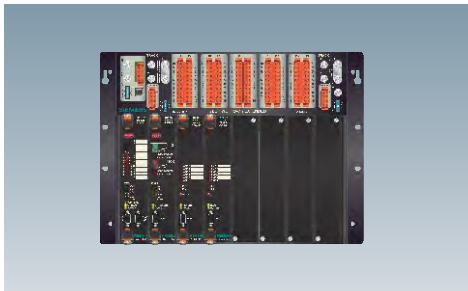# Wayside Control Systems Products
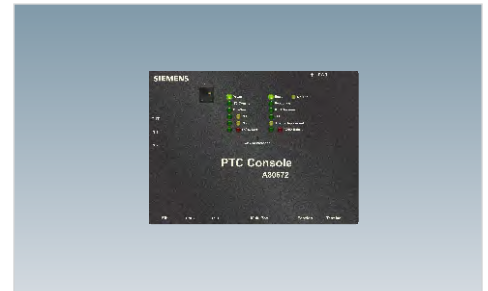
Trackguard® GEO®
Geographic Signaling Systems   **B1 - B8**
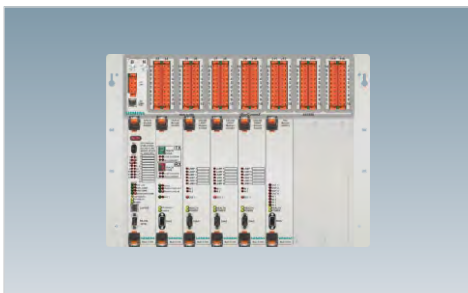
Trackguard® VIU Series
Vital Interface Units   **B9 -B20**

Trackguard® PTC Series
Positive Train Control Console Units   **B21 - B23**
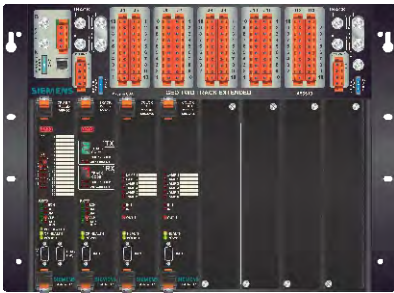
Trackguard® WayConneX Series
Wayside Signaling System   **B24**

Overview

Model A53510 Trackguard® GEO® Geographic Signaling System shown for reference purposes only!
Actual unit selected may vary in mounting and features.

SIEMENS Trackguard® GEO® Geographic Signaling System is a vital microprocessor-controlled system that generates an electronic DC coded track circuit and operates intermediate signal locations and single or multiple switch interlocking.

It is available as a color-light system and will operate in cab signal territory. Compatible with Electro Code 4, Electro Code 4/4 Plus, Electro Code 2, Genrakode™, and E-Code™.

With the addition of a **SIEMENS** Wayguard® SEAR II Series Event analyzer / Recorder and a Wayside Communications Package (WCP) module, it will interface with all of the major codeline protocols including ATCS.

Supporting coded track applications, coded line applications, and vital radio based signaling. Vital network applications are supported via spread-spectrum radio, Echelon®, RS-232, and RS-422.

Features

● Using Standard Boolean Logic with the GEO® Configuration Suite (GCS) which has been enhanced to provide users with the option to write their own signaling logic equations in boolean format. Users may also produce a relay diagram plot of the boolean logic and print this as a PDF file.

Users no longer need to use the existing GEO® GOL libraries and geographic signaling logic; they can write their own logic in traditional boolean format and print the relay equivalent circuits. The resulting MCF will run with the existing GEO® CPU2+ MEFs.

● Object based logic with the GEO® Configuration Suite (GCS)

The GEO® Configuration Suite is a Windows® based design tool used to program the GEO® unit for specific applications. In the GCS, each signal function (signal head, turnout, etc.) is represented by a unique icon or Geographic Signaling "Object".

Each object represents the rules of signaling for that object. The complete signal system is assembled by the CPU based on which "objects" are used and how they are interconnected.

GCS is available on CD-ROM. System design can be performed by the user or can be supplied by **SIEMENS**.

NYK:9000535110001
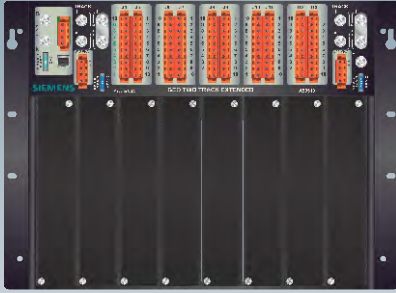
Empty Two Track Extended
- Used for two track extended wayside applications
- Weight is approx. 26.1 lbs. (11.84 kgs.) including connectors.
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Two track extended chassis
- (1) NYK:8000804380001 SPI ECD module
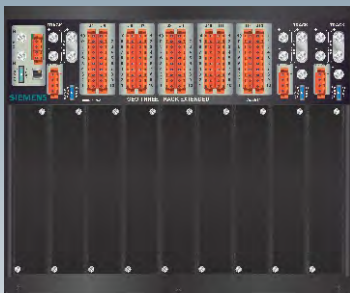- (8) NYK:Z610393250001 blank module cover panels
- NO other modules

NYK:9112535102000

Comprehensive Two Track Extended
- Used for two track extended wayside applications
- Weight is approx. 30.5 lbs. (13.83 kgs.) including connectors.
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Two track extended chassis
- (1) NYK:8000804380001 SPI ECD module
- (1) NYK:8000804030002 CPU II module
- (1) NYK:9000532850001 Track module, standard power
- (2) NYK:9000532840001 Colorlight modules
- (4) NYK:Z610393250001 blank module cover panels
- NO other modules

