01 / Identity and job scope

HONEYWELL

8C-TCNTA1 51307125-175

Controller Termination Assembly

Product role

Honeywell 8C-TCNTA1 51307125-175 is offered as a coated C300 I/O Termination Assembly for controller mounting and cabinet connections.

Cabinet cables
FTE / I/O / redundancy

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8C-TCNTA1
Passive termination base

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C300 module
Controller electronics

Applicability

Termination functions describe the 8C-TCNTA1 IOTA design. Retain assembly marking 51307125-175; controller processing capacity and network performance belong to the fitted controller and supported system release.

Hardware and configuration

The 8C-TCNTA1 design is the coated Series 8 C300 IOTA. It carries passive devices, including the FTE address switches, while the mounted controller contains the processing electronics. This separation preserves the distinction between a termination assembly and a complete process controller; the offered unit is identified by both 8C-TCNTA1 and 51307125-175.

Planning basis

This Apter Power guide supports identification and engineering planning. Apply the complete manufacturer and machine-builder procedures for the actual installation.

02 / Configuration and interface readiness

Item	Configuration relationship
Product family	Series 8 C300
Assembly function	Controller I/O Termination Assembly
Construction	Passive termination base
Coating	Conformally coated 8C design
Address setting	FTE address switches
Network connections	FTE connectors
I/O connections	I/O link 1 and redundant I/O link 2 paths

Technical context

The C300 connection arrangement includes the FTE connectors, the two I/O-link paths, a private redundancy communication connection and a battery connection for optional RAM retention. The Series 8 cabinet power system supplies the controller through its cabling. During replacement, retain the address-switch setting and identify each network, redundancy and I/O-link connection before disconnection.

Which network connection is provided by 8C-TCNTA1 51307125-175?

The IOTA arrangement provides FTE connectors and the address switches used with the fitted C300 controller.

Which I/O-link paths are associated with 8C-TCNTA1 51307125-175?

The connection arrangement identifies I/O link 1 and the redundant I/O link 2 connector group. Preserve the project cable assignments.

03 / Installation and connection decisions

Preserve assembly identity

Compare 8C-TCNTA1 and 51307125-175 with the installed hardware marking.

Record FTE address

Record the address-switch setting and restore the correct node identity.

Label cable paths

Identify FTE, I/O link, redundancy and battery connections before removal.

Check controller pairing

Do not mix PCNT03 and PCNT05 as a redundant controller pair.

Installation context

The PCNT02 arrangement uses two controllers, two IOTAs and a 51305980-836 cable for redundancy. Later PCNT03 and PCNT05 designs also use the 8C-TCNTA1 IOTA, but their release support and paired-controller compatibility differ. In particular, PCNT05 and PCNT03 are not an interoperable redundant pair, so a shared IOTA designation does not make controller versions interchangeable.

How is 8C-TCNTA1 51307125-175 used in a redundant node?

A redundant C300 node uses two controller modules, two IOTAs and the specified 51305980-836 redundancy cable.

Does the battery connection on 8C-TCNTA1 51307125-175 establish supplied RAM backup?

No. RAM retention is an optional battery-backed arrangement; the connector alone does not establish that backup hardware is included.

04 / Functional acceptance planning

Application	Controlled review
Controller mounting	Provide the passive mounting and termination base for the configured Series 8 C300 controller.
Cabinet connection retention	Retain FTE, I/O-link and power connection identities while replacing the correct assembly.
Redundant node installation	Use matched controller and IOTA positions with the specified redundancy communication cable.
Controller migration planning	Check release support and controller-pair rules independently of the common IOTA designation.

Can 8C-TCNTA1 51307125-175 support both newer C300 controller designs?

The 8C-TCNTA1 design is used by PCNT03 and PCNT05, but controller release and compatibility rules still apply.

Can PCNT03 and PCNT05 be mixed as a redundant pair on 8C-TCNTA1 51307125-175?

No. The PCNT03 and PCNT05 controllers are not interoperable as a redundant pair, despite sharing the IOTA design.

Release boundary

Confirm controller state, communications and redundancy after controlled reassembly.

Record
Keep the original configuration

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Test
Observe controlled response

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Release
Authorize normal operation

05 / Technical handover and support

Retained information

Keep the complete 8C-TCNTA1 51307125-175 marking, host identity, connection photographs, configuration backup and controlled-test results in the service record.

Support planning

Confirm current support and replacement guidance with Honeywell for the installed identity and configuration. Apter Power availability and dispatch are separate quotation matters.

Reference basis

Honeywell Series 8 Controller and I/O Specification, S803-150-110 V1.2; S803-150-530 V1.0.

Apter Power technical summary; not a manufacturer-issued manual. Apply the original instructions for the actual installation.

Related industrial automation products

Navigation only; no substitution or compatibility claim.

Honeywell 05704-A-0121

Honeywell MC-PAIH03 51304754-150

Honeywell CC-PDOB01 51405043-176

Discuss your installed configuration

Send the full unit marking and connection details.

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