# Emerson KJ3221X1-BA1 12P2531X062 VE4035S2B1

## Complete Product Information

Emerson KJ3221X1-BA1 12P2531X062 VE4035S2B1 combines an eight-channel 4-20 mA HART analog-output card with the documented redundant standard i/o termination block execution.

### WHAT THIS PRODUCT DOES

Emerson KJ3221X1-BA1 12P2531X062 VE4035S2B1 combines an eight-channel 4-20 mA HART analog-output card with the documented redundant standard i/o termination block execution.

**Product characteristic 1**

Drives eight independent 4-20 mA control loops.

**Product characteristic 2**

Supports HART communication with intelligent field actuators.

**Product characteristic 3**

Provides optical isolation for every output channel.

**Product characteristic 4**

Uses the redundant standard i/o termination block configuration identified by the complete assembly code.

### PRODUCT-PAGE TECHNICAL SNAPSHOT

| | |
|---|---|
| **Output channels** | 8 |
| **Output signal** | 4 to 20 mA with HART |
| **Channel isolation** | Each channel optically isolated from the system and other channels |
| **Output range** | 1 to 23 mA full signal range |
| **Terminal execution** | Redundant standard I/O termination block |
| **DeltaV support** | Traditional M-series I/O |

**IMPORTANT NOTICE**

Match the complete KJ3221X1-BA1 12P2531X062 VE4035S2B1 marking and documented interfaces before installation, then verify the intended technical response.

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# Features and technical data

## TECHNICAL DATA SHOWN ON THE PRODUCT PAGE

| | |
|---|---|
| **Output channels** | 8 |
| **Output signal** | 4 to 20 mA with HART |
| **Channel isolation** | Each channel optically isolated from the system and other channels |
| **Output range** | 1 to 23 mA full signal range |
| **Terminal execution** | Redundant standard I/O termination block |
| **DeltaV support** | Traditional M-series I/O |

## FEATURE INTERPRETATION

**Product identity**

Drives eight independent 4-20 mA control loops.

**System role**

Supports HART communication with intelligent field actuators.

**Service context**

Provides optical isolation for every output channel.

**Return-to-service focus**

Uses the redundant standard i/o termination block configuration identified by the complete assembly code.

## SIGNAL OR CONTROL PATH

**Ovation controller** → **Output electronics** → **Personality module** → **Analog field loop**

KJ3221X1-BA1 12P2531X062 VE4035S2B1 must remain matched to its documented system interface, mating hardware and controlled configuration.

## PRODUCT-PAGE TECHNICAL QUESTIONS

| | |
|---|---|
| **Which output channels applies to KJ3221X1-BA1 12P2531X062 VE4035S2B1?** | The documented output channels is 8. |

# Common applications

The application groups below reproduce the model-specific uses presented on the product page and connect each use to a practical verification point.

**Control-valve positioning**

Supplies the analog command and HART communication path.

**Variable-speed drive reference**

Provides a controlled current command to supported drive inputs.

**Damper and actuator control**

Operates intelligent final elements over 4-20 mA loops.

**Redundant critical output**

Uses the documented termination arrangement for process outputs.

## APPLICATION VERIFICATION MAP

| | |
|---|---|
| **Control-valve positioning** | Confirm the documented system position and the required operating function. |
| **Variable-speed drive reference** | Compare the restored connection or control path with the approved record. |
| **Damper and actuator control** | Check the physical interface and the retained configuration before startup. |
| **Redundant critical output** | Record diagnostics and the final controlled response before release. |

## INFORMATION CARRIED INTO THE WORK RECORD

**Identity record**

Complete marking and assigned system position.

**Connection record**

Connector, conductor and interface arrangement as found.

**Configuration record**

Controlled settings, application data and option state.

**Acceptance record**

Observed status, response and release decision.

**IMPORTANT NOTICE**

Use the complete product identifier for every application review; a related product link is not evidence of interchangeability.

