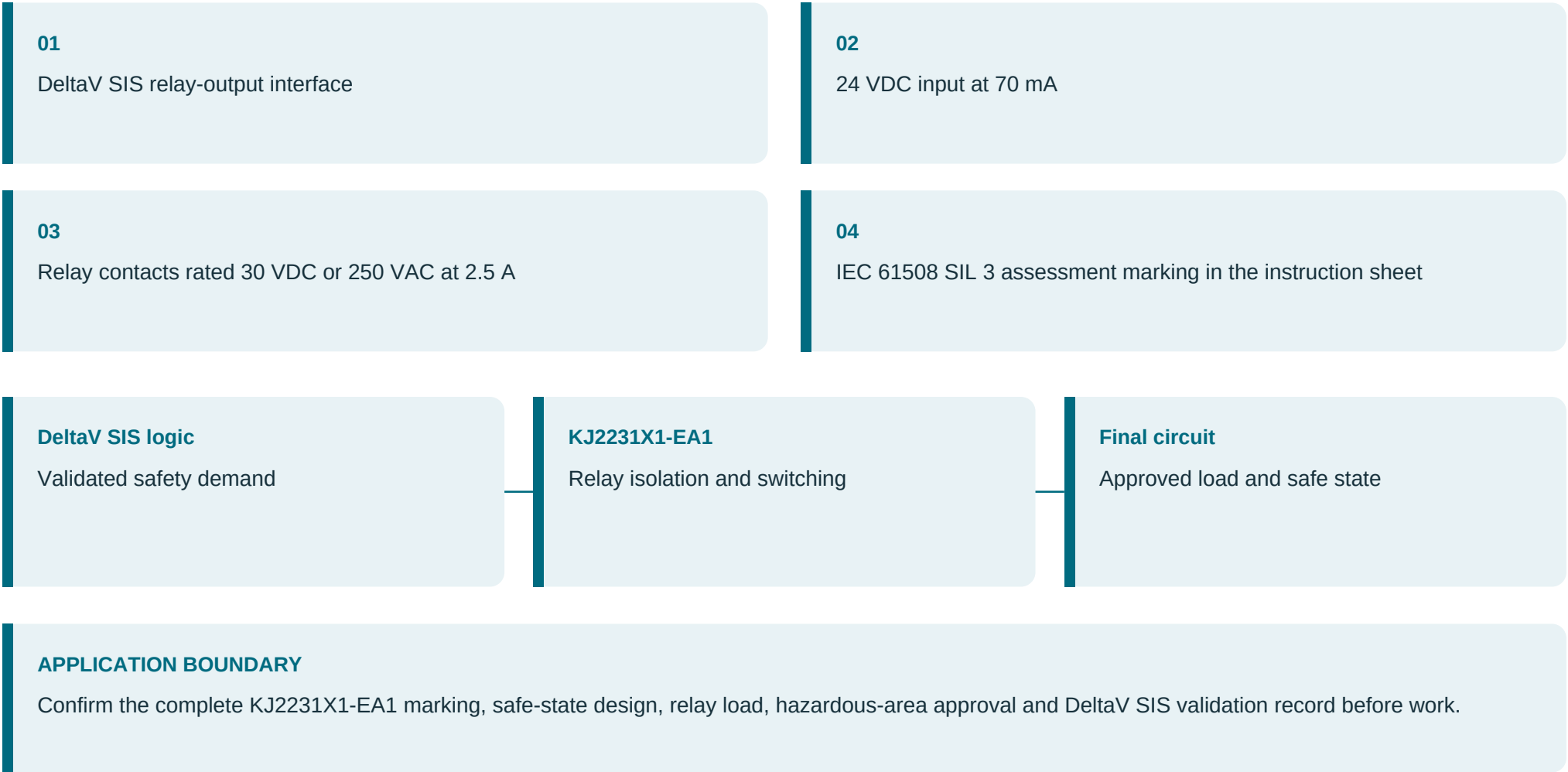


Emerson KJ2231X1-EA1 is a DeltaV SIS relay module for safety-instrumented-system output interfacing. Emerson specifies a 24 VDC module input and relay-contact ratings for both DC and AC switched circuits.



