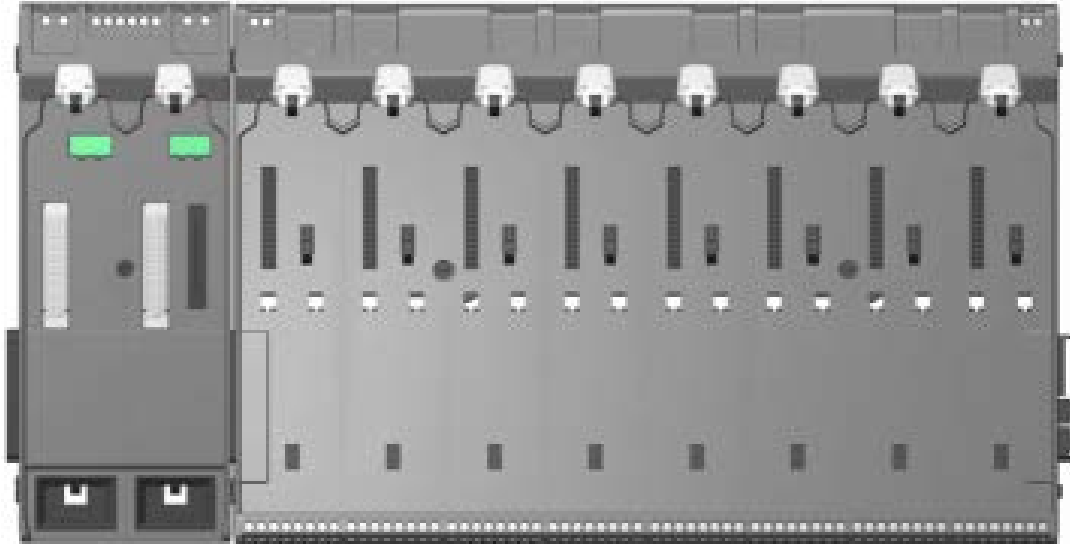


# S-series Horizontal Carriers



*The DeltaV™ modular I/O subsystem is easy to install and maintain*

- Modular design allows flexible installation
- Allows you to expand online
- Integrated power distribution
- Snap in assembly

## Introduction

The DeltaV™ S-series hardware takes the proven DeltaV hardware to a new level of robustness and ease of use. Assembly is faster and power distribution is easier, with fewer connections using the integrated field power distribution and increased capacity of IO bus power.

The modular design allows you to purchase only what you need with the ability to expand online later simply by adding The power/controller and I/O carriers are modular. Purchase only what you need but be assured that as your system grows you can add *plug-and-play carriers—Easy!*



**Benefits**

**Modular design allows flexible installation.** A T-type DIN rail is all you need to mount the power/controller carrier into place. Snap the I/O interface carriers to the rail and slide to connect it to the carrier on the left. Add as many carriers as needed, or use extender cables to move to a new rail. The DeltaV system’s *modular design approach* allows you to add I/O carriers as you need them.

**Allows you to expand online.** Additional 8-wide carriers may be added online as desired. Bus extenders provide dual cabling for robustness, allowing up to 8 IO carriers for a total of 64 simplex cards or 32 redundant cards.

**Integrated power distribution.** Controller and I/O interface power distribution is integrated into the carriers to reduce and simplify power and grounding. I/O Carriers have an integrated shield ground bar to isolate and drain field noise away from system power. I/O carriers also provide an integrated redundant 24 VDC bussed field power distribution to reduce installation wiring and provide fused, isolated power to each IO interface. Alternatively, dedicated connectors can be used to bring power to each card, such as 120/230 VAC.

