



## DESCRIPTION

The WS Series Expansion Modules provide additional input and/or output points for the WS1616 Stand Alone Controller. Up to 40 expansion points can be added to the WS1616 in any combination of expansion modules. The input points on the expansion modules provide functionality identical to those onboard the WS1616. Output points have a 20 mA drive capability.

## APPLICATIONS

- increase the WS1616 SAC's point count with modules of 8 or 16 universal inputs, 8 or 16 universal outputs or 8 digital outputs
- up to 40 expansion points may be added in any combination of modules

## FEATURES

- LED status indicators (WSOP8/OP16)
- hand/off/auto switches (WSOP8/OP16)
- power LEDs (WSIP8/IP16/OP8/OP16)
- on/off toggles (WSIP8/IP16/OP8/OP16)
- protective fuses (WSIP8/IP16/OP8/OP16)

# WSIP8 / IP16 / OP8 / OP16 / D08

## TECHNICAL SPECIFICATIONS

### POINT CONFIGURATION

MODULE	UNIVERSAL INPUTS	UNIVERSAL OUTPUTS	DIGITAL OUTPUTS
WSIP8	8	N/A	N/A
WSIP16	16	N/A	N/A
WSOP8	N/A	8	N/A
WSOP16	N/A	16	N/A
WSD08	N/A	N/A	8

### INPUTS

TYPE	USAGE	RANGES	DEVICES	DISPLAY
Universal	Voltage	0-1 VDC / 0-5 VDC / 0-10 VDC	standard devices	0 to 100%
	current	1-5 VDC / 2-10 VDC	standard devices	0 to 100%
		0-20 mA / 4-20 mA / 0-50 mA	current transducers	0 to 100%
	digital	1 mA to GND / 10 mA to GND	contact closures	user defined
	temperature	-10°C to 140°C (14°F to 284°F)	3k thermistor	temperature
	temperature	-40°C to 40°C (-40°F to 104°F)	1k thermistor	temperature
existing sensors	inputs can be adapted to operate with existing sensors			temperature, etc.

### OUTPUTS

TYPE	USAGE	RANGES	CAPACITY	DISPLAY
Universal	Voltage	0-5 VDC / 0-10 VDC / 2-10 VDC	20 mA	0 to 100%
	current	4-20 mA	500 Ω	0 to 100%
		4-20 mA	250 Ω	0 to 100%
	digital	0-10 VDC	20 mA	user defined
Digital (WSD08)	digital	16 – 24 VAC	30 VAC @ 1.2 A	user defined

### ELECTRICAL / MECHANICAL

MODULE	VA RATING*	BOARD SIZE	POWER REQUIREMENT (XFRMR)
WSIP8	0.2	130 x 130mm	16 – 24 VAC
WSIP16	0.4	130 x 130mm	16 – 24 VAC
WSOP8	18.5	130 x 130mm	16 – 24 VAC
WSOP16	33.6	138 x 130mm	16 – 24 VAC
WSD08	2.7	108 x 51mm	16 – 24 VAC

\* loaded VA rating

\*\* separate XFRMR is required for expansion modules - refer to WS1616 Installation Guide (WSC99-011)

25.4mm = 1.0 inches

### ENVIRONMENTAL

OPERATING TEMPERATURE	STORAGE TEMPERATURE	RELATIVE HUMIDITY
0°C to 50°C (32°F to 122°F)	-35°C to 66°C (-31°F to 151°F)	0 to 95% RH, non-condensing