Module type	DeltaV SIS relay module
Input power	24 VDC at 70 mA
DC relay contact	30 VDC at 2.5 A
AC relay contact	250 VAC at 2.5 A
Ambient temperature	-40 to +70 degrees C
Relative humidity	5 to 95% non-condensing

Shock	10 g half-sine for 11 ms
Vibration	1 mm peak-to-peak from 5 to 16 Hz; 0.5 g from 16 to 150 Hz
Airborne contaminants	ISA-S71.04-1985 Class G3
Hazardous-area marking	II 3 G; EEx nC IIC T4
Maintenance	No user-serviceable parts; no calibration
Removal / insertion	System power must be de-energized

CONFIGURATION CHECK

Emerson states that the unit cannot be removed or inserted with system power energized, contains no user-serviceable parts and requires no calibration. The exact sheet lists Nemko 02ATEX431U, EEx nC IIC T4 and an ambient range of -40 to 70 degrees C.

SAFETY RELAY INTERFACE

Switch an approved external circuit from the documented DeltaV SIS output architecture.

SHUTDOWN FUNCTION

Use the relay within an engineered safe-state and validated safety-instrumented function.

HAZARDOUS-AREA CABINET

Apply the exact instruction-sheet approval and installation requirements.

PROOF-TEST MAINTENANCE

Verify de-energized state, commanded state, feedback and the complete safety function.

STATION INTEGRATION

Before replacement, isolate system and field energy, record the relay wiring and the required de-energized state, and verify the connected load against the documented contact rating. After installation, test commanded state, de-energized state, feedback and the complete safety function under the approved proof-test procedure.

What is Emerson KJ2231X1-EA1?	It is an Emerson DeltaV SIS relay module for interfacing safety logic to an external switched circuit.
What input power is specified for Emerson KJ2231X1-EA1?	The manufacturer sheet specifies 24 VDC at 70 mA.
What DC relay-contact rating applies to Emerson KJ2231X1-EA1?	The DC contact rating is 30 VDC at 2.5 A.
What AC relay-contact rating applies to Emerson KJ2231X1-EA1?	The AC contact rating is 250 VAC at 2.5 A.
Can Emerson KJ2231X1-EA1 be removed with system power energized?	No. Emerson states that this unit cannot be removed or inserted with system power energized.
Does Emerson KJ2231X1-EA1 require calibration?	No. Emerson states that calibration is not required and the module must not be disassembled.
Which ambient range is documented for Emerson KJ2231X1-EA1?	The instruction sheet lists -40 to +70 degrees C with 5 to 95% non-condensing relative humidity.

DECISION RECORD

Confirm the complete KJ2231X1-EA1 marking, safe-state design, relay load, hazardous-area approval and DeltaV SIS validation record before work.

STEP 1

Record the complete KJ2231X1-EA1 identity and SIS position.

STEP 2

Apply the approved safety-system bypass and safe-work procedure.

STEP 3

De-energize system and field power before removal or insertion.

STEP 4

Verify the connected load against the DC or AC relay rating.

STEP 5

Preserve the engineered safe-state and contact wiring.

STEP 6

Do not disassemble, adjust or attempt field calibration.

STEP 7

Test the commanded and de-energized relay states with feedback.

STEP 8

Complete the approved proof test and record validation evidence.

MANUFACTURER SOURCE

Emerson Process Management ATEX Instruction Sheet ATEX18, KJ2231X1-EA1 SIS Relay Module, July 2011

Related Emerson catalog pages

Browse related automation products. These links do not establish interchangeability.

Emerson KJ3221X1-BA1 12P2531X122 VE4003S2B2

[View product](#)

Emerson KJ3222X1-BA1 12P2532X112 VE4003S2B2

[View product](#)

Emerson KJ3222X1-BA1 12P2532X122

[View product](#)

APTER POWER SALES TEAM

WHATSAPP / PHONE +86 180 3023 5313

EMAIL sales13@apterpower.com

WEBSITE www.apterpower.com



KJ2231X1-EA1