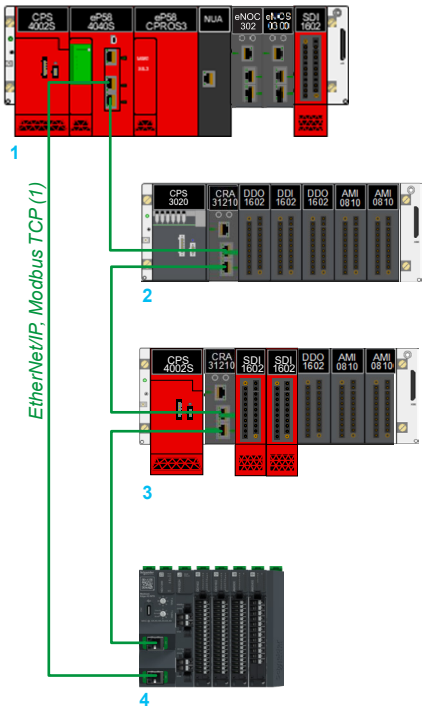
1 Modicon M580 ePAC (consult catalog DIA6ED2151012EN)
2 Modicon X80 I/O drop (consult catalog DIA6ED2131203EN)
3 Industrial Ethernet Switch (consult catalog DIA6ED2140903EN)
4 Modicon Edge I/O NTS cluster

Architecture with Modicon M580 Redundant ePAC
(bumpless CPU switchover)



1 Modicon M580 Redundant ePAC: Operates with hot-standby CPU (consult catalog DIA6ED2151012EN)
2 Modicon X80 I/O drop (consult catalog DIA6ED2131203EN)
3 Industrial Ethernet Switch (consult catalog DIA6ED2140903EN)
4 Modicon Edge I/O NTS cluster

Architecture with Modicon M580 Safety ePAC



1 Modicon M580 Safety ePAC (consult catalog DIA6ED2151012EN)
2 Modicon X80 I/O drop (consult catalog DIA6ED2131203EN)
3 Modicon X80 Safety I/O (consult catalog DIA6ED2131203EN)
4 Modicon Edge I/O NTS cluster

(1) Planned commercialization.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Topology

Topology

Typical Modicon Edge I/O NTS island/cluster

Cluster solution detail

1 PLC
2 Network Interface module
3 Power supply module
4 Discrete module, analog module, counter module, motion expert module, Field Device Master module, passive module
5 Cluster termination

- The cluster is made up of kits (pre-assembled module and base).
- Up to 32 modules per cluster
- The island is made of one cluster.
- A high-speed Ethernet backbone provides communication and power transmission between modules.
- Fast device replacement in five steps:
  - Enter password requirements
  - Scan the setup
  - Configure the setup in the DHCP name
  - Create the FDR backup
  - Replace the head

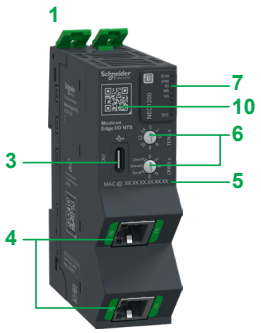
Modicon Edge I/O NTS

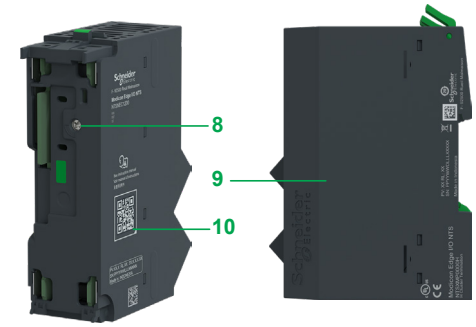
The future-ready I/O system for data aggregation with built-in cybersecurity

Topology

Topology

System components





- The Network Interface Modules serve as the head units of a cluster, managing communication and coordination between connected modules.:

1 Standard version: -30 to 60 °C *(-22 to 140 °F)* operating temperature, 30 mm *(1.18 in.)* wide

2 Hardened version: -40 to 70 °C *(-40 to 158 °F)* operating temperature, 45 mm *(1.77 in.)* wide

3 USB port:
- USB-C as commissioning port, to save configuration
- Access to integrated Web server/configurator

4 Two Ethernet ports
- EtherNet/IP, Modbus TCP, or SERCOS III
- Baud rate: 100 Mbps
- Diagnostics
- Star, Daisy chain, RSTP

5 Marking: MAC address printed on the front

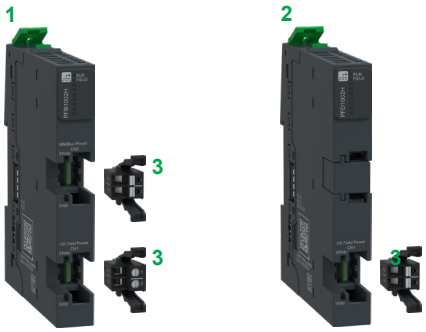
6 Rotary switches:
- Manual IP definition
- DHCP

7 LED for maintenance information

8 Rotary switch for cybersecure mode (can also reset the module to factory settings)

9 Cluster termination (sold with the Network Interface kits)

10 QR code provides direct access to a maintenance webpage with both commercialization data and maintenance resources



- Two versions of the power supply module:

1 Distributes bus power to Network Interface Modules (NIMs) and I/O modules and supplies field power within a module cluster. One supply module is required after each NIM, and only one per cluster is permitted.

2 Distributes the field power within a module cluster. Required when additional field power is needed, depending on the application.

3 Connects via removable screw or spring terminals.

- Both versions are hardened: -40 to 70 °C *(-40 to 158 °F)* operating temperature, 15 mm *(0.59 in.)* wide, with automatic disconnect (a self-protecting power output that turns off automatically in abnormal electrical conditions).

- I/O modules can be discrete, analog, counting, motion expert, Field Device Master, or passive.
- Three parts to operate:

1 a base, for mounting on DIN rail (easy mounting with one hand)

2 an I/O module

3 One or two removable terminal blocks depending on the module type

4 An HE10 terminal block for connecting discrete inputs and outputs to the Telefast ABE7 connection sub-bases *(Planned commercialization)*

- Sold as a kit: comprising a pre-assembled base (1) and a module (2), the terminal block (3) must be ordered separately
- Hot-swap capability: replacing or adding components without having to power down or interrupt system operation
- Completed with a removable terminal block:

- Can be easily unplugged for commissioning, maintenance, and testing
- With spring or screw connectors, with or without cover

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Discrete inputs (DC, AC)

Function		Discrete inputs									
											
Number of channels		4	6	8	16	16	16	4	2 (isolated)	4	8
Discrete input voltage		24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VAC or 48 V AC/DC (configurable)	100...240 VAC	100...120 VAC	100...120 VAC
Discrete input logic		Sink	Sink	Sink	Sink	Sink	Source	Sink	–	–	–
Number of channel groups		1 group	1 group	1 group	1 group	4 groups of 4 channels	1 group	1 group	2 isolated groups of 1 channel	1 group	1 group
Wiring mode		1-/2-/3-wire	1-/2-/3-wire	1-/2-wire	1-wire	1-/2-/3-wire	1-wire	1-/2-/3-wire	1-/2-/3-wire	1-/2-wire	1-wire
Discrete input current		2.3 mA 6.32 mA	2.5 mA	2.5 mA	2.5 mA	2.5 mA	2.5 mA	2...4 mA	3.6 mA at 120 VAC, 50 Hz 7.1 mA at 230 VAC, 50 Hz	6.7 mA at 120 VAC, 50 Hz	6.5 mA at 120 VAC, 50 Hz
Input compatiblity according to IEC/EN 61131-2		Configurable as Type 2 or Type 3	Type 3	Type 3	Type 3	Type 3	Type 3	Type 1	Type 1	Type 1	Type 1
Input voltage	Logic state 1	11...30 VDC	11...30 VDC	11...30 VDC	11...30 VDC	11...30 VDC	11...30 VDC	≥ 34 VAC for 48 VAC ≥ 14 VAC for 24 VAC ≥ 34 VDC for 48 VDC	≥ 79 V	≥ 79 V	≥ 79 V
	Logic state 0	< 5 VDC	< 5 VDC	< 5 VDC	< 5 VDC	< 5 VDC	< 5 VDC	≤ 10 VAC for 48 VAC ≤ 5 VAC for 24 VAC ≤ 10 VDC for 48 VDC	≤ 40 V	≤ 20 V	≤ 20 V
Input current	Logic state 1	2 mA min (Type 3) ≥ 6 mA min (Type 2)	2 mA min	2 mA min	2 mA min	2 mA min	2 mA min	> 2 mA	> 2 mA	> 2 mA	> 2 mA
	Logic state 0	1.5 mA max	1.5 mA max	1.5 mA max	1.5 mA max	1.5 mA max	1.5 mA max	< 2 mA	< 2 mA	< 2 mA	< 2 mA
Input response time	Logic state 1 to Logic state 0	< 10 µs	< 125 µs	< 60 µs	< 125 µs	< 60 µs	< 125 µs	0.5 line cycles max	5.8 ms	5.8 ms	0.5 line cycles max
	Logic state 0 to Logic state 1	< 20 µs	< 125 µs	< 90 µs	< 125 µs	< 90 µs	< 125 µs	0.5 line cycles max	5.8 ms to 16.4 ms (+5.8 ms delay)	5.8 ms to 16.4 ms	0.5 line cycles max
Input protection type		Over voltage protection Over current protection on sensor supply Reverse polarity protection	Over voltage protection Over current protection on sensor supply Reverse polarity protection		Over voltage protection Reverse polarity protection	Over voltage protection Over current protection on sensor supply Reverse polarity protection	Over voltage protection Over current protection on sensor supply Reverse polarity protection	Over voltage protection	Over voltage protection	Over voltage protection	Over voltage protection
Input diagnostics		Detected power supply error per channel Broken wire error per channel Short circuit error per channel Detected sensor power supply error per channel	Detected power supply error per channel Detected sensor power supply error per channel		Detected power supply error per channel	Detected power supply error per channel Detected sensor power supply error per channel		Detected external power supply error per channel Detected broken wire error per channel			
Isolation	Between channels	–	–	–	–	–	–	–	1,780 VAC	–	–
	Between groups	–	–	–	–	–	–	–		–	–
	Between channel and bus	1,500 VAC	1,500 VAC	1,500 VAC	1,500 VAC	1,500 VAC	1,500 VAC	3,000 VAC	3,000 VAC	3,000 VAC	3,000 VAC
	Between channels and ground	1,500 VAC	1,500 VAC	1,500 VAC	1,500 VAC	1,500 VAC	1,500 VAC	3,000 VAC	3,000 VAC	3,000 VAC	3,000 VAC
Synchronization		**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	–	–	–	–
Dangerous voltage		–	–	–	–	–	–	**Yes**	**Yes**	**Yes**	**Yes**
Size	Height	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*	121 mm *(4.76 in.)*	100 mm *(3.94 in.)*	121 mm *(4.76 in.)*	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*
	Width	15 mm *(0.59 in.)* (1 slot)	15 mm *(0.59 in.)* (1 slot)	15 mm *(0.59 in.)* (1 slot)	15 mm *(0.59 in.)* (1 slot)	30 mm *(1.18 in.)* (2 slots)	15 mm *(0.59 in.)* (1 slot)	15 mm *(0.59 in.)* (1 slot)	15 mm *(0.59 in.)* (1 slot)	15 mm *(0.59 in.)* (1 slot)	15 mm *(0.59 in.)* (1 slot)
Operating temperature	Standard version	-30 to 60 °C (*-22 to 140 °F*)	-30 to 60 °C (*-22 to 140 °F*)	-30 to 60 °C (*-22 to 140 °F*)	-30 to 60 °C (*-22 to 140 °F*)	-30 to 60 °C (*-22 to 140 °F*)	-30 to 60 °C (*-22 to 140 °F*)	–	–	–	-30 to 60 °C (*-22 to 140 °F*)
	Hardened version	-40 to 70 °C (*-40 to 158 °F*)	–	–	–	-40 to 70 °C (*-40 to 158 °F*)	–	-40 to 70 °C (*-40 to 158 °F*)	-40 to 70 °C (*-40 to 158 °F*)	-40 to 70 °C (*-40 to 158 °F*)	–
Sold as a kit (base + functional module)	Standard version	**NTSDDI0402K**	**NTSDDI0602K**	**NTSDDI0802XK**	**NTSDDI1602K**	**NTSDDI1602XK**	**NTSDDI1642K**	–	–	–	**NTSDAI0804K**
	Hardened version	**NTSDDI0402HK**	–	–	–	**NTSDDI1602XHK**	–	**NTSDAI0403HK**	**NTSDAI0215HK**	**NTSDAI0404HK**	–
See page		20									
Compatible terminal block	Number of points - Pitch - Voltage	12 - 5 mm *(0.19 in.)* - DC	18 - 3.81 mm *(0.15 in.)* - DC	18 - 5 mm *(0.19 in.)* - DC	18 - 3.81 mm *(0.15 in.)* - DC	18 - 5 mm *(0.19 in.)* - DC	18 - 3.81 mm *(0.15 in.)* - DC	12 - 5 mm *(0.19 in.)* - AC	12 - 5 mm *(0.19 in.)* - AC	12 - 5 mm *(0.19 in.)* - AC	12 - 5 mm *(0.19 in.)* - AC
	Number of terminal blocks to use	1	1	1	1	2	1	1	1	1	1
	Spring terminal block - Without cover	**NTSXTB12200H**	**NTSXTB18200H**	**NTSXTB18200XH**	**NTSXTB18200H**	**NTSXTB18200XH**	**NTSXTB18200H**	**NTSXTB12210H**	**NTSXTB12210H**	**NTSXTB12210H**	**NTSXTB12210H**
	Spring terminal block - With cover	**NTSXTB12201H**	**NTSXTB18201H**	**NTSXTB18201XH**	**NTSXTB18201H**	**NTSXTB18201XH**	**NTSXTB18201H**	**NTSXTB12211H**	**NTSXTB12211H**	**NTSXTB12211H**	**NTSXTB12211H**
	Screw terminal block - Without cover	**NTSXTB12000H**	**NTSXTB18000H**	**NTSXTB18000XH**	**NTSXTB18000H**	**NTSXTB18000XH**	**NTSXTB18000H**	**NTSXTB12010H**	**NTSXTB12010H**	**NTSXTB12010H**	**NTSXTB12010H**
	Screw terminal block - With cover	**NTSXTB12001H**	**NTSXTB18001H**	**NTSXTB18001XH**	**NTSXTB18001H**	**NTSXTB18001XH**	**NTSXTB18001H**	**NTSXTB12011H**	**NTSXTB12011H**	**NTSXTB12011H**	**NTSXTB12011H**
Terminal block for connecting the inputs to the Telefast ABE7 connection sub-bases		–	–	–	–	**NTSXTS0000H** *(1)*	–	–	–	–	–

(1) Planned commercialization.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Discrete inputs (DC, AC)

Presentation

Function

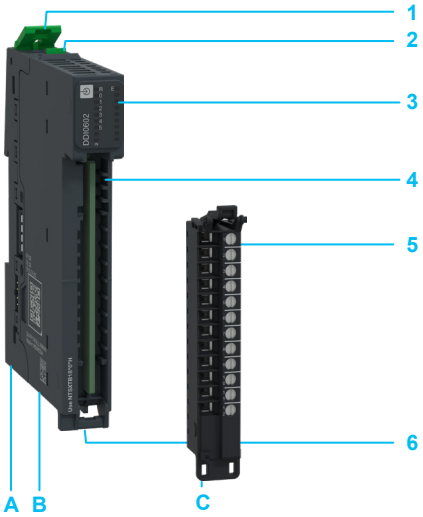
- The discrete input kits include an electronic module and its corresponding base, which match in height and width.
- The electronic module provides the discrete Input function.
- The base enables DIN rail mounting, data transmission, and the supply of power to the discrete modules through the backplane bus. The base also provides the field device power supply.
- Discrete input kits provide 2 up to 16 channels with different levels of performance, protection, or diagnostics.

Implementation

- Discrete input kits use one slot (15 mm *(0.59 in.)* width) or two slots (30 mm *(1.18 in.)* width) on the DIN rail, depending on the model.
- The kits must be completed with spring or screw removable terminal blocks to wire the devices. The terminal blocks must be chosen and ordered separately.
- Spring terminal blocks are recommended for quick, tool-free connection of the sensors and actuators. The quality of the spring terminals avoids the need for periodic re-tightening.

Characteristics

- The kits are available in two versions:
  - Standard, with an operating temperature of -30 to 60 °C (-22 to 140 °F)
  - Hardened, with an operating temperature of -40 to 70 °C *(-40 to 158 °F)*. The hardened version can operate as the standard version.
- Hot-swap capability: replacing or adding components without having to power down or interrupt system operation.
- IP degree of protection is IP20. Hardened versions are treated with a conformal coating to ensure additional environmental protection and long-term reliability.



Description

A discrete input kit comprises a base **A** and an electronic module **B**. The terminal block **C** must be ordered separately.

1 Mechanical clip for locking the kit onto the DIN rail
2 Release button for disengaging the module from the base
3 Status LEDs:
- One RUN LED (green): module running
- One LED per channel (green): channel diagnostics
- One ERR LED (red): detected module error

4 Housing for the terminal block
5 Terminal block
6 Hinge for mounting the terminal block

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Discrete inputs (DC, AC)


NTSDDI0402K
NTSDDI0402HK
NTSDDI0602K
NTSDDI1602K
NTSDDI1642K
NTSDAI0804K
NTSDAI0215HK
NTSDAI0403HK
NTSDAI0404HK

NTSDDI0802XK

NTSDDI1602XK
NTSDDI1602XHK

12-points - 5 mm (0.19 in.) - DC/AC

18-points - 5 mm (0.19 in.) - DC

18-points - 3.81 mm (0.15 in.) - DC

20-points - HE connector

References

Discrete input kits (discrete input module + base)

Number of channels	Input voltage	Logic type	Wiring mode	Synchronization	Version	Reference	Weight kg/*lb*
4	24 VDC	Sink	1-/2-/3-wire	**Yes**	Standard	**NTSDDI0402K**	0.097/*0.213*
				Yes	Hardened	**NTSDDI0402HK**	0.098/*0.216*
6	24 VDC	Sink	1-/2-/3-wire	**Yes**	Standard	**NTSDDI0602K**	0.099/*0.218*
8	24 VDC	Sink	1-/2-wire	**Yes**	Standard	**NTSDDI0802XK**	0.106/*0.233*
16	24 VDC	Sink	1-wire	**Yes**	Standard	**NTSDDI1602K**	0.099/*0.218*
		Sink	1-/2-/3-wire	**Yes**	Standard	**NTSDDI1602XK** *(1)*	0.163/*0.359*
			1-/2-/3-wire	**Yes**	Hardened	**NTSDDI1602XHK** *(1)*	0.166/*0.365*
		Source	1-wire	**Yes**	Standard	**NTSDDI1642K**	0.166/*0.365*
4	24 VAC or 48 V AC/DC (configurable)	Sink	1-/2-/3-wire	–	Hardened	**NTSDAI0403HK**	0.077/*0.169*
2 (isolated)	100...240 VAC	–	1-/2-/3-wire	–	Hardened	**NTSDAI0215HK**	0.077/*0.169*
4	100...120 VAC	–	1-/2-wire	–	Hardened	**NTSDAI0404HK**	0.099/*0.218*
8	100...120 VAC	–	1-wire	–	Standard	**NTSDAI0804K**	0.077/*0.169*

Terminal Blocks

Number of points - Pitch - Voltage	Type	Cover	Reference	Weight kg/*lb*	*For use with the kit*
12 - 5 mm *(0.19 in.)* - DC	Spring	Without cover	**NTSXTB12200H**	0.029/*0.063*	*NTSDDI0402K, NTSDDI0402HK*
		With cover	**NTSXTB12201H**	0.040/*0.088*	
	Screw	Without cover	**NTSXTB12000H**	0.048/*0.105*	
		With cover	**NTSXTB12001H**	0.058/*0.127*	
12 - 5 mm *(0.19 in.)* - AC	Spring	Without cover	**NTSXTB12210H**	0.029/*0.063*	*NTSDAI0215HK, NTSDAI0403HK, NTSDAI0404HK, NTSDAI0804K*
		With cover	**NTSXTB12211H**	0.040/*0.088*	
	Screw	Without cover	**NTSXTB12010H**	0.048/*0.105*	
		With cover	**NTSXTB12011H**	0.058/*0.127*	
18 - 5 mm *(0.19 in.)* - DC	Spring	Without cover	**NTSXTB18200XH**	0.038/*0.083*	*NTSDDI0802XK, NTSDDI1602XK (1), NTSDDI1602XHK (1)*
		With cover	**NTSXTB18201XH**	0.050/*0.110*	
	Screw	Without cover	**NTSXTB18000XH**	0.064/*0.141*	
		With cover	**NTSXTB18001XH**	0.077/*0.169*	
18 - 3.81 mm *(0.15 in.)* - DC	Spring	Without cover	**NTSXTB18200H**	0.028/*0.061*	*NTSDDI0602K, NTSDDI1602K, NTSDDI1642K*
		With cover	**NTSXTB18201H**	0.038/*0.083*	
	Screw	Without cover	**NTSXTB18000H**	0.039/*0.085*	
		With cover	**NTSXTB18001H**	0.049/*0.108*	

