ABB ICMK-CS31-A1.0 1SBP260057R1001

Complete Product Information

ABB ICMK-CS31-A1.0 1SBP260057R1001 is a CS31 remote I/O unit with a 24 V DC supply marking. Its nameplate specifies eight 0-24 V DC inputs at 5 mA and power of 6 W without extensions or 10 W with extensions.

Operating context

ABB describes the ICMK-CS31 remote unit as an adaptation of the ICMK14F1 for replacing selected Series 30 CS31 units while retaining the central-unit program behavior. This is a configured replacement method, not a universal exchange: the selected extension modules, central-unit support and wiring conversion must match the documented arrangement.

The eight isolated inputs select configuration functions such as module type, analog mode, temperature mode and upper-channel assignment. They should not be treated as eight additional process inputs. The remote unit itself has no outputs; the required process channels are provided by applicable extension units and their configured bus mapping.

The supplied unit nameplate specifies 24 V DC, with power marked 6 W without extensions and 10 W with extensions. Its eight inputs are marked 0-24 V DC, 5 mA. Two rotary switches set the CS31 address; POWER, RUN and ERR indications support commissioning checks. Match the installed revision and terminal diagram before applying ICMK-CS31 series reference values.

Key technical relationships

Offered model marking	ICMK-CS31-A1.0 1SBP260057R1001
Order code	1SBP260057R1001
System family	AC31 / CS31 remote I/O
Supply rating	24 V DC (nameplate)
Power, without extensions	6 W (nameplate)
Power, with extensions	10 W (nameplate)
Input voltage marking	0-24 V DC

Technical source: supplied unit nameplate and ABB AC31 ICMK-CS31 series documentation, 1SBC121001M0201-b (02.07). Supply, power and input current follow the nameplate. Other entries are series references; confirm applicability to the installed revision and configuration. Do not select supply wiring from the order code alone.

02 Technical specification matrix

Input current marking	5 mA
Terminal torque	0.5 N.m (4.5 lb-in)
Configuration inputs	8 isolated 24 V DC inputs; PNP/NPN
Outputs on remote unit	None; process I/O requires applicable extensions
Input low level	0–5 V DC
Input high level	15–30 V DC
Supply wiring	AWG 14 copper; 60 deg C
Input wiring	AWG 14-24 copper; 60 deg C
Minimum input filtering	5 ms
Input isolation	1500 V AC to internal electronics

Connection restriction	Do not plug or unplug with power ON
Bus interface	CS31; RS485 shielded twisted pair
Bus termination	120 ohm, 1/4 W at each bus end
Bus address setting	Two rotary switches; units and tens
Horizontal operating temperature	0 to +55 °C
Vertical operating temperature	0 to +40 °C
Storage temperature	-40 to +75 °C
Protection rating	IP20
Mounting	35 mm DIN rail or M4 screws
Terminal capacity	Up to 2.5 mm²; removable terminal blocks

Interpretation and application

The supplied ICMK-CS31-A1.0 1SBP260057R1001 nameplate specifies 24 V DC, 6 W without extensions and 10 W with extensions. Its eight inputs are marked 0-24 V DC, 5 mA. Other entries are ICMK-CS31 series references and require revision-specific verification. The local inputs configure the extensions; process I/O depends on the selected extension units.

03 Applications and installation boundaries

Series 30 maintenance conversion

Use the documented ICMK-CS31 and extension combinations for supported Series 30 replacement cases, retaining the required central-program behavior.

Distributed CS31 process I/O

Connect applicable extension modules through the remote unit and preserve the installed bus address and process-channel assignment.

Configured analog acquisition

Set the documented configuration inputs for the selected analog extension and signal mode; verify range and channel mapping before energizing the field circuits.

Remote-station fault diagnosis

Use POWER, RUN and ERR together with the central-controller status to distinguish supply, bus-message and configuration problems.

Verify the 24 V DC supply

The supplied nameplate specifies 24 V DC. Match the actual supply terminals and wiring diagram; do not apply AC power based on the order code alone.

Isolate all energy sources

Isolate the DC supply and affected field circuits before wiring. Preserve the terminal identification and apply the site electrical safe-work procedure.

