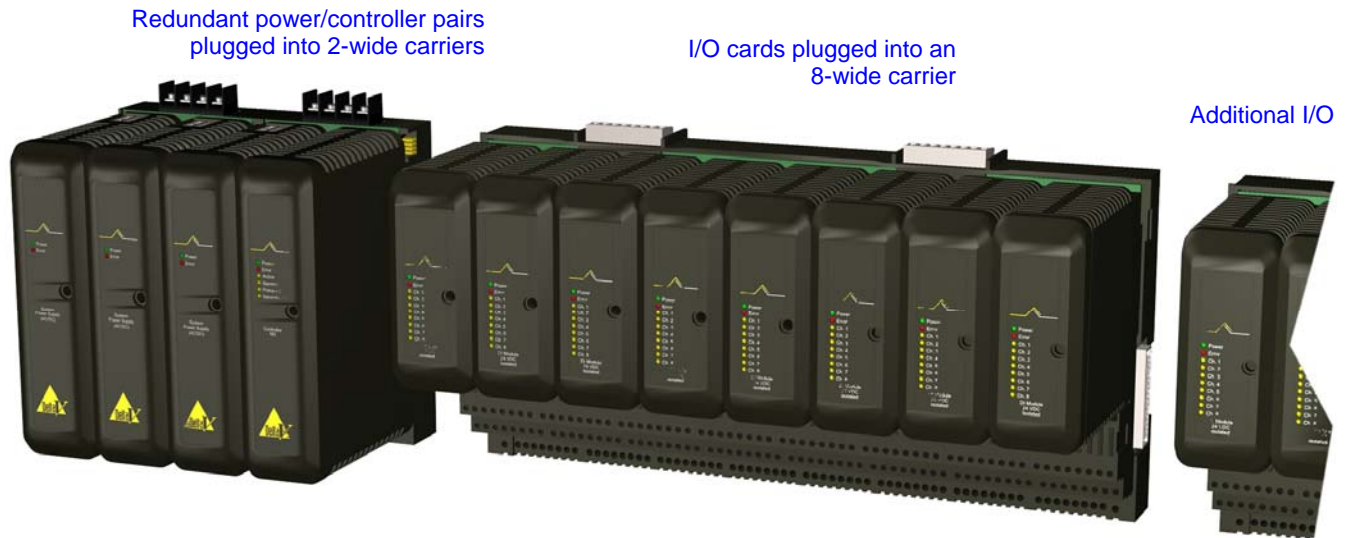




DeltaV I/O Subsystem Carriers



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

- Modular design allows flexible installation
- Allows you to expand online
- Increases I/O density for cabinet-mounted systems

Introduction

Get your I/O subsystem up and running efficiently with the DeltaV horizontal- or vertical-mount I/O carriers. The power/controller contains *internal power buses*. You don't need to use external cabling to connect the system power supply to the DeltaV controller and the I/O interface carriers.

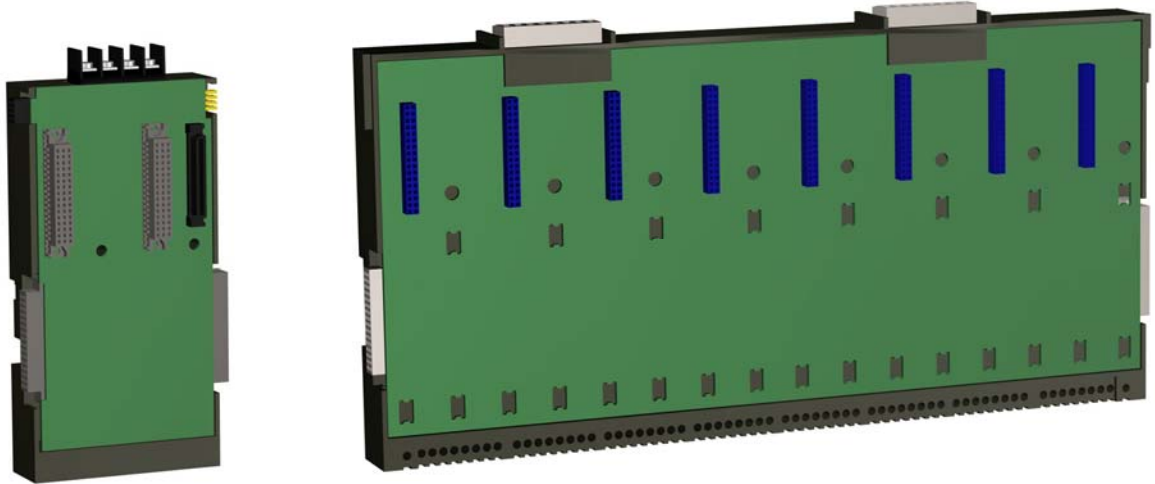
The power/controller and I/O carriers are modular. Purchase only what you need but be assured that as your system grows you can add *plug-and-play carriers—Easy!*

