Allen-Bradley 1756-L82E

ControlLogix 5580 Controller

The 1756-L82E is a ControlLogix 5580 controller for modular automation systems. It executes standard control and integrated motion applications while supporting local ControlLogix I/O and distributed equipment over the selected networks.



Technical Specifications

Product Identity	
Manufacturer	Allen-Bradley
Complete part number	1756-L82E
Controller family	ControlLogix 5580
Module width	1 chassis slot
Approximate weight	0.394 kg
Functional Configuration	
Built-in Ethernet	1 port; 10/100/1000 Mbps capability
Local programming interface	USB 2.0 full speed, 12 Mbps; temporary use
Nonvolatile storage	Secure Digital; current specified standard card 1784-SD4, 4 GB
Energy storage module	Embedded, non-removable
Performance & Power	
User memory	5 MB
EtherNet/IP nodes	175 with Logix Designer v30 or later; 80 with v29.00.02
Controller tasks	32
Programs per task	1000
Backplane current at 5.1V DC	1.20 A
Backplane current at 1.2V DC	5.0 mA
Power dissipation	6.2 W
Environment	
Operating temperature	0…60 °C with standard Series C chassis; 0…50 °C with standard Series B chassis

Selected original manufacturer pages follow on pages 3–3.

Compatibility & Selection Guide

System and software compatibility. Studio 5000 Logix Designer version 30 or later supports 175 EtherNet/IP nodes. Redundancy requires version 33.00.02 or later and a compatible system configuration; enabling it disables the embedded Ethernet port and integrated motion.

Wiring & Installation Reference

Interfaces and connections

Verify the chassis series and operating-temperature limit before installation.

Mounting and connection

Seat the controller. Align the board with the chassis guides and slide the controller in until it locks and sits flush.

Complete connections. Install the key and supported SD card as required; connect the RJ45 network cable and check the display after applying power.

Installation precautions. Use ESD precautions and an appropriate enclosure. Remove power or confirm a nonhazardous area before insertion, removal or connection changes. Do not use USB in hazardous locations; limit its cable to 3 m without hubs.

View connection requirements (PDF) · PDF page 2 | View installation guide · PDF page 2

Manufacturer sources: ControlLogix and GuardLogix Controller Specifications / ControlLogix 5580 Controllers Installation Instructions.

Technical Specifications - ControlLogix 5580 Standard and Conformal Coated Controllers

Attribute	1756-L81E, 1756-L81EK	1756-L82E, 1756-L82EK	1756-L83E, 1756-L83EK	1756-L84E, 1756-L84EK	1756-L85E, 1756-L85EK
Standard memory	3 MB	5 MB	10 MB	20 MB	40 MB
Digital I/O max	128,000				
Analog I/O max	4000				
Total I/O max	128,000				
Nonvolatile memory storage	4 GB Secure Digital (SD) card (1784-SD4), ships pre-installed in the controller(1)				
Energy storage module	Embedded in controller, non-removable				
Number of power cycles	80,000				
Current draw @ 1.2V DC	5.0 mA				
Current draw @ 5.1V DC	1.20 A				
Power dissipation	6.2 W				
Thermal dissipation	21.2 BTU/hr				
Isolation voltage	50V (continuous), Basic Insulation type, USB port to backplane, Ethernet port to backplane, and USB port to Ethernet port Compliant and tested according to IEC/UL 61010-1				
Weight approx	0.394 kg (.868 lb)				
Slot width	1				
Module location	Chassis-based, any slot				
Chassis	1756-A4, 1756-A4K, 1756-A7, 1756-A7K, 1756-A10, 1756-A10K, 1756-A13, 1756-A13K, 1756-A17, 1756-A17 K Series B, Series C				
Power supply, standard	1756-PA50, 1756-PA50K, 1756-PA72, 1756-PA72K, 1756-PA75, 1756-PA75K, 1756-PB50, 1756-PB50K 1756-PB72, 1756-PB72K, 1756-PB75, 1756-PB75K, 1756-PC75, 1756-PH75				
Power supply, redundant	1756-PA75R, 1756-PA75RK, 1756-PB75R, 1756-PB75RK, 1756-PSCA2, 1756-PSCA2K				
Wire category(2)	3 - on USB port 2 - on Ethernet ports				
Wire size	Ethernet connections: Ethernet cabling and installation according to IEC 61918 and IEC 61784-5-2				
Temperature code	T4				
Enclosure type rating	None (open-style)				

(1) Larger versions may be available. See Memory Cards on page 42.
(2) Use this conductor category information to plan conductor routing. See Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1.