

General Specifications

Description	1763-			
	L16AWA	L16BWA	L16BBB	L16DWD
Conducted Emissions	EN 55011 ac Power Supply Input: 150 kHz...30 MHz			
Radiated Emissions	EN 55011 30...1000 MHz			
Line Related Tests	EN 61000-4-11 ac Power Supply Input: voltage drop: -30% for 10 ms, -60% for 100 ms voltage interrupt: at voltage greater than -95% for 5 secs. voltage fluctuation: +10% for 15 minutes, -10% for 15 minutes dc Power Supply Input: voltage fluctuation: +20% for 15 minutes, -20% for 15 minutes			

Input Specifications

Digital Inputs

Description	1763-L16AWA	1763-L16BWA, -L16BBB	
		Inputs 0 through 3 (4 high-speed dc inputs)	Inputs 4 and higher (6 standard dc inputs)
On-State Voltage Range	79 ...132V ac	14...24V dc (14...26.4V dc (+10%) at 65 °C/149 °F) (14...30V dc (+25%) at 30 °C/86 °F)	10...24V dc (10...26.4V dc (+10%) at 65 °C/149 °F) (10...30V dc (+25%) at 30 °C/86 °F)
Off-State Voltage Range	0...20V ac	0...5V dc	
Operating Frequency	47...63 Hz	0 Hz...20 kHz 0 Hz...40 kHz ⁽¹⁾	0 Hz...1 kHz (scan time dependent)
On-State Current:			
• minimum • nominal • maximum	• 5.0 mA at 79V ac • 12 mA at 120V ac • 16.0 mA at 132V ac	• 2.5 mA at 14V dc • 8.8 mA at 24V dc • 12.0 mA at 30V dc	• 2.0 mA at 10V dc • 8.5 mA at 24V dc • 12.0 mA at 30V dc

Digital Inputs

Description	1763-L16AWA	1763-L16BWA, -L16BBB	
		Inputs 0 through 3 (4 high-speed dc inputs)	Inputs 4 and higher (6 standard dc inputs)
Off-State Leakage Current	2.5 mA max.	1.5 mA max.	
Nominal Impedance	12 k Ω at 50 Hz 10 k Ω at 60 Hz	3.1 k Ω	3.1 k Ω
Inrush Current (max.) at 120V ac	250 mA	Not Applicable	

(1) OS Series B FRN 4 or later

Digital Input Specifications for 1763-L16DWD

Description	1763-L16DWD	
	Inputs 0 through 3 (4 high-speed dc inputs)	Inputs 4 and higher (6 standard dc inputs)
On-State Voltage Range	10...24V dc at 65 °C/149 °F) (10...30V dc at 30 °C/86 °F)	
Off-State Voltage Range	0...5V dc	
Operating Frequency	0 Hz...40 kHz ⁽¹⁾	0 Hz...1 kHz
On-State Current: • minimum • nominal • maximum	• 2.0 mA at 10V dc • 8.5 mA at 24V dc • 12.0 mA at 30V dc	
Off-State Leakage Current	1.5 mA max.	
Nominal Impedance	2.61 k Ω	3.1 k Ω
Maximum Inrush Current	Not Applicable	

(1) OS Series B FRN 4 or later.

Analog Inputs

Description	1763-L16AWA, -L16BWA, -L16BBB, -L16DWD
Voltage Input Range	0 ...10.0V dc - 1 LSB
Type of Data	10-bit unsigned integer
Input Coding (0 to 10.0V dc - 1 LSB)	0 ...+1,023
Voltage Input Impedance	210 k Ω
Input Resolution	10 bit
Non-linearity	$\pm 0.5\%$ of full scale
Overall Accuracy -20...+65 °C (-4...+149 °F)	$\pm 0.5\%$ of full scale
Voltage Input Overvoltage Protection	10.5V dc
Field Wiring to Logic Isolation	Non-isolated with logic

Output Specifications For Hazardous Locations Applications (Class I, Division 2, Groups A, B, C, D)

General

Description	1763 -L16AWA, -L16BWA, -L16DWD	-L16BBB
-------------	--------------------------------------	---------

Relay and FET Outputs

Maximum Controlled Load	1080 VA	360 VA
Maximum Continuous Current:		
Current per Group Common	3A	3A
Current per Controller	at 150V max	18 A or total of per-point loads, whichever is less
	at 240V max	18 A or total of per-point loads, whichever is less

Relay Outputs

Turn On Time/Turn Off Time	10 msec (maximum) ⁽¹⁾
Relay life - Electrical (Resistive Load)	Refer to Relay Life Chart
Relay life - Mechanical	10,000,000 cycles
Load Current	10 mA (minimum)

⁽¹⁾ Scan time dependent.

Relay Contact Ratings⁽¹⁾

Maximum Volts	Amperes		Amperes Continuous	Volt-Amperes	
	Make	Break		Make	Break
240V AC ⁽²⁾	7.5 A	0.75 A	2.5 A	1800 VA	180 VA
120V AC ⁽³⁾	15.0 A	1.5 A	2.5 A	1800 VA	180 VA
125V DC ⁽⁴⁾	0.22 A		1.0 A	28 VA	

(1) Pilot Duty Rating: (ordinary location) – B300, R150. (hazardous location) – C300, R150.

(2) For AC voltage applications lower than 240V AC but higher than 120V AC, the maximum make and break ratings are to be obtained by dividing the volt-amperes rating by the application voltage.

(3) For AC voltage applications lower than 120V AC, the maximum make current is to be the same as for 120V AC, and the maximum break current is to be obtained by dividing the break volt-amperes rating by the application voltage, but the currents are not to exceed the thermal continuous current.

(4) For DC voltage applications lower than 125V DC, the make/break ampere rating for relay contacts can be determined by dividing the volt-ampere rating by the applied DC voltage but the current values are not to exceed the thermal continuous current.

ATTENTION



Do not exceed the “Current per group common” specification.

Output Specifications For Ordinary (Non-Hazardous) Locations only

General

Description		1763	
		-L16AWA, -L16BWA, -L16DWD	-L16BBB
Relay and FET Outputs			
Maximum Controlled Load		1440 VA	720 VA
Maximum Continuous Current:			
Current per Group Common		5A ⁽¹⁾	5A
Current per Controller	at 150V max	30 A or total of per-point loads, whichever is less	
	at 240V max	20 A or total of per-point loads, whichever is less	