Preserve bus polarity

Connect Bus 1 to Bus 1 and Bus 2 to Bus 2 using shielded twisted pair. Follow the ABB shield connection and terminate only the ends of the bus.

Retain the configured address

Set the rotary tens and units switches to the address required by the replaced station and central program. Avoid duplicate bus addresses.

Wire configuration inputs deliberately

Use the documented input-state combination for the actual extension modules. Inputs 5 and 6 are reserved; do not invent a function for them.

Check orientation and diagnostics

Respect 0–55 °C horizontal or 0–40 °C vertical operation. Prove supply, bus communication, configuration and each affected process channel before return to service.

04 Technical questions and operating decisions

What supply voltage is marked on ICMK-CS31-A1.0 1SBP260057R1001?

The supplied unit nameplate specifies 24 V DC. Match its supply terminals and wiring diagram before energizing; do not apply an AC supply based on the order code alone.

Are the eight inputs on ICMK-CS31-A1.0 1SBP260057R1001 normal process inputs?

In the documented ICMK-CS31 arrangement, the eight local inputs are configuration inputs. Their states select extension and channel modes; they are not eight additional freely assigned process inputs.

Does ICMK-CS31-A1.0 1SBP260057R1001 include onboard outputs?

The documented ICMK-CS31 remote unit has no outputs. Process I/O is supplied by the applicable AC31 extension modules and the chosen configuration.

How is the CS31 address set for ICMK-CS31-A1.0 1SBP260057R1001?

Two rotary switches set the tens and units of the CS31 address. Preserve the address required by the central-controller program and the replaced station, and check for duplicate addresses.

What termination is required with ICMK-CS31-A1.0 1SBP260057R1001?

Use shielded twisted-pair CS31 wiring, retain Bus 1 and Bus 2 continuity, and fit a 120 ohm, 1/4 W termination at each end of the bus. Intermediate stations must not add end termination.

How does mounting orientation affect ICMK-CS31-A1.0 1SBP260057R1001?

For the ICMK-CS31 series, horizontal operation is specified from 0 to +55 deg C and vertical operation from 0 to +40 deg C. Confirm the installed revision limits, cabinet temperature and mounting position.

What do the RUN and ERR indicators mean on ICMK-CS31-A1.0 1SBP260057R1001?

RUN blinking indicates receipt of a valid message. ERR on indicates an error, while ERR blinking indicates a configuration error. Diagnose these states with the central controller and extension arrangement.

Can ICMK-CS31-A1.0 1SBP260057R1001 replace every Series 30 CS31 unit?

No. ABB describes selected replacement arrangements using the remote unit and appropriate extensions, with rewiring required. Verify the exact replaced unit, central-unit support, configuration inputs and process-channel map.

05 Lifecycle, offered unit and technical handover

Lifecycle status

The current manufacturing and support phase of ABB ICMK-CS31-A1.0 1SBP260057R1001 has not been confirmed by an exact-model lifecycle notice. Check the full order identity with ABB before planning long-term maintenance. Quoted availability is separate from manufacturer lifecycle status.

Available unit details

Confirm the remote unit, terminal blocks and any extension modules separately in the quotation. Condition and configuration are confirmed in the quotation.

Acceptance record

Remove maintenance controls only after the complete process response and diagnostic state are accepted. Retain the nameplate images, wiring map, address, configuration states and test results with the maintenance record.

Related products

Portfolio navigation only; no compatibility or substitution is implied.

ABB GJR5250500R0262-07KT92	View product
ABB 07KR91 GJR5250000R0101	View product
ABB 07SK90R1 GJR5250200R0001	View product

Maintenance handover

Keep the configuration evidence

Record the offered complete marking, verified ABB order code and actual unit label together. This preserves the user-specified identity while keeping the technical reference tied to the documented hardware.

Review any later substitution

A changed extension, central controller or signal type can change the required configuration. Recheck the applicable ABB tables and channel map before accepting a proposed replacement.

Maintain cabinet conditions

Keep the unit within the temperature limit for its mounting orientation. Inspect terminal seating, bus cable condition and enclosure protection during scheduled maintenance without disturbing a running process unnecessarily.

Discuss the exact offered unit

Send the complete marking, quantity and available label photos for review. Confirm condition and included items in the quotation.

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