1. Product Introduction

1.1. C300 Controller Overview

Honeywell's C300 Controller provides powerful and robust control for the distributed control system (DCS). The C300 is a node in operating Honeywell's field-proven deterministic Control Execution Environment (CEE) core software. The CEE software provides a superior control execution and scheduling environment. Control strategies for each controller node are configured and loaded through a common Control Builder, an easy and intuitive engineering tool.

In addition to a standard and robust library of pre-built function blocks and algorithms, the C300 Controller also supports Custom Algorithm Blocks (CABs). Custom Algorithm Blocks are similar in purpose and structure to the standard function blocks that are distributed with Control Builder. However, CABs have user-defined algorithms and data structures, allowing custom tailored strategies to be developed to specific requirements.

The C300 controller shares its hardware design with the Series 8 I/O, offering an innovative design that reduces footprint and installation and maintenance costs. The C300 controller module is mounted on the C300 Input Output Termination Assembly (IOTA). The C300 IOTA contains only passive devices such as FTE address switches. Figure 1 below depicts the IOTA components.

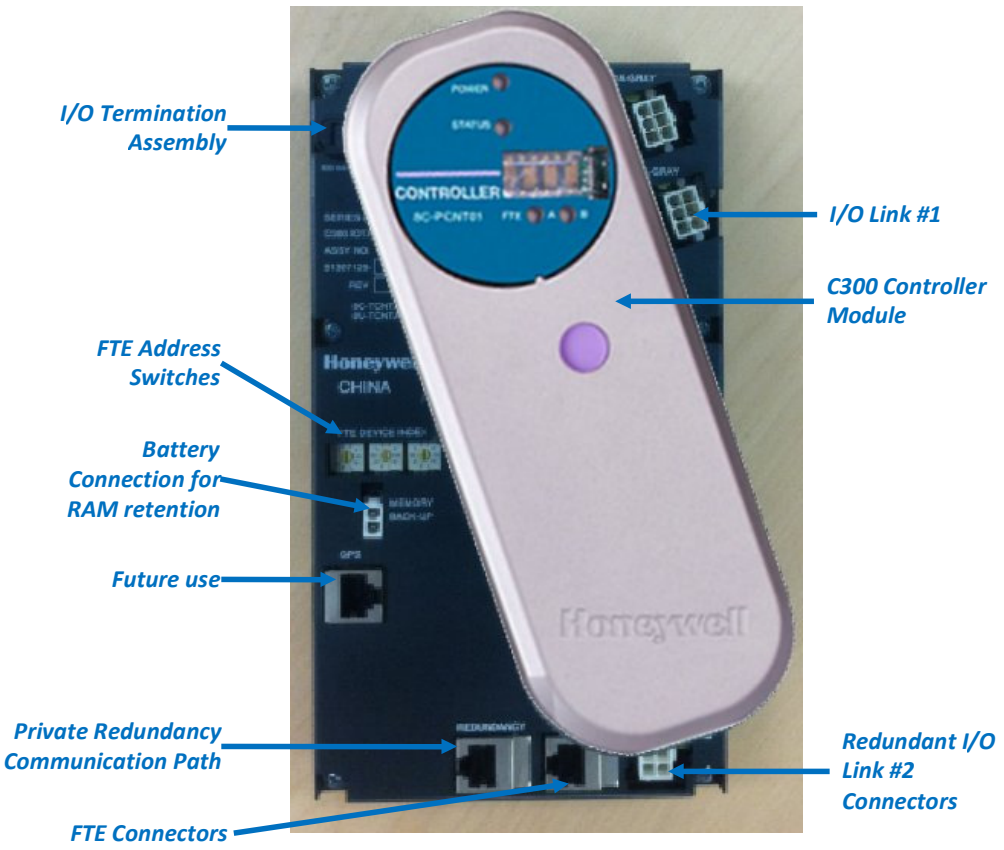


Figure 1 - C300 Controller

The Model Numbers of C300 controller are shown as below:

Model Number	Description
8C-PCNT02	Series 8 C300 Controller, coated
8U-PCNT02	Series 8 C300 Controller, uncoated
8C-TCNTA1	Series 8 C300 Controller I/O Termination Assembly(IOTA),coated
8U-TCNTA1	Series 8 C300 Controller I/O Termination Assembly(IOTA),uncoated
51305980-836	Cable, Redundant C300 Controller
51454475-100	Series 8 RAM Charger Module (C300 Memory Backup)
51202330-300	Cable, Battery RAM Charger, 30 in
51202330-200	Cable, Battery RAM Charger, 84 in
Redundancy is implemented with two modules/IOTAs and a redundancy cable (51305980-836). C300 Memory Backup is optional.	

2. Specifications

2.1. C300 Controller Specifications

2.1.1. C300 Hardware

Specification		Limit
Processor		PowerPC 8270
Power requirement		24 VDC (provided through cables by the Series 8 power system)
Module current rating		320mA
IOTA Dimension		220 mm (9 “) height, 120 mm (4,75 “) width
Module Removal and Insertion Under Power		Supported
Supported I/O Types		Series 8
Supported I/O Links		2 I/O Links, each I/O Link configurable for Series 8.
Maximum Number of IO Modules per Controller		80 I/O Units (Redundant or Non-Redundant IOMs)
Maximum Number of IO Modules on each I/O link		40 I/O Units (Redundant or Non-Redundant IOMs)
Temperature	Operating Temperature	0 to 60 ℃
	Storage temperature	-40 to 85 ℃
Relative Humidity		5 to 95 % (non condensing)
Harsh Environment (ANSI/ISA- S71.04-1985 corrosion standard)		8C- model number designation support the harsh environment or G3 level
Control Capacity		
Execution Units		5500 Execution Units (single or redundant)
Tagged Objects		4095 objects
Memory Units		16000 Memory Units
Execution Period		50 msec – 2000 msec (adjustable per control strategy)
RAM Retention		50 hour through optional rechargeable battery pack (Optional)

Controller Communication	
Series 8 C300	Native peer to peer with other Series 8 C300s
Supervisory Control Network	Fault Tolerant Ethernet
Third party devices	Modbus Master
Agency certifications	CE
	FM APPROVED C US Class I, Division 2, Group A, B, C, D; T4 Class I, Zone 2 AEx/ Ex nA II C T4
	CSA Class I, Division 2, Group A, B, C, D; T4 Class I, Zone 2, Ex nA II C T4