

Ovation™ Controller

Model OCR1100

(5X00481G04/5X00226G04)

Features

- Secure, reliable and mission-critical control capability providing “bumpless” automatic failover between redundant controllers.
- Fast processor for increased productivity
- One-step data acquisition functionality through the definition of the I/O database
- Small footprint with low power requirements and fanless operation
- Interfaces to Ovation and WDPF I/O, both local and remote
- Integral interface to digital busses through Ovation I/O modules
- Integrated virtual I/O capability for third-party OEM systems over Ethernet protocols.
- Non-volatile storage of application software, point database, configuration information, and operating tuning constants
- Integrated sequence of events capability with 1 millisecond resolution
- Meets IEC 61131-3 standards
- Achilles Level 1 certified

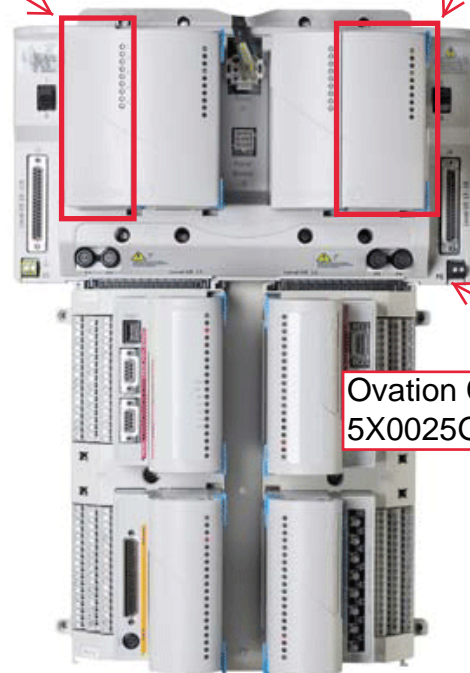
Introduction

Emerson's Ovation™ distributed control system is renowned for delivering precision control with outstanding performance. That precision begins with the Ovation controller secure, mission-critical operations such as those of power generation, water and wastewater plants.

The OCR1100 model of the Ovation controller series executes simple or complex modulating and sequential control strategies, performs data acquisition functions and interfaces to the Ovation network and various I/O sub-systems. It has the capability to originate up to 32,000 points.

Ovation Controller CPU Card
5X00481G04

Ovation Controller IOIC Card
5X00226G04



Ovation Controller Base
5X0025G01

Redundant Ovation controller model OCR1100 shown with four local Ovation I/O modules installed on two I/O branches.

Process Applications

The Ovation OCR1100 controller is designed to meet the demanding requirements of a wide range of process applications. Functions performed by the controller include:

- Continuous (PID) control
- Boolean logic
- Advanced control
- Special logic and timing functions
- Data acquisition
- Sequence of events processing
- Cold junction compensation

Ovation Controller Specifications

Ovation Controller Model OCR 1100 - Specifications		
Item	Capability	
Bus structure	CompactPCI standard	
Originated points	Up to 32,000 points	
Process control tasks	Up to 5 each with a different loop execution rate	
Control task loop execution time	Two of the 5 tasks are predefined @ 1 s and @ 100 ms. The other three tasks are user definable, with each task individually defined to execute at a rate between 10 ms. and 30 seconds in increments of 10 ms.	
Processor base frequency	1.1 GHz	
Memory	1 Gb Flash & 256 Mb RAM	
NIC ports	4 x 10/100 Mb Ethernet Two options: (i) 4 x RJ45 or (ii) 1 x RJ45 + 3 SFP Fiber	
Temperature	Ambient: 0-60 °C or 32-140 ° F (i) 4 x RJ45	Ambient: 0-50 °C or 32-122 ° F (ii) 1 x RJ45 + 3SP Fiber
Power	24 VDC 40W	
Humidity	0 - 95% RH	
Size	20" w x 8" h x 7" d	
CE Mark	Certified to be CE Mark when installed in a CE Mark cabinet	
BootROM	OCR1100 only OCR400 replacement / OCR1100	
Achilles Level 1 certification	Model No. OCR1100 Category Embedded Device	

Ovation Controller Model OCR 1100 - I/O Specifications		
Item	Capability	
Local Ovation I/O	Up to 16 independent branches of 8 modules per branch for a total of 128 I/O modules	
Local Q-Line I/O	1 node of 48 Q-line I/O cards	
*Extended Q-Line I/O	1 additional node of 48 Q-line I/O cards	
Remote Node Interface	Up to 16 remote node interface modules where each remote node interface can support up to 64 I/O modules	
*Remote Ovation I/O	Up to 8 nodes where each node can support up to 64 I/O modules	
*Remote Q-Line I/O	Up to 8 nodes of 48 Q-line I/O cards	
Smart device capability	Foundation™ fieldbus / PROFIBUS / DeviceNet	
Virtual I/O capability via Ethernet TCP/IP and standard protocols	Allen-Bradley PLCs DF-1 GE Mark V/VI GSM Modbus/TCP	MHI turbine control External Ovation network GE Genius I/O Toshiba turbine control

*Any one of these I/O types can be supported at one time.

Ovation Controller Model OCR1100 - Cabinet Specifications		
Item	Standard Controller Cabinet	Expansion Cabinet
Size	(h x w x d) 79 x 24 x 24 in 2006.6 x 609.6 x 609.6 mm	(h x w x d) 79 x 24 x 24 in 2006.6 x 609.6 x 609.6 mm
Weight (fully configured)	426.25 lbs. 191.81 kg.	396.25 lbs. 178.31 kg.
Operating ambient temperature (Refer to NIC ports above)	0-50 °C; 32-122 °F (i) 4x RJ45 ports 0-40 °C; 32-104 °F (ii) 1 RJ45, 3x SFP ports	0-60 °C; 32-140 °F
Storage ambient temperature	-40 to 70 °C; -40-158 °F	-40 to 70 °C; -40-158 °F
Operating humidity	0 - 95% Non-condensing	0 - 95% Non-condensing
Storage humidity	0 - 95% Non-condensing	0 - 95% Non-condensing
Capacity	Redundant controllers, 32 I/O modules, 2 power supplies	Space for spare equipment, 32 I/O modules, 2 power supplies

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