



ControlLogix and GuardLogix Controller Specifications

Bulletin 1756

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ControlLogix 5570 Controllers

The ControlLogix 5570 controller provides a scalable solution that is capable of addressing many I/O points. You can place the controller into any slot of a ControlLogix I/O chassis, and install multiple controllers in the same chassis.

ControlLogix 5570 controllers can monitor and control I/O across the ControlLogix backplane, and over network links. To provide communication for these controllers, install the appropriate communication interface module into the local chassis.

ControlLogix 5570 controllers with a 'K' or 'XT' in the catalog number have a conformal coating that adds a degree of protection against harsh, corrosive gas environments.

ControlLogix 5570 Controller



ATTENTION: Select products that are rated for corrosive atmospheres ship with port plugs, covers, or memory cards installed which provide connectors with a degree of protection in corrosive gas environments.

Once the factory packaging seal is broken, plugs or covers must be installed in all unoccupied ports or slots for the product to maintain its corrosive atmosphere rating.

If temporary access is required, port plugs, covers, memory cards, and so on can be removed from ports or slots, but should be reinstalled after temporary access is complete.

IMPORTANT

When a ControlLogix product that is rated for harsh environments (corrosive atmosphere, extended temperature, etc.) is used in a system with other ControlLogix products that have lower specification values, the system is derated to the lowest common value.

EXAMPLE: If the maximum operating temperature specification found in the Technical Data for your ControlLogix-XT module is 70 °C (158 °F) and you pair it with a ControlLogix chassis that is temperature rated to 60 °C (140 °F), your system is derated to 60 °C (140 °F).

To ensure that your system is equipped for harsh environments, compare the corrosive atmosphere, temperature, and other specifications found in the Technical Data publication for each product.

ControlLogix 5570 Standard and Conformal Coated Controllers

Features - ControlLogix 5570 Standard and Conformal Coated Controllers

Feature	1756-L71, 1756-L71K, 1756-L72, 1756-L72K, 1756-L73, 1756-L73K, 1756-L74, 1756-L74K, 1756-L75, 1756-L75K
Controller tasks	<ul style="list-style-type: none"> • 32 tasks, including a combination of one continuous, periodic, and event tasks • 32 programs/tasks prior to RSLogix 5000® programming software, version 15.01.00 • 100 programs/task beginning with RSLogix 5000 programming software, version 15.01.00 • 1000 programs/task beginning with Logix Designer application, version 24.00.00
Built-in communication ports	1-port USB ⁽¹⁾
Communication options	<ul style="list-style-type: none"> • EtherNet/IP • ControlNet • DeviceNet • Data Highway Plus • Remote I/O • SERCOS • Third-party process and device networks
USB port communication	Programming, configuration, firmware update, and online edits only
Controller connections supported max ⁽²⁾	500
Network connections, per network module	<ul style="list-style-type: none"> • 1000 I/O; 528 EtherNet/IP; 512 TCP (1756-EN4TR) • 256 EtherNet/IP; 128 TCP (1756-EN2x) • 128 EtherNet/IP; 64 TCP (1756-ENBT) • 100 ControlNet (1756-CN2/A) • 40 ControlNet (1756-CNB/D, 1756-CNB/E) • 128 ControlNet (1756-CN2/B)
Controller redundancy	Full support
Integrated motion	<ul style="list-style-type: none"> • SERCOS interface • Analog options (encoder input, LDT input, SSI input) • Integrated Motion on the EtherNet/IP network
Programming languages	<ul style="list-style-type: none"> • Relay ladder logic • Structured text • Function Block Diagram • Sequential function chart (SFC)

(1) The USB port is intended for temporary local programming purposes only and not intended for permanent connection. Do not use the USB port in hazardous locations.

(2) ControlLogix 5570 controllers use connections to establish communication links between devices. For more information on how to use and calculate connections, see the ControlLogix System User Manual, publication [1756-UM001](#).

Technical Specifications - ControlLogix 5570 Standard and Conformal Coated Controllers

Attribute	1756-L71, 1756-L71K	1756-L72, 1756-L72K	1756-L73, 1756-L73K	1756-L74, 1756-L74K	1756-L75, 1756-L75K
User memory	2 MB	4 MB	8 MB	16 MB	32 MB
I/O memory	0.98 MB				
Nonvolatile memory storage	1 GB Secure Digital (SD) card (1784-SD1), ships pre-installed in the controller ⁽¹⁾				
Digital I/O max	128,000				
Analog I/O max	4000				
Total I/O max	128,000				
Energy storage module	<ul style="list-style-type: none"> 1756-ESMCAP, 1756-ESMCAPK capacitor energy storage module (removable, ships installed with every controller) 1756-ESMNSE, 1756-ESMNSEK capacitor energy storage module (removable, no residual WallClockTime power backup) 1756-ESMNRM, 1756-ESMNRMK capacitor energy storage module (non-removable, helps prevent USB connection and SD card use to help secure the controller) 				
Current draw @ 1.2V DC	5 mA				
Current draw @ 5.1V DC	800 mA				
Power dissipation	2.5 W				
Thermal dissipation	8.5 BTU/hr				
Isolation voltage	30V (continuous), basic insulation type, USB port-to-system Compliant and tested according to IEC/UL 61010-1				
USB port ⁽²⁾	USB 2.0, full speed (12 Mbps)				
Weight approx	0.25 kg (0.55 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-A17K				
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 ⁽³⁾	3 - on USB port				
Temperature code	T4				
Enclosure type rating	None (open-style)				

(1) Larger versions may be available. See [Memory Cards on page 61](#).