NYK:9000535140001

Empty Three Track Extended
- Used for three track extended wayside applications
- Weight is approx. 28.5 lbs. (12.93 kgs.) including connectors.
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Three track extended chassis
- (1) NYK:8000804380001 SPI ECD module
- (9) NYK:Z610393250001 blank module cover panels
- NO other modules

NYK:93125351323003

Comprehensive Three Track Extended
- Used for three track extended wayside applications
- Weight is approx. 34.1 lbs. (15.47 kgs.) including connectors.
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Three track extended chassis
- (1) NYK:8000804380001 SPI ECD module
- (1) NYK:8000804030002 CPU II module
- (3) NYK:9000532850001 Track modules, standard power
- (2) NYK:9000532840001 Colorlight modules
- (3) NYK:Z610393250001 blank module cover panels
- NO other modules

Assembly configurations shown are only a small sampling of commonly ordered assemblies. Other configurations may be available upon request.
Please contact the Technical Assistance for Rail Automation team @ 1-800-793-7233 (Option 1) or RA.RailTechSupport.ic@siemens.com for additional details.
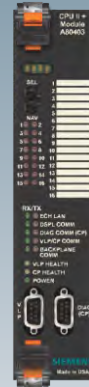
NYK:8000804030002
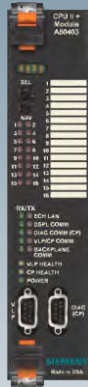
Non Appliance CPU II+ Module
- Weight is approx. 1.25 lbs. (0.56 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Programmable integrate circuits onboard 9V732-A03X, 9V733-A03X, 9V789-A05X and 9V691-A03X
- Echelon® and communications capabilities

NYK:8000804030003

Appliance CPU II+ Module
- Weight is approx. 1.25 lbs. (0.56 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Programmable integrate circuits onboard 9V884-A03X, 9V691-A03X, 9V883-A03X and 9V789-A06X
- Echelon® and communications capabilities

NYK:9000532850001

Track Module, Standard Power
- Weight is approx. 1.0 lbs. (0.56 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity

NYK:9000532850003

Track Module, High Power
- Weight is approx. 1.0 lbs. (0.56 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
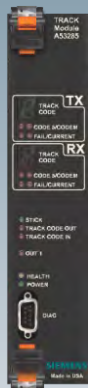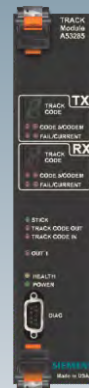
NYK:8000804130001

NYK:9000532840001

Relay Input /Output (RIO) Module
- Weight is approx. 1.0 lbs. (0.56 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- (4) Inputs opto-isolated, vital
- (4) Outputs opto-isolated, vital
- Output voltage 12 VDC into 500 Ω
- Relay loads 100-2000 Ω
- Cab rates 75, 120, 180, 270,420
- Isolation 2000 VAC

Colorlight Lamp Module
- Weight is approx. 1.0 lbs. (0.56 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
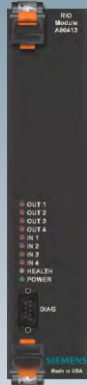- (2) Inputs opto-isolated, vital
- (1) Output opto-isolated, vital
- (2) Lamp drivers at 25 watts
- Input voltage 9.0-16.0 VDC 13.6 VDC Nominal
- Cab rates 75, 120, 180, 270,420
- Isolation 2000 VAC
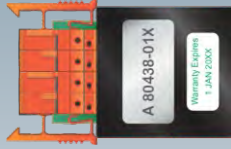
NYK:8000804380001	NYK:8000804380002
© Copyright 2018 SIEMENS Industry Inc.	
External Configuration Device (ECD Plus) Module ● Weight is approx. 1.30 oz.. (0.04 kgs.)	**External Configuration Device (ECD Plus) Module** ● Weight is approx. 1.30 oz.. (0.04 kgs.)

NYK:9000506920002

Universal Local Control Panel
- Neuron® Echelon® 10 MHZ
- Echelon® LonTalk® port for maintenance
- Easily mountable on standard relay racks, instrument house backboards or can even be shelf mounted
- Weight is approx. 4.6 lbs. (2.09 kgs.)
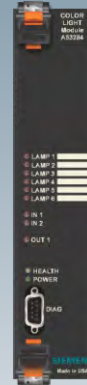- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Solid state design
- Input power 9 VDC - 16 VDC

Applicable for all Universal Local Control Panels

19.00"
(48.26 cm)
Overall

18.29"
(46.46 cm)
Center to Center

2.40"
(6.10 cm)
Overall

9.25"
(23.50 cm)
Center to
Center

12.22"
(31.04 cm)
Center to
Center

1.15"
(2.92 cm)
Enclosure

NYK:Z610395850001

18.75″
(47.62 cm)
Overall

8.63″
(21.92 cm)
Center to Center

8.63″
(21.92 cm)
Center to Center

1.00″
(2.54 cm)

1.50″
(3.81 cm)

2.38″
(6.05 cm)

14.00″
(35.56 cm)
Center to Center

0.45″
(1.14 cm)

Top Mounting Bracket, Keyhole
- Weight is approx. 1.6 lbs. (0.73 kgs.)
- Steel construction

NYK:Z610395850002

18.75″
(47.62 cm)
Overall

2.38″
(6.05 cm)

14.00″
(35.56 cm)
Center to Center

0.45″
(1.14 cm)

1.65″
(4.06 cm)

