

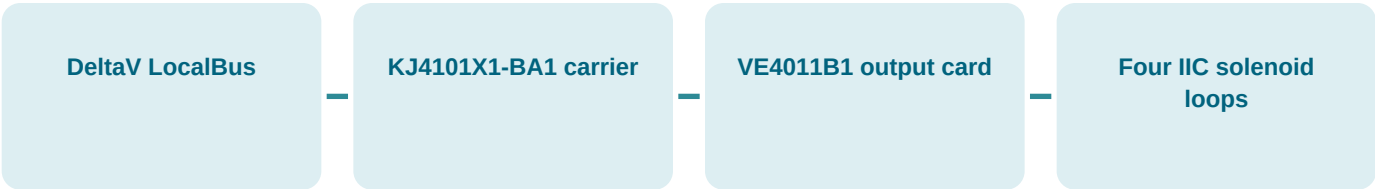
KJ3101X1-BA1 12P1865X062 VE4011B1

DeltaV M-Series Intrinsically Safe Discrete Output Card

EXACT PUBLISHED IDENTITY

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.

Intrinsic-safety output chain



Entity and hardware controls

Terminal-block key	B5
Output voltage limit Uo	25 V DC
Output current limit Io	110 mA
Output power limit Po	0.69 W

Engineering data

Exact-model values organized by function

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 Uo	25 V DC
Output current limit Io	110 mA
Output power limit Po	0.69 W
Approved carrier	KJ4101X1-BA1
Terminal block option 1	KJ4110X1-BA1
Terminal block option 2	KJ4110X1-BB1
Ordering designation	VE4011B1
Channel count	4
Compatibility boundary	Not compatible with S-series controllers or carriers

System role and applications

Four supported operating contexts

HAZARDOUS-AREA SOLENOID ACTUATION

Drives four documented intrinsically safe solenoid circuits within the approved IIC loop design.

DELTA V M-SERIES I/O STATIONS

Occupies the recorded M-series carrier position with the correct B5-keyed field termination.

LOOP-DISCONNECT MAINTENANCE

Supports controlled field-loop isolation through the approved loop-disconnect terminal-block arrangement.

INSTALLED-BASE CARD REPLACEMENT

Restores the existing four-channel output map after identity, carrier, terminal hardware and entity parameters are reconciled.

Integration control

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.

Service checks

- Compare the loop calculation with the documented 25 V DC, 110 mA and 0.69 W entity limits.
- Preserve every channel conductor, shield and solenoid assignment during the exchange.
- Review LocalBus recognition, card status and output indications after installation.
- Command and prove each affected solenoid loop before the process is returned to service.

Engineering questions

Model-specific decisions for selection and service

WHAT FUNCTION DOES EMERSON KJ3101X1-BA1 12P1865X062 VE4011B1 PERFORM?

Emerson KJ3101X1-BA1 12P1865X062 VE4011B1 provides four intrinsically safe discrete outputs for solenoid-driver circuits in a DeltaV M-series I/O assembly.

HOW MANY FIELD CHANNELS ARE AVAILABLE ON KJ3101X1-BA1 12P1865X062 VE4011B1?

KJ3101X1-BA1 12P1865X062 VE4011B1 provides four discrete-output channels.

WHICH GAS-GROUP APPLICATION IS DOCUMENTED FOR EMERSON KJ3101X1-BA1 12P1865X062 VE4011B1?

The published ordering information identifies Emerson KJ3101X1-BA1 12P1865X062 VE4011B1 for IIC gas-group solenoid-driver circuits.

WHAT OUTPUT ENTITY LIMITS MUST BE RETAINED FOR KJ3101X1-BA1 12P1865X062 VE4011B1?

The documented entity limits for KJ3101X1-BA1 12P1865X062 VE4011B1 are U_o 25 V DC, I_o 110 mA and P_o 0.69 W.

WHICH CARRIER SUPPORTS EMERSON KJ3101X1-BA1 12P1865X062 VE4011B1?

Emerson specifies the KJ4101X1-BA1 carrier for the KJ3101X1-BA1 12P1865X062 VE4011B1 installation.

WHICH TERMINAL BLOCKS CAN BE PAIRED WITH KJ3101X1-BA1 12P1865X062 VE4011B1?

KJ3101X1-BA1 12P1865X062 VE4011B1 uses the approved KJ4110X1-BA1 or KJ4110X1-BB1 terminal block with B5 keying.

CAN EMERSON KJ3101X1-BA1 12P1865X062 VE4011B1 BE INSTALLED IN AN S-SERIES CARRIER?

Emerson states that the M-series intrinsically safe I/O cards, including the VE4011B1 ordering designation, are not compatible with S-series controllers or carriers.

WHAT COMPLETES ACCEPTANCE TESTING AFTER KJ3101X1-BA1 12P1865X062 VE4011B1 IS REPLACED?

Acceptance is complete after KJ3101X1-BA1 12P1865X062 VE4011B1 is recognized by the DeltaV station and every affected solenoid loop responds correctly to its commanded state.

Evidence, related products and contact

Traceable source record and direct Apter Power support

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 098-01257-01 01257-00-412

[View exact product page](#)

Emerson 1X00781H01L

[View exact product page](#)

Emerson 1X01046H01L

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Emerson 8752-CA-NS-02

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Emerson 9191-FP

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Emerson 960177-02

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