Terminal block for connecting the inputs to the Telefast ABE7 connection sub-bases

20	HE10	Without cover	**NTSXTS0000H** *(2)*	0.480/*1.058*	*NTSDDI1602XK, NTSDDI1602XHK*

Accessories

Terminal Blocks, Telefast terminal blocks – Mounting accessories — See pages 64 and 65

Spare parts

Modules and Bases, Termination, Cover — See pages 66 to 69

(1) This kit requires two terminal blocks.
(2) Planned commercialization.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Discrete outputs (Transistor)

Function		Discrete outputs								
										
Number of channels		2 (isolated)	4	6	8	8	16	16	16	
Discrete output type		**Transistor**			**Transistor**					
Discrete output voltage		24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	
Number of channel groups		2 isolated groups of 1 channel	1 group	1 group	2 groups of 4 channels	1 group	1 group	2 isolated groups of 8 channels	2 groups of 8 channels	
Discrete output logic		Source	Source	Source	Source	Source	Source	Source	Source	
Wiring mode		1-/2-/3-wire	1-/2-/3-wire	1-/2-/3-wire	1-wire	1-/2-wire	1-wire	1-/2-wire	1-/2-wire	
Discrete output current		2 A per channel 4 A per module	500 mA per channel 2 A per module	500 mA per channel 3 A per module	2 A per channel 4 A per group 8 A per module	500 mA per channel 4 A per module	500 mA per channel 8 A per module	500 mA per channel 4 A per group 8 A per module	500 mA per channel 4 A per module	
Minimum switching current		–	–	–	–	–	–	–	–	
Operating voltage range		20.4...28.8 VDC	20.4...28.8 VDC	20.4...28.8 VDC	20.4...28.8 VDC	20.4...28.8 VDC	20.4...28.8 VDC	20.4...28.8 VDC	20.4...28.8 VDC	
Output response time	State 1 to state 0	120 µs	110 µs	120 µs	110 µs	110 µs	110 µs	110 µs	110 µs	
	State 0 to state 1	70 µs	90 µs	70 µs	90 µs	90 µs	90 µs	90 µs	90 µs	
Output protection type	Transient voltage suppression per channel	Yes	Yes	Yes	Yes	Yes	–	Yes	Yes	
	Short-circuit protection per channel	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
	Overload/thermal protection per channel	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Power supply type	Bus power from power supply bus (24 VDC)	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	
	Field power from internal power supply	24 VDC (optional)	24 VDC	24 VDC	–	24 VDC	24 VDC	–	24 VDC	
	Field power from external power supply	24 VDC (optional)	–	–	24 VDC	–	–	24 VDC	–	
Output diagnostics	Detected power supply error per channel	Yes	Yes	Yes	–	Yes	Yes	Yes	Yes	
	Detected external power supply error per channel	Yes	–	–	Yes	–	–	Yes	–	
	Detected short-circuit/overcurrent per channel	Yes	Yes	By group of 2 channels	Yes	By group of 2 channels	By group of 2 channels	By group of 2 channels	By group of 2 channels	
	Detected broken wire error per channel	–	Yes	–	–	–	–	–	–	
	Detected read back error per channel	–	Yes	–	–	–	–	–	–	
Isolation	Between channels	500 VAC (with external power supply)	–	–	–	–	–	–	–	
	Between groups		–	–	–	–	–	500 VAC	–	
	Between channel and bus	1,500 VAC	1,500 VAC	1,500 VAC	1,500 VAC	1,500 VAC	1,500 VAC	1,500 VAC	1,500 VAC	
	Between channels and ground	1,500 VAC	1,500 VAC	1,500 VAC	1,500 VAC	1,500 VAC	1,500 VAC	1,500 VAC	1,500 VAC	
Synchronization		**Yes**	–	–	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	
Dangerous voltage		–	–	–	–	–	–	–	–	
Size	Height	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*	121 mm *(4.76 in.)*	100 mm *(3.94 in.)*	121 mm *(4.76 in.)*	121 mm *(4.76 in.)*	
	Width	15 mm *(0.59 in.)* (1 slot)	15 mm *(0.59 in.)* (1 slot)	15 mm *(0.59 in.)* (1 slot)	15 mm *(0.59 in.)* (1 slot)	15 mm *(0.59 in.)* (1 slot)	15 mm *(0.59 in.)* (1 slot)	30 mm *(1.18 in.)* (2 slots)	30 mm *(1.18 in.)* (2 slots)	
Operating temperature	Standard version	–	-30 to 60 °C (*-22 to 140 °F*)	-30 to 60 °C (*-22 to 140 °F*)	-30 to 60 °C (*-22 to 140 °F*)	-30 to 60 °C (*-22 to 140 °F*)	-30 to 60 °C (*-22 to 140 °F*)	-30 to 60 °C (*-22 to 140 °F*)	-30 to 60 °C (*-22 to 140 °F*)	
	Hardened version	-40 to 70 °C *(-40 to 158 °F)*	-40 to 70 °C *(-40 to 158 °F)*	–	–	–	–	-40 to 70 °C *(-40 to 158 °F)*	-40 to 70 °C *(-40 to 158 °F)*	
Sold as a kit (base + functional module)	Standard version	–	**NTSDDO0402K**	**NTSDDO0602K**	**NTSDDO0802K**	**NTSDDO0802XK**	**NTSDDO1602K**	**NTSDDO1602XAK**	**NTSDDO1602XK**	
	Hardened version	**NTSDDO0212HK**	**NTSDDO0402HK**	–	–	–	–	**NTSDDO1602XAHK**	**NTSDDO1602XHK**	
See page		26								
Compatible terminal b locks	Number of points - Pitch - Voltage	12 - 5 mm *(0.19 in.)* - DC	12 - 5 mm *(0.19 in.)* - DC	18 - 3.81 mm *(0.15 in.)* - DC	12 - 5 mm *(0.19 in.)* - DC	18 - 5 mm *(0.19 in.)* - DC	18 - 3.81 mm *(0.15 in.)* - DC	18 - 5 mm *(0.19 in.)* - DC	18 - 5 mm *(0.19 in.)* - DC	
	Number of terminal blocks to use	1	1	1	1	1	1	2	2	
	Spring terminal block - Without cover	**NTSXTB12200H**	**NTSXTB12200H**	**NTSXTB18200H**	**NTSXTB12200H**	**NTSXTB18200XH**	**NTSXTB18200H**	**NTSXTB18200XH**	**NTSXTB18200XH**	
	Spring terminal block - With cover	**NTSXTB12201H**	**NTSXTB12201H**	**NTSXTB18201H**	**NTSXTB12201H**	**NTSXTB18201XH**	**NTSXTB18201H**	**NTSXTB18201XH**	**NTSXTB18201XH**	
	Screw terminal block - Without cover	**NTSXTB12000H**	**NTSXTB12000H**	**NTSXTB18000H**	**NTSXTB12000H**	**NTSXTB18000XH**	**NTSXTB18000H**	**NTSXTB18000XH**	**NTSXTB18000XH**	
	Screw terminal block - With cover	**NTSXTB12001H**	**NTSXTB12001H**	**NTSXTB18001H**	**NTSXTB12001H**	**NTSXTB18001XH**	**NTSXTB18001H**	**NTSXTB18001XH**	**NTSXTB18001XH**	
Terminal block for connecting the outputs to the Telefast ABE7 connection sub-bases		–	–	–	–	–	–	–	**NTSXTS0001H** *(1)*	

(1) Planned commercialization.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Discrete outputs (Relay, Triac)

Function		**Discrete outputs**				
						
Number of channels		2 (isolated) (Form C with NO/NC contacts)	4 (isolated) (Form C with NO/NC contacts)	6 (isolated) (Form A with NO contact)	2	4 (isolated)
Discrete output type		**Relay**	**Relay**	**Relay**	**Triac**	**Triac**
Discrete output voltage		24...250 VAC (47...63Hz) 5...125 VDC	24...250 VAC (47...63Hz) 5...125 VDC	24...250 VAC (47...63Hz) 5...125 VDC	80...264 VAC (47...63 Hz)	80...264 VAC (47...63 Hz)
Number of channel groups		2 isolated groups of 1 channel	4 isolated groups of 1 channel	6 isolated groups of 1 channel	1 group	4 isolated groups of 1 channel
Discrete output logic		–				
Wiring mode		2-wire	2-wire	2-wire	1-/2-/3-wire	1-/2-/3-wire
Discrete output current		2 A max. per output at 30 VDC or 250 VAC (resistive) 0.2 A max. per output at 125 VDC (resistive)	5 A max. per output at 30 VDC or 250 VAC (resistive) 0.2 A max. per output at 125 VDC (resistive)	2 A max. per output at 30 VDC or 250 VAC (resistive) 0.2 A max. per output at 125 VDC (inductive)	1 A per channel	2 A per channel
Minimum switching current		10 mA 5 VDC	10 mA 5 VDC	10 mA 5 VDC	–	–
Operating voltage range		19.2...30 VDC	19.2...30 VDC	19.2...30 VDC	80...264 VAC (47...63 Hz)	
Output response time	State 1 to state 0	< 13 ms (deactivation)	< 13 ms (deactivation)	< 10 ms (deactivation)	0.5 line cycles max.	
	State 0 to state 1	< 20 ms (activation)	< 20 ms (activation)	< 20 ms (activation)	0.5 line cycles max.	
Output protection type	Transient voltage suppression per channel	–	–	–	RC snubber suppression per channel	
	Short-circuit protection per channel	–	–	–		
	Overload/thermal protection per channel	–	–	–		
	Reverse polarity protection per module	–	–			
Power supply type	Bus power from power supply bus (24 VDC)	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC
	Field power from internal power supply	24 VDC	24 VDC	24 VDC	–	–
	Field power from external power supply	5...125 VDC or 24...250 VAC			100…240 VAC	
Output diagnostics	Detected power supply error per channel	Yes	Yes	Yes	–	–
	Detected external power supply error per channel	–	–	–	Yes	Yes
	Detected short-circuit/overcurrent per channel	–	–	–	–	–
	Detected broken wire error per channel	–	–	–	–	–
	Detected read back error per channel	–	–	–	–	–
Isolation	Between channels	1,780 VAC	1,780 VAC	1,780 VAC	–	2,500 VAC
	Between channel and bus	3,000 VAC	3,000 VAC	3,000 VAC	3,000 VAC	3,000 VAC
	Between channels and ground	3,000 VAC	3,000 VAC	3,000 VAC	3,000 VAC	3,000 VAC
Synchronization		–	–	–	–	–
Dangerous voltage		**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Size	Height	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*
	Width	15 mm *(0.59 in.)* (1 slot)	30 mm *(1.18 in.)* (2 slots)	30 mm *(1.18 in.)* (2 slots)	15 mm *(0.59 in.)* (1 slot)	30 mm *(1.18 in.)* (2 slots)
Operating temperature	Standard version	-30 to 60 °C (*-22 to 140 °F*)	-30 to 60 °C (*-22 to 140 °F*)	-30 to 60 °C (*-22 to 140 °F*)	-30 to 60 °C (*-22 to 140 °F*)	-30 to 60 °C (*-22 to 140 °F*)
	Hardened version	–	-40 to 70 °C *(-40 to 158 °F)*	–	–	-40 to 70 °C *(-40 to 158 °F)*
Sold as a kit (base + functional module)	Standard version	**NTSDRC0215K**	**NTSDRC0415K**	**NTSDRA0615K**	**NTSDAO0205K**	**NTSDAO0415K**
	Hardened version	–	**NTSDRC0415HK**	–	–	**NTSDAO0415HK**
See page		26				
Compatible terminal b locks	Number of points - Pitch - Voltage	12 - 5 mm *(0.19 in.)* - AC	12 - 5 mm *(0.19 in.)* - AC	12 - 5 mm *(0.19 in.)* - AC	12 - 5 mm *(0.19 in.)* - AC	12 - 5 mm *(0.19 in.)* - AC
	Number of terminal blocks to use	1	1	1	1	1
	Spring terminal block - Without cover	**NTSXTB12210H**	**NTSXTB12210H**	**NTSXTB12210H**	**NTSXTB12210H**	**NTSXTB12210H**
	Spring terminal block - With cover	**NTSXTB12211H**	**NTSXTB12211H**	**NTSXTB12211H**	**NTSXTB12211H**	**NTSXTB12211H**
	Screw terminal block - Without cover	**NTSXTB12010H**	**NTSXTB12010H**	**NTSXTB12010H**	**NTSXTB12010H**	**NTSXTB12010H**
	Screw terminal block - With cover	**NTSXTB12011H**	**NTSXTB12011H**	**NTSXTB12011H**	**NTSXTB12011H**	**NTSXTB12011H**

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Discrete outputs (Transistor, Relay, Triac)

Presentation

Function

- The discrete output kits include an electronic module and its corresponding base, which match in height and width.
  - The electronic module provides the discrete output function.
  - The base enables DIN rail mounting, data transmission, and the supply of power to the discrete modules through the backplane bus. The base also provides the field device power supply.
- Discrete output kits provide 2 up to 16 channels with different levels of performance, protection, or diagnostics.

Implementation

- Discrete output kits use one slot (15 mm *(0.59 in.)* width) or two slots (30 mm *(1.18 in.)* width) on the DIN rail, depending on the model.
- The kits must be completed with spring or screw removable terminal blocks to wire the devices. The terminal blocks must be chosen and ordered separately.
- Spring terminal blocks are recommended for quick, tool-free connection of the sensors and actuators. The quality of the spring terminals avoids the need for periodic re-tightening.

Characteristics

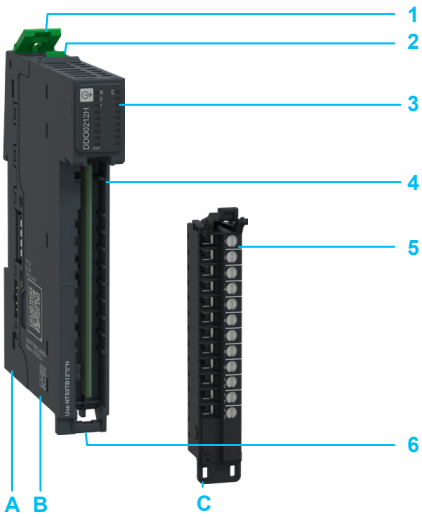
- The kits are available in two versions:
  - Standard, with an operating temperature of -30 to 60 °C *(-22 to 140 °F)*
  - Hardened, with an operating temperature of -40 to 70 °C *(-40 to 158 °F)*. The hardened version can operate as the standard version.
- Hot-swap capability: replacing or adding components without having to power down or interrupt system operation.
- IP degree of protection is IP20. Hardened versions are treated with a conformal coating to ensure additional environmental protection and long-term reliability.
- The modules NTSDDO0802K, NTSDDO1602XAK, NTSDDO1602XAHK, and NTSDDO0212HK (when the internal power supply is not used) require an external power supply for their digital outputs.They do not draw any current from the Field Power Supply bus.

Description

A discrete output kit comprises a dase **A** and an electronic module **B**. The terminal block **C** must be ordered separately.

1 Mechanical clip for locking the kit onto the DIN rail
2 Release button for disengaging the module from the base
3 Status LEDs:
- One RUN LED (green): module running
- One LED per channel (green): channel diagnostics
- One ERR LED (red): detected module error

4 Housing for the terminal block
5 Terminal block
6 Hinge for mounting the terminal block



Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Discrete outputs (Transistor, Relay, Triac)


NTSDDO0212HK
NTSDDO0402K
NTSDDO0402HK
NTSDDO0602K
NTSDDO0802K
NTSDDO1602K
NTSDRC0215K
NTSDAO0205K

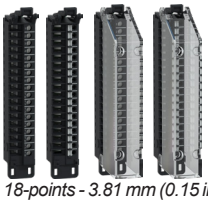
NTSDDO0802XK


NTSDDO1602XK
NTSDDO1602XHK
NTSDDO1602XAK
NTSDDO1602XAHK

NTSDRC0415K
NTSDRC0415HK
NTSDRA0615K
NTSDAO0415K
NTSDAO0415HK

12-points - 5 mm (0.19 in.) - DC/AC

18-points - 5 mm (0.19 in.) - DC



18-points - 3.81 mm (0.15 in.) - DC

20-points - HE10 connector

References

Discrete output kits (discrete output module + base)

Number of channels	Output voltage	Output type	Wiring mode	Synchronization	Version	Reference	Weight kg/*lb*
2 (isolated)	24 VDC	Transistor (source)	1-/2-/3-wire	Yes	Hardened	NTSDDO0212HK	0.099/*0.218*
4	24 VDC	Transistor (source)	1-/2-/3-wire	–	Standard	NTSDDO0402K	0.099/*0.218*
			1-/2-/3-wire	–	Hardened	NTSDDO0402HK	0.099/*0.218*
6	24 VDC	Transistor (source)	1-/2-/3-wire	–	Standard	NTSDDO0602K	0.077/*0.169*
8	24 VDC	Transistor (source)	1-wire	Yes	Standard	NTSDDO0802K *(1)*	0.098/*0.216*
			1-/2-wire	Yes	Standard	NTSDDO0802XK	0.107/*0.235*
16	24 VDC	Transistor (source)	1-wire	Yes	Standard	NTSDDO1602K	0.100/*0.220*
			1-/2-wire	Yes	Standard	NTSDDO1602XK *(2)*	0.138/*0.304*
			1-/2-wire	Yes	Hardened	NTSDDO1602XHK *(2)*	0.138/*0.304*
16	24 VDC	Transistor (source)	1-/2-wire	–	Standard	NTSDDO1602XAK *(1) (2)*	0.138/*0.304*
			1-/2-wire	–	Hardened	NTSDDO1602XAHK *(1) (2)*	0.138/*0.304*
2 (isolated) (Form C with NO/NC contacts)	24...250 VAC (47...63Hz) 5...125 VDC	Relay	2-wire	–	Standard	NTSDRC0215K	0.077/*0.169*
4 (Form C with NO/NC contacts)	24 to 250 VAC (47...63 Hz)	Relay	2-wire	–	Standard	NTSDRC0415K	0.156/*0.343*
		Relay	2-wire	–	Hardened	NTSDRC0415HK	0.157/*0.346*
6 (Form A with NO contact)	120 VDC/230 VAC	Relay	2-wire	–	Standard	NTSDRA0615K	0.152/*0.335*
2	80...264 VAC (47...63 Hz)	Triac	1-/2-/3-wire	–	Standard	NTSDAO0205K	0.099/*0.218*
4 (isolated)	80...264 VAC (47...63 Hz)	Triac	1-/2-/3-wire	–	Standard	NTSDAO0415K	0.131/*0.288*
		Triac	1-/2-/3-wire	–	Hardened	NTSDAO0415HK	0.158/*0.348*

Terminal Blocks

Number of points - Pitch - Voltage	Type	Cover	Reference	Weight kg/*lb*	*For use with the kit*
12 - 5 mm *(0.19 in.)* - DC	Spring	Without cover	NTSXTB12200H	0.029/*0.063*	*NTSDDO0212HK, NTSDDO0402K, NTSDDO0402HK, NTSDDO0802K (1)*
		With cover	NTSXTB12201H	0.040/*0.088*	
	Screw	Without cover	NTSXTB12000H	0.048/*0.105*	
		With cover	NTSXTB12001H	0.058/*0.127*	
12 - 5 mm *(0.19 in.)* - AC	Spring	Without cover	NTSXTB12210H	0.029/*0.063*	*NTSDRC0215K, NTSDRC0415K, NTSDRC0415HK, NTSDRA0615K, NTSDAO0205K, NTSDAO0415K, NTSDAO0415HK*
		With cover	NTSXTB12211H	0.040/*0.088*	
	Screw	Without cover	NTSXTB12010H	0.048/*0.105*	
		With cover	NTSXTB12011H	0.058/*0.127*	
18 - 5 mm *(0.19 in.)* - DC	Spring	Without cover	NTSXTB18200XH	0.038/*0.083*	*NTSDDO0802XK, NTSDDO1602XK (2), NTSDDO1602XHK (2), NTSDDO1602XAK (1) (2), NTSDDO1602XAHK (1) (2)*
		With cover	NTSXTB18201XH	0.050/*0.110*	
	Screw	Without cover	NTSXTB18000XH	0.064/*0.141*	
		With cover	NTSXTB18001XH	0.077/*0.169*	
18 - 3.81 mm *(0.15 in.)* - DC	Spring	Without cover	NTSXTB18200H	0.028/*0.061*	*NTSDDO0602K, NTSDDO1602K*
		With cover	NTSXTB18201H	0.038/*0.083*	
	Screw	Without cover	NTSXTB18000H	0.039/*0.085*	
		With cover	NTSXTB18001H	0.049/*0.108*	

Terminal block for connecting the outputs to the Telefast ABE7 connection sub-bases