8.38″
(21.29 cm)
Center to Center

8.38″
(21.29 cm)
Center to Center

1.00″
(2.54 cm)

Bottom Mounting Bracket, Keyhole
- Weight is approx. 1.6 lbs. (0.73 kgs.)
- Steel construction

NYK:Z610395850003

19.00"
(48.26 cm)
Overall

18.31"
(46.51 cm)
Center to Center

0.34"
(0.86 cm)

1.50"
(3.81 cm)

2.5"
(6.35 cm)

14.00"
(35.56 cm)
Center to Center

0.45"
(1.14 cm)

Top Mounting Bracket, Slotted
● Weight is approx. 1.6 lbs. (0.73 kgs.)
● Steel construction

NYK:Z610395850004

19.00"
(48.26 cm)
Overall

2.5"
(6.35 cm)

14.00"
(35.56 cm)
Center to Center

0.45"
(1.14 cm)

1.65"
(4.06 cm)

18.31"
(46.51 cm)
Center to Center

0.34"
(0.86 cm)

Bottom Mounting Bracket, Slotted
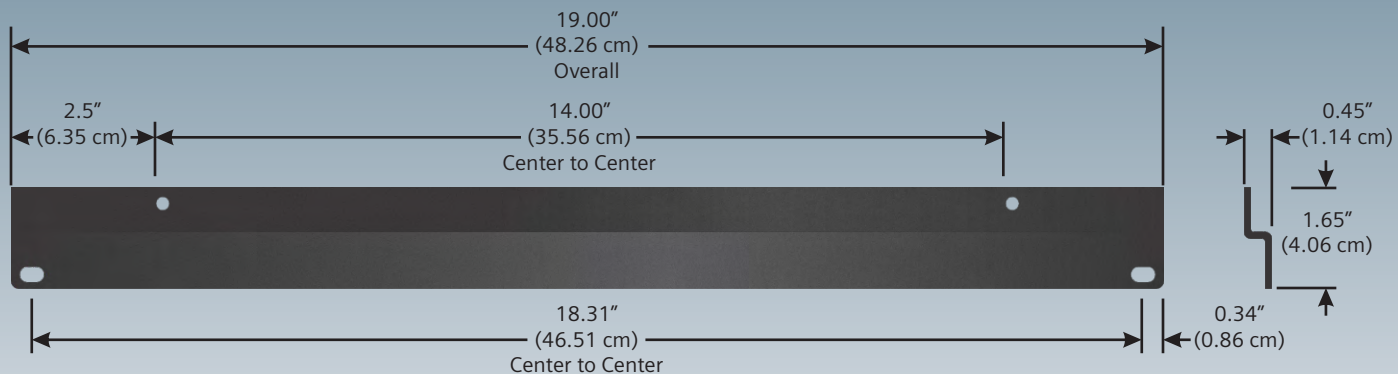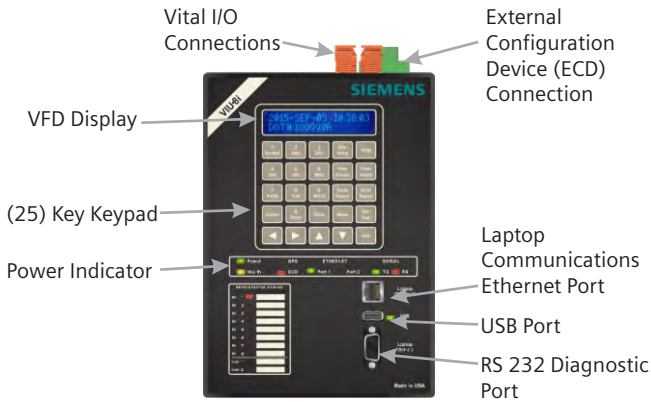● Weight is approx. 1.6 lbs. (0.73 kgs.)
● Steel construction

Trackguard®

VIU
Series

Vital Interface Units

Overview

Vital I/O Connections

External Configuration Device (ECD) Connection

VFD Display

(25) Key Keypad

Power Indicator

Laptop Communications Ethernet Port

USB Port

RS 232 Diagnostic Port

Model A80540 Trackguard® VIU Series Vital Interface Unit shown for reference purposes only!
Actual unit selected may vary in mounting and features.

SIEMENS Trackguard® VIU Series Vital Interface Unit is a general purpose programmable logic controller. The VIU can monitor the state of its inputs, control vital outputs, perform logic functions and generate vital communications messages to report its status or the status of devices connected to it. The primary purpose of the VIU- 16i/8i is to control wayside signal lamps by using current sensors or by controlling the lamp voltage (AC or DC).

Features

- Radio frequency rate of up to 2.7 Mbps.

- Integrated IP Connectivity.

- Built-in keypad and display for configuration, troubleshooting and diagnostics.

- Standard USB interface allows download of event logs and configuration information or upload of executive and application software.

- Access from a laptop using standard web browser.

- Consolidated event logging for distributed / networked units.

- User programmable (Boolean Logic), generic lamp/ switch monitoring application for all locations.

- Use to interface locomotive-based equipment to wayside equipment to allow for display of signal aspects in-cab.

