8C-TDIL11

Redundant Series 8 Digital Input Sequence-of-Events IOTA

CONTROLLED ENGINEERING COPY

Verify both processor identities and the redundancy role before removal; commission the restored pair with controlled input transitions and a documented failover check.

INSTALLATION DATA	REQUIRED VALUE
Model / part	8C-TDIL11 / 51306858-175
System position	Series 8 IOTA carrier position
Matched processor	8C-PDIS01 or 8U-PDIS01
Field scope	32 discrete SOE input circuits
Hardware execution	Redundant, conformal coated, size code 12

1 PLAN — 2 ISOLATE — 3 CONNECT — 4 CONFIGURE — 5 PROVE

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Pre-installation control matrix

CHECK	REQUIRED ARRANGEMENT	FIELD EVIDENCE
Identity	8C-TDIL11 / 51306858-175	Nameplate and work pack agree
Carrier position	Assigned Series 8 position	Position recorded before removal
Processor	8C-PDIS01 or 8U-PDIS01	Type and coating variant confirmed
Circuit count	32	Channel schedule covers installed points
Field interface	Discrete field contacts	Terminal tags and states recorded
Control context	C300 / Experion	Configured point assignment available

Isolation and handling checklist

- ☐ Place the affected process and trip logic in the approved maintenance state.
- ☐ Isolate field energy associated with the selected discrete circuits.
- ☐ Apply ESD controls before touching the IOTA, processor or carrier connectors.
- ☐ Record terminal identifiers, channel mapping and processor-pair assignment.
- ☐ Inspect the carrier and connectors before fitting the replacement assembly.

PRE-WORK IDENTIFICATION BASIS

CABINET / CARRIER POSITION	Assigned Series 8 carrier position
PROCESSOR MODEL / SLOT	8C-PDIS01 or 8U-PDIS01 SOE processor
ISOLATION REFERENCE	Approved work permit and field-energy isolation

Technical setup matrix

PARAMETER	VERIFIED VALUE
IOTA function	Digital input sequence of events
I/O circuits	32
IOTA configuration	Redundant
IOTA size class	12 inch / 304 mm
Coating	Conformal
Compatible I/O modules	8C-PDIS01; 8U-PDIS01

PARAMETER	VERIFIED VALUE
Field-power bus	24 VDC
Terminal style	Tool-detachable
Field termination	On-board
Signal conditioning	On-board
Redundancy interconnection	Integral on IOTA
Redundancy external cabling	Not required

Connection verification matrix

CHECK ITEM	ENGINEERING BASIS	ACCEPTANCE CRITERION
Field cable / multicore	24 VDC discrete circuits; labels retained	Point identity matches channel schedule
Terminal conductor	Up to 12 AWG / 2.5 mm2 stranded	Secure termination; no exposed conductor
Channel range	32 sequence-of-events input circuits	All assigned points mapped and responsive
Processor pairing	8C-PDIS01 or 8U-PDIS01	Matched SOE processor recognized
Carrier position	Assigned Series 8 IOTA location	Keying, seating and retention verified
Shield / grounding	Approved cabinet grounding plan	Continuity and segregation confirmed

CONNECTION CONTROL

Preserve the one-to-one relationship between field terminal, configured channel and SOE point. Do not transfer the channel schedule from a neighboring IOTA. Inspect seating and connector condition before restoring field energy.

Controlled commissioning sequence

NO.	PHASE	ENGINEERING ACTION	PASS CRITERION
1	Identity	Read full model and part marking	Correct assembly recorded
2	Hardware	Verify carrier seating and processor pairing	No connector or seating issue
3	Configuration	Restore documented channel assignment	Expected points online
4	Timebase	Confirm controller / server synchronization	SOE timestamps synchronized
5	Stimulus	Apply selected controlled contact transitions	Correct channel states change
6	Chronology	Compare generated transition order	Sequence retained correctly
7	Release	Review diagnostics and retain record	Acceptance signed

Fault-isolation matrix

OBSERVATION	CHECK	CONTROLLED RESPONSE
No input transition	Field energy / contact state / terminal map	Prove field state at assigned channel
Wrong channel changes	Terminal-to-channel identity	Compare wiring record with configured point
Events out of order	System time synchronization	Resynchronize and repeat controlled test
Processor diagnostic	IOTA seating and 8C-PDIS01 / 8U-PDIS01 pairing	Correct hardware assignment and retest

FINAL ACCEPTANCE CRITERIA

TESTED CHANNEL RANGE	All assigned circuits in the 32-point channel schedule
TIMEBASE RESULT	Synchronized timestamps; ordered transitions retained
DIAGNOSTIC STATE	No active IOTA, processor or channel diagnostic
HANDOVER RECORD	As-left configuration and controlled test result retained

Return-to-service checklist

HANDOVER ITEM	EVIDENCE	STATUS
Hardware identity	8C-TDIL11 / 51306858-175	Accepted / recorded
Processor pairing	8C-PDIS01 or 8U-PDIS01	Accepted / recorded
Field-channel identity	32-circuit schedule	Accepted / recorded
Event chronology	Controlled transition sequence	Accepted / recorded
Diagnostics	Final system state	Accepted / recorded

Related Series 8 products on Apter Power

MODEL	SERIES ROLE	APTER POWER PAGE
8C-PDIL51 51454359-175	Series 8 digital-input processor module	Open product page
8C-PDILA1	Series 8 digital-input processor module	Open product page
8C-PDOD51 51454361-175	Series 8 digital-output processor module	Open product page
8C-PDODA1 51454472-175	Series 8 24 Vdc digital-output module	Open product page
8C-TDODA1 51307149-175	Series 8 digital-output IOTA	Open product page
8C-TDODB1	Series 8 redundant digital-output IOTA	Open product page

Official source record

Honeywell PlantCruise by Experion Series 8 I/O Specification | PC03-490-100

Honeywell PlantCruise by Experion Series 8 I/O Modules | Product Information Note

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