

T8403

Trusted TMR 24 VDC digital input module

24 VDC discrete safety and interlock input states

PRODUCT SNAPSHOT

BRAND

ICS Triplex

FAMILY

ICS Triplex Trusted TMR I/O

PART

T8403

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PRODUCT OVERVIEW

24 VDC discrete safety and interlock input states

1

Acquires twenty-four-volt discrete field states

2

Uses Trusted triple-modular-redundant processing

3

Supports a four-millisecond scan factor

4

Reports channel discrepancy for diagnostics

SYSTEM COMPONENTS

Trusted controller chassis

matching field termination assembly

24 VDC field circuits

Trusted System configuration and diagnostics

TECHNICAL NOTE

Record the T8403 slot, field-termination identity, channel mapping, discrepancy settings and 24 VDC commons; isolate field energy and prove every safety input before the application returns to service.

TECHNICAL DATA

PARAMETER	VALUE
Module type	Digital input
Field voltage	24 V DC
Input architecture	Trusted TMR

PARAMETER	VALUE
Scan factor	4 ms
Input scaling	512 counts per volt
Default discrepancy threshold	250 counts

ENGINEERING NOTE

Record the T8403 slot, field-termination identity, channel mapping, discrepancy settings and 24 VDC commons; isolate field energy and prove every safety input before the application returns to service.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
ABB DSDX180-3BSE003859R1-VERIFICAT	Related industrial automation product	View ABB DSDX180-3BSE003859R1-VERIFICAT page
ABB DSDO110-57160001-K	Related industrial automation product	View ABB DSDO110-57160001-K page
ABB DSDI131-57160001-GV-VERIFICATI	Related industrial automation product	View ABB DSDI131-57160001-GV-VERIFICATI page
ABB DSDI130-57160001-AA-VERIFICATI	Related industrial automation product	View ABB DSDI130-57160001-AA-VERIFICATI page
ABB DSDI110A-57160001-AAA	Related industrial automation product	View ABB DSDI110A-57160001-AAA page
ABB DSDC110B-57310001-FT-VERIFICAT	Related industrial automation product	View ABB DSDC110B-57310001-FT-VERIFICAT page
ABB DSCA160A-IDENTITY-VERIFICATION	Related industrial automation product	View ABB DSCA160A-IDENTITY-VERIFICATION page
ABB DSCA125A-57520001-CY-VERIFICAT	Related industrial automation product	View ABB DSCA125A-57520001-CY-VERIFICAT page

APPLICATIONS & PRECAUTIONS

COMMON APPLICATIONS

Safety-interlock input acquisition

Acquires twenty-four-volt discrete field states

Emergency-shutdown field monitoring

Uses Trusted triple-modular-redundant processing

Trip-contact supervision

Supports a four-millisecond scan factor

Trusted TMR input-module replacement

Reports channel discrepancy for diagnostics

PRODUCT PRECAUTIONS

- 1 Verify the complete T8403 marking and its assigned ICS Triplex Trusted TMR I/O position before work.
- 2 Place the connected safety-interlock input acquisition process in the approved maintenance state.
- 3 Isolate applicable power and 24 vdc discrete safety and interlock input states field energy before disconnecting conductors.
- 4 Record connector, conductor, address, firmware and software identities before removal.
- 5 Use ESD controls and protect keyed interfaces, exposed contacts and electronic assemblies.
- 6 Confirm the installed Trusted controller chassis and matching field termination assembly against the approved project.
- 7 Restore power in a controlled sequence and review device, network and host diagnostics.
- 8 Prove the intended emergency-shutdown field monitoring function and retain the final test result.

ENGINEER FAQ

Q1 Does T8403 match Trusted controller chassis in a Safety-interlock input acquisition installation?

Verify the complete T8403 marking, the documented ICS Triplex Trusted TMR I/O position and the installed Trusted controller chassis before fitting the assembly.

Q2 How should T8403 be wired when it must acquires twenty-four-volt discrete field states?

Isolate the circuit, identify every terminal and reproduce the approved polarity, shield and channel assignment for T8403; then continuity-test the affected path.

Q3 Which ICS Triplex Trusted TMR I/O records should be captured before removing T8403?

Record the as-found wiring, installed position, active configuration and diagnostic state associated with T8403 before disconnection.

Q4 What controlled test confirms that T8403 can uses trusted triple-modular-redundant processing?

Apply the approved field or simulated stimulus, observe the ICS Triplex Trusted TMR I/O indication and confirm the intended response without bypassing the normal interlocks.

Q5 Which matching field termination assembly condition should be checked when T8403 reports an abnormal state?

Check the matching field termination assembly supply, seating and connection first, then compare channel diagnostics with the recorded T8403 baseline.

Q6 Can T8403 be moved directly into Emergency-shutdown field monitoring without validating Trusted System configuration and diagnostics?

No. Confirm the Trusted System configuration and diagnostics, revision, connection scheme and ICS Triplex Trusted TMR I/O configuration before transferring T8403 to that duty.

Q7 What maintenance evidence is required after T8403 is used for Trip-contact supervision?

Retain the nameplate record, corrective action, final diagnostics and a controlled trip-contact supervision functional-test result for T8403.

Q8 How should T8403 be returned to service in Trusted TMR input-module replacement?

Restore power under control, verify supports a four-millisecond scan factor, exercise the intended signal path and release T8403 only after the ICS Triplex Trusted TMR I/O remains in its approved operating state.

SOURCE Rockwell Automation ICS Triplex Trusted TMR Processor and System Reference Manual | ICSTT-RM251

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