NYK:80008055000100

VIU 8i Module w/o Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- (8) digital inputs
- (2) digital outputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- NO Relay I/O Module
- NO Mounting Plate

NYK:80008055000110

VIU 8i Module w/ Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- (8) digital inputs
- (2) digital outputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- (1) NYK:8000805330001 Relay I/O Module (Installed Internally)
- NO Mounting Plate

NYK:80008055000101

VIU 8i Module w/o Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- (8) digital inputs
- (2) digital outputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- NO Relay I/O Module
- (1) NYK:Z620396190001 Mounting Plate

NYK:80008055000111

VIU 8i Module w/ Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- (8) digital inputs
- (2) digital outputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- (1) NYK:8000805330001 Relay I/O Module (Installed Internally)
- (1) NYK:Z620396190001 Mounting Plate

NYK:80008055000102	NYK:80008055000112

VIU 8i Module w/o Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- (8) digital inputs
- (2) digital outputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- NO Relay I/O Module
- (1) NYK:Z620396200001 Mounting Plate

VIU 8i Module w/ Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- (8) digital inputs
- (2) digital outputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- (1) NYK:8000805330001 Relay I/O Module (Installed Internally)
- (1) NYK:Z620396200001 Mounting Plate

NYK:80008055500100

VIU 16i Module w/o Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- (16) digital inputs
- (4) digital outputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- NO Relay I/O Module
- NO Mounting Plate

NYK:80008055500110

VIU 16i Module w/ Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- (16) digital inputs
- (4) digital outputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- (1) NYK:8000805330001 Relay I/O Module (Installed Internally)
- NO Mounting Plate

NYK:80008055500101

VIU 16i Module w/o Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- (16) digital inputs
- (4) digital outputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- NO Relay I/O Module
- (1) NYK:Z620396190001 Mounting Plate

NYK:80008055500111

VIU 16i Module w/ Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- (16) digital inputs
- (4) digital outputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- (1) NYK:8000805330001 Relay I/O Module (Installed Internally)
- (1) NYK:Z620396190001 Mounting Plate

NYK:80008055500102	NYK:80008055500112

VIU 16i Module w/o Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- (16) digital inputs
- (4) digital outputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- NO Relay I/O Module
- (1) NYK:Z620396200001 Mounting Plate

VIU 16i Module w/ Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- (16) digital inputs
- (4) digital outputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- (1) NYK:8000805330001 Relay I/O Module (Installed Internally)
- (1) NYK:Z620396200001 Mounting Plate

Wayside Systems
Wayside Control Systems Products

NYK:80008051500100

VIU 20 Module w/o Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- (20) digital inputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- NO Relay I/O Module
- NO Mounting Plate

NYK:80008051500110

VIU 20 Module w/ Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- (20) digital inputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- (1) NYK:8000805330001 Relay I/O Module (Installed Internally)
- NO Mounting Plate

NYK:80008051500101

VIU 20 Module w/o Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- (20) digital inputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- NO Relay I/O Module
- (1) NYKZ620396190001 Mounting Plate

NYK:80008051500111

VIU 20 Module w/ Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- (20) digital inputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- (1) NYK:8000805330001 Relay I/O Module (Installed Internally)
- (1) NYK:Z620396190001 Mounting Plate

NYK:80008051500102

NYK:80008051500112

VIU 20 Module w/o Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- (20) digital inputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- NO Relay I/O Module
- (1) NYK:Z620396200001 Mounting Plate

VIU 20 Module w/ Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- (20) digital inputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- (1) NYK:8000805330001 Relay I/O Module (Installed Internally)
- (1) NYK:Z620396200001 Mounting Plate

NYK:80008054000100

VIU 20e Module w/o Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- (20) digital inputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- NO Relay I/O Module
- NO Mounting Plate

NYK:80008054000110

VIU 20e Module w/ Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- (20) digital inputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- (1) NYK:8000805330001 Relay I/O Module (Installed Internally)
- NO Mounting Plate

NYK:80008054000101

VIU 20e Module w/o Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- (20) digital inputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- NO Relay I/O Module
- (1) NYK:Z620396190001 mounting plate

NYK:80008054000111

VIU 20e Module w/ Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- (20) digital inputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- (1) NYK:8000805330001 Relay I/O Module (Installed Internally)
- (1) NYK:Z620396190001 mounting plate

NYK:80008054000102

NYK:80008054000112

VIU 20e Module w/o Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- (20) digital inputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- NO Relay I/O Module
- (1) NYK:Z620396200001 Mounting Plate

VIU 20e Module w/ Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- (20) digital inputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- (1) NYK:8000805330001 Relay I/O Module (Installed Internally)
- (1) NYK:Z620396200001 Mounting Plate

NYK:8000805260000

VIU-CAT Module w/o Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- Able to transmit and receive PSO information
- (4) digital inputs
- (4) digital outputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- NO Relay I/O Module
- NO Mounting Plate
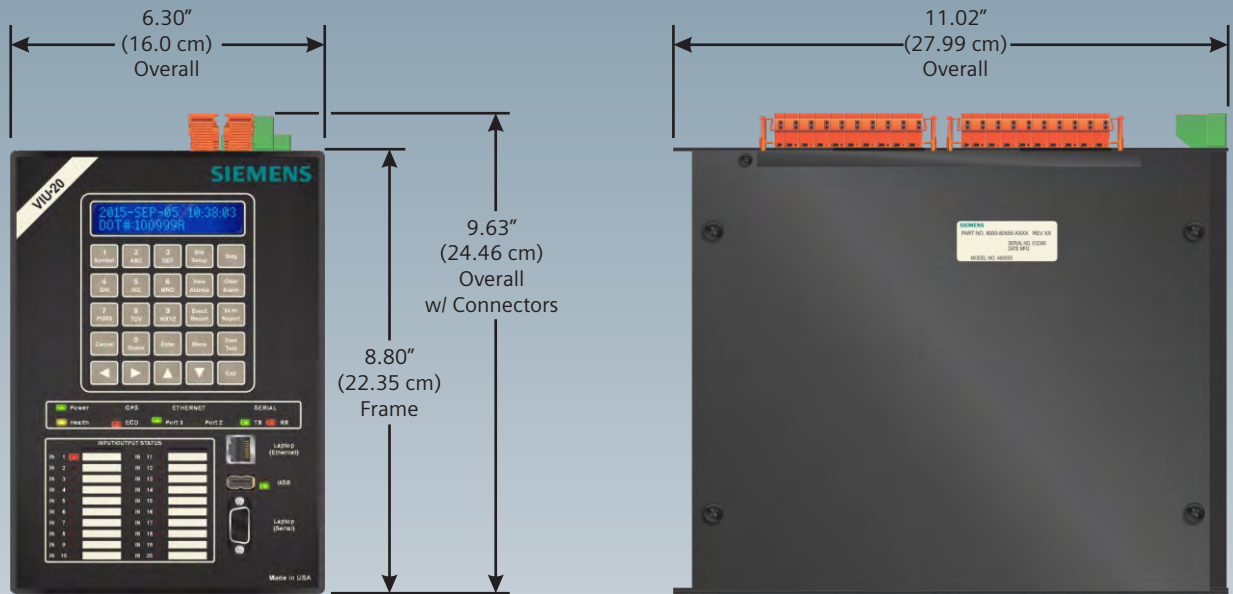
NYK:8000805260001

