Honeywell 8C-TDIL51

Digital Input IOTA / Exact identity and technical profile

This reference isolates the exact published characteristics and engineering boundary of Honeywell 8C-TDIL51 without borrowing values from a neighboring model.

Exact model	8C-TDIL51
Spare part number	51306969-175
Input type	24 Vdc digital input
Input channels	32
Configuration	Non-redundant
Coating	Coated

TECHNICAL MARKER

32 digital inputs

TECHNICAL MARKER

24 Vdc high-level signals

TECHNICAL MARKER

Non-redundant coated IOTA

TECHNICAL MARKER

51306969-175 maintenance identity

Technical boundary

The exact model and its published data govern this reference. Similar family names, suffixes or physical appearance do not establish the same electrical or software behavior.

Identity evidence	Read 8C-TDIL51 from the installed label and procurement record
Function evidence	Confirm the published digital input iota role in the Experion Series 8 / Series C 24 Vdc Digital Input system
Configuration evidence	Retain the project, mapping, range, address or interface assigned to this position
Release evidence	Link final diagnostics to a witnessed field or operator response

TECHNICAL DECISION

Accept 8C-TDIL51 only when its identifier and installed-system role agree.

CHANGE BOUNDARY

Any redesign beyond the documented 8C-TDIL51 position requires separate engineering approval.

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Digital Input IOTA / Published characteristics

This matrix groups the published 8C-TDIL51 characteristics that control identification, configuration and engineering review. Each entry remains tied to the exact digital input iota record.

Exact model	8C-TDIL51
Spare part number	51306969-175
Input type	24 Vdc digital input
Input channels	32
Configuration	Non-redundant
Coating	Coated
IOTA family	Cx-TDIL51
Terminal assemblies	Two 16-terminal plus one 4-terminal plug
Field power	Documented 24 Vdc arrangement
Maintenance role	Field termination assembly

INTERPRETATION

Use every 8C-TDIL51 value with the exact installed configuration.

DESIGN RECORD

Retain the drawing, project and channel or interface assignments that make 8C-TDIL51 data actionable.

Nameplate check	Manufacturer and full reference agree with the controlled record
Range check	Published operating or signal data agree with the configured use
Interface check	Backplane, terminal, cable, network or memory arrangement is documented
Limit check	Loading, channel count, supply or lifecycle constraint is reviewed
Evidence close	Source title and applicable product record are retained with the decision

NO BORROWED VALUES

Another Honeywell suffix cannot fill a missing 8C-TDIL51 parameter.

ENGINEERING OUTPUT

Record the exact value used, its purpose and any unresolved item before selection.

Honeywell 8C-TDIL51

Digital Input IOTA / System role and data flow

Motor-status collection

Terminates 24 Vdc run, ready and trip contacts.

Valve feedback

Collects limit-switch states for controller interpretation.

Package alarms

Groups discrete equipment alarms on a 32-point IOTA.

Electrical status

Routes breaker and auxiliary-contact states into the control system.

Signal and configuration path

Field layer	Sensors, loads, terminal or operator interface assigned by the design
Module layer	8C-TDIL51 performs its published digital input iota role
Control layer	PLC project, address map or runtime application interprets the exchanged data
Acceptance layer	Diagnostics and intended process response are witnessed together

Engineering boundary

Application examples describe system roles only. They do not establish automatic interchangeability, replacement approval or suffix equivalence.

Observed input	Field, network or operator condition presented to 8C-TDIL51
Published action	The documented digital input iota function processes that condition
Configured interpretation	PLC logic, HMI project or station mapping assigns system meaning
Expected output	A defined state, value, message or command is produced
Acceptance proof	The complete path is witnessed under controlled conditions

APPLICATION RECORD

Tie each 8C-TDIL51 use case to the installed drawing or project tag.

EXCEPTION CONTROL

Document and resolve any behavior that differs from the approved response.

Honeywell 8C-TDIL51

Digital Input IOTA / Engineering decisions

SUPPORTED IDENTITY

8C-TDIL51

PUBLISHED FUNCTION

Digital Input IOTA

SYSTEM CONTEXT

Experion Series 8 / Series C 24 Vdc Digital Input

UNSUPPORTED INFERENCE

A nearby model, suffix or family resemblance

Model-specific questions

8C-TDIL51 51306969-175: how many 24 Vdc field inputs are terminated?

The non-redundant Cx-TDIL51 assembly terminates 32 digital-input channels.

8C-TDIL51 51306969-175: which redundant model must not be confused with it?

Cx-TDIL61 is the redundant version and has a different spare part number.

8C-TDIL51 51306969-175: what must be captured before disconnecting field power?

Record field-power source, commons, terminal positions, channel logic and the as-found diagnostic state.

8C-TDIL51 51306969-175: how is a channel function-tested?

Apply an approved controlled contact or voltage state and verify the corresponding controller indication and logic interpretation.

8C-TDIL51 51306969-175: is the IOTA coated?

Yes. Honeywell maintenance data identifies 51306969-175 as the coated non-redundant Cx-TDIL51 IOTA.

8C-TDIL51 51306969-175: which terminal plug-in assemblies are used?

The maintenance list specifies two 16-terminal plug assemblies and one 4-terminal plug assembly for the non-redundant IOTA.

8C-TDIL51 51306969-175: what should be inspected after reseating?

Check terminal keying, fuse condition, carrier seating, field-power polarity and every conductor identifier.

8C-TDIL51 51306969-175: what closes the maintenance record?

Retain the exact identity, restored wiring, diagnostic review and witnessed state transitions for the affected channels.

Decision closeout

Close the 8C-TDIL51 technical review with the exact identifier, applicable published limits and the installed configuration assumptions explicitly recorded.

Question coverage	Identity, function, configuration and field handling addressed
Open item	Any unanswered exact-model point is listed without guessed data
Decision owner	Responsible engineering or maintenance role identified
Supporting record	Drawing, project revision, readings and witnessed result attached

APPROVAL

The 8C-TDIL51 decision is accepted only within the documented scope.

REVIEW TRIGGER

A different suffix, wiring arrangement, project or application requires a new review.

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Digital Input IOTA / Evidence and support

Exact product	Honeywell 8C-TDIL51
Technical class	Digital Input IOTA
Platform	Experion Series 8 / Series C 24 Vdc Digital Input
Evidence use	Exact-model characteristics and engineering boundary
Record with	Installed drawing, project and acceptance evidence

Retained evidence	Nameplate, source title, configuration baseline and field record
Installation evidence	Isolation, conductor/connector record and post-work inspection
Commissioning evidence	Diagnostics, measurements and intended response
Final record	Responsible witness, date, exceptions and approved disposition

VERIFIED APTER POWER CATALOG REFERENCES

Navigation only; compatibility, substitution and manufacturer endorsement are not implied.

05701-A-0302 System 57 Catalytic Single-Channel Control Card	View 05701-A-0302 System 57 Catalytic Single-Channel Control Card page
Honeywell 51403698-100 SBHM Motherboard Assembly	View Honeywell 51403698-100 SBHM Motherboard Assembly page

MANUFACTURER EVIDENCE RECORD

Honeywell Series C I/O User's Guide

EPDOC-X126

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Send the exact model, quantity, destination and requested condition for a quotation.