

Micro800 Power Requirements⁽¹⁾

Controller/Module	Power Requirement
Micro810 12-point (with or without LCD)	3 W (5V A for AC module)
Micro820 20-point ⁽²⁾ (without plug-ins, max)	5.62 W
Micro830 and Micro850 (without plug-in/expansion I/O)	
10/16-point	5 W
24-point	8 W
48-point	11 W
Plug-in modules, each	1.44 W
Expansion I/O (system bus power consumption)	2085-IQ16 – 0.85 W 2085-IQ32T – 0.95 W 2085-IA8 – 0.75 W 2085-IM8 – 0.75 W 2085-OA8 – 0.90 W 2085-OB16 – 1.00 W 2085-OV16 – 1.00 W 2085-OW8 – 1.80 W 2085-OW16 – 3.20 W 2085-IF4 – 1.70 W 2085-IF8 – 1.75 W 2085-OF4 – 3.70 W 2085-IRT4 – 2.00 W

(1) When setting up a Micro800 system, verify that total power consumption of the controller, plug-in and expansion I/O does not exceed the output power capacity of the power supply used. See [External Power Supply \(2080-PS120-240VAC\) on page 59](#) for power supply specifications.

(2) Micro820 controllers require a maximum of 8.5 W with plug-ins.

Allen-Bradley 2085-OW16

Select Micro850 Expansion I/O



The 2085 I/O expansion modules provide superior functionality in a small-sized low-cost package. A variety of digital and analog modules complement and extend the capabilities of Micro850 controllers by maximizing the flexibility of I/O count and type.

Micro850 expansion I/O modules include high density discrete and analog I/O modules, including a high accuracy RTD and Thermocouple module.

There are available solid state output modules which are recommended to reduce switching noise and for applications which require more switching cycles, than relays. Triac outputs are available for AC loads. Sink and source transistor outputs are available for DC loads.

The following section provides the list of available Micro850 expansion I/O modules and their specifications.

Micro850 Expansion I/O Modules

Catalog Number	Type	Description
2085-IA8	Discrete	8-point, 120V AC input
2085-IM8	Discrete	8-point, 240V AC input
2085-OA8	Discrete	8-point, 120/240V AC Triac Output
2085-IQ16	Discrete	16-point, 12/24V DC Sink/Source Input
2085-IQ32T	Discrete	32-point, 12/24V DC Sink/Source Input
2085-OV16	Discrete	16-point, 12/24V DC Sink Transistor Output
2085-OB16	Discrete	16-point, 12/24V DC Source Transistor Output
2085-OW8	Discrete	8-point, AC/DC Relay Output
2085-OW16	Discrete	16-point, AC/DC Relay Output

Output Specifications – 2085-OA8

Attribute	2085-OA8
Output signal delay	
Off to On	9.3 ms for 60 Hz, 11 ms for 50 Hz
On to Off	9.3 ms for 60 Hz, 11 ms for 50 Hz
Surge current, max	5 A

2085-OW8 and 2085-OW16 Relay Output Module

Attribute	2085-OW8	2085-OW16																														
Number of outputs	8, relay	16, relay																														
Dimensions, HxWxD	28 x 90 x 87 mm (1.10 x 3.54 x 3.42 in.)	44.5 x 90 x 87 mm (1.75 x 3.54 x 3.42 in.)																														
Shipping weight, approx.	140 g (4.93 oz)	220 g (7.76 oz)																														
Wire size	0.25... 2.5 mm ² (22...14 AWG) solid or stranded copper wire rated @ 75 °C (167 °F), or greater, 1.2 mm (3/64 in.) insulation max																															
Insulation strip length	10 mm (0.39 in.)																															
Wiring category ⁽¹⁾	2 – on signal ports																															
Wire type	Copper																															
Terminal screw torque, max	0.5...0.6 Nm (4.4...5.3 lb-in.) ⁽²⁾																															
Bus current draw, max	5V DC, 120 mA 24V DC, 50 mA	5V DC, 160 mA 24V DC, 100 mA																														
Load current, max	2 A																															
Power dissipation, total	2.72 W	5.14 W																														
Relay contact, (0.35 power factor)	<table border="1"> <thead> <tr> <th rowspan="2">Max Volts</th> <th colspan="2">Amperes</th> <th>Amperes</th> <th colspan="2">Volt Amperes</th> </tr> <tr> <th>Make</th> <th>Break</th> <th>Continuous</th> <th>Make</th> <th>Break</th> </tr> </thead> <tbody> <tr> <td>120V AC</td> <td>15 A</td> <td>1.5 A</td> <td>2.0 A</td> <td rowspan="2">1800V A</td> <td rowspan="2">180V A</td> </tr> <tr> <td>240V AC</td> <td>7.5 A</td> <td>0.75 A</td> <td></td> </tr> <tr> <td>24V DC</td> <td colspan="2">1.0 A</td> <td rowspan="2">1.0 A</td> <td colspan="2" rowspan="2">28V A</td> </tr> <tr> <td>125V DC</td> <td colspan="2">0.22 A</td> </tr> </tbody> </table>		Max Volts	Amperes		Amperes	Volt Amperes		Make	Break	Continuous	Make	Break	120V AC	15 A	1.5 A	2.0 A	1800V A	180V A	240V AC	7.5 A	0.75 A		24V DC	1.0 A		1.0 A	28V A		125V DC	0.22 A	
Max Volts	Amperes			Amperes	Volt Amperes																											
	Make	Break	Continuous	Make	Break																											
120V AC	15 A	1.5 A	2.0 A	1800V A	180V A																											
240V AC	7.5 A	0.75 A																														
24V DC	1.0 A		1.0 A	28V A																												
125V DC	0.22 A																															
Minimum load, per point	10 mA per point																															
Off-state leakage, max	1.5 mA																															
Status indicators	8 yellow indicators	16 yellow indicators																														
Isolation voltage	240V (continuous), Reinforced Insulation Type, channel to system Type tested @ 3250V DC for 60 s																															
Pilot duty rating	C300, R150																															
Enclosure type rating	Meets IP20																															
North American temp code	T4																															

(1) Use this Conductor Category information for planning conductor routing. Refer to Industrial Automation Wiring and Grounding Guidelines, publication [1770-4.1](#).

(2) RTB hold down screws should be tightened by hand. They should not be tightened using a power tool.