VIU-CAT Module w/o Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- Able to transmit and receive PSO information
- (4) digital inputs
- (4) digital outputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
- NO Relay I/O Module
- (1) NYK:Z620396190001 Mounting Plate

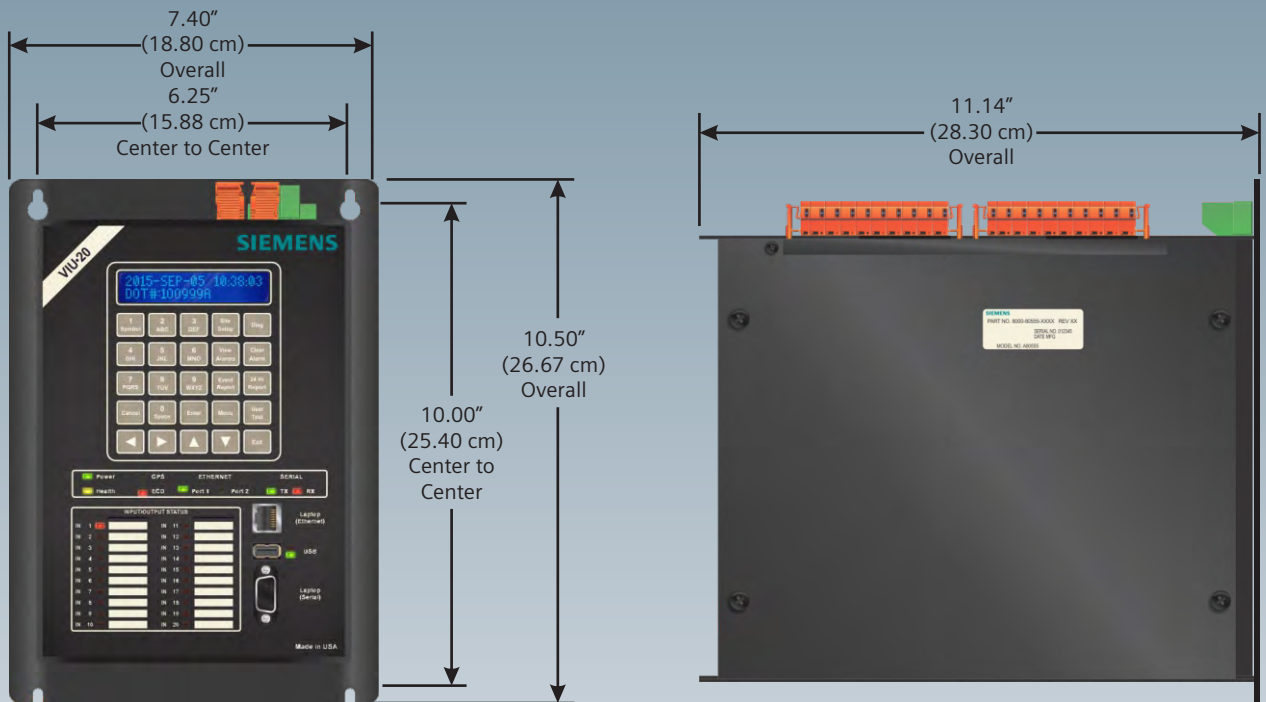## NYK:8000805260002

VIU-CAT Module w/o Relay I/O Module
- Weight is approx. 3 lbs. (1.36 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Integrated IP Connectivity
- Able to transmit and receive PSO information
- (4) digital inputs
- (4) digital outputs
- (1) NYK:8000805200001 GPS Module (Installed Internally)
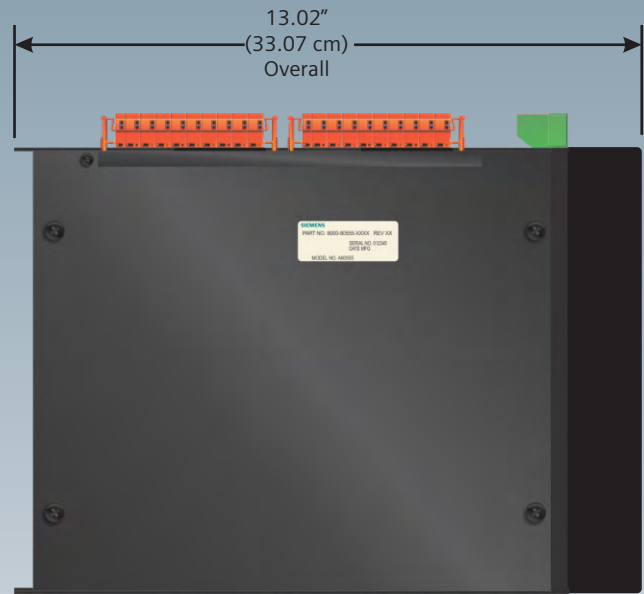- NO Relay I/O Module
- (1) NYK:Z620396200001 Mounting Plate

