01 / Product and system overview

EMERSON

KJ4001X1-BA2 VE3051C0 12P1562X042

Controller Carrier

Product role

Emerson KJ4001X1-BA2 VE3051C0 12P1562X042 is a DeltaV 2-wide power/controller carrier for mounting a system power supply and controller in a horizontal I/O arrangement.

System supply
Separate power module

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2-wide carrier
Controller position

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Horizontal I/O
Power and communication

Applicability

BA2 installation details apply to the carrier design; VE3051C0 identifies the 2-wide ordering configuration. Confirm the supplied 12P1562X042 assembly and installed-system revision.

02 / Technical specification dashboard

Item	Design fact	Item	Design fact
Manufacturer	Emerson	Simplex controller position	Right-hand slot
Product type	2-wide power/controller carrier	Adjacent carrier connection	48-pin side connectors
Carrier type number	KJ4001X1-BA2	DIN rail profile, BA2 arrangement	35 mm T- or G-type
Ordering reference	VE3051C0	Recommended T-rail depth	15 mm
Supplied assembly reference	12P1562X042	Carrier position	To the left of 8-wide I/O carriers
System family	DeltaV horizontal I/O	Redundant controller arrangement	Additional power/controller carrier required
Carrier capacity	One system power supply and one controller, or two system power supplies		

03 / Operating context and integration

Functional role

The KJ4001X1-BA2 carrier provides two positions for one system power supply and one controller, or for two system power supplies. In a simplex arrangement, the controller occupies the right-hand position. The separate system power-supply module converts its input into the system supply used by the controller and I/O; the carrier itself is the mounting and interconnection component. VE3051C0 is the 2-wide carrier ordering reference, and 12P1562X042 remains part of the offered assembly identity.

Configuration

The BA2 installation arrangement uses standard 35 mm T- or G-type DIN rail, with different latching screws for the two rail profiles. The heavier 15 mm-deep T rail is recommended for the equipment weight distribution. Adjacent carriers connect by sliding their side-mounted 48-pin connectors together, and the 2-wide carrier is positioned to the left of the 8-wide I/O carriers. Latch engagement and connector alignment must both be established before installing the mounted modules.

Interfaces and integration

The horizontal-carrier system carries power and communication between the controller and I/O interfaces. A redundant controller requires an additional carrier; redundancy is a system arrangement involving the selected controllers, supplies and connections. Carrier extensions support layouts across separate rails, while grounding follows the installed enclosure and power-system design. Keep the supplied BA2 and X042 assembly identity distinct from later carrier revisions when selecting a replacement.

04 / Application and compatibility review

Simplex controller mounting

Mount the controller in the right-hand carrier position with the matched system power supply. The carrier establishes the mechanical and electrical connection to the horizontal subsystem.

System power arrangement

The two positions can carry one supply and one controller, or two supplies. Select the installed power architecture and verify the companion modules separately.

Horizontal I/O integration

Connect the carrier to the adjoining horizontal I/O carriers through the side connections. Keep the 2-wide carrier to the left of the 8-wide I/O group.

Redundant-system maintenance

A redundant controller requires an additional carrier and the appropriate controller and power arrangement. Preserve the complete system topology during replacement.

Lifecycle and supply

A current manufacturer lifecycle phase for this complete identity has not been confirmed. Request current Emerson guidance using the installed configuration. Supply scope and dispatch are confirmed in quotation.

05 / Purchase review and reference basis

Match the complete marking

Include KJ4001X1-BA2 VE3051C0 12P1562X042 and any revision or assembly number visible on the item. Keep the exact reference on your enquiry and quotation.

Check the offered item before ordering

Request available label and connector photos. Have your maintenance team compare the offered KJ4001X1-BA2 VE3051C0 12P1562X042 with the installed equipment and applicable Emerson documentation.

Reference basis

Emerson Installing Your DeltaV Digital Automation System, D800001X152, March 2006; M-series I/O Subsystem Horizontal Carriers, January 2024.

Apter Power technical summary, not an Emerson-issued manual. BA2 installation details apply to the carrier design; VE3051C0 identifies the 2-wide ordering configuration. Confirm the supplied 12P1562X042 assembly and installed-system revision.

Related Emerson products

Navigation only; no substitution or compatibility claim.

Emerson KJ4002X1-BF2 12P3866X012

Emerson KJ3002X1-BE1 12P0682X052

Discuss your installed configuration

Send the full unit marking and connection details.

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