20	HE10	Without cover	NTSXTS0001H *(3)*	0.480/*1.058*	*NTSDDO1602XK, NTSDDO1602XHK*

Accessories

Terminal Blocks, Telefast terminal blocks – Mounting accessories See pages 64 and 65

Spare parts

Modules and Bases, Termination, Cover See pages 66 to 69

(1) This kit uses external power supply for DO. (2) This kit requires two terminal blocks. (3) Planned commercialization.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Analog inputs (Voltage/Current, Current)

Function		**Analog inputs**					
							
Number of channels		2 (isolated)	4	4	8	4 (isolated)	8
Analog input type		**Voltage/current (single-ended/differential)**	**Voltage/current (single-ended)**	**Voltage/current (differential)**	**Voltage/current (single-ended)**	**Current (single-ended/differential)**	**Current (single-ended)**
	Input current	± 20 mA, 0...20 mA, 4...20 mA	± 20 mA, 0...20 mA, 4...20 mA	± 20 mA, 0...20 mA, 4...20 mA	± 20 mA, 0...20 mA, 4...20 mA	4...20 mA	± 20 mA, 0...20 mA, 4...20 mA
	Input voltage	± 10 VDC, 0...10 VDC, ± 5 VDC, 0...5 VDC, 1...5 VDC	± 10 VDC, 0...10 VDC, ± 5 VDC, 0...5 VDC, 1...5 VDC	± 10 VDC, 0...10 VDC, ± 5 VDC, 0...5 VDC, 1...5 VDC	± 10 VDC, 0...10 VDC, ± 5 VDC, 0...5 VDC, 1...5 VDC	–	–
Resolution		15 bits + sign	15 bits + sign	15 bits + sign	15 bits + sign	15 bits + sign	15 bits + sign
Input impedance	Voltage	> 10 MΩ	> 10 MΩ	> 5 MΩ	> 7 MΩ	–	–
	Current	250 Ω + internal current protector, 10 Ω typical	100 Ω + internal current protector, 10 Ω typical	100 Ω + internal current protector, 10 Ω typical	100 Ω + internal current protector, 10 Ω typical	250 Ω + internal current protector, 10 Ω typical	250 Ω + internal current protector, 10 Ω typical
Input protection type	Voltage	Miswiring protection per channel	Miswiring protection per channel	Miswiring protection per channel	Miswiring protection per channel	–	–
	Current	Overcurrent/miswiring protection per channel	Overcurrent/miswiring protection per channel	Overcurrent/miswiring protection per channel	Overcurrent/miswiring protection per channel	Overcurrent/miswiring protection per channel	Overcurrent/miswiring protection per channel
Sensor power supply protection		Overcurrent and short-circuit protection on sensor power supply per channel Overcurrent and short-circuit protection on loop power supply per channel	–	–	–	Overcurrent and short-circuit protection on loop power supply per channel	Overcurrent and short-circuit protection on loop power supply per channel
Input diagnostics		Detected underflow error per channel Detected overflow error per channel Detected broken wire error per channel Detected hardware error per channel Detected calibration error per channel Detected loop power supply error per channel Detected internal field power supply error per channel	Detected underflow error per channel Detected overflow error per channel Detected broken wire error per channel Detected hardware error per channel Detected internal field power supply error per channel			Detected underflow error per channel Detected overflow error per channel Detected broken wire error per channel Detected hardware error per channel Detected calibration error per channel Detected loop power supply error per channel Detected internal field power supply error per channel	
Input wire connection		2-/3-/4-wire	2-wire	2-wire	1-/2-wire	2-wire	1-/2-wire
Accuracy		0.05% of full scale at 25 °C *(77 °F)* 0.1% of full scale over temperature range	0.3% of full scale at 25 °C *(77 °F)* 0.5% of full scale over temperature range			0.05% of full scale at 25 °C *(77 °F)* 0.1% of full scale over temperature range	0.1% of full scale at 25 °C *(77 °F)* 0.3% of full scale over temperature range
Isolation	Between channels	530 VAC	–	–	–	530 VAC	–
	Between channel and bus	1,500 VAC	1,500 VAC	1,500 VAC	1,500 VAC	1,000 VAC	1,500 VAC
	Between channels and field power	Not for module sensor power supply 1,000 VAC for module loop power supply	–	1,000 VAC	–	Not for external loop power supply 1,000 VAC for module loop power supply	–
	Between field power and bus	1,500 VAC	1,500 VAC	1,500 VAC	1,500 VAC	1,500 VAC	1,500 VAC
Synchronization		**Yes (synchronous or isochronous)**	**Yes (isochronous)**	**Yes (isochronous)**	**Yes (isochronous)**	–	**Yes (isochronous)**
HART (Tolerance or communication)		Tolerance	–	–	–	Communication	Tolerance
Size	Height	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*	121 mm *(4.76 in.)*	121 mm *(4.76 in.)*
	Width	15 mm *(0.59 in.)* (1 slot) 30 mm *(1.18 in.)* (2 slots) (hardened version)	15 mm *(0.59 in.)* (1 slot)	15 mm *(0.59 in.)* (1 slot)	15 mm *(0.59 in.)* (1 slot)	30 mm *(1.18 in.)* (2 slots)	30 mm *(1.18 in.)* (2 slots)
Operating temperature	Standard version	-30 to 60 °C (*-22 to 140 °F*)	-25 to 60 °C (*-13 to 140 °F*)	-30 to 60 °C (*-22 to 140 °F*)	-30 to 60 °C (*-22 to 140 °F*)	–	-30 to 60 °C (*-22 to 140 °F*)
	Hardened version	-40 to 70 °C (*-40 to 158 °F*)	–	–	–	-40 to 70 °C (*-40 to 158 °F*)	-40 to 70 °C (*-40 to 158 °F*)
Sold as a kit (base + functional module)	Standard version	**NTSAMI0210K**	**NTSAMI0400K**	**NTSAMI0420K**	**NTSAMI0800K**	–	**NTSACI0802XK**
	Hardened version	**NTSAMI0210HK**	–	–	–	**NTSAHI0412XHK**	**NTSACI0802XHK**
See page		32					
Compatible terminal blocks	Number of points - Pitch - Voltage	12 - 5 mm *(0.19 in.)* - DC	12 - 5 mm *(0.19 in.)* - DC	12 - 5 mm *(0.19 in.)* - DC	18 - 3.81 mm *(0.15 in.)* - DC	18 - 5 mm *(0.19 in.)* - DC	18 - 5 mm *(0.19 in.)* - DC
	Number of terminal blocks to use	1	1	1	1	1	1
	Spring terminal block – Without cover	**NTSXTB12200H**	**NTSXTB12200H**	**NTSXTB12200H**	**NTSXTB18200H**	**NTSXTB18200XH**	**NTSXTB18200XH**
	Spring terminal block – With cover	**NTSXTB12201H**	**NTSXTB12201H**	**NTSXTB12201H**	**NTSXTB18201H**	**NTSXTB18201XH**	**NTSXTB18201XH**
	Screw terminal block – Without cover	**NTSXTB12000H**	**NTSXTB12000H**	**NTSXTB12000H**	**NTSXTB18000H**	**NTSXTB18000XH**	**NTSXTB18000XH**
	Screw terminal block – With cover	**NTSXTB12001H**	**NTSXTB12001H**	**NTSXTB12001H**	**NTSXTB18001H**	**NTSXTB18001XH**	**NTSXTB18001XH**

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Analog inputs (Temperature)

Function		**Analog inputs**			
					
Number of channels		2 (isolated)	4	4	6
Analog input type		**Temperature** ■ Thermocouple: Type J/K/R/S/B/T/N/E/C/L/U ■ RTD: Standard Ni100/1000, Pt100/1000, Cu10/50/100, JPt100/JPt1000 and high-precision Cu50/Cu100/Ni100/Ni1000/Pt100/Pt1000 ■ Voltage: ± 40 mV; ± 80 mV; ± 160 mV; ± 320 mV; ± 640 mV; ±1.28 V ■ Resistance: 150 Ω, 300 Ω, 600 Ω, 2,000 Ω, and 4,500 Ω		**Temperature** ■ Thermocouple: Type J/K/R/S/B/T/N/E/C/L/U ■ RTD: Standard Ni100/1000, Pt100/1000, Cu10/50/100, JPt100/JPt1000 and high-precision Cu50/Cu100/Ni100/Ni1000/Pt100/Pt1000 ■ Voltage: ± 40 mV; ± 80 mV; ± 160 mV; ± 320 mV; ± 640 mV; ±1.28 V ■ Resistance: 150 Ω, 300 Ω, 600 Ω, 2,000 Ω,and 4,500 Ω	**Temperature** ■ Thermistor PTC 100 Ω to 10 kΩ, NTC 100 Ω to 200 kΩ or calculated temperature -90 to 150 °C (*-130 to 302 °F)* ■ RTD: Standard Ni100/1000, Pt100/1000, Cu10/50/100, JPt100/JPt1000 and high-precision Cu50/Cu100/Ni100/Ni1000/Pt100/Pt1000 ■ Resistance: 100 Ω to 32 kΩ
Signal type		Differential			
Resolution		16 bits with overflow			
Input impedance		10 MΩ typical			
Input protection type		Overvoltage protection			
Input wire connection		2-/3-/4-wire for RTD and resistance inputs 2-wire for thermocouple and voltage inputs	2-/3-wire for RTD and resistance inputs 2-wire for thermocouple and voltage inputs	2-/3-/4-wire for RTD and resistance inputs 2-wire for thermocouple and voltage inputs	2-/3-wire for RTD and resistance inputs 2-wire for thermistor NTC/PTC inputs
Sensor power supply protection		–			
Input diagnostics		Detected underflow error per channel Detected overflow error per channel Detected broken wire error per channel Detected hardware error per channel Detected calibration error per channel Detected CJC error per channel Detected internal field power supply error per channel		Detected underflow error per channel Detected overflow error per channel Detected broken wire error per channel Detected hardware error per channel Detected calibration error per channel Detected CJC error per channel Detected internal field power supply error per channel	Detected underflow error per channel Detected overflow error per channel Detected broken wire error per channel Detected hardware error per channel Detected calibration error per channel Detected internal field power supply error per channel
Isolation	Between channels	530 VAC	–	–	–
	Between channel and bus	1,500 VAC	1,500 VAC	1,500 VAC	1,500 VAC
	Between channels and field power	1,000 VAC	1,000 VAC	1,000 VAC	1,000 VAC
	Between field power and bus	1,500 VAC	1,500 VAC	1,500 VAC	1,500 VAC
Synchronization		–	–	–	–
Size	Height	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*	121 mm *(4.76 in.)*	100 mm *(3.94 in.)*
	Width	15 mm *(0.59 in.)* (1 slot)	15 mm *(0.59 in.)* (1 slot)	15 mm *(0.59 in.)* (1 slot)	15 mm *(0.59 in.)* (1 slot)
Operating temperature	Standard version	-30 to 60 °C (*-22 to 140 °F)*	-30 to 60 °C (*-22 to 140 °F)*	–	-30 to 60 °C (*-22 to 140 °F)*
	Hardened version	-40 to 70 °C *(-40 to 158 °F)*	–	-40 to 70 °C *(-40 to 158 °F)*	–
Sold as a kit (base + functional module)	Standard version	**NTSART0214K**	**NTSART0404K**	–	**NTSART0603K**
	Hardened version	**NTSART0214HK**	–	**NTSART0404XHK**	–
See page		32			
Compatible terminal blocks	Number of points - Pitch - Voltage	12 - 5 mm *(0.19 in.)* - DC	12 - 5 mm *(0.19 in.)* - DC	18 - 5 mm *(0.19 in.)* - DC	18 - 3.81 mm *(0.15 in.)* - DC
	Number of terminal blocks to use	1	1	1	1
	Spring terminal block Without cover	**NTSXTB12200H**	**NTSXTB12200H**	**NTSXTB18200XH**	**NTSXTB18200H**
	Spring terminal block With cover	**NTSXTB12201H**	**NTSXTB12201H**	**NTSXTB18201XH**	**NTSXTB18201H**
	Screw terminal block Without cover	**NTSXTB12000H**	**NTSXTB12000H**	**NTSXTB18000XH**	**NTSXTB18000H**
	Screw terminal block With cover	**NTSXTB12001H**	**NTSXTB12001H**	**NTSXTB18001XH**	**NTSXTB18001H**

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Analog inputs (Voltage/Current, Current, Temperature)

Presentation

Function

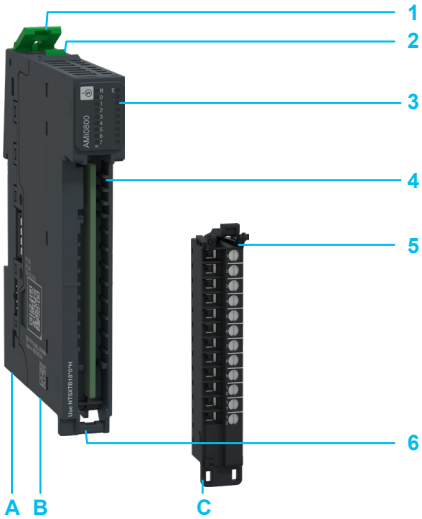
- The analog input kits include an electronic module and its corresponding base, which match in height and width.
  - The electronic module provides the current, voltage, or temperature input functions.
  - The base enables DIN rail mounting, data transmission, and the supply of power to device power supply.
- Analog input kits provide 2 up to 8 channels with different levels of performance, protection, or diagnostics.

Implementation

- Analog input kits use one slot (15 mm *(0.59 in.)* width) or two slots (30 mm *(1.18 in.)* width) on the DIN rail, depending on the model.
- The kits must be completed with spring or screw removable terminal blocks to wire the devices. The terminal blocks must be chosen and ordered separately.
- Spring terminal blocks are recommended for quick, tool-free connection of the sensors and actuators. The quality of the spring terminals avoids the need for periodic re-tightening.

Characteristics

- The kits are available in two versions:
  - Standard, with an operating temperature of -30 to 60 °C *(-22 to 140 °F) (1)*
  - Hardened, with an operating temperature of -40 to 70 °C *(-40 to 158 °F)*. The hardened version can operate as the standard version.
- Hot-swap capability: replacing or adding components without having to power down or interrupt system operation.
- Some channels can be configured as voltage and others as current with the analog input kit.
- IP degree of protection is IP20. Hardened versions are treated with a conformal coating to ensure additional environmental protection and long-term reliability.



Description

An analog input kit comprises a base **A** and an electronic module **B**. The terminal block **C** must be ordered separately.

1 Mechanical clip for locking the kit onto the DIN rail
2 Release button for disengaging the module from the base
3 Status LEDs:
- One RUN LED (green): module running
- One LED per channel (green): channel diagnostics
- One ERR LED (red): detected module error

4 Housing for the terminal block
5 Terminal block
6 Hinge for mounting the terminal block

(1) Except for module NTSAMI0400 and kit NTSAMI0400K, whose operating temperature is -25 to 60 °C (-504 to 140 °F).

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Analog inputs (Voltage/Current, Current, Temperature)

NTSAMI0210K
NTSAMI0400K
NTSAMI0420K
NTSAMI0800K
NTSART0214K/HK
NTSART0404K
NTSART0603K

NTSAMI0210HK

NTSAHI0412XHK

NTSACI0802XK/HK

NTSART0404XHK

References

Analog input kits (analog i ut module + base)

Number of channels	Type	HART	Wiring mode	Synchronization	Version	Reference	Weight kg/*lb*
2 (isolated)	**Voltage**: ± 10 VDC, 0...10 VDC, ± 5 VDC, 0...5 VDC, 1...5 VDC **Current**: ± 20 mA, 0...20 mA, 4...20 mA	Tolerance	2-/3-/4-wire	**Yes**	Standard	**NTSAMI0210K**	0.100/ *0.220*
			2-/3-/4-wire	**Yes**	Hardened	**NTSAMI0210HK**	0.143/ *0.315*
4		–	2-wire	**Yes**	Standard	**NTSAMI0400K**	0.098/ *0.216*
			2-wire	**Yes**	Standard	**NTSAMI0420K**	0.077/ *0.169*
8			1-/2-wire	**Yes**	Standard	**NTSAMI0800K**	0.077/ *0.169*
4 (isolated)	**Current**: 4...20 mA	Communication	2-wire	–	Hardened	**NTSAHI0412XHK**	0.138/ *0.304*
8	**Current**: ± 20 mA, 0...20 mA, 4...20 mA	Tolerance	1-/2-wire	**Yes**	Standard	**NTSACI0802XK**	0.138/ *0.304*
		Tolerance	1-/2-wire	**Yes**	Hardened	**NTSACI0802XHK**	0.138/ *0.304*
2 (isolated)	**Temperature**: - Thermocouple: Type J/K/R/S/B/T/N/E/C/L/U - RTD: Standard Ni100/1000, Pt100/1000, Cu10/50/100, JPt100/1000, and high-precision Cu50/Cu100/Ni100/Ni1000/Pt100/Pt1000 - Voltage: ± 40 mV, ± 80 mV, ± 160 mV, ± 320 mV; ± 640 mV; ± 1.28 V - Resistance: 150 Ω, 300 Ω, 600 Ω, 2,000 Ω, and 4,500 Ω	–	2-/3-/4-wire for RTD and resistance inputs 2-wire for thermocouple and voltage inputs	–	Standard	**NTSART0214K**	0.077/ *0.169*
				–	Hardened	**NTSART0214HK**	0.077/ *0.169*
4			2-/3-wire for RTD and resistance inputs 2-wire for thermocouple and voltage inputs	–	Standard	**NTSART0404K**	0.077/ *0.169*
			2-/3-/4-wire for RTD and resistance inputs 2-wire for thermocouple and voltage inputs	–	Hardened	**NTSART0404XHK**	0.077/ *0.169*
6	**Temperature**: - Thermistor PTC 100 Ω to 10 kΩ, NTC 100Ω to 200 kΩ or calculated temperature -90 to 150 °C (*-130 to 302 °F)* - RTD: Standard Ni100/1000, Pt100/1000, Cu10/50/100, JPt100/JPt1000, and high-precision Cu50/Cu100/Ni100/Ni1000/Pt100/Pt1000 - Resistance: 100 Ω to 32 kΩ	–	2-/3-wire for RTD and resistance inputs 2-wire for thermistor NTC/PTC inputs	–	Standard	**NTSART0603K**	0.077/ *0.169*

Terminal Blocks

Number of points - Pitch - Voltage	Type	Cover	Reference	Weight kg/*lb*	*For use with the kit*
12 - 5 mm *(0.19 in.)* - DC	Spring	Without cover	**NTSXTB12200H**	0.029/*0.063*	*NTSAMI0210K, NTSAMI0210HK, NTSAMI0400K, NTSAMI0420K, NTSART0214K, NTSART0214HK, NTSART0404K*
		With cover	**NTSXTB12201H**	0.040/*0.088*	
	Screw	Without cover	**NTSXTB12000H**	0.048/*0.105*	
		With cover	**NTSXTB12001H**	0.058/*0.127*	
18 - 5 mm *(0.19 in.)* - DC	Spring	Without cover	**NTSXTB18200XH**	0.038/*0.083*	*NTSAHI0412XHK, NTSACI0802XK, NTSACI0802XHK, NTSART0404XHK*
		With cover	**NTSXTB18201XH**	0.050/*0.110*	
	Screw	Without cover	**NTSXTB18000XH**	0.064/*0.141*	
		With cover	**NTSXTB18001XH**	0.077/*0.169*	
18 - 3.81 mm *(0.15 in.)* - DC	Spring	Without cover	**NTSXTB18200H**	0.028/*0.061*	*NTSAMI0800K, NTSART0603K*
		With cover	**NTSXTB18201H**	0.038/*0.083*	
	Screw	Without cover	**NTSXTB18000H**	0.039/*0.085*	
		With cover	**NTSXTB18001H**	0.049/*0.108*	

Accessories

Terminal Blocks – Mounting accessories See pages 64 and 65

Spare parts

Modules and Bases, Termination, Cover See pages 66 to 69

12-points - 5 mm (0.19 in.) - DC/AC

18-points - 5 mm (0.19 in.) - DC

18-points - 3.81 mm (0.15 in.) - DC

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Analog outputs (Current, Voltage/Current)