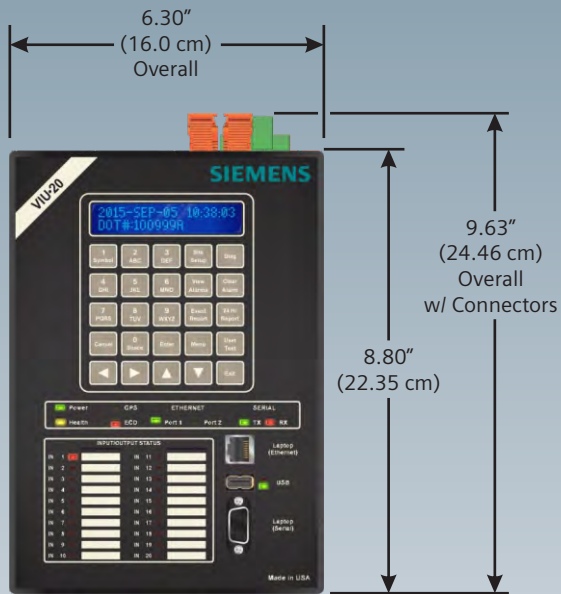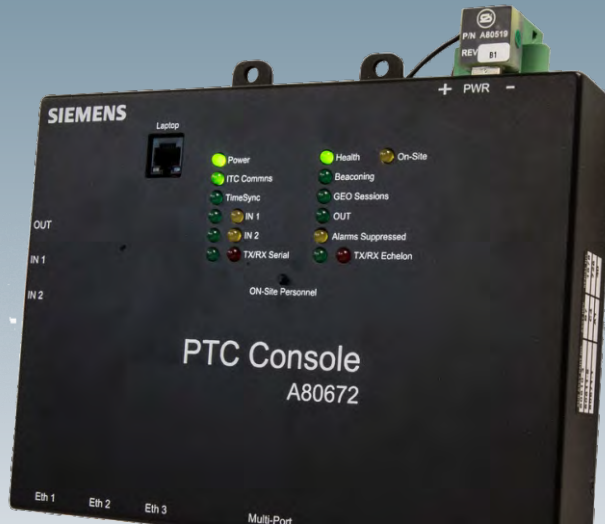## Applicable for all VIU Modules w/ Mounting Plate

6.30"
(16.0 cm)
Overall

11.02"
(27.99 cm)
Overall

9.63"
(24.46 cm)
Overall
w/ Connectors

8.80"
(22.35 cm)
Frame

Applicable for all VIU Modules w/ Z62039619001 Mounting Plate

7.40"
(18.80 cm)
Overall
6.25"
(15.88 cm)
Center to Center

11.14"
(28.30 cm)
Overall

10.50"
(26.67 cm)
Overall

10.00"
(25.40 cm)
Center to
Center

Applicable for all VIU Modules w/ NYK:Z620396200001 Mounting Plate

6.30"
(16.0 cm)
Overall

9.63"
(24.46 cm)
Overall
w/ Connectors

8.80"
(22.35 cm)

13.02"
(33.07 cm)
Overall

Wayside Systems
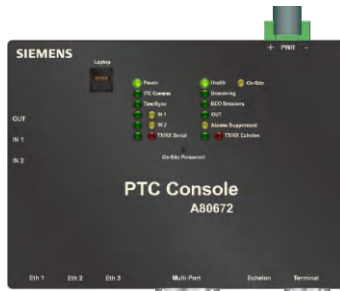Wayside Control Systems Products

Trackguard®

PTC
Series

Positive Train Control Console Units

Overview

Features

- Provides Network Time Protocol (NTP) functionality.

- Provides consolidated logging for PTC enabled Trackguard® GEO® units.

- Ability to run vital logic, non-vital logic as well as customizable CDL functionality thus supporting Simple Network Management Protocol (SNMP) message trapping.

- Contains dual 400 MHZ processors, with up to (8) GB of onboard flash memory per processor.

- Allows for remote monitoring, even in Dark Territory locations.

- Optional internal A80611 GPS I/O wifi adapter card available.

SIEMENS Trainguard® PTC Console Positive Train Control console unit is an electronic wayside monitoring unit which can be configured for a variety of applications including Positive Train Control (PTC) enabled equipment.

Inputs include:
(1) ethernet laptop port
(3) ethernet network ports
(2) RS-232 serial ports
(1) Echelon® network port

LEDs provide status of unit at a glance. An optional Vital I/O module is available within the console with (2) vital input channels and (1) vital output channel.

Unit is well suited for "Dark Territory Switch Monitoring" and can be used as a low cost monitor for a switch point or other wayside hazard that PTC monitoring.

Allows for remote monitoring, consolidated logging, log access as well as maintainer interface of Positive Train Control (PTC) equipment when used in conjunction with a PTC Enabled Trackguard® GEO® unit.

