01 / Product and system dashboard

HONEYWELL

8C-PCNT02 51454363-275

Process Controller

Product role

Honeywell 8C-PCNT02 51454363-275 is offered as a coated Series 8 C300 process controller for Experion control strategies and Series 8 I/O.

Control Builder
Configured control strategy

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C300 controller
CEE execution

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Series 8 I/O
Process inputs and outputs

Engineering scope

Controller specifications apply to the 8C-PCNT02 design in S803-150-110. Retain the offered assembly marking 51454363-275 and verify its revision; PCNT03 and PCNT05 hardware ratings are not assigned to this assembly.

02 / Verified identity and technical relationships

Property	Applicable fact	Property	Applicable fact
Controller family	Series 8 C300	I/O capacity per link	Maximum 40 I/O units
Coating	Conformally coated 8C design	I/O capacity per controller	Maximum 80 I/O units
Processor	PowerPC 8270	Strategy execution period	50–2000 ms, adjustable
Power requirement	24 V DC from Series 8 power system	Execution capacity	5500 execution units
Module current rating	320 mA	Tagged objects	4095
I/O links	2	Supervisory network	Fault Tolerant Ethernet

Configuration boundary

Controller specifications apply to the 8C-PCNT02 design in S803-150-110. Retain the offered assembly marking 51454363-275 and verify its revision; PCNT03 and PCNT05 hardware ratings are not assigned to this assembly.

03 / Applications and system integration

Distributed process control

Execute configured control strategies within an Experion Series 8 C300 node.

Series 8 I/O coordination

Connect two I/O links while observing the per-link and per-controller capacity limits.

Redundant controller nodes

Use paired controllers, paired IOTAs and the specified redundancy cable for the engineered arrangement.

Control-strategy engineering

Combine standard function blocks and suitable Custom Algorithm Blocks in Control Builder.

Functional context

The controller mounts on a C300 I/O Termination Assembly. The Series 8 power system provides 24 V DC through the cabinet cabling, and the controller module current rating is 320 mA. Two I/O links support a maximum of 40 I/O units each and 80 per controller, counting redundant or non-redundant IOM arrangements under the specified configuration rules.

04 / Service and installation decisions

Preserve full identity

Check 8C-PCNT02 and 51454363-275 together with the actual revision marking.

Match system release

Validate controller firmware and project compatibility before replacing an installed node.

Review IOTA wiring

Record network, I/O-link, redundancy and power connections before removing hardware.

Respect capacity limits

Count I/O units and control execution load against the selected controller configuration.

Confirm backup hardware

Identify the optional battery-backed RAM arrangement and its maintenance state.

Prove controlled operation

Check controller state, strategy execution and I/O communications before returning the process to normal.

05 / Reference basis and related portfolio

Lifecycle and supply

The 8C-PCNT02 product designation has been replaced by 8C-PCNT03. Confirm current support and migration requirements for the complete 8C-PCNT02 51454363-275 assembly. Request current support and replacement guidance using the complete 8C-PCNT02 51454363-275 identity. Apter Power availability is confirmed separately in the quotation.

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 51195153-001

Honeywell 51109693-100B

Honeywell 51402573-150

Discuss your installed configuration

Send the full unit marking and connection details.

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