Function		**Analog outputs**		
				
Number of channels		2 (isolated)	2 (isolated)	4
Analog output type		**Current (single-ended/differential)**	**Voltage/Current (single-ended/differential)**	**Voltage/Current (single-ended)**
		4...20 mA	Voltage: ± 10 V, 0...10 VDC, ± 5 VDC, 0...5 V, 1...5 VDC Current: ± 20 mA, 0...20 mA, 4...20 mA	Voltage: ± 10 VDC, 0...10 VDC, ± 5 VDC, 0...5 VDC, 1...5 VDC Current: 0...20 mA, 4...20 mA
Resolution		16 bits	15 bits + sign	15 bits + sign
Output impedance		Current output: 750 Ω max.	Voltage output: 1 kΩ minimum Current output: 750 Ω max.	Voltage output: 1 kΩ minimum Current output: 600 Ω max.
Output protection		Current output: overvoltage 30 V	Voltage output: short-circuit: 16 mA, overvoltage: 30 V Current output: overvoltage 30 V	Voltage output: short-circuit: 16 mA, overvoltage: 30 V Current output: overvoltage 30 V
Output response time		500 µs at 750 Ω per module (HART disabled)	500 µs at 750 Ω	1 ms at 600 Ω
HART (Tolerance or communication)		Communication	Tolerance	Tolerance
Output diagnostics		Detected underflow error per channel Detected overflow error per channel Detected broken wire error per channel Detected short-circuit error per channel Detected hardware error per channel Detected calibration error per channel Detected DAC power error per channel Detected internal field power supply error per channel		
Output wire connection		2-wire	2-/3-/4-wire	2-wire
Accuracy		0.1% of full scale at 25 °C *(77 °F)*; 0.2% of full scale over temperature range		
Isolation	Between channels	530 VAC	530 VAC	–
	Between channel and bus	1,500 VAC	1,500 VAC	1,500 VAC
	Between channels and field power	1,000 VAC	1,000 VAC	–
	Between field power and bus	1,500 VAC	1,500 VAC	1,500 VAC
Synchronization		–	**Yes (synchronous and isochronous)**	**Yes (isochronous)**
Size	Height	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*
	Width	30 mm *(1.18 in.)* (2 slots)	15 mm *(0.59 in.)* (1 slot)	15 mm *(0.59 in.)* (1 slot)
Operating temperature	Standard version	–	-30 to 60 °C (*-22 to 140 °F*)	-30 to 60 °C (*-22 to 140 °F*)
	Hardened version	-40 to 70 °C *(-40 to 158 °F)*	-40 to 70 °C *(-40 to 158 °F)*	-40 to 70 °C *(-40 to 158 °F)*
Sold as a kit (base + functional module)	Standard version	–	**NTSAMO0210K**	**NTSAMO0400K**
	Hardened version	**NTSAHO0212HK**	**NTSAMO0210HK**	**NTSAMO0400HK**
See page		36		
Compatible terminal blocks	Number of points - Pitch - Voltage	12 - 5 mm *(0.19 in.)* - DC	12 - 5 mm *(0.19 in.)* - DC	12 - 5 mm *(0.19 in.)* - DC
	Number of terminal blocks to use	1	1	1
	Spring terminal block - Without cover	**NTSXTB12200H**	**NTSXTB12200H**	**NTSXTB12200H**
	Spring terminal block - With cover	**NTSXTB12201H**	**NTSXTB12201H**	**NTSXTB12201H**
	Screw terminal block - Without cover	**NTSXTB12000H**	**NTSXTB12000H**	**NTSXTB12000H**
	Screw terminal block - With cover	**NTSXTB12001H**	**NTSXTB12001H**	**NTSXTB12001H**

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Analog outputs (Current, Voltage/Current)

Presentation

Function

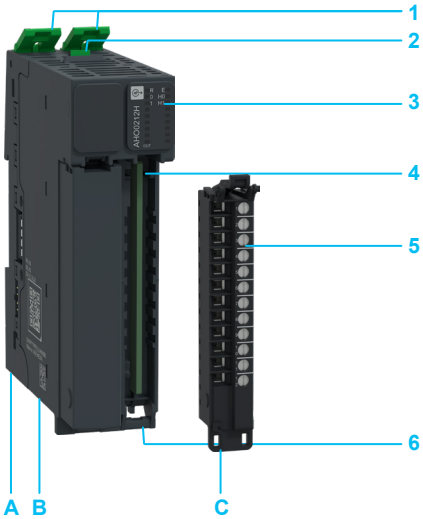
- The analog output kits include an electronic module and its corresponding base, which match in height and width.
- The electronic module provides current and voltage/current output functions.
- The base enables DIN rail mounting, data transmission, and the supply of power to the analog modules through the backplane bus. The base also provides the field device power supply.
- Analog output kits provide 2 up to 4 channels with different levels of performance, protection, or diagnostics.

Implementation

- Analog output kits use one slot (15 mm *(0.59 in.)* width) or two slots (30 mm *(1.18 in.)* width) on the DIN rail, depending on the model .
- The kits must be completed with spring or screw removable terminal blocks to wire the devices. The terminal blocks must be chosen and ordered separately.
- Spring terminal blocks are recommended for quick, tool-free connection of the sensors and actuators. The quality of the spring terminals avoids the need for periodic re-tightening.

Characteristics

- The kits are available in two versions:
- Standard, with an operating temperature of -30 to 60 °C (-22 to 140 °F)
- Hardened, with an operating temperature of -40 to 70 °C (-40 to 158 °F). The hardened version can operate as the standard version.
- Hot-swap capability: replacing or adding components without having to power down or interrupt system operation.
- IP degree of protection is IP20. Hardened versions are treated with a conformal coating to ensure additional environmental protection and long-term reliability.



Description

An analog output kit comprises a base **A** and an electronic module **B**. The terminal block **C** must be ordered separately.

1 Mechanical clip for locking the kit onto the DIN rail
2 Release button for disengaging the module from the base
3 Status LEDs:
- One RUN LED (green): module running
- One LED per channel (green): channel diagnostics
- One ERR LED (red): detected module error

4 Housing for the terminal block
5 Terminal block
6 Hinge for mounting the terminal block

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Analog outputs (Current, Voltage/Current)

NTSAHO0212HK

NTSAMO0210K/HK
NTSAMO0400K/HK

12-points - 5 mm (0.19 in.) - DC

References

Analog output kits (Analog output module + Base)

Number of channels	Type	HART	Wiring mode	Synchronization	Version	Reference	Weight kg/*lb*
2 (isolated)	**Current**: 4...20 mA	Communication	2-wire	–	Hardened	NTSAHO0212HK	0.144/*0.317*
2 (isolated)	**Current**: ± 20 mA, 0...20 mA, 4...20 mA **Voltage**: ± 10 VDC, 0...10 VDC, ± 5 VDC, 0...5 VDC, 1...5 VDC	Tolerance	2-/3-/4-wire	Yes	Standard	NTSAMO0210K	0.077/*0.169*
			2-/3-/4-wire	Yes	Hardened	NTSAMO0210HK	0.077/*0.169*
4	**Current**: 0...20 mA, 4...20 mA **Voltage**: ± 10 VDC, 0...10 VDC, ± 5 VDC, 0...5 VDC, 1...5 VDC	Tolerance	2-wire	Yes	Standard	NTSAMO0400K	0.101/*0.222*
			2-wire	Yes	Hardened	NTSAMO0400HK	0.101/*0.222*

Terminal Blocks

Number of points - Pitch - Voltage	Type	Cover	Reference	Weight kg/*lb*	*For use with the kit*
12 - 5 mm *(0.19 in.)* - DC	Spring	Without cover	NTSXTB12200H	0.029/*0.063*	*NTSAHO0212HK, NTSAMO0210K, NTSAMO0210HK, NTSAMO0400K, NTSAMO0400HK*
		With cover	NTSXTB12201H	0.040/*0.088*	
	Screw	Without cover	NTSXTB12000H	0.048/*0.105*	
		With cover	NTSXTB12001H	0.058/*0.127*	

Accessories

Terminal Blocks – Mounting accessories — See pages 64 and 65

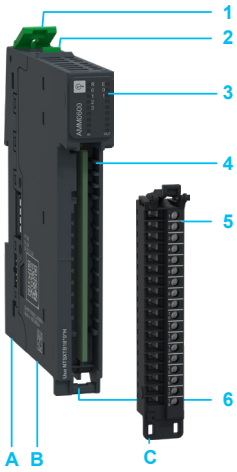
Spare parts

Modules and Bases, Termination, Cover — See pages 66 to 69

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Analog Combo (Voltage/Current)



Presentation

Function

- The analog combo kit includes an electronic module and its corresponding base, which match in height and width..
- The electronic module provides the analog I/O function.
- The base enables DIN rail mounting, data transmission, and the supply of power to the analog combo through the backplane bus. The base also provides the field device power supply.
- The combo kit integrates both input and output capabilities on a module to manage voltage and current I/O, and provides six channels with different levels of performance, protection, or diagnostics.
- Combining inputs and outputs in a module minimizes wiring complexity and optimizes space utilization within the control cabinet.

Implementation

- The analog combo kit uses 1 slot (15 mm *(0.59 in.)* width) on the DIN rail.
- The kit must be completed with spring or screw removable terminal blocks to wire the devices. The terminal blocks must be chosen and ordered separately.
- Spring terminal blocks are recommended for quick, tool-free connection of the sensors and actuators. The quality of the spring terminals avoids the need for periodic re-tightening.

Characteristics

- Analog combo kit is offered in a standard version, with an operating temperature of -30 to 60 °C *(-22 to 140 °F)*.
- Hot swap capability is available for each combo: replacing or adding components without having to power down or interrupt system operation.
- IP degree of protection is IP20.
- Diagnostics: continuous monitoring of inputs and outputs to quickly detect anomalies, reduce production downtime, and enhance predictive maintenance

Description

An analog combo kit comprises a base **A** and an electronic module **B**. The terminal block **C** must be ordered separately.

1 Mechanical clip for locking the kit onto the DIN rail
2 Release button for disengaging the module from the base
3 Status LEDs:
- One RUN LED (green): module running
- One LED per channel (green): channel diagnostics
- One ERR LED (red): detected module error

4 Housing for the terminal block
5 Terminal block
6 Hinge for mounting the terminal block

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Analog Combo (Voltage/Current)

NTSAMM0600K

18-points - 3.81 mm (0.15 in.) - DC

References

Analog combo kit (combo module + base)

Number and type of channel		Wiring mode	Isolation	Synchroniza-tion	Version	Reference	Weight kg/*lb*
4 analog inputs: - Voltage input ±10 V, 0/+10V, ±5V, 0/1...5V - Current input ±20 mA, 4-20 mA (16-bit max. resolution) Input accuracy: 0.3% of full scale at 25°C *(77°F)* 0.5% of full scale over temperature range	**2 analog outputs**: - Voltage output -10/+10 VDC, 0/+10 VDC, ±5 V, 0/1...5 V - Current output 1-20 mA, 4-20 mA, ±20 mA (16-bit max. resolution) Output accuracy: 0.3% of full scale at 25°C *(77 °F)* 0.5% of full scale over temperature range	2-wire	Inputs to Outputs group isolation 530 VAC, between channels and bus 1000 VAC, between channels and field power (Input 1000 VAC, Output 1000 VAC), between field power and bus 1500 VAC	Yes	Standard	NTSAMM0600K *(1)*	0.104/ *0.229*

Terminal Blocks

Number of points - Pitch - Voltage	Type	Cover	Reference	Weight kg/*lb*	*For use with the kit*
18 - 3.81 mm *(0.15 in.)* - DC	Spring	Without cover	NTSXTB18200H	0.028/*0.061*	*NTSAMM0600K (1)*
		With cover	NTSXTB18201H	0.038/*0.083*	
	Screw	Without cover	NTSXTB18000H	0.039/*0.085*	
		With cover	NTSXTB18001H	0.049/*0.108*	

Accessories

Terminal Blocks – Mounting accessories	See pages 64 and 65

Spare parts

Modules and Bases, Termination, Cover	See pages 66 to 69

(1) This kit requires two terminal blocks.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

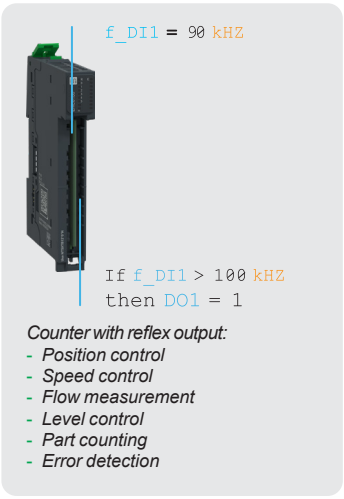
Counting (Incremental high-speed counter)

Function		Counting		
				
Number and type of channels		1x high-speed counter (HSC) channel for pulse counting	1x high-speed counter (HSC) channel for pulse counting, with outputs	2x high-speed counter (HSC) channel for pulse counting, with outputs
		Supports 6 simple counting functions or 1 main expert function: single-phase counting, single-phase event counting, dual-phase counting, frequency meter, ratio meter or period meter	Supports 6 simple counting functions or 1 main expert function (single-phase counting, single-phase event counting, dual-phase counting, frequency meter, ratio meter or period meter) with 1 reflex output sub-function	Supports 12 simple counting functions or 2 main expert functions (single-phase counting, single-phase event counting, dual-phase counting, frequency meter, ratio meter or period meter) with 1 or 2 reflex output sub-functions
Counting frequency		250 kHz	250 kHz	250 kHz
Inputs	Number	6	6	12
	Logic	Sink/Source	Sink/Source	Sink/Source
	Voltage	24 VDC	24 VDC	24 VDC
	Current	2.27 mA at 24 V	2.27 mA at 24 V	2.27 mA at 24 VDC
Outputs	Number	–	4 (configurable for 1 PWM output, or up to 4 reflex or standard outputs)	8 (configurable for up to 2 PWM outputs, or up to 8 reflex or standard outputs)
	Logic	–	Push-pull (use as source)	Push-pull (use as source)
	Voltage	–	24 VDC	24 VDC
	Limits	–	30 VDC	30 VDC
	Current	–	0.5 A	0.5 A
Current consumption	Bus current	40 mA at 24 VDC	45 mA at 24 VDC	55 mA at 24 VDC
	Max internal field current for input	3 mA	3 mA	3 mA
	Max internal field current for output	–	500 mA at 24 VDC	500 mA at 24 VDC
Isolation	Between channels	–	–	–
	Between groups	850 VAC	850 VAC	850 VAC
	Between channels and bus	1,500 VAC	1,500 VAC	1,500 VAC
	Between channels and ground	–	–	–
Synchronization		**Yes**	**Yes**	**Yes**
Input protection		Overvoltage protection	Overvoltage protection	Overvoltage protection
Output protection		–	Short-circuit protection	Short-circuit protection
Size	Height	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*
	Width	15 mm *(0.59 in.)* (1 slot)	30 mm *(1.18 in.)* (2 slots)	30 mm *(1.18 in.)* (2 slots)
Operating temperature	Standard version	-30 to 60 °C (*-22 to 140 °F*)	–	-30 to 60 °C (*-22 to 140 °F*)
	Hardened version	–	-40 to 70 °C *(-40 to 158 °F)*	–
Sold as a kit (base + functional module)	Standard version	**NTSEHC0100K**	–	**NTSEHC0220K**
	Hardened version	–	**NTSEHC0120HK**	–
See page		42		
Compatible terminal blocks	Number of points - Pitch - Voltage	12 - 5 mm *(0.19 in.)* - DC	12 - 5 mm *(0.19 in.)* - DC	18 - 3.81 mm *(0.15 in.)* - DC
	Number of terminal blocks to use	1	2	2
	Spring terminal block – Without cover	**NTSXTB12200H**	**NTSXTB12200H**	**NTSXTB18200H**
	Spring terminal block – With cover	**NTSXTB12201H**	**NTSXTB12201H**	**NTSXTB18201H**
	Screw terminal block – Without cover	**NTSXTB12000H**	**NTSXTB12000H**	**NTSXTB18000H**
	Screw terminal block – With cover	**NTSXTB12001H**	**NTSXTB12001H**	**NTSXTB18001H**

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Counting (Incremental high-speed counter)



Counter with reflex output:
- *Position control*
- *Speed control*
- *Flow measurement*
- *Level control*
- *Part counting*
- *Error detection*

Presentation

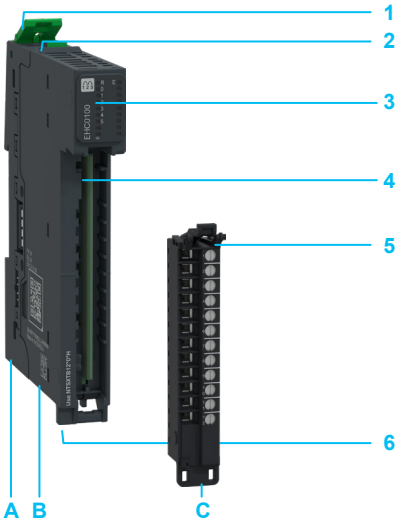
- The counting kits include an electronic module and its corresponding base, which match in height and width.
- The electronic module provides the high-speed counter function.
- The base enables DIN rail mounting, data transmission, and the supply of power to the counter module through the backplane bus. The base also provides the field device power supply.
- Counting kits provide one up to two channels with different levels of performance, protection, or diagnostics.

Implementation

- Counting kits use one slot (15 mm *(0.59 in.)* width) or two slots (30 mm *(1.18 in.)* width) on the DIN rail, depending on the model.
- The kits must be completed with spring or screw removable terminal blocks to wire the devices. The terminal blocks must be chosen and ordered separately.
- Spring terminal blocks are recommended for quick, tool-free connection of the sensors and actuators. The quality of the spring terminals avoids the need for periodic re-tightening.

Characteristics

- The kits are available in two versions:
- Standard, with an operating temperature of -30 to 60 °C *(-22 to 140 °F)*
- Hardened, with an operating temperature of -40 to 70 °C *(-40 to 158 °F)*. The hardened version can operate as the standard version.
- Hot-swap capability: replacing or adding components without having to power down or interrupt system operation.
- IP degree of protection is IP20. Hardened versions are treated with a conformal coating to ensure additional environmental protection and long-term reliability.



Description

A counting kit comprises a base **A** and an electronic module **B**. The terminal block **C** must be ordered separately.

1 Mechanical clip for locking the kit onto the DIN rail
2 Release button for disengaging the module from the base
3 Status LEDs:
- One RUN LED (green): module running
- One LED per channel (green): channel diagnostics
- One ERR LED (red): detected module error

4 Housing for the terminal block
5 Terminal block
6 Hinge for mounting the terminal block

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Counting (Incremental high-speed counter)

NTSEHC0100K

NTSEHC0120HK

NTSEHC0220K

12-points - 5 mm (0.19 in.) - DC/AC

18-points - 3.81 mm (0.15 in.) - DC

References

Counting kits (counter module + base)

Number of channels	type	Discrete inputs	Discrete outputs	Synchronization	Version	Reference	Weight kg/*lb*
1	1x high-speed counter (HSC) channel for pulse counting **250 kHz** (using 4 inputs 24 VDC)	6x 24 VDC Sink/Source	–	Yes	Standard	NTSEHC0100K	0.096/*0.211*
1	1x high-speed counter (HSC) channel for pulse counting **250 kHz** (using 4 inputs 24 VDC)	6x 24 VDC Sink/source	4x 24 VDC Push-pull (use as source) Configurable for 1 PWM output, or up to 4 reflex or standard outputs	Yes	Hardened	NTSEHC0120HK *(1)*	0.159/*0.350*
2	HSC channel for pulse counting **250 kHz** (using 8 inputs 24 VDC)	12x 24 VDC Sink/source	8x 24 VDC Push-pull (use as source) Configurable for up to 2 PWM outputs, or up to 8 reflex or standard outputs	Yes	Standard	NTSEHC0220K *(1)*	0.164/*0.361*

Terminal Blocks

Number of points - Pitch - Voltage	Type	Cover	Reference	Weight kg/*lb*	*For use with the kit*
12 - 5 mm *(0.19 in.)* - DC	Spring	Without cover	NTSXTB12200H	0.029/*0.063*	*NTSEHC0100K, NTSEHC0120HK (1)*
		With cover	NTSXTB12201H	0.040/*0.088*	
	Screw	Without cover	NTSXTB12000H	0.048/*0.105*	
		With cover	NTSXTB12001H	0.058/*0.127*	
18 - 3.81 mm *(0.15 in.)* - DC	Spring	Without cover	NTSXTB18200H	0.028/*0.061*	*NTSEHC0220K (1)*
		With cover	NTSXTB18201H	0.038/*0.083*	
	Screw	Without cover	NTSXTB18000H	0.039/*0.085*	
		With cover	NTSXTB18001H	0.049/*0.108*	

Accessories

Terminal Blocks – Mounting accessories	See pages 64 and 65

Spare parts

Modules and Bases, Termination, Cover	See pages 66 to 69

(1) This kit requires two terminal blocks.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Motion Expert (Encoders, Fast I/Os, Pulse train outputs)