(2) The USB port is intended for temporary local programming purposes only and not intended for permanent connection. Do not use the USB port in hazardous locations.

(3) Use this conductor category information to plan conductor routing. See Industrial Automation Wiring and Grounding Guidelines, publication [1770-4.1](#).

Environmental Specifications - ControlLogix 5570 Standard and Conformal Coated Controllers

Attribute	1756-L71, 1756-L72, 1756-L73, 1756-L74, 1756-L75	1756-L71K, 1756-L72K, 1756-L73K, 1756-L74K, 1756-L75K
Temperature, operating IEC 60068-2-1 (Test Ae, Operating Cold), IEC 60068-2-2 (Test Be, Operating Dry Heat), IEC 60068-2-14 (Test Nb, Operating Thermal Shock)	0 °C ≤ Ta ≤ +60 °C (+32 °F ≤ Ta ≤ +140 °F)	
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)	
Relative humidity IEC 60068-2-30 (Test Db, Unpackaged Damp Heat)	5...95% noncondensing	
Conformal coated	No	Yes
Corrosive Atmosphere ASTM B845-97 Method K Accelerated Test (20-Day Exposure)	-	Severity Level G3 ⁽¹⁾ per ANSI/ISA 71.04-2013, Airborne Contaminants—Gases Severity Level CX ⁽¹⁾⁽²⁾ per IEC 60721-3-3:2019, Chemically Active Substances
Vibration	IEC 60068-2-6 (Test Fc, Operating)	
Shock, operating	IEC 60068-2-27 (Test Ea, Unpackaged Shock)	
Shock, nonoperating	IEC 60068-2-27 (Test Ea, Unpackaged Shock)	
Emissions	IEC 61000-6-4	
ESD immunity	IEC 61000-4-2	
Radiated RF immunity	IEC 61000-4-3	
Conducted RF Immunity	IEC 61000-4-6 (Not applicable: USB is a temporary programming port.)	

(1) Once the factory packaging seal is broken, plugs or covers must be installed in all unoccupied ports or slots for the product to maintain its corrosive atmosphere rating.
 (2) Up to 86.4 g/(m²-yr), mass loss of copper due to corrosion.

Certifications - ControlLogix 5570 Standard and Conformal Coated Controllers

Certification ⁽¹⁾	1756-L71, 1756-L71K, 1756-L72, 1756-L72K, 1756-L73, 1756-L73K, 1756-L74, 1756-L74K, 1756-L75, 1756-L75K
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.
CE	European Union 2014/30/EU EMC Directive, compliant with: <ul style="list-style-type: none"> EN 61326-1; Meas./Control/Lab., Industrial Requirements EN 61000-6-2; Industrial Immunity EN 61000-6-4; Industrial Emissions EN 61131-2; Programmable Controllers (Clause 8, Zone A & B)
RCM	Australian Radiocommunications Act, compliant with EN 61000-6-4; Industrial Emissions
Ex	European Union 2014/34/EU ATEX Directive, compliant with: <ul style="list-style-type: none"> EN IEC 60079-0; General Requirements EN IEC 60079-7; Potentially Explosive Atmospheres, Protection "e" II 3 G Ex ec IIC T4 Gc UL 22 ATEX 2817X
IECEx	IECEx System, compliant with: <ul style="list-style-type: none"> IEC 60079-7; Potentially Explosive Atmospheres, Protection "e" IEC 60079-0; General Requirements II 3 G Ex ec IIC T4 Gc IECEx UL 22.0062X
UKEx	In conformity with the following UKEx Statutory Instruments and their amendments: <ul style="list-style-type: none"> Schedule 1 of the UKEx Regulation 2016 No. 1107 Equipment protection by increased safety "e", reference certificate number UL22UKEX2601X Zone 2 classification according to UKEx Regulation 2016 No. 1107
UKCA	In conformity with the following UK Statutory Instruments and their amendments: <ul style="list-style-type: none"> 2016 No. 1091, Electromagnetic Compatibility Regulations 2016 No. 1107, Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2012 No. 3032, Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment
KC	Korean Registration of Broadcasting and Communications Equipment, compliant with Article 58-2 of Radio Waves Act, Clause 3
CCC	CCC 2020122309111998 CNCA-C23-01 强制性产品认证实施规则 防爆电气 CNCA-C23-01 CCC Implementation Rule Explosion-Proof Electrical Products
Morocco	In conformity with the following regulations: <ul style="list-style-type: none"> Arrêté ministériel n° 6404-15 du 1^{er} muharram 1437 (15 octobre 2015) Équipements électriques destinés à être utilisés sous certaines limites de tension Arrêté ministériel n° 6404-15 du 29 ramadan 1436 (16 juillet 2015) Compatibilité électromagnétique des équipements

(1) When marked. See the Product Certification link at rok.auto/certifications for Declarations of Conformity, Certificates, and other certification details.