

1756-L6S GuardLogix Controllers Specifications

Technical Specifications - 1756-L6S GuardLogix Controllers

Attribute	1756-L61S	1756-L62S	1756-L63S	1756-LSP
User memory	2 MB	4 MB	8 MB	—
Safety memory	1 MB	1 MB	3.75 MB	Same as corresponding primary controller
I/O memory	478 KB			—
Optional nonvolatile memory storage	128 MB (1784-CF128) ⁽¹⁾			—
Digital I/O, max	128,000			—
Analog I/O, max	4000			—
Total I/O, max	128,000			—
Replacement battery	1756-BA2 (0.50 g lithium)			
Energy storage modules	—			
Current draw @ 1.2V DC	—			
Current draw @ 5.1V DC	1200 mA			
Current draw @ 24V DC	14 mA			
Power dissipation	3.5 W			
Thermal dissipation	11.9 BTU/hr			
Isolation voltage	30V (continuous), Basic Insulation Type, RS-232 to system Type tested at 720V DC for 60 s			
Serial cables	1756-CP3 or 1747-CP3, right angle connector to controller, straight to serial port, 3 m (9.84 ft)			
Weight, approx	0.32 kg (0.70 lb)			
Slot width	2 (both modules needed; each is one slot)			
Module location	Chassis-based, any slot (the safety partner must be installed in the slot to the immediate right of the primary controller)			
Chassis	1756-A4, 1756-A7, 1756-A10, 1756-A13, 1756-A17			
Power supply standard	1756-PA50, 1756-PA72, 1756-PA75, 1756-PB50, 1756-PB72, 1756-PB75			
Wire category ⁽²⁾	2 - on RS-232 port			
North American temperature code	T4A			
Enclosure type rating	None (open-style)			

(1) RSLogix 5000® programming software, version 18 or later.

(2) Use this conductor category information for to plan conductor routing as described in the system level installation manual. See the Industrial Automation Wiring and Grounding Guidelines, publication [1770-4.1](#).

Environmental Specifications - 1756-L6S GuardLogix Controllers

Attribute	1756-L61S, 1756-L62S, 1756-L63S, 1756-LSP
Temperature, operating IEC 60068-2-1 (Test Ad, Operating Cold), IEC 60068-2-2 (Test Bd, Operating Dry Heat), IEC 60068-2-14 (Test Nb, Operating Thermal Shock)	0 °C...+60 °C (+32...+140 °F) on 1756-L61S, 1756-L62S, 1756-L63S, 1756-LSP
Temperature, nonoperating IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold), IEC 60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat), IEC 60068-2-14 (Test Na, Unpackaged Nonoperating Thermal Shock)	-40...+85 °C (-40...+185 °F)
Temperature, surrounding air, max	60 °C (140 °F)
Relative humidity IEC 60068-2-30 (Test Db, Unpackaged Damp Heat)	5...95% noncondensing
Vibration IEC 60068-2-6 (Test Fc, Operating)	2 g @ 10...500 Hz
Shock, operating IEC 60068-2-27 (Test Ea, Unpackaged Shock)	30 g
Shock, nonoperating IEC 60068-2-27 (Test Ea, Unpackaged Shock)	50 g
Emissions CISPR 11 IEC 61000-6-4	Class A
ESD immunity IEC 61000-4-2	6 kV contact discharges 8 kV air discharges
Radiated RF immunity IEC 61000-4-3	10V/m with 1 kHz sine-wave 80% AM from 80...2000 MHz 10V/m with 200 Hz 50% Pulse 100% AM @ 900 MHz 10V/m with 200 Hz 50% Pulse 100% AM @ 1890 MHz 3V/m with 1 kHz sine-wave 80% AM from 2000...2700 MHz
EFT/B immunity IEC 61000-4-4	±4 kV at 5 kHz on RS-232 port
Surge transient immunity IEC 61000-4-5	±2 kV line-earth (CM) on RS-232 port
Conducted RF immunity IEC 61000-4-6	10V rms with 1 kHz sine-wave 80% AM from 150 kHz...80 MHz

Certifications - 1756-L6S GuardLogix Controllers

Certification ⁽¹⁾	1756-L61S, 1756-L62S, 1756-L63S, 1756-LSP
c-UL-us	UL Listed Industrial Control Equipment, certified for US and Canada. See UL File E65584. UL Listed for Class I, Division 2 Group A,B,C,D Hazardous Locations, certified for U.S. and Canada. See UL File E194810.
CSA	CSA Certified Process Control Equipment. See CSA File LR54689C. CSA Certified Process Control Equipment for Class I, Division 2 Group A,B,C,D Hazardous Locations. See CSA File LR69960C.
CE	European Union 2004/108/EC EMC Directive, compliant with: <ul style="list-style-type: none"> EN 61000-6-4; Industrial Emissions EN 61326-1; Meas./Control/Lab., Industrial Requirements EN 61000-6-2; Industrial Immunity EN 61131-2; Programmable Controllers (Clause 8, Zone A & B) European Union 2006/42/EC MD, compliant with: <ul style="list-style-type: none"> EN 60204-1; Electrical equipment of machines EN ISO 13849-1; Safety-related parts of control systems EN 62061; Functional safety of safety-related control systems
RCM	Australian Radiocommunications Act, compliant with EN 61000-6-4; Industrial Emissions
FM	FM Approved Equipment for use in Class I, Division 2 Group A, B, C, D Hazardous Locations
KC	Korean Registration of Broadcasting and Communication Equipment, compliant with Article 58-2 of Radio Waves Act, Clause 3
TÜV certified for functional safety ⁽²⁾	Capable of Cat. 4/PL e according to EN ISO 13849-1 and SIL 3 according to EN 62061/IEC 61508 when used as described in the GuardLogix Controller Systems Safety Reference Manual, publication 1756-RM093 .
UL certified for functional safety ⁽²⁾	Capable of SIL CL 3, see UL File E256621.

(1) When marked. See the Product Certification link at <http://www.ab.com> for Declarations of Conformity, Certificates, and other certification details.

(2) When used with specified firmware revisions.