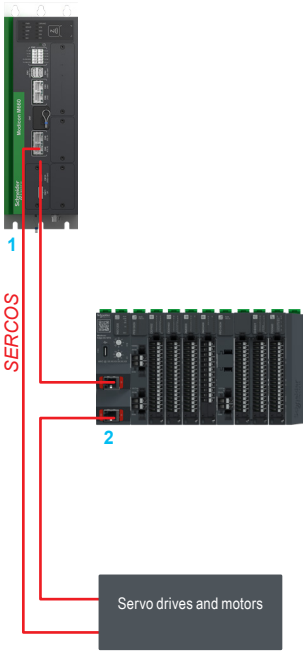
Function		Motion Expert									
											
Type		**Encoder**			**CAM switch**	**Encoder generator**	**Fast I/Os**				**Pulse Output Generator**
Number of Channels		**2**	**1**	**1**	**1**	**1**	**8**	**8**	**8**	**8**	**2**
Position control interface		RS-422 incremental encoder (1 MHz) or SSI encoder (500 kHz) or BiSS-C encoder	RS-422 incremental encoder (1 MHz) or SSI encoder (500 kHz) or BiSS-C encoder	SinCos (400 kHz) or Hiperface (400 kHz) or EnDat V2.1 & V2.2 (digital interface used for connecting encoders (1 MHz)	RS-422 incremental encoder (1 MHz) or SSI encoder (500 kHz) or BiSS-C encoder	RS-422 incremental encoder (400 kHz)	Oversampling and Timestamping combined	Timestamping	Timestamping	Oversampling	Pulse train output RS-422 (400 kHz)
Auxiliary inputs	Number and type	4 Discrete	2 Discrete	2 Discrete	2 Discrete	2 Discrete	4 Discrete	8 Discrete	–	–	8 Discrete, High side
	Rated input voltage	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	–	–	24 VDC
	Logic type	Sink	Sink	Sink	Sink	Sink	Sink	Sink	–	–	–
	IEC/EN 61131-2 conformity	Type 3	Type 3	Type 3	Type 3	Type 3	Type 3	Type 3	–	–	Type 3
	Wiring mode	2-wire	2-wire	2-wire	2-wire	2-wire	2-wire	2-wire	–	–	2-wire
Auxiliary outputs	Number and type	8 Discrete, Push-pull	–	–	8 Discrete, push-pull	–	4 Discrete, Push-pull	–	8 Discrete, Push-pull	8 Discrete, Push-pull	2 Discrete
	Rated output voltage	24 VDC	–	–	24 VDC	–	24 VDC	–	24 VDC	24 VDC	24 VDC
	Logic type	Source	–	–	Source	–	Source	–	Source	Source	Source
	Max current	250 mA/channel	–	–	250 mA/channel	–	250 mA/channel	–	250 mA/channel	250 mA/channel	50 mA/channel
	IEC/EN 61131-2 conformity	Type 3	–	–	Type 3	–	Type 3	–	Type 3	Type 3	Type 3
	Output voltage range	24 VDC	–	–	24 VDC	–	24 VDC	–	24 VDC	24 VDC	24 VDC
	Wiring mode	2-wire	–	–	2-wire	–	2-wire	–	2-wire	2-wire	2-wire
Diagnostics		By LED per channel and a variable diagnostics				By LED per channel and a variable diagnostics					
Input protection	Overvoltage	Up to ±60 VDC	Up to ±60 VDC	Up to ±60 VDC	Up to ±60 VDC	Up to ±60 VDC	Up to ±60 VDC	Up to ±60 VDC	–	–	Up to ±60 Vdc
	Reverse polarity	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	–	–	**Yes**
Output protection	Overload	1.84 A by group of 4 outputs	–	–	1.84 A by group of 4 outputs	–	1.84 A by group of 4 outputs	–	1.84 A by group of 4 outputs	1.84 A by group of 4 outputs	111 mA by group of 2 outputs
	Short circuit	4 A	–	–	4 A	–	4 A	–	4 A	4 A	–
Synchronization		**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Isolation	Between input channels	No isolation									
	Between internal logic and input channels	1,000 VAC									
	Between internal logic and pulse outputs										
	Between internal logic and output channels										
	Between internal logic and ground										
	Between groups of input channel	850 VAC									
	Between input channels and encoder signals										
	Between input channels and pulse outputs										
	Between input and outputs channels										
	Between input channels and ground	1,500 VAC									
	Between outputs channels and ground										
	Between pulse outputs and ground										
Dangerous voltage		–	–	–	–	–	–	–	–	–	–
Size	Height	100 mm *(3.93 in)*	100 mm *(3.93 in)*	100 mm *(3.93 in)*	100 mm *(3.93 in)*	100 mm *(3.93 in)*	100 mm *(3.93 in)*	100 mm *(3.93 in)*	100 mm *(3.93 in)*	100 mm *(3.93 in)*	100 mm *(3.93 in)*
	Width	30 mm *(1.18 in)* (2 slots)	15 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)	30 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)	15 mm *(0.59 in)* (1 slot)	30 mm *(1.18 in)* (2 slots)
Operating temperature	Standard version	-30 to 60 °C *(-22 to +140°F)*	-30 to 60 °C *(-22 to +140°F)*	-30 to 60 °C *(-22 to +140°F)*	-30 to 60 °C *(-22 to +140°F)*	-30 to 60 °C *(-22 to +140°F)*	-30 to 60 °C *(-22 to +140°F)*	-30 to 60 °C *(-22 to +140°F)*	-30 to 60 °C *(-22 to +140°F)*	-30 to 60 °C *(-22 to +140°F)*	-30 to 60 °C *(-22 to +140°F)*
	Hardened version	–	–	–	–	–	–	–	–	–	–
Sold as a kit (Base + Functionnal module)	Standard version	**NTSEHE0221K**	**NTSEME0101K**	**NTSEME0102K**	**NTSECS0121K**	**NTSEME0110K** *(1) (2)*	**NTSEDM0822K** *(1) (2)*	**NTSEDT0800K** *(1)*	**NTSEDT0810K** *(1)*	**NTSEDO0810K** *(1)*	**NTSEMP0220K**
	Hardened version	–	–	–	–	–	–	–	–	–	–
See page		46									
Compatible terminal blocks	Number of points-Pitch-Voltage	18 Pts–3.81 mm–DC	18 Pts–3.81 mm–DC	18 Pts–3.81 mm–DC	18 Pts–3.81 mm–DC	18 Pts–3.81 mm–DC	18 Pts–3.81 mm–DC	18 Pts–3.81 mm–DC	18 Pts–3.81 mm–DC	18 Pts–3.81 mm–DC	18 Pts–3.81 mm–DC
	Number of terminal blocks to use	2	1	1	2	1	1	1	1	1	2
	Spring TB Without cover	**NTSXTB18200H**	**NTSXTB18200H**	**NTSXTB18200H**	**NTSXTB18200H**	**NTSXTB18200H**	**NTSXTB18200H**	**NTSXTB18200H**	**NTSXTB18200H**	**NTSXTB18200H**	**NTSXTB18200H**
	Spring TB With cover	**NTSXTB18201H**	**NTSXTB18201H**	**NTSXTB18201H**	**NTSXTB18201H**	**NTSXTB18201H**	**NTSXTB18201H**	**NTSXTB18201H**	**NTSXTB18201H**	**NTSXTB18201H**	**NTSXTB18201H**
	Screw TB Without cover	**NTSXTB18000H**	**NTSXTB18000H**	**NTSXTB18000H**	**NTSXTB18000H**	**NTSXTB18000H**	**NTSXTB18000H**	**NTSXTB18000H**	**NTSXTB18000H**	**NTSXTB18000H**	**NTSXTB18000H**
	Screw TB With cover	**NTSXTB18001H**	**NTSXTB18001H**	**NTSXTB18001H**	**NTSXTB18001H**	**NTSXTB18001H**	**NTSXTB18001H**	**NTSXTB18001H**	**NTSXTB18001H**	**NTSXTB18001H**	**NTSXTB18001H**

(1) This kit is intended for use with a Network Interface kit operating on the Sercos III communication protocol.
(2) Soon commercialized.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Motion Expert (Encoders, Fast I/Os, Pulse train outputs)



1 Motion controller Modicon M660
2 Modicon Edge I/O NTS: Cluster composed of a Network Interface Module and a power supply module plus discrete modules, analog modules, counter modules, motion expert modules, field device master modules, or passive modules based on a modular configuration.

Presentation

- The Motion Expert kits include an electronic module and its corresponding base, which match in height and width.
- The electronic module provides the motion function.
- The base enables DIN rail mounting, data transmission, and the supply of power to the motion expert module through the backplane bus. The base also provides the field device power supply.
- Motion Expert kits control one up to eight axes with different levels of performance, protection, or diagnostics.

Implementation

- Motion Expert kits use one slot (15 mm *(0.59 in.)* width) or two slots (30 mm *(1.18 in.)* width) on the DIN rail, depending on the model.
- The kits must be completed with spring or screw removable terminal blocks to wire the devices. The terminal blocks must be chosen and ordered separately.
- Spring terminal blocks are recommended for quick, tool-free connection of the sensors and actuators. The quality of the spring terminals avoids the need for periodic re-tightening.

Characteristics

- Motion Expert kits are offered in a standard version with an operating temperature of -30 to 60 °C (*-22 to 140 °F).*
- Hot-swap capability: replacing or adding components without having to power down or interrupt system operation.
- IP degree of protection is IP20.

Description

A motion expert kit comprises a base **A** and an electronic module **B**. The terminal blocks **C** are to order separately.

1 Mechanical clip for locking the kit onto the DIN rail
2 Release button for disengaging the module from the base
3 Status LEDs:
- One RUN LED (green): module running
- One LED per channel (green): channel diagnostics
- One ERR LED (red): detected module error

4 Housing for the terminal block
5 Terminal block
6 Hinge for mounting the terminal blocks *(1)*

(1) This kit requires two terminal blocks.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Motion Expert (Encoders, Fast I/Os, Pulse train outputs)

NTSEHE0221K
NTSECS0121K
NTSEMP0220K

NTSEME0101K
NTSEME0102K
NTSEME0110K
NTSEDM0822K
NTSEDT0800K
NTSEDO0810K
NTSEDT0810K

18 - 3.81 mm (0.15 in.) - DC

References

Motion Expert kits (Motion module + base)

Number of Channels	Type	Aux. discrete inputs	Aux. discrete outputs	Diagnostics	Synchronization	Version	Reference	Weight kg/lb
Encoder								
2	RS-422 incremental encoder (1 MHz) or SSI encoder (500 kHz), or BiSS-C encoder	4x 24 VDC	8x 24 VDC 250 mA/ch	**Yes**	**Yes**	Standard	**NTSEHE0221K** *(1)*	0.131/ *0.289*
1	RS-422 incremental encoder (1 MHz) or SSI encoder (500 kHz), or BiSS-C encoder	2x 24 VDC	–	**Yes**	**Yes**	Standard	**NTSEME0101K**	0.077/ *0.169*
	SinCos (400 kHz) or Hiperface (400 kHz), or EnDat V2.1 & V2.2 (digital interface used for connecting encoders (1 MHz))	2x 24 VDC	–	**Yes**	**Yes**	Standard	**NTSEME0102K**	0.077/ *0.169*
CAM switch								
1	RS-422 incremental encoder (1 MHz) or SSI encoder (500 kHz), or BiSS-C encoder	2x 24 VDC	8x 24 VDC 250 mA/ch	**Yes**	**Yes**	Standard	**NTSECS0121K** *(1)*	0.131/ *0.289*
Encoder generator								
1	RS-422 incremental encoder (400 kHz)	2x 24 VDC	–	**Yes**	**Yes**	Standard	**NTSEME0110K** *(2) (3)*	0.077/ *0.169*
Fast I/Os								
8	Oversampling and Timestamping combined	4x 24 VDC	4x 24 VDC 250 mA/ch	**Yes**	**Yes**	Standard	**NTSEDM0822K** *(2) (3)*	0.077/ *0.169*
	Timestamping	8x 24 VDC	–	**Yes**	**Yes**	Standard	**NTSEDT0800K** *(2)*	0.077/ *0.169*
		–	8x 24 VDC 250 mA/ch	**Yes**	**Yes**	Standard	**NTSEDT0810K** *(2)*	0.077/ *0.169*
	Oversampling	–	8x 24 VDC 250 mA/ch	**Yes**	**Yes**	Standard	**NTSEDO0810K** *(2)*	0.077/ *0.169*
Pulse Output Generator								
2	Pulse train output, RS-422 (400 kHz)	8x 24 VDC	2x 24 VDC 50 mA/ch	**Yes**	**Yes**	Standard	**NTSEMP0220K** *(1)*	0.131/ *0.289*

Terminal Blocks

Number of points - Pitch - Voltage	Type	Cover	Reference	Weight kg/lb	For use with the kit
18 - 3.81 mm *(0.15 in.)* - DC	Spring	Without cover	**NTSXTB18200H**	0.028/*0.061*	*NTSEHE0221K (1), NTSEME0101K, NTSEME0102K, NTSECS0121K (1), NTSEME0110K, NTSEDT0800K, NTSEDM0822K, NTSEDT0810K, NTSEDO0810K, NTSEMP0220K (1)*
		With cover	**NTSXTB18201H**	0.038/*0.083*	
	Screw	Without cover	**NTSXTB18000H**	0.039/*0.085*	
		With cover	**NTSXTB18001H**	0.049/*0.108*	

Accessories

Terminal Blocks – Mounting accessories See pages 64 and 65

Spare parts

Modules and Bases, Termination, Cover See pages 66 to 69

(1) This kit requires two terminal blocks.
(2) This kit is intended for use with a Network Interface kit operating on the Sercos III communication protocol.
(3) Soon commercialized.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Field Device Master

Function		**Field Device Master** - Enabling efficient and robust communication between field devices and the I/O system - Contributing to the overall performance and functionality of the control system	
			
Number of channels		1 Serial line	4
Protocol		Serial RS-485/RS-422, Modbus RTU, ASCII, Client	IO-Link Master
Specification version		–	Compliant with IO-Link standard V1.1
Number of inputs and outputs		–	- Up to 4 discrete channels (configurable as input 24 VDC Sink or output 24 VDC Push-Pull 200 mA/channel for C/Q output) - Up to 4 additional discrete input channels
Exchange mode		IO Scanner device mode: Up to 32 Modbus devices can be addressed.	C/Q signal in IO-Link master mode
Transmission standard		Serial RS-485/RS-422	IO-Link Master (IEC 61131-9) Standard with 4 ports
Transmission rate		Up to 115.2 kbps	COM1: 4.8 kbit/s COM2: 38.4 kbit/s COM3: 230.4 kbit/s
Communication features		Serial 2-wire and 4-wire RS-422/RS-485	Ports Mode: - IO-Link (COM1/2/3) - SIO-Mode (digital input or output) - Additional digital input (DI)
Power supply type		24 VDC field power from internal power supply	- 24 VDC internal field power supply for IO-Link Class A - 24 VDC SELV external power supply for IO-Link Class B
Protection type		–	Thermal protection Short-circuit protection Overcurrent protection
Isolation	Between channels	–	–
	Between groups	–	–
	Between channels and bus	Isolated	Isolated
	Between channels and ground	–	–
	Between IO-Link and bus	–	500 VAC RMS
Max. cable length		1,200 m *(3,937 ft)*	20 m *(65.6 ft)*
Synchronization		–	–
Size	Height	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*
	Width	15 mm *(0.59 in.)* (1 slot)	15 mm *(0.59 in.)* (1 slot)
Operating temperature	Standard version	-30 to 60 °C (*-22 to 140 °F)*	-30 to 60 °C (*-22 to 140 °F)*
	Hardened version	-40 to 70 °C *(-40 to 158 °F)*	–
Sold as a kit (base + functional module)	Standard version	**NTSFMB0120K**	**NTSFIO0400K**
	Hardened version	**NTSFMB0120HK**	–
See page		50	
Compatible terminal blocks	Number of points - Pitch - Voltage	12 - 5 mm *(0.19 in.)* - DC	18 - 3.81 mm *(0.15 in.)* - DC
	Number of terminal blocks to use	1	1
	Spring terminal block Without cover	**NTSXTB12200H**	**NTSXTB18200H**
	Spring terminal block With cover	**NTSXTB12201H**	**NTSXTB18201H**
	Screw terminal block Without cover	**NTSXTB12000H**	**NTSXTB18000H**
	Screw terminal block With cover	**NTSXTB12001H**	**NTSXTB18001H**

Modicon Edge I/O NTS

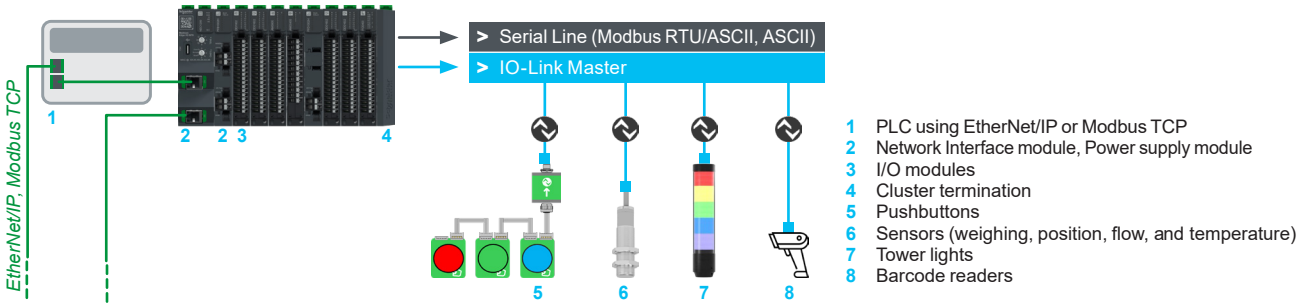
The future-ready I/O system for data aggregation with built-in cybersecurity

Field Device Master

Presentation

The Field Device Master (FDM) kits include an electronic module and its corresponding base, which match in height and width.

- The electronic module provides the centralized communication interface for connecting field devices (sensors and actuators), in industrial automation systems.
- The FDM modules enable efficient data exchange, diagnostics, and configuration of field devices with the following protocols:
  - Serial RS-485/RS-422, Modbus RTU, ASCII, Client: the kit enables communication to be initiated and controlled with other server devices on the network.
  - IO-Link Master: the kit allows sensors and actuators to be connected to the Edge I/O NTS system in accordance with the IO-Link standard, and in conjunction with the Network Interface Module kit. It transforms the devices into real communicators, offering a wide range of functions with associated setting options and status information because of their communication capability.
- The base enables DIN rail mounting, data transmission, and the supply of power to the FDM module through the backplane bus. The base also provides the field device power supply.

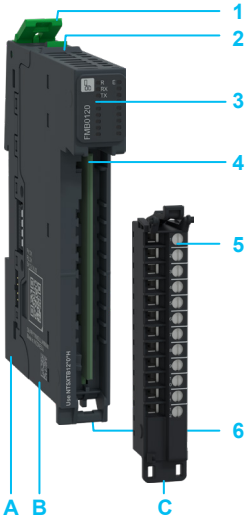


Implementation

- Up to four IO-Link devices per module (3/4 wires - Class A) *(1)* can be installed in a configuration.
- FDM kits use one slot (15 mm *(0.59 in.)* width) on the DIN rail.
- The kits must be completed with spring or screw removable terminal blocks to wire the devices. The terminal blocks must be chosen and ordered separately.
- Spring terminal blocks are recommended for quick, tool-free connection of the sensors and actuators. The quality of the spring terminals avoids the need for periodic re-tightening.

Characteristics

- The kits are available in two versions:
  - Standard, with an operating temperature of -30 to 60 °C *(-22 to 140 °F)*
  - Hardened, with an operating temperature of -40 to 70 °C *(-40 to 158 °F)*. The hardened version can operate as the standard version.
- Hot-swap capability: replacing or adding components without having to power down or interrupt system operation.
- IP degree of protection is IP20. Hardened versions are treated with a conformal coating to ensure additional environmental protection and long-term reliability.



Description

A Field Device Master kit comprises a base **A** and an electronic module **B**. The terminal block **C** must be ordered separately.