## APPLICATION QUESTIONS

| | |
|---|---|
| **What channel isolation should be checked on KJ3221X1-BA1 12P2531X062 VE4035S2B1?** | The documented channel isolation is Each channel optically isolated from the system and other channels. |
| **Why does output range matter when selecting KJ3221X1-BA1 12P2531X062 VE4035S2B1?** | The documented output range is 1 to 23 mA full signal range. |
| **Where does KJ3221X1-BA1 12P2531X062 VE4035S2B1 use its stated terminal execution?** | The documented terminal execution is Redundant standard I/O termination block. |

# Product precautions and questions

## EIGHT MODEL-SPECIFIC PRECAUTIONS

| | |
|---|---|
| **01** | Match the complete card, 12P and VE identifiers before work. |
| **02** | Record every output loop and safe-state requirement. |
| **03** | Place affected control loops in the approved manual or maintenance state. |
| **04** | Remove field power before changing termination wiring. |
| **05** | Preserve polarity, shields and terminal keying. |
| **06** | Inspect card and termination engagement before energizing. |
| **07** | Stroke or simulate each actuator at controlled output points. |
| **08** | Confirm HART identity, output tracking and fail-state behavior before release. |

## FREQUENTLY ASKED TECHNICAL QUESTIONS

| | |
|---|---|
| **Which output channels applies to KJ3221X1-BA1 12P2531X062 VE4035S2B1?** | The documented output channels is 8. |
| **How is KJ3221X1-BA1 12P2531X062 VE4035S2B1 specified for output signal?** | The documented output signal is 4 to 20 mA with HART. |
| **What channel isolation should be checked on KJ3221X1-BA1 12P2531X062 VE4035S2B1?** | The documented channel isolation is Each channel optically isolated from the system and other channels. |
| **Why does output range matter when selecting KJ3221X1-BA1 12P2531X062 VE4035S2B1?** | The documented output range is 1 to 23 mA full signal range. |

| | |
|---|---|
| **IMPORTANT NOTICE** | Confirm the complete KJ3221X1-BA1 12P2531X062 VE4035S2B1 identity, mating interface and controlled system position before return to service. |

## RELEASE CHECKLIST

| | |
|---|---|
| **Identity accepted** | The complete product marking and assigned system position agree. |
| **Interfaces accepted** | Connections, retention and controlled configuration match the recorded condition. |
| **Response accepted** | Diagnostics and the intended technical response have been documented. |

# FAQ, configuration control and related models

## ADDITIONAL TECHNICAL QUESTIONS

| | |
|---|---|
| **Where does KJ3221X1-BA1 12P2531X062 VE4035S2B1 use its stated terminal execution?** | The documented terminal execution is Redundant standard I/O termination block. |
| **What value is documented for the deltav support of KJ3221X1-BA1 12P2531X062 VE4035S2B1?** | The documented deltav support is Traditional M-series I/O. |
| **Which records should be retained before removing KJ3221X1-BA1 12P2531X062 VE4035S2B1?** | Record the complete marking, installed position, wiring, keying and controlled configuration before removal. |
| **Which acceptance checks should follow installation of KJ3221X1-BA1 12P2531X062 VE4035S2B1?** | Verify physical engagement, channel status, diagnostics and the intended signal or communication response before release. |

## CONFIGURATION CONTROL RECORD

| | |
|---|---|
| **Configuration identity** | Emerson KJ3221X1-BA1 12P2531X062 VE4035S2B1 |
| **Technical boundary** | Apply only the functions and interfaces shown for this product or its identified system family. |
| **Selection control** | Match the complete ordering string and installed interfaces before purchase or installation. |

## RELATED MODELS ON APTERPOWER

| | |
|---|---|
| Emerson CON041 PR6424/000-121 | Related product reference. Review the complete ordering string before selection. |
| Emerson 1B30035H01 | Related product reference. Compare the required interface and system position. |
| Emerson MMS6312 | Related product reference. Confirm the execution independently for the intended task. |

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