

8C-TCNTA1

C300 Controller IOTA

C300 controller power, I/O-link and redundancy termination

PRODUCT SNAPSHOT

BRAND

Honeywell

FAMILY

Experion PKS C300

PART

8C-TCNTA1

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PRODUCT OVERVIEW

C300 controller power, I/O-link and redundancy termination

1

Mounts the C300 controller on its Series 8 termination base

2

Accepts either PCNT03 or PCNT05 controller hardware

3

Routes the controller supply and I/O-link connections

4

Supports the documented redundancy-cable arrangement

SYSTEM COMPONENTS

8C-PCNT03 or 8C-PCNT05 C300

Series 8 power cable

controller/IOTA cable

redundancy cable where configured

TECHNICAL NOTE

Verify the installed PCNT03/PCNT05 controller, 24 V power cable, I/O-link connectors and redundancy cable before inserting the controller and restoring node service.

TECHNICAL DATA

PARAMETER	VALUE
Assembly type	C300 controller IOTA; coated
Compatible controller	8C-PCNT03 and 8C-PCNT05
Supply	24 V DC via Series 8 power cables
IOTA dimensions	220 x 120 mm
Redundancy cable	51305980-836

PARAMETER	VALUE
Controller memory backup	51454475-100
Controller cable	51202330-300; 0.7 m
Controller cable option	51202330-200; 2 m
Insertion/removal under power	Supported
Coating	G3; ANSI/ISA S71.04-1985

ENGINEERING NOTE

Verify the installed PCNT03/PCNT05 controller, 24 V power cable, I/O-link connectors and redundancy cable before inserting the controller and restoring node service.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
MP913C1066-1	Related industrial automation product	View MP913C1066-1 page
TK-FPDXX2	Related industrial automation product	View TK-FPDXX2 page
CIS-CPU	Related industrial automation product	View CIS-CPU page
FC-TSDO-0824	Related industrial automation product	View FC-TSDO-0824 page
FC-USI-0001-V1-3	Related industrial automation product	View FC-USI-0001-V1-3 page
CC-MCAR01	Related industrial automation product	View CC-MCAR01 page
DC-TAIL51	Related industrial automation product	View DC-TAIL51 page
8C-IP0102-51454362-275	Related industrial automation product	View 8C-IP0102-51454362-275 page

APPLICATIONS & PRECAUTIONS

COMMON APPLICATIONS

C300 controller installation

Mounts the C300 controller on its Series 8 termination base

Redundant controller pairing

Accepts either PCNT03 or PCNT05 controller hardware

Series 8 cabinet wiring

Routes the controller supply and I/O-link connections

Controller-IOTA replacement

Supports the documented redundancy-cable arrangement

PRODUCT PRECAUTIONS

- 1 Verify the complete 8C-TCNTA1 marking and its assigned C300 controller-IOTA position before work.
- 2 Place the connected process and control strategy in the approved maintenance state.
- 3 Isolate the applicable cabinet supply and controller field energy before disconnecting conductors.
- 4 Record terminal numbers, channel assignments, polarity, shields and configured ranges before removal.
- 5 Use ESD controls and protect the backplane connector, terminal hardware and coated electronics.
- 6 Confirm the installed 8C-PCNT03 or 8C-PCNT05 controller and carrier arrangement against the approved project.
- 7 Restore power in a controlled sequence and clear only diagnostics created by the maintenance activity.
- 8 Complete power, I/O-link and redundancy-cable continuity checks and retain the measured result before returning the channel to automatic service.

ENGINEER FAQ

Q1 Does 8C-TCNTA1 match 8C-PCNT03 or 8C-PCNT05 C300 in a C300 controller installation installation?

Verify the complete 8C-TCNTA1 marking, the documented Experion PKS C300 position and the installed 8C-PCNT03 or 8C-PCNT05 C300 before fitting the assembly.

Q3 Which Experion PKS C300 records should be captured before removing 8C-TCNTA1?

Record the as-found wiring, installed position, active configuration and diagnostic state associated with 8C-TCNTA1 before disconnection.

Q5 Which Series 8 power cable condition should be checked when 8C-TCNTA1 reports an abnormal state?

Check the Series 8 power cable supply, seating and connection first, then compare channel diagnostics with the recorded 8C-TCNTA1 baseline.

Q7 What maintenance evidence is required after 8C-TCNTA1 is used for Series 8 cabinet wiring?

Retain the nameplate record, corrective action, final diagnostics and a controlled series 8 cabinet wiring functional-test result for 8C-TCNTA1.

Q2 How should 8C-TCNTA1 be wired when it must mounts the c300 controller on its series 8 termination base?

Isolate the circuit, identify every terminal and reproduce the approved polarity, shield and channel assignment for 8C-TCNTA1; then continuity-test the affected path.

Q4 What controlled test confirms that 8C-TCNTA1 can accepts either pcnt03 or pcnt05 controller hardware?

Apply the approved field or simulated stimulus, observe the Experion PKS C300 indication and confirm the intended response without bypassing the normal interlocks.

Q6 Can 8C-TCNTA1 be moved directly into Redundant controller pairing without validating redundancy cable where configured?

No. Confirm the redundancy cable where configured, revision, connection scheme and Experion PKS C300 configuration before transferring 8C-TCNTA1 to that duty.

Q8 How should 8C-TCNTA1 be returned to service in Controller-IOTA replacement?

Restore power under control, verify routes the controller supply and i/o-link connections, exercise the intended signal path and release 8C-TCNTA1 only after the Experion PKS C300 remains in its approved operating state.

SOURCE Honeywell Series 8 Controller and I/O Specification | S803-150-530, May 2024

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