1 Mechanical clip for locking the kit onto the DIN rail
2 Release button for disengaging the module from the base
3 Status LEDs:
- One RUN LED (green): module running
- One LED per channel (green): channel diagnostics
- One ERR LED (red): detected module error

4 Housing for the terminal block
5 Terminal block
6 Hinge for mounting the terminal block

(1) IO-Link devices Class B (M12 connector) can be connected with an external power supply.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Field Device Master

NTSFMB0120K

NTSFMB0120HK

NTSFIO0400K

References

Field Device Master kits (FDM module + base)

Number of channels	Protocol	Number of inputs and outputs	Synchronization	Version	Reference	Weight kg/lb
1 serial line Up to 32 Modbus devices can be addressed	RS-485/RS-422, Modbus RTU, ASCII, Client	–	–	Standard	NTSFMB0120K	0.077/ *0.169*
			–	Hardened	NTSFMB0120HK	0.077/ *0.169*
Up to 4 IO-Link devices	IO-Link Master	- Up to 4 discrete channels (configurable as input 24 VDC sink or output 24 VDC push-pull 200 mA/ channel for C/Q output) - Up to 4 additional discrete input channels	–	Standard	NTSFIO0400K	0.102/ *0.224*

12-points - 5 mm (0.19 in.) - DC/AC

18-points - 3.81 mm (0.15 in.) - DC

Terminal Blocks

Number of points - Pitch - Voltage	Type	Cover	Reference	Weight kg/lb	For use with the kit
12 - 5 mm *(0.19 in.)* - DC	Spring	Without cover	NTSXTB12200H	0.029/*0.063*	*NTSFMB0120K (1), NTSFMB0120HK (1)*
		With cover	NTSXTB12201H	0.040/*0.088*	
	Screw	Without cover	NTSXTB12000H	0.048/*0.105*	
		With cover	NTSXTB12001H	0.058/*0.127*	
18 - 3.81 mm *(0.15 in.)* - DC	Spring	Without cover	NTSXTB18200H	0.028/*0.061*	*NTSFIO0400K*
		With cover	NTSXTB18201H	0.038/*0.083*	
	Screw	Without cover	NTSXTB18000H	0.039/*0.085*	
		With cover	NTSXTB18001H	0.049/*0.108*	

Accessories

Terminal Blocks – Mounting accessories — See pages 64 and 65

Spare parts

Modules and Bases, Termination, Cover — See pages 66 to 69

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Passive (Common distribution, Dummy)

Function			Passive				
			Common distribution kits for distributing electrical power			Dummy kits: non-functional or simulated module that replicates the physical form and connection interface of a real module without performing any actual control or input/output functions	
							
Number of channels			**16x 0 VDC commons**	**16x 24 VDC commons**	**8x 0 VDC commons 8x 24 VDC commons**	**1-slot**	**2-slot**
Protection type			–	- Overvoltage protection - Undervoltage protection - Overload protection - Short-circuit protection - Reverse polarity protection - Inrush current control - Power up limitation - PE Current		–	–
Nominal operating current (field)			10.5 A	10.5 A	10.5 A	–	–
Max power dissipation in W			0.587 W	1.348 W	1.428 W	–	–
Voltage range (supply voltage range)			0 VDC	20.4...28.8 VDC	20.4...28.8 VDC	–	–
Current consumption	Max. bus current		3 mA	3 mA	3 mA	–	–
	Max. field current		0 mA	0 mA	0 mA	–	–
Size	Height		100 mm *(3.94 in.)*	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*
	Width		15 mm *(0.59 in.)* (1 slot)	30 mm *(1.18 in.)* (2 slots)	15 mm *(0.59 in.)* (1 slot)	15 mm *(0.59 in.)* (1 slot)	30 mm *(1.18 in.)* (2 slots)
Operating temperature	Standard version		–	–	–	–	–
	Hardened version		-40 to 70 °C *(-40 to 158 °F)*	-40 to 70 °C *(-40 to 158 °F)*	-40 to 70 °C *(-40 to 158 °F)*	-40 to 70 °C *(-40 to 158 °F)*	-40 to 70 °C *(-40 to 158 °F)*
Sold as a kit (base + functional module)	Standard version		–	–	–	–	–
	Hardened version		**NTSPCM0016HK**	**NTSPCM1600HK**	**NTSPCM0808HK**	**NTSDMY0100HK**	**NTSDMY0200HK**
See page			54				
Compatible terminal blocks	Number of points - Pitch - Voltage		18 - 3.81 mm *(0.15 in.)* - DC	18 - 3.81 mm *(0.15 in.)* - DC	18 - 3.81 mm *(0.15 in.)* - DC	–	–
	Number of terminal blocks to use		1	1	1	–	–
	Spring terminal block	Without cover	**NTSXTB18200H**	**NTSXTB18200H**	**NTSXTB18200H**	–	–
		With cover	**NTSXTB18201H**	**NTSXTB18201H**	**NTSXTB18201H**	–	–
	Screw terminal block	Without cover	**NTSXTB18000H**	**NTSXTB18000H**	**NTSXTB18000H**	–	–
		With cover	**NTSXTB18001H**	**NTSXTB18001H**	**NTSXTB18001H**	–	–

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Passive (Common distribution, Dummy)

Presentation

The passive kits include an electronic module and its corresponding base, which match in height and width.

Common distribution kits

- The common distribution module manages and distributes electrical power throughout the Edge I/O NTS system. As a centralized point for power distribution, it incorporates features such as circuit protection, monitoring, and control capabilities.
- The base enables DIN rail mounting, data transmission, and the supply of power to the module through the backplane bus. The base also provides the field device power supply.

Dummy kits

- The role of a dummy module in Edge I/O NTS system involves configuring a placeholder module to mimic the behavior of a real module, without performing any real input or output functions. It is used for testing, development, or as a temporary placeholder in the absence of a real module. It can be configured to match the attributes of the real module, such as addressing, data format, and communication protocols.
- The base enables DIN rail mounting, data transmission, and the supply of power to the module through the backplane bus The base also provides the field device power supply.

Implementation

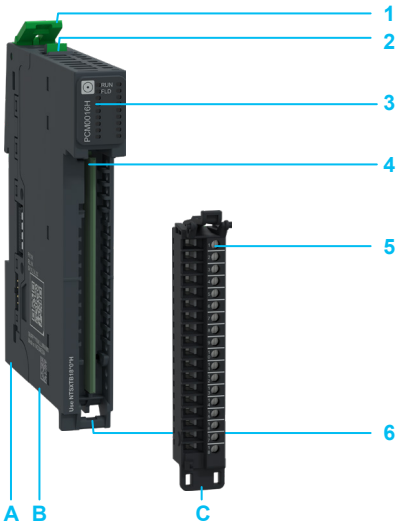
- The kits use one slot (15 mm *(0.59 in.)* width) or two slots (30 mm *(1.18 in.)* width) on the DIN rail, depending on the model.
- Common distribution kits must be completed with spring or screw removable terminal blocks to wire the devices. The terminal blocks must be chosen and ordered separately.
- Spring terminal blocks are recommended for quick, tool-free connection of the sensors and actuators. The quality of the spring terminals avoids the need for periodic re-tightening.

Characteristics

- The kits are offered in a hardened version with an operating temperature of -40 to 70 °C *(-40 to 158 °F)*. The hardened version can operate as a standard version.
- Hot-swap capability: replacing or adding components without having to power down or interrupt system operation.
- IP degree of protection is IP20. Hardened versions are treated with a conformal coating to ensure additional environmental protection and long-term reliability.

Description

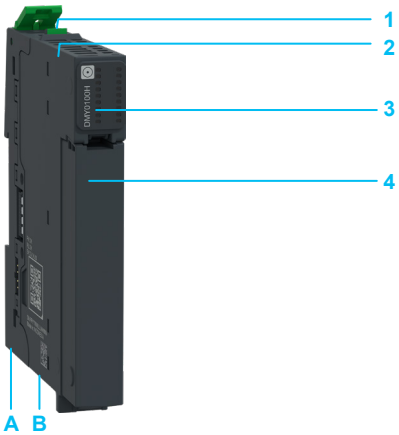
A passive kit comprises a base **A** and an electronic module **B**. The terminal block **C** must be ordered separately.



1 Mechanical clip for locking the kit onto the DIN rail
2 Release button for disengaging the module from the base
3 Status LEDs:
- One RUN logic supplied LED (green)
- One FIEL D power supply LED (green)

4 Housing for the terminal block
5 Terminal block
6 Hinge for mounting the terminal block

A dummy kit comprises a base **A** and an electronic module **B**.



1 Mechanical clip for locking the kit onto the DIN rail
2 Release button for disengaging the module from the base
3 Status LEDs
- One BUS power supply LED (green)
- One FIELD power supply LED (green)

4 Cover

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Passive (Common distribution, Dummy)

NTSPCM0016HK

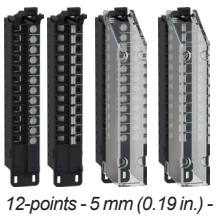
NTSPCM1600HK

NTSPCM0808HK

NTSDMY0100HK

NTSDMY0200HK

18 points - 3.81 mm (0.15 in.) - DC



12-points - 5 mm (0.19 in.) - DC/AC

References

Passive kits (passive module + base)

Designation	Version	Reference	Weight kg/*lb*
Common distribution kits			
16x 0 VDC commons	Hardened	NTSPCM0016HK	0.098/*0.216*
16x 24 VDC commons with one electronic fuse	Hardened	NTSPCM1600HK	0.100/*0.220*
8x 0 VDC commons **8x 24 VDC commons** with one electronic fuse	Hardened	NTSPCM0808HK	0.100/*0.220*
Dummy kits			
1-slot: 15 mm width *(0.59 in.)*	Hardened	NTSDMY0100HK	0.100/*0.220*
2-slot: 30 mm width *(1.18 in.)*	Hardened	NTSDMY0200HK	0.142/*0.313*

Terminal Blocks

Number of points - Pitch - Voltage	Type	Cover	Reference	Weight kg/*lb*	
18 - 3.81 mm *(0.15 in.)* - DC	Spring	Without cover	NTSXTB18200H	0.028/*0.061*	*NTSPCM0016HK*, *NTSPCM1600HK*, *NTSPCM0808HK*
		With cover	NTSXTB18201H	0.038/*0.083*	
	Screw	Without cover	NTSXTB18000H	0.039/*0.085*	
		With cover	NTSXTB18001H	0.049/*0.108*	

Accessories

Terminal Blocks – Mounting accessories — See pages 64 and 65

Spare parts

Modules and Bases, Termination, Cover — See pages 66 to 69

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Power supply

Function		**Power supply**	
		To distribute the bus power supply to the Network Interface Modules (NIM) and I/O modules	**To distribute the field power supply in a cluster of modules**
			
Rated supply voltage		24 VDC	24 VDC
Functions		–	–
		–	–
Power supply output current		3.5 A for bus power supply 10.5 A for field power supply	10.5 A for field power supply
Voltage range		20.4...28.8 VDC	20.4...28.8 VDC
Input current		3.5 A for bus power supply 10.5 A for field power supply	10.5 A for field power supply
Max power dissipation in W		1.562 W	1.314 W
Protection type		- Overvoltage protection for bus and field - Undervoltage protection for bus and field - Overload protection for bus and field - Short-circuit protection for bus and field - Reverse polarity protection for bus and field - Inrush current control for field - Voltage surge protection for bus and field - Short power cut for bus	- Overvoltage protection for field - Undervoltage protection for field - Overload protection for field - Short-circuit protection for field - Reverse polarity protection for field - Inrush current control for field - Voltage surge protection for field
Automatic disconnection		–	**Yes**
Size	Height	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*
	Width	15 mm *(0.59 in.)* (1 slot)	15 mm *(0.59 in.)* (1 slot)
Operating temperature	Standard version	–	–
	Hardened version	-40 to 70 °C *(-40 to 158 °F)*	-40 to 70 °C *(-40 to 158 °F)*
Sold as a kit (base + functional module)	Standard version	–	–
	Hardened version	**NTSPFB1002HK**	**NTSPFD1002HK**
See page		58	
Compatible terminal blocks	Number of points - Pitch - Voltage	2 - 5 mm *(0.19 in.)* - DC	2 - 5 mm *(0.19 in.)* - DC
	Number of terminal blocks to use	2	1
	Spring terminal block (Without cover)	**NTSXTB02230H**	**NTSXTB02230H**
	Screw terminal block (Without cover)	**NTSXTB02030H**	**NTSXTB02030H**

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Power supply

Presentation

The power supply kits include an electronic module and its corresponding base, which match in height and width.

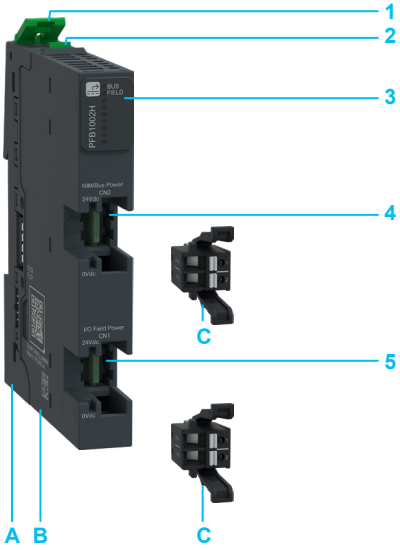
- The power supply module provides the following functions:
  - Supplying the necessary electrical power to the I/O modules and the Network Interface Modules within the system, they operate reliably and consistently.
  - Helping to maintain robust and regulated power distribution to all connected modules, contributing to the overall functionality and performance of the I/O system.
- The base enables DIN rail mounting, data transmission, and the supply of power to the module through the backplane bus. The base also provides the field device power supply.

Implementation

- Power supply kits use one slot (15 mm *(0.59 in.)* width) on the DIN rail.
- The kits must be completed with spring or screw removable terminal blocks to wire the devices. The terminal blocks must be chosen and ordered separately.
- Spring terminal blocks are recommended for quick, tool-free connection of the sensors and actuators. The quality of the spring terminals avoids the need for periodic re-tightening.

Characteristics

- The kits are offered in a hardened version with an operating temperature of -40 to 70 °C *(-40 to 158 °F)*. The hardened version can operate as a standard version.
- IP degree of protection is IP20. Hardened versions are treated with a conformal coating to ensure additional environmental protection and long-term reliability.



Description

A power supply kit comprises a base **A** and an electronic module **B**. The terminal blocks **C** are to order separately *(1)*.

1 Mechanical clip for locking the kit onto the DIN rail
2 Release button for disengaging the module from the base
3 Status LEDs:
- One BUS power supply/RUN logic supplied LED (green), depending on the model
- One FIELD power supply LED (green)

4 Housing for the terminal block (bus connector)
5 Housing for the terminal block (field connector)

(1) The power supply kit requires one or two terminal blocks, depending on the model.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Power supply

NTSPFB1002HK

NTSPFD1002HK

NTSXTB02230H

NTSXTB02030H

References

Power supply kits (power supply module + base)

Rated supply voltage	Use	Function	Version	Reference	Weight kg/*lb*
24 VDC	Distributes the bus power supply to the Network Interface Modules (NIM) and I/O modules - 3.5 A for the bus power supply - 10.5 A for the field power supply - Mandatory module after a NIM or an extender - Includes all functions of a device power supply	–	Hardened	**NTSPFB1002HK** *(1)*	0.104/ *0.229*
	Distributes the field power supply in a cluster of modules - 10.5 A for the field power - Can be added when more than 10 A is required or to manage several segments	–	Hardened	**NTSPFD1002HK** *(2)*	0.104/ *0.229*

Terminal Blocks

Number of points - Pitch - Voltage	Type	Cover	Reference	Weight kg/*lb*	*For use with the kit*
2 - 5 mm *(0.19 in.)* - DC	Spring	Without cover	**NTSXTB02230H**	0.008/*0.017*	*NTSPFB1002HK (1), NTSPFD1002HK (2)*
	Screw	Without cover	**NTSXTB02030H**	0.011/*0.024*	

Accessories

Terminal Blocks – Mounting accessories	See pages 64 and 65

Spare parts

Modules and Bases, Termination, Cover	See pages 66 to 69

(1) This power supply kit requires two terminal blocks.
(2) This power supply kit requires one terminal block.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Network Interface

Function		**Network Interface for data exchange between the master PLC and I/O islands**	
			
Bus or network	Type	■ EtherNet/IP ■ Modbus TCP	■ SERCOS
	Port	■ USB-C 2.0 (HTTPs and RNDIS)	■ USB-C 2.0 (HTTPs and RNDIS)
Structure	Exchange mode	10/100 Mbps Full duplex (Autonegotiation)	10/100 Mbps full duplex (Autonegotiation)
	Physical interface	10BASE-T/100BASE-TX	10BASE-T/100BASE-TX
	Medium	Twisted pair cable	Twisted pair cable
	Cable length	100 m *(328 ft)* (10Base-T/100Base-TX)	100 m *(328 ft)* (10Base-T/100Base-TX)
Topology		- Daisy chain - Star - Ring (using RSTP)	- Daisy chain - Ring
Communication features	Security	- Built-in TPM, secure storage - EcoStruxure Cybersecurity Admin Expert (CAE) support - Secure Boot, Signed firmware, Secure firmware update - Service communications encrypted, TLS 1.2 - Role Based Access Control (RBAC) - Device Genuineness	- Built-in TPM, secure storage - EcoStruxure Cybersecurity Admin Expert (CAE) support - Secure Boot, Signed firmware, Secure firmware update - Service communications encrypted, TLS 1.2 - Role Based Access Control (RBAC) - Device Genuineness
	Plug and play	- Automatic discovery with DPWS - Web Server - Configuration via Webpage, standalone tool, or through EcoStruxure Machine Expert, EcoStruxure Control Expert, and EcoStruxure Automation Expert - FDR Client - BootP/DHCP Client	- Automatic discovery with DPWS - Web Server - Configuration via Webpage, standalone tool, or through EcoStruxure Machine Expert - FDR Client
	Communication	- IPV4 - EtherNet/IP (Adapter) - Modbus TCP (Server)	- IPV4 - SERCOS III
	Diagnostics	- Diagnostic log - Error log - Event log - Communication log	- Diagnostic log - Error log - Event log - Sercos diagnostics - Communication log
	Other	- Commisionning without PLC - Optional and virtual modules absent	- Commisionning without PLC - Optional and virtual modules absent
Hardware configuration	Number of addressable I/O kits	Up to 32 kits per cluster	Up to 32 kits per cluster
	Cybersecurity	Cybersecurity enabled out of the box	Cybersecurity enabled out of the box
	Power supply type	24 VDC not isolated (20.4...28.8 VDC) Powered by Internal bus power via NTSPFB power supply module from a 24 VDC bus connector	24 VDC not isolated (20.4...28.8 VDC) Powered by Internal bus power via NTSPFB power supply module from a 24 VDC bus connector
Connector type	Bus or network port	Two RJ45 Ethernet ports, internally switched, with Galvanic isolation	Two RJ45 Ethernet ports, internally switched, with Galvanic isolation
	Configuration firmware	From network connection or with USB type-C port (CN1) using EcoStruxure Administration Device Manager	From network connection or with USB type-C port (CN1) using EcoStruxure Administration Device Manager
Size	Height	100 mm *(3.94 in.)*	100 mm *(3.94 in.)*
	Width	30 mm *(1.18 in.)* (2 slots) (standard version) + 15 mm *(0.59 in.)* with Termination 45 mm *(1.77 in.)* (3 slots) (hardened version) + 15 mm *(0.59 in.)* with Termination	30 mm *(1.18 in.)* (2 slots) (standard version) + 15 mm *(0.59 in.)* with Termination
Operating temperature	Standard version	-30 to 60 °C (*-22 to 140 °F)*	-30 to 60 °C (*-22 to 140 °F)*
	Hardened version	-40 to 70 °C *(-40 to 158 °F)*	-
Sold as a kit (base + functional module)	Standard version	**NTSNEC1200K**	**NTSNSC1200K**
	Hardened version	**NTSNEC1200HK**	-
See page		62	

Modicon Edge I/O NTS

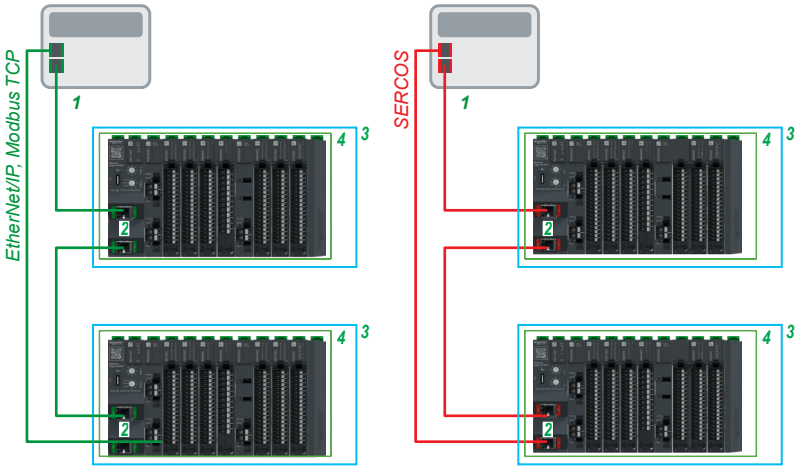
The future-ready I/O system for data aggregation with built-in cybersecurity

Network Interface

Presentation

The Network Interface kits include an electronic module and its corresponding base, which match in height and width.

- The Network Interface Modules (NIMs) act as bus couplers, enabling communication between the Edge I/O NTS system—composed of an island—and EtherNet/IP, Modbus TCP, and SERCOS III networks. They allow the I/O system to exchange data for monitoring, control, and coordination purposes.
- The base enables DIN rail mounting, data transmission, and the supply of power to the module through the backplane bus. The base also provides the field device power supply.



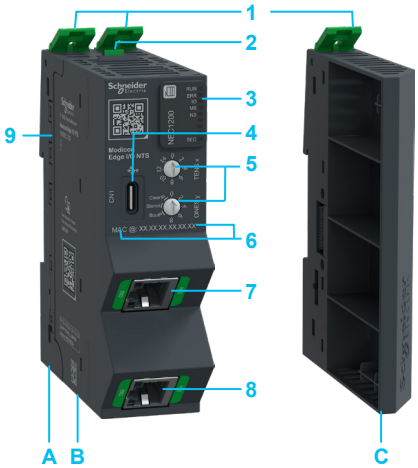
1 PLC using EtherNet/IP or Sercos
2 Network Interface (EtherNet/IP, Modbus TCP, or SERCOS)
3 Island composed of one cluster
4 Cluster composed of a Network Interface kit, I/O kits, and a cluster termination.

Implementation

- The Network Interface occupies the first position of a cluster.
- The Network Interface kits use two slots (30 mm *(1.18 in.)* width), or three slots (45 mm *(1.77 in.)* width).

