

Allen-Bradley 1756-L82E-B

ControlLogix 5580 Controller, Series B

Product identity and function

Allen-Bradley 1756-L82E-B is the Series B identity of a ControlLogix 5580 controller with 5 MB user memory, an embedded 10/100/1000 Mbps EtherNet/IP port and a USB 2.0 programming port.

01 / Function

Executes ControlLogix 5580 applications with 5 MB of user memory

02 / Function

Provides an embedded 10/100/1000 Mbps EtherNet/IP port for control and information exchange

03 / Function

Supports 32 tasks with up to 1000 programs per task

04 / Function

Ships with a preinstalled 2 GB 1784-SD2 Secure Digital card

PRODUCT FIELD	OFFICIAL VALUE
Manufacturer	Allen-Bradley / Rockwell Automation
Catalog identity	1756-L82E, Series B
Product family	ControlLogix 5580
Product type	Chassis-based programmable automation controller

Evidence boundary: Values are limited to Rockwell Automation publication 1756-TD001U-EN-P, the 1756-L82E product page and the ControlLogix 5580 user manual; project limits remain software- and chassis-dependent.

Official manufacturer evidence reviewed: Rockwell Automation ControlLogix Controller Technical Data and ControlLogix 5580 Controller documentation.

Official technical parameters

Allen-Bradley 1756-L82E-B / verified set 1

PARAMETER	VERIFIED VALUE
Manufacturer	Allen-Bradley / Rockwell Automation
Catalog identity	1756-L82E, Series B
Product family	ControlLogix 5580
Product type	Chassis-based programmable automation controller
User memory	5 MB
Controller tasks	32 continuous, periodic and event tasks
Programs per task	1000 maximum
USB port	One USB 2.0 full-speed port; 12 Mbps
USB use	Temporary local programming, configuration, firmware update and online edits
Embedded Ethernet	One 10/100/1000 Mbps EtherNet/IP port
EtherNet/IP nodes	80 maximum with Logix Designer v29; 175 maximum with v30 or later
Programming languages	Relay ladder, structured text, function block and sequential function chart
Digital I/O maximum	128,000
Analog I/O maximum	4,000
Total I/O maximum	128,000
Nonvolatile memory	2 GB 1784-SD2 Secure Digital card, preinstalled

Official manufacturer evidence reviewed: Rockwell Automation ControlLogix Controller Technical Data and ControlLogix 5580 Controller documentation.

Official technical parameters

Allen-Bradley 1756-L82E-B / verified set 2

PARAMETER	VERIFIED VALUE
Energy storage module	Embedded and nonremovable
Number of power cycles	80,000
Current draw at 1.2 V DC	5.0 mA
Current draw at 5.1 V DC	1.20 A
Power dissipation	6.2 W
Thermal dissipation	21.2 BTU/h
Isolation voltage	50 V continuous, basic insulation; USB/backplane/Ethernet interfaces
Module location	ControlLogix chassis, any slot
Enclosure type	Open-style equipment
Ambient operating temperature	0-60 deg C in Series C chassis; 0-50 deg C in Series B chassis
Nonoperating temperature	-40 to +85 deg C
Relative humidity	5-95%, noncondensing
Operating vibration	2 g at 10-500 Hz
Operating shock	30 g
Nonoperating shock	30 g
Temperature code	T4

Official manufacturer evidence reviewed: Rockwell Automation ControlLogix Controller Technical Data and ControlLogix 5580 Controller documentation.

Applications and product precautions

Allen-Bradley 1756-L82E-B

High-performance machine control

Runs multi-task ControlLogix logic with local and distributed I/O.

EtherNet/IP control

Coordinates supported I/O nodes through the embedded gigabit EtherNet/IP port.

Integrated motion systems

Supports Integrated Motion on EtherNet/IP when the approved project and software version are used.

Process and plant automation

Executes ladder, structured-text, function-block and sequential-function-chart routines in a ControlLogix chassis.

01 / Check

Verify the complete 1756-L82E Series B identity and the approved ControlLogix chassis before work.

02 / Check

Place the controller and controlled process in the authorized maintenance state before removal or insertion.

03 / Check

Back up the project, controller properties, network settings and the current Secure Digital card configuration.

04 / Check

Confirm the chassis series because the published upper operating limit is 50 deg C in Series B and 60 deg C in Series C chassis.

05 / Check

Use the USB port only for temporary local programming and never as a permanent connection or in a hazardous location.

06 / Check

Check the installed project against the applicable 80- or 175-node EtherNet/IP limit for the Logix Designer version.

07 / Check

Keep unused port plugs installed where required for the published corrosive-atmosphere rating.

08 / Check

After download and startup, review diagnostics and complete a controlled I/O, network and application-response test before release.

Model-specific engineering FAQ

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How much user memory is available in 1756-L82E-B?

The official ControlLogix 5580 specification lists 5 MB of user memory for 1756-L82E.

Which built-in communication ports are provided?

The controller has one USB 2.0 full-speed port and one embedded 10/100/1000 Mbps EtherNet/IP port.

How many EtherNet/IP nodes are supported?

For 1756-L82E, Rockwell specifies 80 nodes with Logix Designer v29 and 175 nodes with version 30 or later.

What task and program capacity is documented?

The controller supports 32 tasks and up to 1000 programs per task.

Which programming languages are supported?

Relay ladder, structured text, function block diagram and sequential function chart are listed.

Which removable storage is supplied?

A 2 GB 1784-SD2 Secure Digital card ships preinstalled; the controller's energy-storage module is embedded and nonremovable.

Can it be installed in any ControlLogix chassis slot?

Yes. The technical data lists the controller as chassis-based and suitable for any slot in an approved 1756 chassis.

What should be verified when replacing the Series B controller?

Match the exact series, chassis and project; preserve the SD-card strategy and network configuration; then prove diagnostics, I/O and the controlled application response.

Answers are limited to the exact identity and the cited manufacturer evidence; project configuration remains installation-specific.

Related products and contact

Verified ApterPower navigation links; not approved substitutes

NO.	RELATED PRODUCT	APTERPOWER LINK
01	Allen-Bradley 1756-L81E	View product page
02	Allen-Bradley 1756-L83E	View product page
03	Allen-Bradley 1756-L84E	View product page
04	Allen-Bradley 1756-L85E	View product page
05	Allen-Bradley 1756-EN2T	View product page
06	Allen-Bradley 1756-EN2TR	View product page
07	Allen-Bradley 1756-EN2F	View product page
08	Allen-Bradley 1756-CN2R	View product page
09	Allen-Bradley 1756-A7	View product page
10	Allen-Bradley 1756-A13	View product page
11	Allen-Bradley 1756-A17	View product page
12	Allen-Bradley 1756-PA72	View product page
13	Allen-Bradley 1756-PB72	View product page
14	Allen-Bradley 1756-PA75	View product page
15	Allen-Bradley 1756-PB75	View product page
16	Allen-Bradley 1756-PSCA2	View product page
17	Allen-Bradley 1756-IF8	View product page
18	Allen-Bradley 1756-OF8	View product page

Recommendation links are navigation aids only and do not establish compatibility.

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