Benefits

Modular design allows flexible installation. A T-type DIN rail is all you need to mount the power/controller carrier into place. The I/O interface carrier plugs on to the power/controller carrier. Simply plug your I/O terminal blocks into the carrier. 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.

Increases density for cabinet-mounted systems. Alternatively, if flexibility, increased capacity, and simple cabinet installation are your goals, use the vertical-mount solution. Six I/O carriers (384 classic I/O) fit in one side of a standard 800mm x 600mm x 2200mm cabinet.



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



These vertical carriers also provide plug-and-play ease.



Product Description and Specification

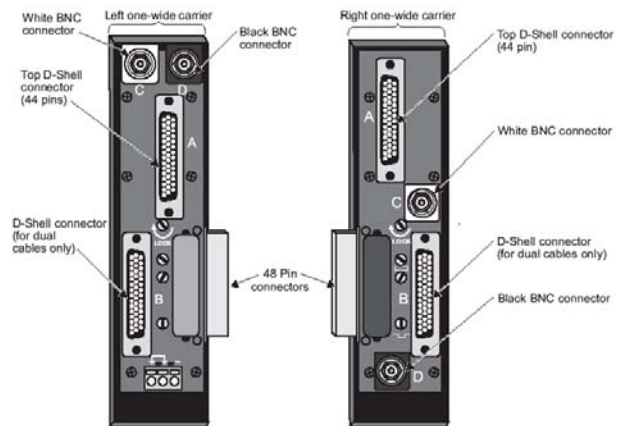
The I/O interface carrier plugs on to the power/controller carrier. The power/controller carrier supplies the system power and communications between the I/O interfaces and the controller. The controller processes the I/O interface information. For the horizontal-mount solution, an additional power/controller carrier is required for use with redundant controllers.

Mount your interface carrier on a T-type DIN rail. The I/O interface carrier includes the connections for the bulk AC to 24 VDC power supply, I/O interfaces, and terminal blocks. Each I/O interface carrier is equipped with a connector that allows an additional I/O interface carrier to be plugged on to it. Up to 64 I/O interfaces and eight 8-wide I/O interface carriers are supported by a single I/O subsystem. For the horizontal-mount solution, a 1-wide local bus cable enables you to connect 2-wide carriers together. For the vertical-mount solution, the connector for the cable is already in place. Both carrier styles can be used with any DeltaV system, regardless of software revision level.

With the introduction of DeltaV SIS in the V8 software release, the left one-wide and right one-wide dual carrier extenders have two, 44-pin D-Shell connectors which supports dual cables for a fault tolerant configuration. The A and B connectors are in parallel so either port may be used. The new dual carrier extenders (for horizontal) are a pre-requisite for DeltaV SIS. The VerticalPLUS mount carriers also support dual cables and can be used with DeltaV SIS.



Vertical-mount I/O carriers mounted in a standard-sized cabinet.



Front view of dual carrier extenders (horizontal carrier)



Common Environmental Specifications	
Category	Specifications
Storage Temperature	-40 to 85 °C (-40 to 185 °F)
Operating Temperature	-40 to 70 °C (-40 to 158 °F)
Relative humidity	5 to 95% , non-condensing
Airborne contaminants	<ul style="list-style-type: none">• ISA-S71.04-1985 Airborne Contaminants Class G3• Conformal coating
Protection rating	IP 20, NEMA 12
Hazardous area/location	ATEX EEx nA IIC T4 Class I, Div 2, Groups A, B, C, D, T4 hazardous locations.
Shock	10 g ½-sine wave for 11 ms
Vibration	1 mm peak-to-peak from 5 to 16 Hz; 0.5 g from 16 to 150 Hz



The following tables list the specifications for the **horizontal** 2-wide and 8-wide carriers.