Characteristics

- The kits are available in two versions:
  - Standard, with an operating temperature of -30 to 60 °C *(-22 to 140 °F)*
  - Hardened, with an operating temperature of -40 to 70 °C *(-40 to 158 °F)*. The hardened version can operate as the standard version.
- IP degree of protection is IP20. Hardened versions are treated with a conformal coating to ensure additional environmental protection and long-term reliability.



Description

A Network Interface kit comprises a base **A** and an electronic module **B**, and a cluster termination **C**.

1. Mechanical clip for locking the kit onto the DIN rail
2. Release button for disengaging the module from the base
3. Status LEDs to indicate the operational status of the island
4. USB type-C port (CN1) to configure and upgrade the firmware of the island
5. Two rotary switches to set the IP address of the Network Interface Module
6. Label space to write the assigned MAC address (this unique 48-bit network identifier is hard-coded into the module when it is manufactured)
7. Communication port (CN2) (RJ45 type) to connect the Network Interface Module to the network
8. Communication port (CN3) (RJ45 type) to connect the Network Interface Module to the network
9. On the back side of the base: One rotary switch to set the cybersecurity mode (can also reset the module to factory settings)

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Network Interface

NTSNEC1200K

NTSNEC1200HK

NTSNSC1200K

References

Network Interface kits (Network Interface Module + base + Cluster termination)

Network	Kit composition	Communication port	Data transfer speed	Version	Reference	Weight kg/*lb*
■ EtherNet/IP ■ Modbus TCP	Module with base and cluster termination	2x RJ45	100 Mbps	Standard	NTSNEC1200K *(1)*	0.275/ *0.606*
		2x RJ45	100 Mbps	Hardened	NTSNEC1200HK *(1)*	0.324/ *0.715*
■ SERCOS	Module with base and cluster termination	2x RJ45	100 Mbps	Standard	NTSNSC1200K *(1)*	0.331 *0.729*

Accessories

Terminal Blocks – Mounting accessories	See pages 64 and 65

Spare parts

Modules and Bases, Termination, Cover	See pages 66 to 69

(1) A cluster termination is included with the Network Interface kit.

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Terminal Blocks

Terminal Blocks for 100 mm *(3.94 in.)* -high module

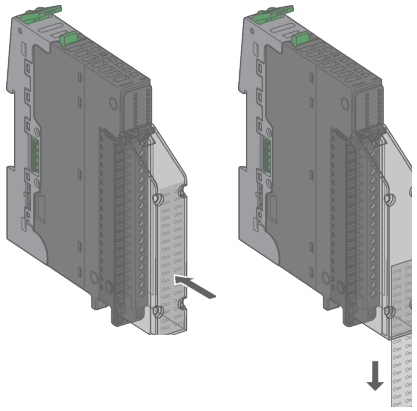
12 terminals	Using DC				Using AC or higher DC voltage			
	Without cover	Weight (kg/*lb*)	With cover	Weight (kg/*lb*)	Without cover	Weight (kg/*lb*)	With cover	Weight (kg/*lb*)
Screw terminal	 NTSXTB12000H	0.048/*0.105*	 NTSXTB12001H	0.058/*0.127*	 NTSXTB12010H	0.048/*0.105*	 NTSXTB12011H	0.058/*0.127*
Spring terminal	 NTSXTB12200H	0.029/*0.063*	 NTSXTB12201H	0.040/*0.088*	 NTSXTB12210H	0.029/*0.063*	 NTSXTB12211H	0.040/*0.088*

18 terminals	Using DC			
	Without cover	Weight (kg/*lb*)	With cover	Weight (kg/*lb*)
Screw terminal	 NTSXTB18000H	0.039/*0.085*	 NTSXTB18001H	0.049/*0.108*
Spring terminal	 NTSXTB18200H	0.028/*0.061*	 NTSXTB18201H	0.038/*0.083*

Terminal Blocks for 121 mm *(4.76 in.)* -high module

18 terminals	Using DC			
	Without cover	Weight (kg/*lb*)	With cover	Weight (kg/*lb*)
Screw terminal	 NTSXTB18000XH	0.064/*0.141*	 NTSXTB18001XH	0.077/*0.169*
Spring terminal	 NTSXTB18200XH	0.038/*0.083*	 NTSXTB18201XH	0.050/*0.110*

Plain Text Installation on Clear Cover



The clear cover of the Terminal Blocks has a dedicated space that allows you to insert a paper label. The label size depends on the height of the module:

Module height	Label dimensions	Paper Thickness
100 mm *(3.93 in.)*	65 x 10.7 mm *(2.56 x 0.42 in.)*	0.2 mm *(0.007in.)*
121 mm *(4.76 in.)*	86 x 10.7 mm *(3.38 x 0.42 in.)*	0.2 mm *(0.007in.)*

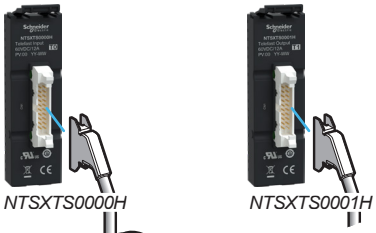
Terminal Blocks for power supply module

2-point terminal	Without cover	Weight (kg/*lb*)
Screw terminal block	 NTSXTB02030H	0.011/*0.024*
Spring terminal block	 NTSXTB02230H	0.008/*0.017*

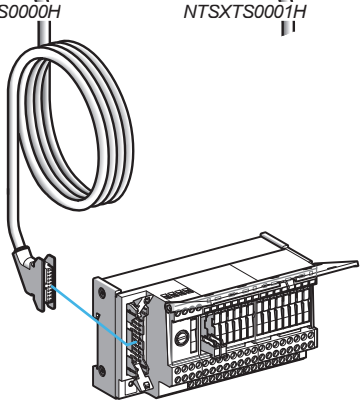
Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Telefast terminal blocks – Mounting accessories



NTSXTS0000H NTSXTS0001H



Telefast ABE7:connection cables and connection sub-bases

Terminal Blocks for connecting the I/O to the Telefast ABE7 connection sub-bases

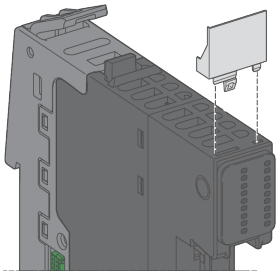
Designation	Compatibility	Reference	Weight kg/*lb*
20-point HE connector	Discrete input module: *NTSDDI1602XK*, *NTSDDI1602XHK*	NTSXTS0000H *(1)*	0.480/ *1.058*
	Discrete output modules: *NTSDDO1602XK*, *NTSDDO1602XHK*	NTSXTS0001H *(1)*	0.480/ *1.058*

More information on Telefast ABE7 IP20 connection sub-bases, consult catalog Ref. DIA3ED2160602EN, or on our website.

(1) Planned commercialization.

Catalog Ref. DIA3ED2160602EN

NTSXMP2000



Label to be fixed on top of the module

Mounting accessories

Designation		Sold in sets of	Reference	Weight kg/*lb*
Label for modules 14 x 10 mm *(0.55 x 0.39 in.)*	Each individual module has a reserved space for the marking label Marking labels can help you identify information on individual modules. To be fixed on top of the module	50	NTSXMP2000	0.029/ *0.063*

NTSXMP1000

Wheel of 8 flexible coding keys	To mechanically encode or configure connections between base to module, or Terminal block to module	10	NTSXMP1000	0.016/ *0.035*

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Spare parts: Modules and Bases

1-slot

100 mm (3.94 in.) high

121 mm (4.76 in.) high

2-slot

100 mm (3.94 in.) high

121 mm (4.76 in.) high

Discrete modules and associated bases

Number of channels			Dangerous voltage	Wiring mode	Synchronization	Version	Reference	Weight kg/lb	Associated base
Number	Signal type	Range							
Discrete input modules									
2 (isolated)	–	100 to 240 VAC	Yes	1-/2-3 wire	–	Hardened	NTSDAI0215H	0.050/ *0.110*	*NTSXBA0100H (1-slot)*
4	–	100 to 120 VAC	Yes	1-/2-wire	–	Hardened	NTSDAI0404H		
	Sink	24 VDC, 48 V AC/DC	Yes	1-/2-3 wire	–	Hardened	NTSDAI0403H		
	Sink	24 VDC	–	1-/2-3 wire	Yes	Standard	NTSDDI0402		
	Sink	24 VDC	–	1-/2-3 wire	Yes	Hardened	NTSDDI0402H		
6	Sink	24 VDC	–	1-/2-3 wire	Yes	Standard	NTSDDI0602		
8	Sink	24 VDC	–	1-/2-wire	–	Standard	NTSDDI0802X	0.051/ *0.112*	
	–	100 to 120 VAC	Yes	1-wire	–	Standard	NTSDAI0804	0.050/ *0.110*	
16	Sink	24 VDC	–	1-wire	Yes	Standard	NTSDDI1602		
	Source	24 VDC	–	1-wire	Yes	Standard	NTSDDI1642		
	Sink	24 VDC	–	1-/2-3 wire	–	Standard	NTSDDI1602X	0.089/ *0.196*	*NTSXBA0200H (2-slot)*
	Sink	24 VDC	–	1-/2-3 wire	–	Hardened	NTSDDI1602XH		
Discrete output modules									
2 (isolated, protected)	Transistor (source)	24 VDC 2 A/channel	–	1-/2-3 wire	Yes	Hardened	NTSDDO0212H	0.050/ *0.110*	*NTSXBA0100H (1-slot)*
2 (isolated)	Relay	Form C with NO/NC contacts, 5 to 125 VDC, 24 to 240 VAC 2 A/channel	Yes	–	–	Standard	NTSDRC0215		
2	Triac	100 to 240 VAC 1 A/channel	Yes	1-/2-3 wire	–	Standard	NTSDAO0205		
4 (isolated)	Triac	100 to 240 VAC 2 A/channel	Yes	1-/2-3 wire	–	Standard	NTSDAO0415	0.089/ *0.196*	*NTSXBA0200H (2-slot)*
			Yes	1-/2-3 wire	–	Hardened	NTSDAO0415H	0.083/ *0.182*	
	Relay	Form C with NO/NC contacts, 5 to 125 VDC, 24 to 240 VAC 5 A/channel	Yes	–	–	Standard	NTSDRC0415		
			Yes	–	–	Hardened	NTSDRC0415H		
4 (protected)	Transistor (source)	24 VDC 500 mA/channel	–	1-/2-3 wire	Yes	Standard	NTSDDO0402	0.050/ *0.110*	*NTSXBA0100H (1-slot)*
			–	1-/2-3 wire	Yes	Hardened	NTSDDO0402H		
6 (protected)	Transistor (source)	24 VDC 500 mA/channel	–	1-/2-3 wire	Yes	Standard	NTSDDO0602		
6 (isolated)	Relay	Form A with NO contact, 5 to 125 VDC, 24 to 240 VAC 2 A/channel	Yes	–	–	Standard	NTSDRA0615	0.083/ *0.182*	*NTSXBA0200H (2-slot)*
8 (protected)	Transistor (source)	24 VDC 500 mA/channel	–	1-/2-wire	–	Standard	NTSDDO0802X	0.051/ *0.112*	*NTSXBA0100H (1-slot)*
		24 VDC 2 A/channel	–	1-wire	Yes	Standard	NTSDDO0802 *(1)*	0.050/ *0.110*	
16 (protected)	Transistor (source)	24 VDC 500 mA/channel	–	1-wire	Yes	Standard	NTSDDO1602		
			–	1-/2-wire	–	Standard	NTSDDO1602XA *(1)*	0.083/ *0.182*	*NTSXBA0200H (2-slot)*
			–	1-/2-wire	–	Hardened	NTSDDO1602XAH *(1)*		
			–	1-/2-wire	–	Standard	NTSDDO1602X	0.089/ *0.196*	
			–	1-/2-wire	–	Hardened	NTSDDO1602XH		

(1) This module requires an external power supply source.

NOTE: The terminal block reference for use with the module is printed on the front of the module.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Spare parts: Modules and Bases

1-slot

100 mm (3.94 in.) high

121 mm (4.76 in.) high

2-slot

100 mm (3.94 in.) high

121 mm (4.76 in.) high

Analog modules and associated bases

Number of channels			Dangerous voltage	Wiring mode	Synchronization	Version	Reference	Weight kg/lb	Associated base
Number	Signal type	Method							
Analog input modules									
2 (isolated)	Current, voltage	HART Tolerance, loop power	–	2-/3-/4-wire	Yes	Standard	NTSAMI0210	0.050/ *0.110*	*NTSXBA0100H (1-slot)*
	Temperature	RTD, thermocouple, mV,	–	2-/3-/4-wire	–	Standard	NTSART0214		
		RTD, thermocouple, mV	–	2-/3-/4-wire	–	Hardened	NTSART0214H		
2 (isolated)	Current, voltage	HART Tolerance, loop power	–	2-/3-/4-wire	Yes	Hardened	NTSAMI0210H	0.083/ *0.182*	*NTSXBA0200H (2-slot)*
4 (isolated)	Current	HART communication, loop power	–	2-wire	–	Hardened	NTSAHI0412XH	0.089/ *0.196*	
4	Current, voltage	–	–	2-wire	Yes	Standard	NTSAMI0400	0.050/ *0.110*	*NTSXBA0100H (1-slot)*
		Differential	–	2-wire	Yes	Standard	NTSAMI0420		
4 (Differential)	Temperature	RTD, thermocouple, mV	–	2-/3-wire	–	Standard	NTSART0404	0.050/ *0.110*	
		RTD, thermocouple, mV	–	2-/3-/4-wire	–	Hardened	NTSART0404XH	0.051/ *0.112*	
6 (Differential)	Temperature	RTD, Thermistor	–	2-/3-wire	–	Standard	NTSART0603	0.050/ *0.110*	
8	Current	HART Tolerance, loop power	–	1-/2-wire	–	Standard	NTSACI0802X	0.089/ *0.196*	*NTSXBA0200H (2-slot)*
		HART Tolerance, loop power	–	1-/2-wire	–	Hardened	NTSACI0802XH		
	Current, voltage	–	–	2-wire	Yes	Standard	NTSAMI0800	0.050/ *0.110*	*NTSXBA0100H (1-slot)*
Analog output modules									
2 (isolated)	Current	HART communication	–	2-wire	–	Hardened	NTSAHO0212H	0.083/ *0.182*	*NTSXBA0200H (2-slot)*
2 (isolated)	Current, voltage	–	–	2-wire	Yes	Standard	NTSAMO0210	0.050/ *0.110*	*NTSXBA0100H (1-slot)*
		–	–	2-wire	–	Hardened	NTSAMO0210H		
4	Current, voltage	–	–	2-wire	Yes	Standard	NTSAMO0400		
		–	–	2-wire	–	Hardened	NTSAMO0400H		
Analog Combo module									
4 inputs **2** outputs (isolated group)	Current, voltage	HART Tolerance for the outputs	–	2-wire	Yes	Standard	NTSAMM0600	0.050/ *0.110*	*NTSXBA0100H (1-slot)*

High speed counter modules and associated bases

Number of channels	Discrete inputs	Discrete outputs	Dangerous voltage	Wiring mode	Synchronization	Version	Reference	Weight kg/lb	Associated base
1 incremental 250 kHz (4 inputs)	2 auxiliary inputs 24 VDC	–	–	–	Yes	Standard	NTSEHC0100	0.050/ *0.110*	*NTSXBA0100H (1-slot)*
2 incremental 250 kHz (8 inputs)	4 auxiliary inputs 24 VDC	8 auxiliary outputs 24 VDC 500 mA/ch	–	–	Yes	Standard	NTSEHC0220	0.083/ *0.182*	*NTSXBA0200H (2-slot)*
1 incremental 250 kHz (4 inputs)	2 auxiliary inputs 24 VDC	4 auxiliary outputs 24 VDC 500 mA/ch	–	–	Yes	Hardened	NTSEHC0120H		

NOTE: The terminal block reference for use with the module is printed on the front of the module.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Spare parts: Modules and Bases

1-slot

100 mm (3.94 in.) high

2-slot

100 mm (3.94 in.) high

Motion Expert modules and associated bases

Number of channels	Type	Discrete inputs	Discrete outputs	Synchronization	Version	Reference	Weight kg/lb	Associated base
Encoder								
2	RS-422 incremental encoder (1 MHz) or SSI encoder (500 kHz), or BiSS-C encoder	4x 24 VDC	8x 24 VDC 250 mA/ch	Yes	Standard	NTSEHE0221	0.083/ 0.182	NTSXBA0200H (2-slot)
1	RS-422 incremental encoder (1 MHz) or SSI encoder (500 kHz), or BiSS-C encoder	2	2x 24 VDC	Yes	Standard	NTSEME0101	0.050/ 0.110	NTSXBA0100H (1-slot)
	SinCos (400 kHz) or Hiperface (400 kHz), or EnDat V2.1 & V2.2 (digital interface used for connecting encoders (1 MHz))	2	2x 24 VDC	Yes	Standard	NTSEME0102	0.050/ 0.110	
CAM switch								
1	RS-422 incremental encoder (1 MHz) or SSI encoder (500 kHz), or BiSS-C encoder	2x 24 VDC	8x 24 VDC 250 mA/ch	Yes	Standard	NTSECS0121	0.083/ 0.182	NTSXBA0200H (2-slot)
Encoder generator								
1	RS-422 incremental encoder (400 kHz)	2x 24 VDC	–	Yes	Standard	NTSEME0110 (1) (2)	0.050/ 0.110	NTSXBA0100H (1-slot)
Fast I/Os								
8	Oversampling and Timestamping combined	4x 24 VDC	4x 24 VDC 50 mA/ch	Yes	Standard	NTSEDM0822 (1) (2)	0.050/ 0.110	NTSXBA0100H (1-slot)
	Timestamping	8x 24 VDC	–	Yes	Standard	NTSEDT0800 (1)	0.050/ 0.110	
	Timestamping	–	8x 24 VDC 250 mA/ch	Yes	Standard	NTSEDT0810 (1)	0.050/ 0.110	
	Oversampling	–	8x 24 VDC 250 mA/ch	Yes	Standard	NTSEDO0810 (1)	0.050/ 0.110	
Pulse Output Generator								
2	Pulse train output RS-422 (400 kHz)	8x 24 VDC	2x 24 VDC 250 mA/ch	Yes	Standard	NTSEMP0220	0.083/ 0.182	NTSXBA0200H (2-slot)

Field Device Master modules and associated bases

Number of channels	Communication protocol	Synchronization	Version	Reference	Weight kg/lb	Associated base
1	Serial RS-422/RS-485, Modbus RTU, ASCII, Client	–	Standard	NTSFMB0120	0.050/ 0.110	NTSXBA0100H (1-slot)
			Hardened	NTSFMB0120H		
Up to 4	IO-Link Master, with discrete channels configurable as input or output	Yes	Standard	NTSFIO0400		

(1) This module is intended for use with a Network Interface Module operating on the Sercos III communication protocol.
(2) Soon commercialized.

NOTE: The terminal block reference for use with the module is printed on the front of the module.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Spare parts: Modules and Bases, Termination, Cover

1-slot

100 mm (3.94 in.) high

2-slot

100 mm (3.94 in.) high

3-slot

100 mm (3.94 in.) high

NTSXBA0100H NTSXBA0103H NTSXBA0104H

NTSXBA0200H NTSXBA0201H NTSXBA0301H

NTSXMP0000H NTSXEM0000H NTSXEM0000XH

Passive modules and associated bases

Designation		Version	Reference	Weight kg/lb	Associated base
Common distribution modules	16x 0 VDC commons	Hardened	NTSPCM0016H	0.050/ 0.110	NTSXBA0100H (1-slot)
	16x 24 VDC commons With one electronic fuse	Hardened	NTSPCM1600H		
	8x 0 VDC commons, 8x 24 VDC commons With one electronic fuse	Hardened	NTSPCM0808H		
Dummy modules	1-slot: 15 mm *(0.59 in.)* width	Hardened	NTSDMY0100H	0.050/ 0.110	NTSXBA0100H (1-slot)
	2-slot: 30 mm *(1.18 in.)* width	Hardened	NTSDMY0200H	0.083/ 0.182	NTSXBA0200H (2-slot)

Power supply modules and associated bases

Input voltage	Use	Version	Reference	Weight kg/lb	Associated base
24 VDC	Distributes the bus power supply to the Network Interface Modules (NIM) and I/O modules	Hardened	NTSPFB1002H	0.050/ 0.110	NTSXBA0104H (1-slot)
	Distributes the field power supply in a cluster of modules	Hardened	NTSPFD1002H	0.050/ 0.110	NTSXBA0103H (1-slot)

Network Interface modules and associated bases

Network	Communication port	Data transfer speed	Version	Reference	Weight kg/lb	Associated base
EtherNet/IP, Modbus TCP	2x RJ45	100 Mbps	Standard	NTSNEC1200	0.275/ 0.606	NTSXBA0201H (2-slot)
	2x RJ45	100 Mbps	Hardened	NTSNEC1200H	0.324/ 0.714	NTSXBA0301H (3-slot)
SERCOS	2x RJ45	100 Mbps	Standard	NTSNSC1200	0.262/ 0.577	NTSXBA0201H (2-slot)

Bases for modules

Type of module	Number of slots on the DIN rail (corresponding to the module width)	Version	Reference	Weight kg/lb
- Discrete module - Analog module - Counter module - Motion Expert module - Field Device Master module - Passive module (common, and dummy module)	1-slot (15 mm *(0.59 in.)* width module)	Hardened	NTSXBA0100H	0.026/ 0.057
	2-slot (30 mm *(1.18 in.)* width module)	Hardened	NTSXBA0200H	0.048/ 0.105
- Power supply module (bus and field)	1-slot (15 mm *(0.59 in.)* width module)	Hardened	NTSXBA0103H	0.026/ 0.057
- Power supply module (field)	1-slot (15 mm *(0.59 in.)* width module)	Hardened	NTSXBA0104H	0.026/ 0.057
- Network Interface module - Bus extender module	2-slot (30 mm *(1.18 in.)* width module)	Hardened	NTSXBA0201H	0.048/ 0.105
	3-slot (45 mm *(1.77 in.)* width module)	Hardened	NTSXBA0301H	0.057/ 0.125

Cluster termination

Designation		Reference	Weight kg/lb
Cluster termination	- Required at the end of each cluster - Automatically sold with the Network Interface Kits	NTSXMP0000H	0.039/ 0.085

Cover for terminal blocks

Designation	Sold in sets of	Reference	Weight kg/lb
12 Pts–5 mm (0.19 in.) pitch or 18 Pts– 3.81 mm (0.15 in.) pitch	Sold in a set of 15 Units	NTSXEM0000H	0.152/ 0.335
18 Pts–5 mm (0.19 in.) pitch	Sold in a set of 13 Units	NTSXEM0000XH	0.173/ 0.381

NOTE: The terminal block reference for use with the module is printed on the front of the module.

