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1756 ControlLogix I/O Specifications

AC Digital Catalog Numbers	1756-IA8D, 1756-IA16, 1756-IA16K, 1756-IA16I, 1756-IA16IK, 1756-IA32, 1756-IA32K, 1756-IM16I, 1756-IM16IK, 1756-IN16, 1756-OA8, 1756-OA8D, 1756-OA8E, 1756-OA16, 1756-OA16K, 1756-OA16I, 1756-OA16IK, 1756-ON8
DC Digital Catalog Numbers	1756-IB16, 1756-IB16K, 1756-IB16D, 1756-IB16DK, 1756-IB16I, 1756-IB16IK, 1756-IB16IF, 1756-IB16IFK, 1756-IB16ISOE, 1756-IB16ISOEK, 1756-IB32, 1756-IB32K, 1756-IC16, 1756-IG16, 1756-IH16I, 1756-IH16ISOE, 1756-IV16, 1756-IV16K, 1756-IV32, 1756-IV32K, 1756-OB8, 1756-OB8EI, 1756-OB8I, 1756-OB16D, 1756-OB16DK, 1756-OB16E, 1756-OB16EK, 1756-OB16I, 1756-OB16IEF, 1756-OB16IEFK, 1756-OB16IEFS, 1756-OB16IS, 1756-OB32, 1756-OB32K, 1756-OC8, 1756-OG16, 1756-OH8I, 1756-OV16E, 1756-OV32E
Safety Catalog Numbers	1756-IB16S, 1756-OBV8S
Contact Catalog Numbers	1756-OW16I, 1756-OX8I
Analog Catalog Numbers	1756-IF6CIS, 1756-IF6I, 1756-IF8, 1756-IF8K, 1756-IF8I, 1756-IF8IK, 1756-IF16, 1756-IF16K, 1756-IF4FXOF2F, 1756-IF4FXOF2FK, 1756-IR6I, 1756-IRT8I, 1756-IRT8IK, 1756-IR12, 1756-IR12K, 1756-IT6I, 1756-IT6I2, 1756-IT16, 1756-IT16K, 1756-OF4, 1756-OF4K, 1756-OF6CI, 1756-OF6VI, 1756-OF8, 1756-OF8K, 1756-OF8I, 1756-OF8IK
HART Interface Catalog Numbers	1756-IF8H, 1756-IF8HK, 1756-IF8IH, 1756-IF8IHK, 1756-IF16H, 1756-IF16HK, 1756-IF16IH, 1756-IF16IHK, 1756-OF8H, 1756-OF8HK, 1756-OF8IH, 1756-OF8IHK
Specialty Catalog Numbers	1756-CFM, 1756-CMS1B1, 1756-CMS1C1, 1756-HSC, 1756-LSC8XIB8I, 1756-LSC8XIB8IK, 1756-PLS

The ControlLogix® Architecture provides a wide range of input and output modules to span many applications, from high-speed digital to process control. The ControlLogix architecture uses Producer/Consumer technology, which allows input information and output status to be shared among multiple ControlLogix controllers.

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Summary of Changes

This publication contains new and updated information as indicated in the following table.

Topic	Page
The 1756-IB16S and 1756-OBV8S modules are only compatible with a 1756 ControlLogix Chassis, Series C.	226, 234
Due to the higher internal power dissipation of the 1756-OBV8S module, do not install the 1756-OBV8S module next to any controller or communication module.	234

Available 1756 I/O Modules

Each 1756 ControlLogix standard and safety I/O module mounts in a ControlLogix chassis.

You can select these types of digital I/O modules.

Digital I/O Type	Description
Diagnostic	These modules provide diagnostic features to the point level. These modules have a **D** at the end of the catalog number.
Electronic fusing	These modules have internal electronic fusing to help prevent too much current from flowing through the module. These modules have an **E** at the end of the catalog number.
Individually isolated	These modules have individually isolated inputs or outputs. These modules have an **I** at the end of the catalog number.

Standard I/O Module Wiring

1756 ControlLogix standard I/O modules require either a Removable Terminal Block (RTB) or a 1492 interface module (IFM) to connect all field-side wiring. RTBs and IFMs are not included with the I/O modules. They must be ordered separately. See .

Safety I/O Module Wiring

1756-IB16S (1756 ControlLogix 16-point Sinking Safety Input Module) has been agency certified using only the ControlLogix RTBs (1756-TBCHS or 1756-TBS6HS). RTBs are not included with the I/O modules. They must be ordered separately. See .

1756-OBV8S (ControlLogix 8-point Safety Bipolar/Sourcing Output Module) has been agency certified using only the ControlLogix RTBs (1756-TBNHS and 1756-TBSHS). RTBs are not included with the I/O modules. They must be ordered separately. See .

Any application that requires agency certification of the ControlLogix system by using other wiring termination methods may require application-specific approval by the certifying agency. RTBs are not included with the I/O modules. They must be ordered separately.

1756-CMS1B1, 1756-CMS1C1

ControlLogix Compute modules are chassis-based modules that let you communicate directly with a ControlLogix 5570 or ControlLogix 5580 controller via the system backplane and over a network. The Compute modules offer an embedded Microsoft® Windows 10 or Linux operating system within which you can create custom applications while utilizing an application programming interface (API).

Technical Specifications - 1756-CMS1B1, 1756-CMS1C1

Attribute	1756-CMS1B1	1756-CMS1C1
Solid state drive (SSD) capacity	32 GB	
Embedded operating system	Windows 10 IoT Enterprise LTSB 64 bit	Linux 32 bit (Debian 8.9)
Onboard memory	4 GB	
Voltage and current ratings	5.1V DC @ 1.40 A	
Power consumption	7 W	
Power dissipation, max	7 W	
Thermal dissipation	23.88 BTU/hr	
Replacement battery	Panasonic Type BR1225A coin type lithium battery - Commercially available	
Weight, approx	0.394 kg (0.868 lb)	
Slot width	1	
Module location	ControlLogix chassis, any slot	
Chassis	1756-A4, 1756-A7, 1756-A10, 1756-A13,1756-A17 Series B, Series C	
Wire size	Ethernet connections Ethernet cabling and installation according to IEC 61918 and IEC 61784-5-2	
Wiring category[1]	3 - on USB port 2 - on Ethernet ports	
North American temperature code	T5	
Enclosure type rating	None (open-style)	

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

Environmental Specifications - 1756-CMS1B1, 1756-CMS1C1

Attribute	1756-CMS1B1, 1756-CMS1C1
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)	Series C Chassis: -25 °C < Ta < +60 °C (-13 °F < Ta < +140 °F) Series B Chassis: -25 °C < Ta < +50 °C (-13 °F < Ta < +122 °F)
Temperature, surrounding air, max	Series C Chassis: 60 °C (140 °F) Series B Chassis: 50 °C (122 °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
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