Horizontal 2-Wide Power/Controller Carrier Specifications		
Capacity	One system power supply and one controller or two system power supplies	
Dimensions	Centimeters	Inches
Height	16.5	6.5
Width	8.4	3.3
Depth	3.1	1.2
Connector to connector width	9.1	3.6

Horizontal 8-Wide I/O Carrier Specifications		
Capacity	Eight I/O cards and eight terminal blocks	
Dimensions	Centimeters	Inches
Height	16.5	6.5
Width	33.6	13.2
Depth	3.1	1.2
	Current Rating	
Backplane	8 A max (supplied to I/O cards)	
Bussed field power bus	6.5 A max (supplied to field terminals)	



The following tables list the specifications for the new vertical mounting (VerticalPLUS) options (SIS-compatible):

VerticalPLUS Power/Controller Carrier Specifications		
Capacity	Two system power supplies and two controllers	
Dimensions	Centimeters	Inches
Height	17.86	7.03
Width	22.78	8.96
Depth	2.81	1.11

4-Wide VerticalPLUS Power Carrier Specifications		
Capacity	Two redundant system power supplies	
Dimensions	Centimeters	Inches
Height	17.86	7.03
Width	22.78	8.96
Depth	2.81	1.11

4-Wide VerticalPLUS SISNet Repeater Carrier Specifications		
Capacity	Two (primary and secondary) SISNet Repeaters	
Dimensions	Centimeters	Inches
Height	17.86	7.03
Width	22.78	8.96
Depth	2.81	1.11



8-Wide VerticalPLUS I/O Carrier Specifications		
Capacity	Eight I/O cards with terminal blocks or Four Logic Solvers with terminal blocks	
Dimensions	Centimeters	Inches
Height	50.8	20.0
Width	22.78	8.96
Depth	2.81	1.11
	Current Rating	
Backplane	15 A max (supplied to I/O cards)	
Bussed field power bus (shared by multiple I/O cards)	3.25 A (for each card); 13.0 A (for a set of 4 cards)	



The following tables list the specifications for the vertical mounting options to be used with expansions to existing vertical installations (legacy vertical):

Legacy Vertical Power/Controller Carrier Specifications		
Capacity	Two system power supplies and two controllers or four system power supplies	
Dimensions	Centimeters	Inches
Height	18.0	7.1
Width	18.3	7.2
Depth	4.1	1.6

Legacy Vertical I/O Carrier Specifications		
Capacity	Eight I/O cards and eight terminal blocks	
Dimensions	Centimeters	Inches
Height	56.4	22.2
Width	18.3	7.2
Depth	4.3	1.7
	Current Rating	
Backplane	15 A max (supplied to I/O cards)	
Bussed field power bus (shared by multiple I/O card pairs)	6.5 A max (supplied to field terminals)	



Ordering Information

Horizontal Carriers	Model Number
8-Wide I/O Interface Carrier with Carrier Shield Bar	VE4050S2K1C0
8-Wide I/O Interface Carrier with Carrier Shield Bar and Carrier Extension Cable	VE4050S2K1C1
8-Wide I/O Interface Carrier with Carrier Shield Bar and Single Enhanced Carrier Extender Cable	VE4050E1C0
8-Wide I/O Interface Carrier with Carrier Shield Bar, Single Enhanced Carrier Extender Cable, and Redundant SISNet Coax Cables	VE4050E1C2
8-Wide I/O Interface Carrier with Dual Carrier Extension Cable and Carrier Shield Bar	VE4050E2C0
8-Wide I/O Interface Carrier with Carrier Shield Bar, Dual Enhanced Carrier Extender Cable, and Redundant SISNet Coax Cables	VE4050E2C2
2-Wide Power/Controller Carrier	VE3051C0
2-Wide Power/Controller Carrier with Carrier Extension Cable	VE3051C1
2-Wide Power/Controller Carrier with Dual Enhanced Extender Cables	VE3051C2
2-Wide Power/Controller Carrier with Single Enhanced Extender Cable	VE3051C3
2-Wide Power/Controller Carrier with Dual Enhanced Extender Cables and Redundant SISNet Coax Cables	VE3051C4
2-Wide Power/Controller Carrier with Single Enhanced Extender Cable and Redundant SISNet Coax Cables	VE3051C5
Protective Cover	VE6101

