

MicroLogix 1500 Base Units

Specifications

Base Unit Dimensions

Dimensions (HxWxD), Approx.

132 x 168 x 87 mm (5.19 x 6.62 x 3.43 in.)

Base Unit Input Specifications

Description	1764-24AWA	1764-24BWA and 1764-28BXB	
		Inputs 0 through 7	Inputs 8 and Higher
On-State Voltage Range	79...132V AC	14...30.0V DC at 30 °C (86 °F) 14...26.4V DC at 55 0 °C (131 °F)	10...30.0V DC at 30 °C (86 °F) 10...26.4V DC at 55 °C (131 °F)
Off-State Voltage Range	0...20V AC	0...5V DC	
Operating Frequency	47...63 Hz	0...20 kHz (1764-24BWA)	0...1 kHz* (1764-24BWA)
On-State Current:			
Minimum	5.0 mA at 79V AC	2.5 mA at 14V DC	2.0 mA at 10V DC
Nominal	12.0 mA at 120V AC	7.3 mA at 24V DC	8.9 mA at 24V DC
Maximum	16.0 mA at 132V AC	12.0 mA at 30V DC	12.0 mA at 30V DC
Off-State Leakage Current, Min.	2.5 mA	1.5 mA	
Impedance, Nom.	12 kΩ at 50 Hz 10 kΩ at 60 Hz	3.3 kΩ	2.7 kΩ
Inrush Current at 120V AC, Max.	250 mA	—	—

* Scan time dependent.

Base Unit Relay Contact Specifications (1764-24AWA, -24BWA -28BXB)

Relay Contact Ratings

At 240V AC maximum	7.5A make, 0.75A break, 2.5A continuous	1800 VA make, 180 VA break
At 120V AC maximum	15A make, 1.5A break, 2.5A continuous	1800 VA make, 180 VA break
At 125V DC maximum	0.22A make, 0.22A break, 1.0A continuous	28 VA make or break
At 24V DC maximum	1.2A make, 1.2A break, 2.0A continuous	28 VA make or break

Base Unit FET Output Specifications (1764-28BXB)

Description		General Operation (Outputs 2 through 7)	High-speed Operation (Outputs 2 and 3 only)* ‡
User Supply Voltage		20.4...26.4V DC	20.4...26.4V DC
On-State Voltage Drop	at maximum load current	1V DC	—
	at maximum surge current	2.5V DC	—
Current Rating per Output	maximum load	1A @ 55 °C (131 °F) 1.5A @ 30 °C (86 °F)	100 mA
	minimum load	1.0 mA	10 mA
	maximum leakage	1.0 mA	1.0 mA
Surge Current per Output	peak current	4.0A	—
	maximum surge duration	10 ms	—
	maximum rate of repetition @ 30 °C (86 °F)	once every second	—
	maximum rate of repetition @ 55 °C (131 °F)	once every 2 seconds	—
Current per Common, Max. Total		6A	—
Turn-on Time, Max.		0.1 ms	6 µs
Turn-off Time, Max.		1.0 ms	18 µs
Repeatability, Max.		—	2 µs
Drift, Max.		—	1 µs per 5 °C (1 µs per 9 °F)

* Scan time dependent.

‡ Outputs 2 and 3 are designed to provide increased functionality over the other FET outputs (4 through 7). They may be used like the other FET outputs, but in addition, within a limited current range, they may be operated at a higher speed. Outputs 2 and 3 also provide a pulse train output (PTO) or pulse width modulation (PWM) output function.