Emerson KJ3241X1-BK1 12P4710X032

DeltaV S-series Serial Interface Card



Emerson KJ3241X1-BK1 12P4710X032 is a DeltaV S-series serial interface card for exchanging data with compatible PLCs, analyzers and other serial equipment. It brings external device information into DeltaV control modules, operator displays and historical records, and can pass supervisory commands back to connected equipment. Two individually configurable ports support the standard Modbus RTU and ASCII protocols, with master or slave operation selected for each port. The card is intended for integrating serial devices into the controller's I/O subsystem while retaining their existing communication interface.

Technical Specifications

Product Identity	
Manufacturer	Emerson
Complete identification	KJ3241X1-BK1 12P4710X032
Platform	DeltaV S-series
Functional Configuration	
Serial ports	2 independently configured ports
Port modes	RS232; RS422/485 half duplex or full duplex
Standard protocol	Modbus RTU and Modbus ASCII
Protocol roles	Master or slave per port
Baud rates	300 to 115200 baud, configured discrete rates
Data sets	32 total, 16 per port
Terminal key	D4
Isolation	Each port isolated from system and other port; external grounding required
Performance & Power	
LocalBus power	12 VDC at 300 mA
Environment	
Operating temperature	–40 to +70 °C
Relative humidity	5–95%, non-condensing
Protection	IP20

Selected original manufacturer material follows on page 3.

Compatibility & Selection Guide

System compatibility. KJ3241X1-BK1 12P4710X032 is intended for the S-series controller and I/O-carrier architecture. Match the serial driver, master/slave role and electrical mode to the connected device. A redundant pair additionally requires a redundant terminal block and a slave device with two suitable serial ports.

Wiring & Installation Reference

Removal and installation

1. Remove field power. Disconnect field power supplied at the terminal or through the carrier before removing or connecting the device.

2. De-energize system power. The exact KJ3241X1-BK1 instruction sheet prohibits removing or inserting this unit with system power energized.

Installation precautions

Do not disassemble the card; it has no user-serviceable parts. Calibration is not required.

For redundant serial operation, confirm the matching redundant terminal block and the slave device’s two-port capability with its manufacturer.

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KJ3241X1-BK1 S-Series Serial Interface Card

Hazardous Atmosphere

II 3G Ex ec IIC Gc
FM19ATEX0173U
IECEx FMG 19.0019U
FM21UKEX0017U

CL. I Div. 2 GP. A,B,C,D
CL. I Zone 2 AEx/Ex ec IIC Gc
FM17CA0145U
FM17US0286U

Power Specifications

Local Bus Power	12 VDC at 300 mA

Environmental Specifications

Ambient Temperature	-40°C to +70°C
Shock	10g ½ Sinewave for 11msec
Vibration	1mm Peak to Peak from 2 to 13.2Hz; 0.7g from 13.2 to 150Hz
Airborne Contaminants	ISA-S71.04 –1985 Airborne Contaminants Class G3
Relative Humidity	5 to 95% Non-Condensing
Terminal Block key Position	D4

Note: Refer to the product label for serial number and location and date of manufacture.

Warning: This product has specific instructions for installation, removal and operation in hazardous areas. Refer to document 12P5404 *"DeltaV™ S-Series Digital Automation System Zone 2 Installation Instructions".* Other installation instructions are available in the *"DeltaV™ M-Series and CHARMs Hardware Installation"* manual.

Removal and Insertion

Field power supplied to this device, either at the field terminal or as bussed field power through the Carrier, must be removed before removing or connecting the device.

This unit cannot be removed or inserted with system power energized.

A rotary keying system ensures compatibility between I/O cards and terminal blocks after installation is complete. The terminal block must have the keys set for the I/O card with which it is used.

Maintenance and Adjustment

This unit contains no user serviceable parts and should not be disassembled for any reason. Calibration is not required.

Other Safety Approvals

LR87534