VerticalPLUS Carriers	Model Number
8-Wide VerticalPLUS I/O Carrier; Left Side; SIS Compatible	VE4054S1C0
8-Wide VerticalPLUS I/O Carrier; Left Side; SIS Compatible; Single-Cable Carrier Extension from Right-Side Carrier	VE4054S1C1
8-Wide VerticalPLUS I/O Carrier; Left Side; SIS Compatible; Dual-Cable Carrier Extension from Right-Side Carrier	VE4054S1C2
8-Wide VerticalPLUS I/O Carrier; Left Side; SIS Compatible; Single-Cable Carrier Extension from Right-Side Carrier; Redundant SIS Coax Cables	VE4054S1C3
8-Wide VerticalPLUS I/O Carrier; Left Side; SIS Compatible; Dual-Cable Carrier Extension from Right-Side Carrier; Redundant SIS Coax Cables	VE4054S1C4
8-Wide VerticalPLUS I/O Carrier; Left Side; SIS Compatible; with Single-Cable Carrier Extension and Redundant SISNet Coax Cables (free end of cables are for connecting to VS6004 mounted on top of vertical right-side carrier)	VE4054S1R1
8-Wide VerticalPLUS I/O Carrier; Left Side; SIS Compatible; with Dual Carrier Extension and Redundant SISNet Coax Cables (free end of cables are for connecting to VS6004 mounted on top of vertical right-side carrier)	VE4054S1R2



VerticalPLUS Carriers (continued)	Model Number
8-Wide VerticalPLUS I/O Carrier; Left Side; SIS Compatible; with Single-Cable Carrier Extension (free end of cable is for connecting to VS6005 mounted on top of vertical right-side carrier)	VE4054S1R3
8-Wide VerticalPLUS I/O Carrier; Left Side; SIS Compatible; with Dual-Cable Carrier Extension (free end of cables are for connecting to VS6005 mounted on top of vertical right-side carrier)	VE4054S1R4
8-Wide VerticalPLUS I/O Carrier; Left Side; SIS Compatible; Single-Cable Carrier Extension from Right-Side Carrier; SISNet Termination on Top of Right-Side Carrier	VE4054S1T1
8-Wide VerticalPLUS I/O Carrier; Left Side; SIS Compatible; Dual-Cable Carrier Extension from Right-Side Carrier; SISNet Termination on Top of Right-Side Carrier	VE4054S1T2
8-Wide VerticalPLUS I/O Carrier; Right Side; SIS Compatible	VE4054S2C0
8-Wide VerticalPLUS I/O Carrier; Right Side; SIS Compatible; Single-Cable Carrier Extension from Left-Side Carrier	VE4054S2C1
8-Wide VerticalPLUS I/O Carrier; Right Side; SIS Compatible; Dual-Cable Carrier Extension from Left-Side Carrier	VE4054S2C2
8-Wide VerticalPLUS I/O Carrier; Right Side; SIS Compatible; Single-Cable Carrier Extension from Left-Side Carrier; Redundant SIS Coax Cables	VE4054S2C3
8-Wide VerticalPLUS I/O Carrier; Right Side; SIS Compatible; Dual-Cable Carrier Extension from Left-Side Carrier; Redundant SIS Coax Cables	VE4054S2C4
8-Wide VerticalPLUS I/O Carrier; Right Side; SIS Compatible; Single-Cable Carrier Extension from Left-Side Carrier; SISNet Termination on Bottom of Left-Side Carrier	VE4054S2T1
8-Wide VerticalPLUS I/O Carrier; Right Side; SIS Compatible; Dual-Cable Carrier Extension from Left-Side Carrier; SISNet Termination on Bottom of Left-Side Carrier	VE4054S2T2
4-Wide Vertical-Mount Power/Controller Carrier; SIS Compatible	VE3056

SIS-Specific VerticalPLUS Carriers	Model Number
Vertical-Mount SISNet Terminator Assembly for Bottom Left-Side or Top Right-Side Carrier	VS6053
Vertical-Mount SISNet Terminator Assembly for Bottom Right-Side or Top Left-Side Carrier	VS6052
Vertical-Mount, Redundant SISNet Repeater	VS6004
Vertical-Mount, Redundant SISNet Repeater with SISNet Terminators	VS6005



Legacy Vertical Carriers	Model Number
8-Wide Left-Side Vertical-mount Interface Carrier	VE4055S1C0
8-Wide Left-Side Vertical-mount Interface Carrier with top 2-meter cable to extend from right-side carrier	VE4055S1C1
8-Wide Right-Side Vertical-mount Interface Carrier	VE4055S2C0
8-Wide Right-Side Vertical-mount Interface Carrier with bottom 1-meter cable to extend from left-side carrier	VE4055S2C2
4-Wide Top Vertical-mount Power/Controller Carrier	VE3055M1
4-Wide Bottom Vertical-mount Power/Controller Carrier	VE3055M2



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