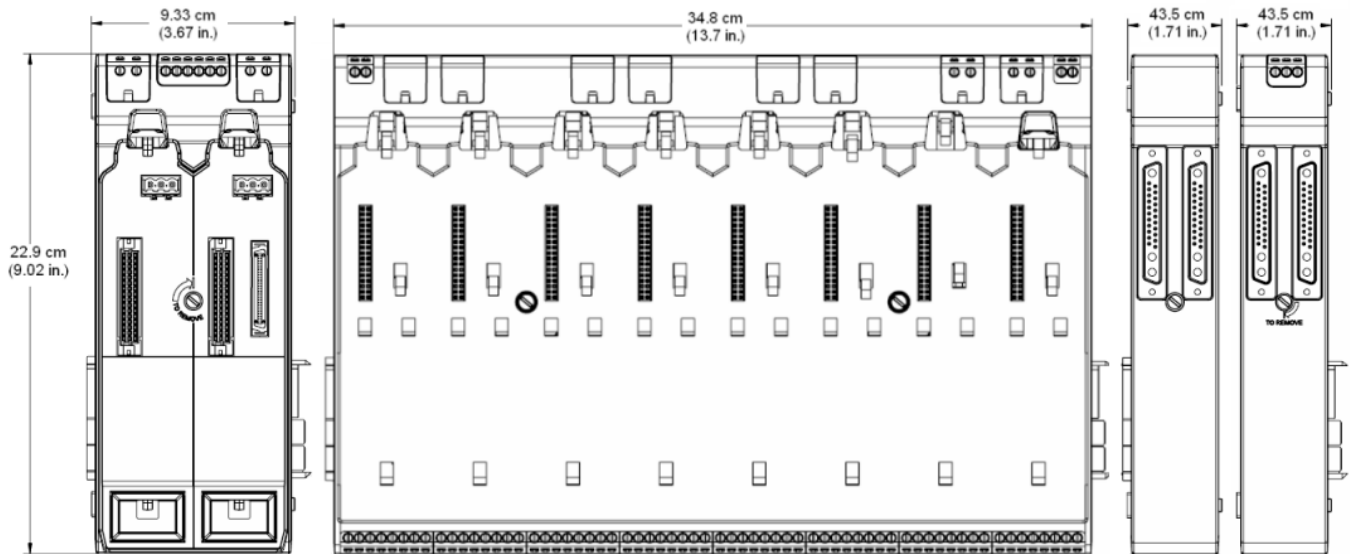
**Snap In Assembly.** All components snap into place without the use of special tools. The design supports and “easy on” design to speed up installation and reduce maintenance turnaround. Carriers snap onto T-DIN Rails. All interfaces and system power supplies snap into place, eliminating retention screws.

**Product Description**

The S-series IO subsystem has been redesigned with a focus on fast assembly and simplified power connections. The system uses only 24 VDC bulk power supplies. All power is connected to system carriers. Bus connectors have been upgraded to support additional 12 VDC power to the IO cards, allowing additional power carriers to be inserted anywhere along the bus.

Carriers mount to standard t-type DIN rail with latches that require no tools for quick installation. The latches can be released using a blade screw driver. Simply snap the carrier to the rail and slide adjacent carriers together to engage the bus connector.

The IO carrier supports 8 IO modules. Each card can be connected to an internal 24 VDC bus with a fused jumper, or it can be individually powered. The internal 24 VDC bus is divided into primary and secondary power, with primary power distributed to odd numbered slots and redundant power distributed to even numbered slots.



*The DeltaV horizontal-mount carriers provide plug-and-play ease for your I/O subsystems*

**Hardware Specifications.**

<b>Specifications for S-series Power/Controller carriers</b>	
24 VDC power Input	8 amps
Power/controller carrier	2 Power supplies or 1 power supply with 1 Controller
<b>Specifications for S-series Horizontal I/O carriers</b>	
Backplane Current	15 Amps
Bussed Field power connectors	5 Amps
Primary/Secondary 24 VDC Bussed power distribution	12 Amps per bus (Max 3 A per card)
IO carrier capacity	8 IO modules
<b>Environmental Specifications.</b>	
Operating Temperature	-40 to 70 °C (-40 to 158 °F)
Storage Temperature	-40 to 85 °C (-40 to 185 °F)
Relative humidity	5 to 95% , non-condensing
Airborne contaminants	ISA-S71.04-1985 Airborne Contaminants Class G3 Conformal coating
Protection rating	IP 20
Shock	10 g ½-sine wave for 11 ms
Vibration	1 mm peak-to-peak from 5 to 13.2 Hz; 0.7 g from 13.2 to 150 Hz

## System Compatibility

S-series carriers support S-series controllers, power supplies and I/O cards. M-series I/O cards are not supported on S-series controllers.

DeltaV SIS logic solvers can be installed under an S-series controller using SIS horizontal and vertical carriers. The DeltaV SIS S-series adapter enables M-series horizontal carriers to be connected to S-series controllers. This enables logic solvers to be installed on the same nodes with S-series controllers and I/O.