NYK:8000806720000
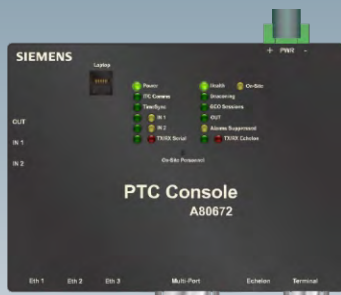
PTC Condole Unit w/o GPS
- Weight is approx. 4.3 lbs. (1.95 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Dual 400 MHZ processors
- Flash memory expandable up to 8 GB
- No GPS I/O wifi adapter card
- NO vital application software loaded
- NO Mounting Plate

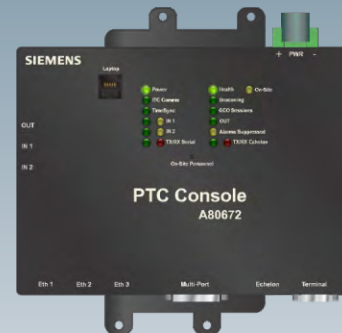## NYK:8000806720001
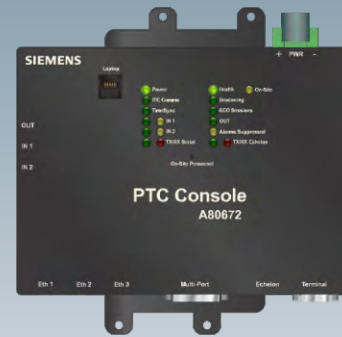
PTC Condole Unit w/o GPS
- Weight is approx. 6.3 lbs. (2.86 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Dual 400 MHZ processors
- Flash memory expandable up to 8 GB
- No GPS I/O wifi adapter card
- NO vital application software loaded
- (1) NYK:Z610398070001 mounting Plate

NYK:8000806720010

PTC Condole Unit w/ GPS
- Weight is approx. 4.3 lbs. (1.95 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Dual 400 MHZ processors
- Flash memory expandable up to 8 GB
- Vital application software loaded
- NO Mounting Plate
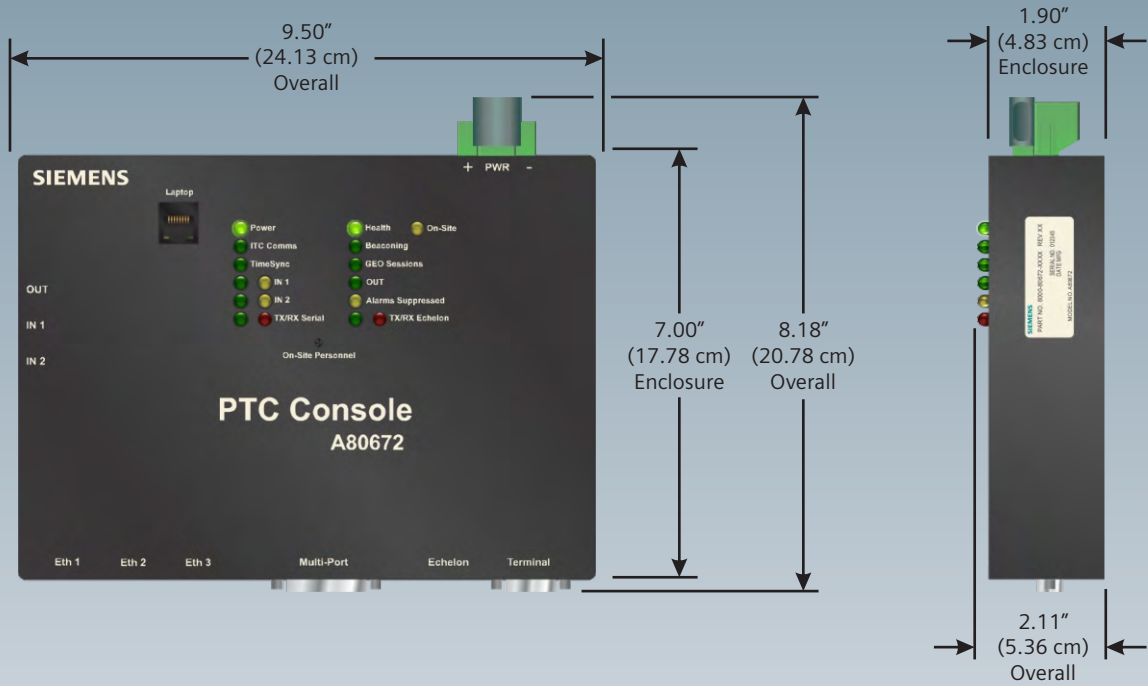- (1) NYK:8000806110001 GPS I/O wifi adapter card

