



H O L O C O N®

W2-FBC Holocon® Controllers are stand-alone or networked, IEC61499-compliant Function Block, event-driven, controllers.

Background

IEC61499 is a new international standard for highly distributed function block controls. It provides an event-driven mechanism for proper sequencing over multiple device nodes.

The W2 Series is a derivative controller from Western Reserve Controls WRC1 SmartMux®-Plus DeviceNet I/O Block and embedded controller. It supports real-time function block control, embedded JAVA, CAN, Ethernet, Discrete I/ O, analog I/O and RS232.

Programming the W2 controller is via the Function Block Development Kit (FBDK), implementation tools of the IEC61499 standard licensed from Rockwell Automation. Over 400 function blocks are available to select from as well as a growing selection of Network Blocks.

The W2 Series consists of the central processor, internal power supply, CAN communications, Ethernet communications, and RS232 communications mounted in a brushed aluminum extrusion. Three card slots are available to be populated from a selection of I/O cards:

- a. none
- b. Digital Input card - 16 point
- c. Digital Output Card - 16 point
- d. Digital I/O card - 16 inputs plus 16 outputs
- e. Analog I/O card - 8 inputs
- f. Analog I/O card - 16 inputs
- g. Analog I/O card - 8 outputs, 8 inputs
- h. Servo-positioning card

A complete and up-to-date listing of available I/O cards can be found at <http://www.wrcakron.com/holocon.html>

All I/O cards are terminated on D-sub connectors. Field connectable D-sub connectors are provided or pre-formed cable and breakout terminal blocks can be ordered.

Ordering Information

Specify W2-FBC-123 where 123 represents your selection of 3 I/O cards from the list above. For example, W2-FBC-ace would have:

- a - no I/O card in slot 1
- c - 16 point DO card in slot 2
- e - 8 point AI card in slot 3

Specify W2-FBDK for the Function Block Development Kit.

Additional communication protocols are available including DeviceNet, Ethernet/IP, CANopen, and others. Current options can be found at <http://www.wrcakron.com/holocon.html>

W2-FBC features include:

- Real-Time embedded Java

Engine.

- Real-time operating system
- Real-time clock, battery backed
- FBRT installed on module
- FBDK on CD for application development
- 24 Vdc operation
- Ethernet interface with TCP/IP, UDP, and FTP
- CAN interface
- RS232 interface



WRC is a Rockwell Automation Encompass Partner for Gateway, Bus Extender and signal conditioning products.



Microprocessor:	Specialized for real-time, embedded JAVA
Memory	2 Meg Flash, 8 Meg DRAM
Control Environment	IEC61499 compliant FBRT licensed from Rockwell Automation
Real-Time Clock	Real-Time Clock and Calendar
Operating System	MOOSE (Multitasking, Object-Oriented, Operating System)
Development tools	W2-FBDK (Function Block Development Kit) licensed from Rockwell Automation
	Over 400 Function Blocks available
	Optional user-developed JAVA programs
Communications:	Stand-Alone or Networked
Ethernet	TCP/IP, UDP, FTP
CAN	SJA1000 Interface included
RS232	Up to 115.2 Kbaud
DeviceNet	W2-DNET-S adds DeviceNet Group 2 Only Slave capability with NS and MS LEDs and rotary switches for data-rate and address selection
I/O:	Select up to 3 factory installed I/O cards
Discrete I/O	2500 V isolation between system and I/O
	Inputs—24 Vdc nominal, sinking or sourcing
	Outputs—24 Vdc, .25 amp, internal current limiting, sourcing
Analog I/O	Inputs and outputs, 0-10 Vdc, single-ended, non-isolated, 12 bit resolution
Servo Position Controller	2-axis
	Selectable potentiometer or encoder position feedback
	Selectable 0-10 Vdc analog position or 2 amp H-bridge drive
Cabling	Micro, Field Terminated 5-pin female connector provided; CAN and power
	Ethernet connection via RJ45
	RS232 connection via RJ11
	All I/O connections via 25-pin D-Sub
Field I/O Terminations	Optional DIN-rail mount termination block, 1782-FTB25
	Optional W2-CxDD cable, where x = length
Power requirements	24 Vdc, 3 amps - NOT PROVIDED, W2 isolated from external power
W2 mounting/dimensions	Panel Mount Tabs, optional DIN-rail conversion kit (order W2-DIN-KIT) 152 mm L, 105 mm W, 66 mm H
Operating temperature	0 C to +60 C