

## MSEA – Metasys® System Extended Architecture

### NCE

#### Network Control Engine

The Metasys® Network Control Engine (NCE) Series controllers combine the network supervisor capabilities and Internet Protocol (IP) network connectivity of a Network Automation Engine (NAE) with the Input/Output (I/O) point connectivity and direct digital control capabilities of a Field Equipment Controller (FEC). NCEs provide a cost-effective solution designed for integrating central plants and large built-up air handlers into your Metasys networks.

All NCE models provide IP Ethernet network connectivity, the Metasys Site Management Portal User Interface (UI), and the network supervisory capabilities featured on NAE35/NAE45 Series network automation engines.

All NCE models provide connectivity to and supervisory control of a specified field bus trunk with up to 32 field controllers. Depending on the model, an NCE25 supports either a BACnet® Master-Slave/Token-Passing (MS/TP) trunk, an N2 Bus trunk, or a LONWORKS® network trunk.

All NCE models feature 33 integral I/O points and a Sensor Actuator (SA) Bus, which allow you to increase the NCE's I/O field point capacity and also integrate NS Series Network Sensors and Variable Frequency Drives (VFDs) into your NCE application.

Some NCE models feature an integral field controller display screen with a navigation keypad. In addition, some NCE models feature an internal modem that supports standard dial-up capabilities.



**NCE25 Network Control Engine**

#### Features

- Uses Commonly Accepted Information Technology (IT) Standards at the Automation and Enterprise Level
- Web-Based User Interface
- Supervision of Either an N2 Bus, LONWORKS Network, or BACnet MS/TP Bus Field Controller Trunk
- Multiple Connection Options for Data Access
- Integral Field Controller with 33 I/O Points
- Expandable I/O Point Capacity, NS Sensor Connectivity, and VFD Control on Field Controller SA Bus

## NCE Network Control Engine

Ordering Codes	Description
<b>MS-NCE25xx-x (Base Features on Each NCE25)</b>	Each NCE25 Series model requires a 24 VAC power supply and includes one RS-232-C serial port, one RS-485 optically isolated SA Bus port, one USB serial port, one Ethernet port, and an MS-BAT1020-0 Data Protection Battery. Each NCE25 Series model has 33 integral I/O points and supports up to 128 additional I/O points on the SA Bus.
<b>MS-NCE2510-0</b>	Supports one N2 Bus trunk with up to 32 N2 devices.
<b>MS-NCE2511-0</b>	Supports one N2 Bus trunk with up to 32 N2 devices. Includes internal modem.
<b>MS-NCE2516-0</b>	Supports one N2 Bus trunk with up to 32 N2 devices. Includes integral display screen.
<b>MS-NCE2517-0</b>	Supports one N2 Bus trunk with up to 32 N2 devices. Includes integral display screen and internal modem.
<b>MS-NCE2520-0</b>	Supports one LonWORKS network trunk with up to 32 LonWORKS devices.
<b>MS-NCE2521-0</b>	Supports one LonWORKS network trunk with up to 32 LonWORKS devices. Includes internal modem.
<b>MS-NCE2526-0</b>	Supports one LonWORKS network trunk with up to 32 LonWORKS devices. Includes integral display screen.
<b>MS-NCE2527-0</b>	Supports one LonWORKS network trunk with up to 32 LonWORKS devices. Includes integral display screen and internal modem.
<b>MS-NCE2560-0</b>	Supports one FC Bus trunk with up to 32 MS/TP devices.
<b>MS-NCE2561-0</b>	Supports one FC Bus trunk with up to 32 MS/TP devices. Includes internal modem.
<b>MS-NCE2566-0</b>	Supports one FC Bus trunk with up to 32 MS/TP devices. Includes integral display screen.
<b>MS-NCE2567-0</b>	Supports one FC Bus trunk with up to 32 MS/TP devices. Includes integral display screen and internal modem.

**Note:**

For repair parts, add -700 after the code number.

### Accessories

Ordering Codes	Description
<b>MS-BAT1020-0</b>	Replacement data protection battery for NAE35, NAE45, and NCE25. Rechargeable NiMH battery: 3.6 V 500 mAh, with a typical life of 10 years at 21°C (70°F)
<b>MS-BTCVT-1</b>	Wireless Commissioning Converter, with Bluetooth® technology, for configuring and commissioning the NCE field controller and the devices on the NCE SA Bus
<b>MS-DIS1710-0</b>	Local Controller Display connects to NCE on SA Bus and provides menu display and navigation keypad for monitoring status and controlling parameters on the NCE's integral field controller. <b>Note:</b> A DIS1710 display does not operate on NCE models that have an integral controller display.
<b>AS-XFR100-1</b>	Power transformer (Class 2, 24 VAC, 92 VA maximum output), with enclosure
<b>AS-XFR010-1</b>	Power transformer (Class 2, 24 VAC, 92 VA maximum output), no enclosure
<b>MS-RAP-0</b>	Ready Access Portal Server, which provides a user interface that is a natural, complementary extension of the Metasys Site Management Portal UI. <b>Note:</b> This option is not necessary for sites that have an ADS/ADX as the Site Director because it is provided with the ADS/ADX solution.
<b>MS-EXPORT-0</b>	Metasys Export Utility, which extracts historical trend, alarm, and audit data from the system and presents the historical data in a variety of formats. <b>Note:</b> This option is not necessary for sites that have an ADS/ADX as the Site Director because it is provided with the ADS/ADX solution.