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Software Seamless integration

Integrated in this release of software

Not integrated

Family	References	EcoStruxure Machine Expert															EcoStruxure Control Expert						EcoStruxure Automation Expert							Third party using Edge I/O Configurator			
		V2.3					V2.5					V2.6					V16.2		V16.2 Hotfix		V16.4		V24.1	V25.0		V25.0.1		V26.0		1.0.0.503		1.0.1.604	
		M241/ M251	M262 MB/EIP	M262 Sercos	M660	PacDrive	M241/ M251	M262 MB/ EIP	M262 Sercos	M660	PacDrive	M241/ M251	M262 MB/EIP	M262 Sercos	M660	PacDrive	M580	NOC	M580	NOC	M580	NOC	SDPac Non-HA	SDPac Non-HA	M262D	SDPac Non-HA	M262D	SDPac Non-HA	M262D	EtherNet/IP	Modbus TCP	EtherNet/IP	Modbus TCP
Analog	NTSACI0802X		■				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
	NTSACI0802XH		■				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
	NTSAHI0412XH																		■	■	■	■						■	■			■	■
	NTSAHO0212H																		■	■	■	■						■	■			■	■
	NTSAMI0210						■	■	■	■	■	■	■	■	■	■	■		■	■	■	■		■	■	■	■	■	■	■	■	■	■
	NTSAMI0210H						■	■	■	■	■	■	■	■	■	■	■		■	■	■	■		■	■	■	■	■	■	■	■	■	■
	NTSAMI0400		■				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	NTSAMI0420							■	■	■	■	■	■	■	■	■	■		■	■	■	■		■	■	■	■	■	■	■			■	■
	NTSAMI0800							■	■	■	■	■	■	■	■	■	■		■	■	■	■		■	■	■			■	■			■	■
	NTSAMM0600												■	■	■	■	■		■	■	■	■										■	■
	NTSAMO0210							■	■	■	■	■	■	■	■	■	■		■	■	■	■		■	■	■	■	■	■	■			■	■
	NTSAMO0210H							■	■	■	■	■	■	■	■	■	■		■	■	■	■		■	■	■	■	■	■	■			■	■
	NTSAMO0400		■				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	NTSAMO0400H		■				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
	NTSART0214												■	■	■	■	■		■	■	■	■						■	■			■	■
	NTSART0214H												■	■	■	■	■		■	■	■	■						■	■			■	■
	NTSART0404												■	■	■	■	■		■	■	■	■						■	■			■	■
	NTSART0404XH												■	■	■	■	■		■	■	■	■						■	■			■	■
	NTSART0603							■	■	■	■	■	■	■	■	■	■		■	■	■	■		■	■	■	■	■					■	■
Discrete	NTSDAI0215H											■	■	■	■	■	■		■	■	■	■		■	■	■	■	■	■	■			■	■
	NTSDAI0403H												■	■	■	■	■		■	■	■	■						■	■			■	■
	NTSDAI0404H							■	■	■	■	■	■	■	■	■	■		■	■	■	■		■	■	■	■	■					■	■
	NTSDAI0804							■	■	■	■	■	■	■	■	■	■		■	■	■	■		■	■	■	■	■					■	■
	NTSDAO0205												■	■	■	■	■		■	■	■	■						■	■			■	■
	NTSDAO0415												■	■	■	■	■		■	■	■	■						■	■			■	■
	NTSDAO0415H												■	■	■	■	■		■	■	■	■						■	■			■	■
	NTSDDI0402							■	■	■	■	■	■	■	■	■	■		■	■	■	■		■	■	■	■	■					■	■
	NTSDDI0402H							■	■	■	■	■	■	■	■	■	■		■	■	■	■		■	■	■	■	■					■	■
	NTSDDI0602		■				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
	NTSDDI0802X		■				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
	NTSDDI1602						■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
	NTSDDI1602X		■				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
	NTSDDI1602XH		■				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
	NTSDDI1642							■	■	■	■	■	■	■	■	■	■		■	■	■	■		■	■	■	■	■	■	■			■	■
	NTSDDO0212H						■	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■		■	■	■	■	■	■	■	■	■	■
	NTSDDO0402												■	■	■	■	■		■	■	■	■						■	■			■	■
	NTSDDO0402H												■	■	■	■	■		■	■	■	■						■	■			■	■
	NTSDDO0602							■	■	■	■	■	■	■	■	■	■		■	■	■	■		■	■	■	■	■					■	■
	NTSDDO0802		■				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	NTSDDO0802X						■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
	NTSDDO1602							■	■	■	■	■	■	■	■	■	■		■	■	■	■		■	■	■	■	■					■	■
	NTSDDO1602X												■	■	■	■	■		■	■	■	■						■	■			■	■
	NTSDDO1602XA												■	■	■	■	■		■	■	■	■						■	■			■	■
	NTSDDO1602XAH												■	■	■	■	■		■	■	■	■						■	■			■	■
	NTSDDO1602XH												■	■	■	■	■		■	■	■	■						■	■			■	■
	NTSDRA0615		■				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■								■	■	■	■
	NTSDRC0215							■	■	■	■	■	■	■	■	■	■		■	■	■	■		■	■	■	■	■	■	■			■	■
	NTSDRC0415												■	■	■	■	■		■	■	■	■						■	■			■	■
	NTSDRC0415H												■	■	■	■	■		■	■	■	■						■	■			■	■
Motion / Expert	NTSECS0121													■	■	■					■	■										■	■
	NTSEDM0822																																
	NTSEDO0810													■	■	■																	
	NTSEDT0800								■	■	■			■	■	■																	
	NTSEDT0810														■	■																	
	NTSEHE0221													■	■	■					■	■										■	■
	NTSEME0101													■	■	■					■	■										■	■
	NTSEME0102																															■	■
	NTSEME0110																																
	NTSEMP0220													■		■																■	■
Counting	NTSEHC0100		■				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■						■	■	■	■	■	■
	NTSEHC0120H		■				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■						■	■	■	■	■	■
	NTSEHC0220		■				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■						■	■	■	■	■	■
Field Device Master	NTSFIO0400											■	■	■	■	■	■		■	■	■	■								■	■	■	■
	NTSFMB0120												■		■	■			■	■	■	■										■	■
	NTSFMB0120H												■		■	■			■	■	■	■										■	■
NIM & Bus Extender	NTSNEC1200		■				■	■				■	■				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	NTSNEC1200H		■				■	■				■	■				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	NTSNSC1200								■	■	■			■	■	■																	
Passive	NTSDMY0100H		■				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■								■	■	■	■
	NTSDMY0200H		■				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■								■	■	■	■
	NTSPCM0016H		■				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■								■	■	■	■
	NTSPCM0808H		■				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■								■	■	■	■
	NTSPCM1600H		■				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■								■	■	■	■
Power Supply	NTSPFB1002H		■				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	NTSPFD1002H		■				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■								■	■	■	■

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Offer Certification plan

Reference	CE, UKCA	cULus Ord.Loc.	cURus	RCM	EAC	KC	cULus Haz.Loc.	IECEx, ATEX, CCC Ex	EU RO Mutual	Power Gen	Railway	Corrosive environment
NTSACI0802X	☑	☑		☑	Pending	Pending	☑	Pending				G3/C3/3S6/3B2
NTSACI0802XH	☑	☑		☑	Pending	Pending	☑	Pending				GX/CX/3S7/3B3/Salt Spray Severity 2
NTSAHI0412XH	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑		GX/CX/3S7/3B3/Salt Spray Severity 2
NTSAHO0212H	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSAMI0210	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	G3/C3/3S6/3B2
NTSAMI0210H	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSAMI0400	☑	☑		☑	Pending	Pending	☑	Pending	Pending			G3/C3/3S6/3B2
NTSAMI0420	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	G3/C3/3S6/3B2
NTSAMI0800	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	G3/C3/3S6/3B2
NTSAMM0600	☑	☑		☑	Pending	Pending	☑	Pending	Pending			G3/C3/3S6/3B2
NTSAMO0210	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	G3/C3/3S6/3B2
NTSAMO0210H	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSAMO0400	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	G3/C3/3S6/3B2
NTSAMO0400H	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSART0214	☑	☑		☑	Pending	Pending	☑	Pending	Pending		☑	
NTSART0214H	☑	☑		☑	Pending	Pending	☑	Pending	Pending		☑	
NTSART0404	☑	☑		☑	Pending	Pending	☑	Pending	Pending			
NTSART0404XH	☑	☑		☑	Pending	Pending	☑	Pending	Pending		☑	
NTSART0603	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	G3/C3/3S6/3B2
NTSDAI0215H	☑	☑		☑	Pending	Pending	☑	Pending		☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSDAI0403H	☑	☑		☑	Pending	Pending	☑	Pending		☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSDAI0404H	☑	☑		☑	Pending	Pending	☑	Pending		☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSDAI0804	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	G3/C3/3S6/3B2
NTSDAO0205	☑	☑		☑	Pending	Pending	☑	Pending	Pending			
NTSDAO0415	☑	☑		☑	Pending	Pending	☑	Pending				
NTSDAO0415H	☑	☑		☑	Pending	Pending	☑	Pending	Pending			
NTSDDI0402	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	G3/C3/3S6/3B2
NTSDDI0402H	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSDDI0602	☑	☑		☑	Pending	Pending	☑	Pending	Pending		☑	G3/C3/3S6/3B2
NTSDDI0802X	☑	☑		☑	Pending	Pending	☑	Pending	Pending		☑	G3/C3/3S6/3B2
NTSDDI1602	☑	☑		☑	Pending	Pending	☑	Pending	Pending		☑	G3/C3/3S6/3B2
NTSDDI1602X	☑	☑		☑	Pending	Pending	☑	Pending	Pending		☑	G3/C3/3S6/3B2
NTSDDI1602XH	☑	☑		☑	Pending	Pending	☑	Pending	Pending		☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSDDI1642	☑	☑		☑	Pending	Pending	☑	Pending	Pending		☑	G3/C3/3S6/3B2
NTSDDO0212H	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSDDO0402	☑	☑		☑	Pending	Pending	☑	Pending	Pending			G3/C3/3S6/3B2
NTSDDO0402H	☑	☑		☑	Pending	Pending	☑	Pending	Pending			GX/CX/3S7/3B3/Salt Spray Severity 2
NTSDDO0602	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	G3/C3/3S6/3B2
NTSDDO0802	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	G3/C3/3S6/3B2
NTSDDO0802X	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	G3/C3/3S6/3B2
NTSDDO1602	☑	☑		☑	Pending	Pending	☑	Pending	Pending			G3/C3/3S6/3B2
NTSDDO1602X	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	G3/C3/3S6/3B2
NTSDDO1602XA	☑	☑		☑	Pending	Pending	☑	Pending	Pending			G3/C3/3S6/3B2
NTSDDO1602XAH	☑	☑		☑	Pending	Pending	☑	Pending	Pending			GX/CX/3S7/3B3/Salt Spray Severity 2
NTSDDO1602XH	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSDMY0100H	☑	☑		☑	Pending	Pending	☑	Pending		☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSDMY0200H	☑	☑		☑	Pending	Pending	☑	Pending		☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSDRA0615	☑	☑		☑	Pending	Pending	☑	Pending	Pending		☑	G3/C3/3S6/3B2
NTSDRC0215	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	G3/C3/3S6/3B2
NTSDRC0415	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	G3/C3/3S6/3B2
NTSDRC0415H	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	
NTSECS0121	☑	☑		☑	Pending	Pending	☑	Pending	Pending			G3/C3/3S6/3B2
NTSEDM0822	☑	☑		☑	Pending	Pending	☑	Pending	Pending			G3/C3/3S6/3B2
NTSEDO0810	☑	☑		☑	Pending	Pending	☑	Pending	Pending			G3/C3/3S6/3B2

Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Offer Certification plan

Reference	CE, UKCA	cULus Ord.Loc.	cURus	RCM	EAC	KC	cULus Haz.Loc.	IECEx, ATEX, CCC Ex	EU RO Mutual	Power Gen	Railway	Corrosive environment
NTSEDT0800	☑	☑		☑	Pending	Pending	☑	Pending	Pending			G3/C3/3S6/3B2
NTSEDT0810	☑	☑		☑	Pending	Pending	☑	Pending	Pending			G3/C3/3S6/3B2
NTSEHC0100	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	G3/C3/3S6/3B2
NTSEHC0120H	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSEHC0220	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	G3/C3/3S6/3B2
NTSEHE0221	☑	☑		☑	Pending	Pending	☑	Pending	Pending			G3/C3/3S6/3B2
NTSEME0101	☑	☑		☑	Pending	Pending	☑	Pending	Pending			G3/C3/3S6/3B2
NTSEME0102	☑	☑		☑	Pending	Pending	☑	Pending	Pending			G3/C3/3S6/3B2
NTSEME0110	☑	☑		☑	Pending	Pending	☑	Pending	Pending			G3/C3/3S6/3B2
NTSEMP0220	☑	☑		☑	Pending	Pending	☑	Pending	Pending			G3/C3/3S6/3B2
NTSFIO0400	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	G3/C3/3S6/3B2
NTSFMB0120	☑	☑		☑	Pending	Pending	☑	Pending	Pending			G3/C3/3S6/3B2
NTSFMB0120H	☑	☑		☑	Pending	Pending	☑	Pending	Pending			GX/CX/3S7/3B3/Salt Spray Severity 2
NTSNEC1200	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	G3/C3/3S6/3B2
NTSNEC1200H	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSNSC1200	☑	☑		Pending	Pending	Pending	☑	Pending				G3/C3/3S6/3B2
NTSPCM0016H	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSPCM0808H	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSPCM1600H	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSPFB1002H	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSPFD1002H	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSXBA0100H	☑	☑		☑	Pending	Pending	☑	Pending		☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSXBA0103H	☑	☑		☑	Pending	Pending	☑	Pending		☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSXBA0104H	☑	☑		☑	Pending	Pending	☑	Pending		☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSXBA0200H	☑	☑		☑	Pending	Pending	☑	Pending		☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSXBA0201H	☑	☑		☑	Pending	Pending	☑	Pending		☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSXBA0301H	☑	☑		☑	Pending	Pending	☑	Pending		☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSXEM0000H												GX/CX/3S7/3B3/Salt Spray Severity 2
NTSXEM0000XH												GX/CX/3S7/3B3/Salt Spray Severity 2
NTSXMP0000H	☑	☑		☑	Pending	Pending	☑	Pending	Pending	☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSXMP1000												G3/C3/3S6/3B2
NTSXMP2000												G3/C3/3S6/3B2
NTSXTB02030H	☑		☑	☑	Pending	Pending				☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSXTB02230H	☑		☑	☑	Pending	Pending				☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSXTB12000H	☑		☑	☑	Pending	Pending				☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSXTB12001H	☑		☑	☑	Pending	Pending				☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSXTB12010H	☑		☑	☑	Pending	Pending				☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSXTB12011H	☑		☑	☑	Pending	Pending				☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSXTB12200H	☑		☑	☑	Pending	Pending				☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSXTB12201H	☑		☑	☑	Pending	Pending				☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSXTB12210H	☑		☑	☑	Pending	Pending				☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSXTB12211H	☑		☑	☑	Pending	Pending				☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSXTB18000H	☑		☑	☑	Pending	Pending				☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSXTB18000XH	☑		☑	☑	Pending	Pending				☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
NTSXTB18001H	☑		☑	☑	Pending	Pending				☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
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NTSXTB18201H	☑		☑	☑	Pending	Pending				☑	☑	GX/CX/3S7/3B3/Salt Spray Severity 2
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Modicon Edge I/O NTS

The future-ready I/O system for data aggregation with built-in cybersecurity

Product reference index

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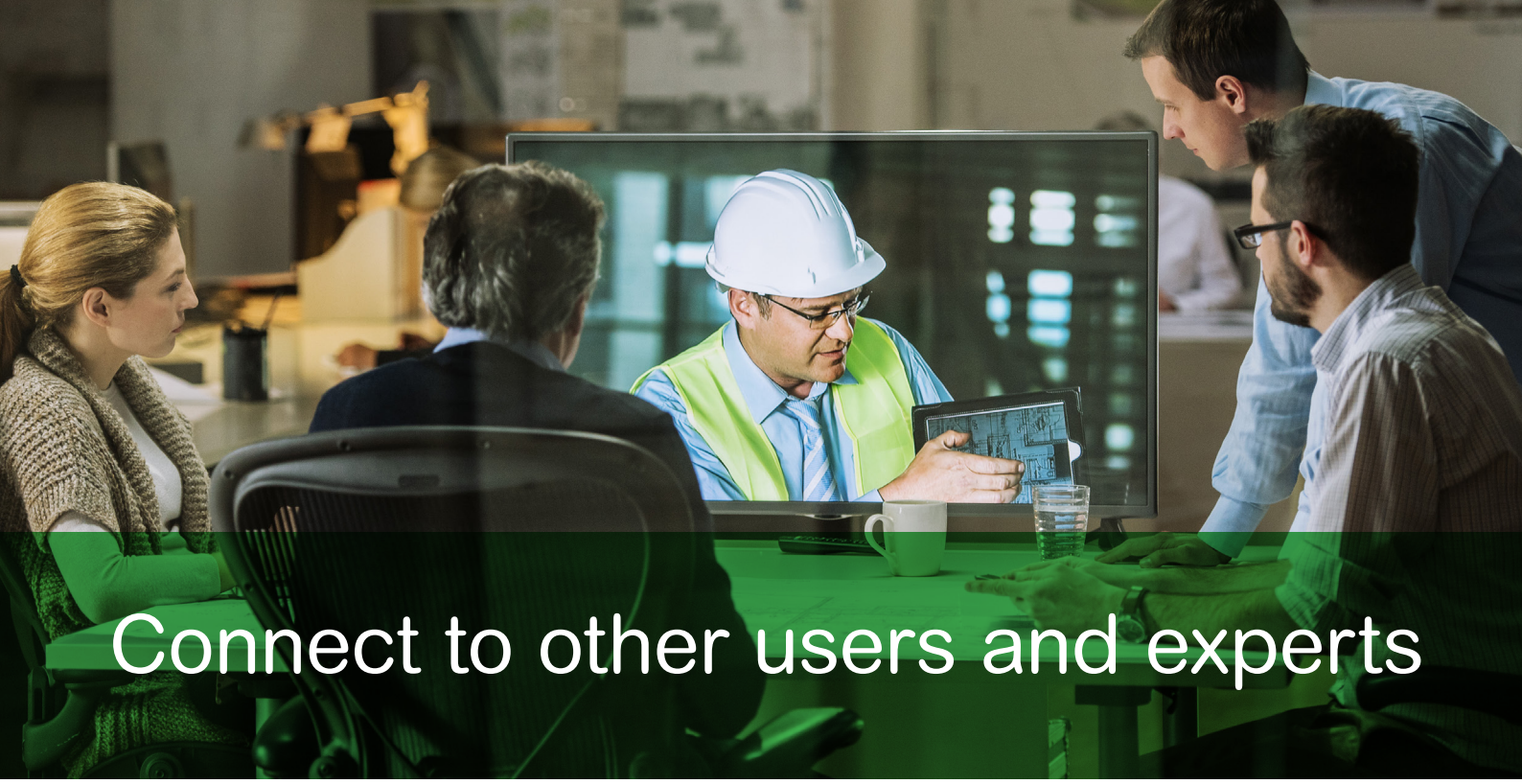

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- Engineering software

Access the community forum

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