# KJ2201X1-BA1

## DeltaV SIS Logic Solver SLS 1508

It executes the configured safety-instrumented logic and coordinates SIS I/O for a DeltaV safety application.

### PRODUCT SNAPSHOT

| | |
|---|---|
| **BRAND** | **FAMILY** |
| Emerson | DeltaV SIS safety system |
| **PART** | **HS CODE** |
| KJ2201X1-BA1 | 8537101190 |

### APTER POWER SALES TEAM

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# PRODUCT OVERVIEW

It executes the configured safety-instrumented logic and coordinates SIS I/O for a DeltaV safety application.

1. Executes the validated SIS application
2. Communicates across the DeltaV local bus
3. Coordinates configured safety field power
4. Provides certified SIL 3 capability

## SYSTEM COMPONENTS

- DeltaV SIS carrier
- Assigned SIS I/O modules
- 24 V DC local-bus supply
- Validated safety application and proof-test record

**TECHNICAL NOTE**

Place the process in its validated safe state, remove field power before disconnecting the unit, do not service internal parts, restore the approved safety application and complete the required proof test.

# TECHNICAL DATA

| PARAMETER | VALUE |
|---|---|
| **Part number** | KJ2201X1-BA1 |
| **Product designation** | SIS Logic Solver SLS 1508 |
| **Local bus power** | 24 V DC at 1 A |
| **Field power** | 4 A maximum |
| **Ambient temperature** | -40 to +70 degC |
| **Shock** | 10 g half-sine for 11 ms |

| PARAMETER | VALUE |
|---|---|
| **Vibration; 2 to 13.2 Hz** | 1 mm peak-to-peak |
| **Vibration; 13.2 to 150 Hz** | 0.7 g |
| **Airborne contaminants** | ISA-S71.04 Class G3 |
| **Relative humidity** | 5 to 95%, non-condensing |
| **ATEX marking** | II 3G Ex ec IIC Gc |
| **Functional safety capability** | SIL 3 |

## RELATED PRODUCTS ON APTER POWER

| MODEL | SYSTEM ROLE | APTER POWER PAGE |
|---|---|---|
| **KC3011X1-BA1-12P6749X042** | Related Emerson product | **View KC3011X1-BA1-12P6749X042 page** |
| **KC3010X1-BA1-12P6762X062** | Related Emerson product | **View KC3010X1-BA1-12P6762X062 page** |
| **1X01046H01L** | Related Emerson product | **View 1X01046H01L page** |
| **PR6426-000-131-CON041** | Related Emerson product | **View PR6426-000-131-CON041 page** |
| **PR6426-010-140** | Related Emerson product | **View PR6426-010-140 page** |
| **1X00781H01L** | Related Emerson product | **View 1X00781H01L page** |
| **38B6041X152** | Related Emerson product | **View 38B6041X152 page** |
| **38B5786X092** | Related Emerson product | **View 38B5786X092 page** |

# APPLICATIONS & PRECAUTIONS

## COMMON APPLICATIONS

### Emergency shutdown logic

Executes the validated SIS application

### Burner management interlocks

Communicates across the DeltaV local bus

### Rotating-equipment protection

Coordinates configured safety field power

### Process-unit safety trips

Provides certified SIL 3 capability

## PRODUCT PRECAUTIONS

1. Verify the complete KJ2201X1-BA1 marking and the assigned DeltaV SIS safety system position before work.
2. Place the connected machine or process in the approved maintenance state before disturbing KJ2201X1-BA1.
3. Isolate the applicable power and field energy, then confirm a safe state before disconnecting KJ2201X1-BA1.
4. Record connector, conductor, slot and configuration identities before removal of KJ2201X1-BA1.
5. Use ESD controls and protect keyed interfaces, exposed contacts and electronic assemblies during handling.
6. Confirm that the installed companion hardware and approved project match the KJ2201X1-BA1 arrangement.
7. Restore power in a controlled sequence and review device, rack and host diagnostics.
8. Prove the intended function and retain the final test result before returning KJ2201X1-BA1 to service.

# ENGINEER FAQ

**Q1 Does KJ2201X1-BA1 match DeltaV SIS carrier in a Emergency shutdown logic installation?**

Verify the complete KJ2201X1-BA1 marking, the documented DeltaV SIS safety system position and the installed DeltaV SIS carrier before fitting the assembly.

**Q2 How should KJ2201X1-BA1 be wired when it must executes the validated sis application?**

Isolate the circuit, identify every terminal and reproduce the approved polarity, shield and channel assignment for KJ2201X1-BA1; then continuity-test the affected path.

**Q3 Which DeltaV SIS safety system records should be captured before removing KJ2201X1-BA1?**

Record the as-found wiring, installed position, active configuration and diagnostic state associated with KJ2201X1-BA1 before disconnection.

**Q4 What controlled test confirms that KJ2201X1-BA1 can communicates across the deltav local bus?**

Apply the approved field or simulated stimulus, observe the DeltaV SIS safety system indication and confirm the intended response without bypassing the normal interlocks.

**Q5 Which Assigned SIS I/O modules condition should be checked when KJ2201X1-BA1 reports an abnormal state?**

Check the Assigned SIS I/O modules supply, seating and connection first, then compare channel diagnostics with the recorded KJ2201X1-BA1 baseline.

**Q6 Can KJ2201X1-BA1 be moved directly into Burner management interlocks without validating Validated safety application and proof-test record?**

No. Confirm the Validated safety application and proof-test record, revision, connection scheme and DeltaV SIS safety system configuration before transferring KJ2201X1-BA1 to that duty.

**Q7 What maintenance evidence is required after KJ2201X1-BA1 is used for Rotating-equipment protection?**

Retain the nameplate record, corrective action, final diagnostics and a controlled rotating-equipment protection functional-test result for KJ2201X1-BA1.

**Q8 How should KJ2201X1-BA1 be returned to service in Process-unit safety trips?**

Restore power under control, verify coordinates configured safety field power, exercise the intended signal path and release KJ2201X1-BA1 only after the DeltaV SIS safety system remains in its approved operating state.

**SOURCE** Emerson ATEX Instruction Sheet for KJ2201X1-BA1 | ATEX275; July 2021

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