

KJ3101X1-BA1 12P1865X062 VE4011B1

Installation and commissioning field guide

JOB SCOPE

Emerson KJ3101X1-BA1 12P1865X062 VE4011B1 is a DeltaV M-series intrinsically safe four-channel discrete output card for solenoid-driver circuits in IIC gas-group installations. Its documented output entity limits are 25 V DC, 110 mA and 0.69 W.

Safe-work boundary

- Record the complete Emerson KJ3101X1-BA1 12P1865X062 VE4011B1 marking and installed slot.
- Place the controller and all four field loops in the approved safe maintenance state.
- Verify the KJ4101X1-BA1 carrier before removing the existing card.
- Confirm that the installed terminal block is KJ4110X1-BA1 or KJ4110X1-BB1 with B5 keying.

IDENTITY HOLD POINT

Confirm the complete KJ3101X1-BA1 12P1865X062 VE4011B1 marking, B5 keying, carrier, terminal block and intrinsic-safety loop record before replacement.

Installed-hardware record

- System family: DeltaV M-series intrinsically safe I/O
- Card function: Four-channel intrinsically safe discrete output
- Field-device role: Solenoid driver
- Gas-group classification: IIC

Pre-installation readiness

Confirm the installed hardware and recorded interfaces

System family	DeltaV M-series intrinsically safe I/O
Card function	Four-channel intrinsically safe discrete output
Field-device role	Solenoid driver
Gas-group classification	IIC
Terminal-block key	B5
Output voltage limit U_o	25 V DC
Output current limit I_o	110 mA
Output power limit P_o	0.69 W

CONFIGURATION CONTROL

The card belongs to the DeltaV M-series intrinsically safe I/O architecture and is not interchangeable with S-series controllers or carriers. Use only the approved carrier and terminal-block arrangement, retain the documented entity limits, and validate all four solenoid-driver loops after service.

Controlled installation sequence

A traceable path from identification to connection

- 1 Record the complete Emerson KJ3101X1-BA1 12P1865X062 VE4011B1 marking and installed slot.
- 2 Place the controller and all four field loops in the approved safe maintenance state.
- 3 Verify the KJ4101X1-BA1 carrier before removing the existing card.
- 4 Confirm that the installed terminal block is KJ4110X1-BA1 or KJ4110X1-BB1 with B5 keying.
- 5 Compare the loop calculation with the documented 25 V DC, 110 mA and 0.69 W entity limits.
- 6 Preserve every channel conductor, shield and solenoid assignment during the exchange.

CONNECTION VERIFICATION

The installed arrangement uses the KJ4101X1-BA1 carrier and the approved KJ4110X1-BA1 or KJ4110X1-BB1 terminal block. Preserve the B5 keying, the channel-to-solenoid map and the intrinsic-safety loop documentation before exchange. After seating the exact card and terminal hardware, confirm LocalBus recognition, output indications and each commanded field response under the approved commissioning procedure.

Commissioning and acceptance

Verify each affected function before release

Identity	Record the complete Emerson KJ3101X1-BA1 12P1865X062 VE4011B1 marking and installed slot.
Installation	Compare the loop calculation with the documented 25 V DC, 110 mA and 0.69 W entity limits.
Configuration	Preserve every channel conductor, shield and solenoid assignment during the exchange.
Diagnostics	Review LocalBus recognition, card status and output indications after installation.
Functional proof	Command and prove each affected solenoid loop before the process is returned to service.

Release record

- Record the final installed identity and companion hardware.
- Retain the restored configuration, diagnostic state and functional-test result.
- Release the affected circuit only after the approved acceptance plan is complete.

Handover and support

Final record, related products and direct contact

Manufacturer evidence used

- Emerson DeltaV M-series Intrinsically Safe I/O product data sheet, July 2023.
- Fisher-Rosemount Systems DeltaV Scalable Process System Installation Instructions, publication 12P1990, Revision E.
- Emerson ordering entry for VE4011B1 four-channel I.S. solenoid-driver I/O with loop-disconnect terminal block.

Verified related ApterPower product pages

Emerson KJ2003X1-BB1 12P3439X012

[View exact product page](#)

Emerson KJ2005X1-BK1 SE3007

[View exact product page](#)

Emerson KJ2005X1-SQ1 12P6383X052

[View exact product page](#)

Emerson KJ3221X1-BA1 12P2531X122 VE4003S2B2

[View exact product page](#)

Emerson KJ3222X1-BA1 12P2532X112 VE4003S2B2

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Emerson KJ3222X1-BA1 12P2532X122

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