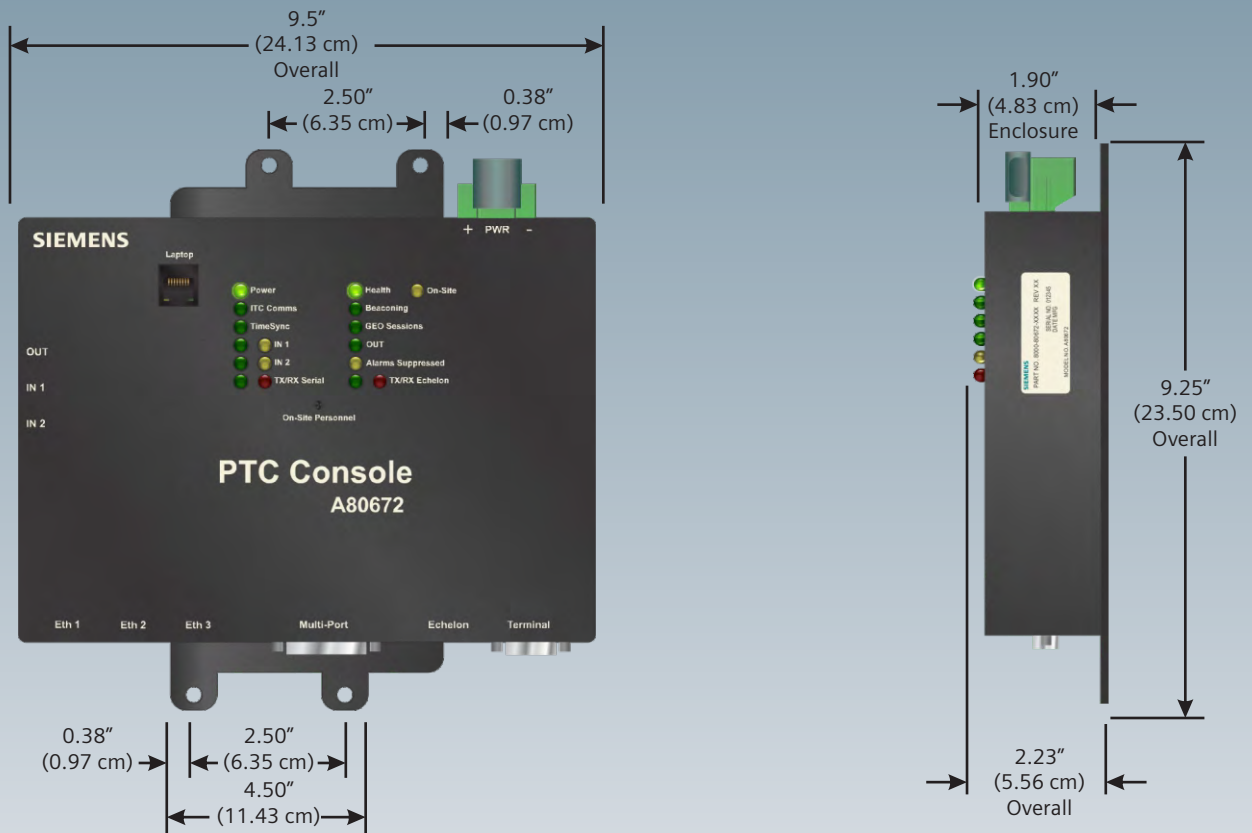## NYK:8000806720011

PTC Condole Unit w/ GPS
- Weight is approx. 6.3 lbs. (2.86 kgs.)
- Operates in -40° F to +160° F (-40°C to +70°C) @ up to 95% Non-Condensing Relative Humidity
- Dual 400 MHZ processors
- Flash memory expandable up to 8 GB
- NO vital application software loaded
- (1) NYK:Z610398070001 mounting Plate
- (1) NYK:8000806110001 GPS I/O wifi adapter card

Applicable for all PTC Console Modules w/o Mounting Plate

9.50"
(24.13 cm)
Overall

7.00"
(17.78 cm)
Enclosure

8.18"
(20.78 cm)
Overall

1.90"
(4.83 cm)
Enclosure

2.11"
(5.36 cm)
Overall

Applicable for all PTC Console Modules w/ Mounting Plate

9.5"
(24.13 cm)
Overall

2.50"
(6.35 cm)

0.38"
(0.97 cm)

0.38"
(0.97 cm)

2.50"
(6.35 cm)

4.50"
(11.43 cm)

1.90"
(4.83 cm)
Enclosure

9.25"
(23.50 cm)
Overall

2.23"
(5.56 cm)
Overall

Trackguard®

WayConneX™
Series

Wayside Signaling System

Overview

SIEMENS Trackguard® WayConneX™ Wayside Control System is a vital microprocessor controlled system that generates an electronic DC coded track circuit and operates intermediate signal locations and single or multiple switch interlockings.

It is available as a color-light or search-light system and will operate in cab signal territory. It provides built-in PTC compatibility and systems management as well as compatibility with Genrakode™, ECode™ and MicroTrax®. All modules are interchangeable between units and all modules are designed to be "hot-swappable".

With the addition of a **SIEMENS** Wayguard® SEAR II Series Event Analyzer / Recorder and a **SIEMENS** Wayside Communications Package (WCP) module, system will interface with all of the major codeline protocols including Advanced Train Control System (ATCS).

Vital network applications are supported using **SIEMENS** Ethernet Spread Spectrum Radio (ESSR) or Echelon®.

A new configuration tool known as the WayConneX™ Configuration Tool (WCCT) has been created to allow users to create their own Boolean signaling logic. The tool allows the user to see the relay equivalent circuits of the Boolean logic as it is being developed and also provides a logic simulation capability which allows the user to animate the relay contacts and coils as the change state.

Features

WayConneX™ Wayside Control System (3) track extended chassis includes new modules, such as;

● CPU III module

● WayTraX™ module

● PSO-E module.

WayConneX™ Configuration Tool (WCCT) provides a simple graphical user interface which allows users:

● To specify which modules are in the system and how they are configured, and as well as which I/O points on the modules will be used.

● To define the PTC messages generated by the WCX.

● To create vital communications channels between WCX's.

● To specify interface to non-vital controller system (SEAR II).

The tool allows the user to add field configurable timers and Boolean properties, and to specify which ones are included in the systems Unique Check Number (UCN).