S-series hardware is designed around 24 VDC bulk power, for both controller and I/O interfaces. 12 VDC bulk are not supported on the 2-wide Power/Controller carriers.

## Certifications

The following certifications are available on S-series horizontal carriers.

### ■ CE:

- EMC- EN 61326-1:2006
- LVD- EN 61010-1:2001

### ■ CSA:

- CLASS 2252 05 - PROCESS CONTROL EQUIPMENT:

CAN/CSA-C22.2 No. 0-M91 General Requirements-  
Canadian Electrical Code, Part II

CAN/CSA-C22.2 No. 61010-1-04 Safety  
Requirements for Electrical Equipment for  
Measurement, Control, and Laboratory Use,  
Part 1: General Requirements

Complies with NAMUR NE21 per DeltaV Digital  
Automation System NAMUR NE21 Installation Instructions  
12P2822.

The following certifications have been submitted for Hazardous Locations and for Marine applications. Please verify with the appropriate certifying agency for a specific list of approved components

### ■ CENELEC Zone 2 ATEX/IEC EX

EN 60079-15:2005

Certifying agency: Nemko

Certificate Number: TBD

Refer to document TBD

*"DeltaV™ Scalable Process System Zone 2  
Installation Instructions"*

### ■ FM Approval

#### Class 1 Division 2 Hazardous Locations

Certifying agency: FM Approvals

Certificate Number: TBD

Refer to document TBD

*"DeltaV™ Scalable Process System Class 1  
Division 2 installation Instructions"*

### ■ Marine Certifications:



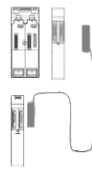
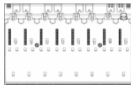
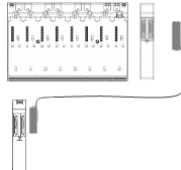
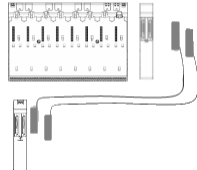
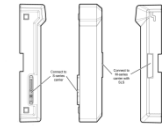

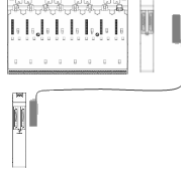
IACS E10:2006 Rev.5 Control, protection &  
Safety

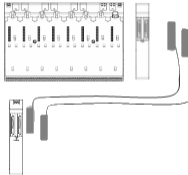
- ABS Certificate of Design Assessment
- Bureau Veritas Certificate
- DNV Marine Certificate
- Lloyds Register

### ■ GOST Hazardous Area certification Zone 2 (Russian)

Other country specific certifications may also be available. Verify with your local Emerson sales office to confirm any certification requirements not listed here.

Ordering Information

Description	View	Model Number
2-Wide Power/Controller Carrier		SE3051C0
2-Wide Power/Controller Carrier with Dual Extender Cables		SE3051C2
2-Wide Power/Controller Carrier with Single Extender Cable		SE3051C3
8-Wide I/O Interface Carrier with 8 Power Buss Jumper Plugs and a Carrier Shield Bar		SE4050E0C0
8-Wide I/O Interface Carrier with 8 Power Buss Jumper Plugs, a Carrier Shield Bar, and a Single Carrier Extender Cable		SE4050E1C0
8-Wide I/O Interface Carrier with 8 Power Buss Jumper Plugs, a Carrier Shield Bar, and Dual Carrier Extender Cables		SE4050E2C0
DeltaV SIS S-series Adapter		SE4058
8-Wide I/O Interface Carrier with 8 Power Terminal Plugs and a Carrier Shield Bar		SE4059E0C0
8-Wide I/O Interface Carrier with 8 Power Terminal Plugs, a Carrier Shield Bar and a Single Carrier Extender Cable		SE4059E1C0

Description	View	Model Number
8-Wide I/O Interface Carrier with 8 Power Terminal Plugs, a Carrier Shield Bar and Dual Carrier Extender Cables		SE4059E2C0

Any horizontal DIN rail mounted combination of carriers and extenders requires two DIN Rail stops to prevent carriers from disconnecting. Order VE4054DRS, which is a box of 5.

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 Asia Pacific: 65.777.8211  
 Europe, Middle East: 41.41.768.6111  
 North America, Latin America: +1 800.833.8314 or  
 +1 512.832.3774

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