

Removable Terminal Blocks (RTB) Ratings

Model	Torque and Wire Size (Where Applicable)
1756-TBCH	0.5 N-m (4.4 lb-in) Single wire connection: 0.33...2.1 mm ² (22...14 AWG) solid or stranded copper wire rated at 90 °C (194 °F), or greater, 1.2 mm (3/64 in.) insulation max Double wire connection: 0.33...1.3 mm ² (22...16 AWG) solid or stranded copper wire rated at 90 °C (194 °F), or greater, 1.2 mm (3/64 in.) insulation max Do not wire more than two conductors on any single terminal.
1756-TBNH	1.36 N-m (12 lb-in) 0.33...2.1 mm ² (22...14 AWG) solid or stranded copper wire rated at 90 °C (194 °F), or greater, 1.2 mm (3/64 in.) insulation max Do not wire more than two conductors on any single terminal.
1756-TBS6H	0.33...2.1 mm ² (22...14 AWG) solid or stranded copper wire rated at 90 °C (194 °F), or greater, 1.2 mm (3/64 in.) insulation max Do not wire more than one conductor on any single terminal.
1756-TBSH	0.33...2.1 mm ² (22...14 AWG) solid or stranded copper wire rated at 90 °C (194 °F), or greater, 1.2 mm (3/64 in.) insulation max Do not wire more than one conductor on any single terminal.

Additional Resources

Resource	Description
ControlLogix I/O Modules Specifications Technical Data, publication 1756-TD002	Specifications, wiring diagrams, and schematics for ControlLogix I/O modules.
ControlLogix Digital I/O Modules User Manual, publication 1756-UM058	Install, configure, operate, and maintain ControlLogix digital I/O modules.
ControlLogix Analog I/O Modules User Manual, publication 1756-UM009	Install, configure, operate, and maintain ControlLogix analog I/O modules.
ControlLogix High Speed Analog I/O Module User Manual, publication 1756-UM005	Install, configure, operate, and maintain the 1756-IF4FX0F2F module.
ControlLogix Configurable Flowmeter Module User Manual, publication 1756-UM010	Install, configure, operate, and maintain the 1756-CFM module.
ControlLogix High-speed Counter Module User Manual, publication 1756-UM007	Install, configure, operate, and maintain the 1756-HSC module.
ControlLogix Low-speed Counter Module User Manual, publication 1756-UM536	Install, configure, operate, and maintain the 1756-LSC8XIB8I module.
ControlLogix Programmable Limit Switch Module User Manual, publication 1756-UM002	Install, configure, operate, and maintain the 1756-PLS module.
ControlLogix Sequence of Events Modules User Manual, publication 1756-UM528	Install, configure, operate, and maintain the 1756-IB16ISOE and 1756-IH16ISOE modules.
ControlLogix HART Analog I/O Modules User Manual, publication 1756-UM533	Install, configure, operate, and maintain the ControlLogix HART analog I/O modules.
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	Provides general guidelines for installing a Rockwell Automation industrial system.
Product Certifications website, http://www.ab.com	Provides declarations of conformity, certificates, and other certification details.

To view or download publications, go to <http://www.rockwellautomation.com/literature> and search documents under I/O. To order paper copies of technical documentation, contact your local Allen-Bradley® distributor or Rockwell Automation sales representative.

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1756 ControlLogix Digital, Analog, and Specialty I/O Modules

Environment and Enclosure



ATTENTION:

- Before installing, configuring, operating or maintaining this product, read this document and the documents listed in the Additional Resources section for installing, configuring, or operating equipment. Users should familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards.
- Installation, adjustments, putting into service, use, assembly, disassembly, and maintenance shall be carried out by suitably trained personnel in accordance with applicable code of practice. In case of malfunction or damage, no attempts at repair should be made. The module should be returned to the manufacturer for repair. Do not dismantle the module.
- If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
- This equipment is certified for use only within the surrounding air temperature range of 0...60 °C (32...140 °F). The equipment must not be used outside of this range.
- Solid state equipment has operational characteristics differing from those of electromechanical equipment. Safety Guidelines for the Application, Installation and Maintenance of Solid State Controls, publication SGI-1.1, available from your local Rockwell Automation sales office or online at <http://www.rockwellautomation.com/literature> describes some important differences between solid state equipment and hard-wired electromechanical devices.

IMPORTANT

Any illustrations, charts, sample programs, and layout examples shown in this publication are intended solely for the purposes of example. Since there are many variables and requirements associated with any particular installation, Rockwell Automation does not assume responsibility or liability for actual use based upon the examples shown in this publication.



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ATTENTION: This equipment is intended for use in a Pollution Degree 2 industrial environment, in overvoltage Category II applications (as defined in IEC 60664-1), at altitudes up to 2000 m (6562 ft) without derating.

This equipment is considered Group 1, Class A industrial equipment according to IEC/CISPR 11. Without appropriate precautions, there may be difficulties with electromagnetic compatibility in residential and other environments due to conducted and radiated disturbances.

ATTENTION: This equipment is supplied as open-type equipment. It must be mounted within an enclosure that is suitably designed for those specific environmental conditions that will be present and appropriately designed to prevent personal injury resulting from accessibility to live parts. The enclosure must have suitable flame-retardant properties to prevent or minimize the spread of flame, complying with a flame spread rating of SVA or be approved for the application if non-metallic. The interior of the enclosure must be accessible only by the use of a tool. Subsequent sections of this publication may contain additional information regarding specific enclosure type ratings that are required to comply with certain product safety certifications.

In addition to this publication, see:

- Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1, for additional installation requirements.
- NEMA 250 and IEC 60529, as applicable, for explanations of the degrees of protection provided by different types of enclosure.

North American Hazardous Location Approval

The following information applies when operating this equipment in hazardous locations. Products marked "CL I, DIV 2, GP A, B, C, D" are suitable for use in Class I Division 2 Groups A, B, C, D, Hazardous Locations and nonhazardous locations only. Each product is supplied with markings on the rating nameplate indicating the hazardous location temperature code. When combining products within a system, the most adverse temperature code (lowest "T" number) may be used to help determine the overall temperature code of the system. Combinations of equipment in your system are subject to investigation by the local authority having jurisdiction at the time of installation.



WARNING: EXPLOSION HAZARD

- Do not disconnect equipment unless power has been removed or the area is known to be nonhazardous.
- Do not disconnect connections to this equipment unless power has been removed or the area is known to be nonhazardous. Secure any external connections that mate to this equipment by using screws, sliding latches, threaded connectors, or other means provided with this product.
- Substitution of components may impair suitability for Class I, Division 2.
- If this product contains batteries, they must be changed only in an area known to be nonhazardous.

Informations sur l'utilisation de cet équipement en environnements dangereux:

Les produits marqués "CL I, DIV 2, GP A, B, C, D" ne conviennent qu'à une utilisation en environnements de Classe I Division 2 Groupes A, B, C, D dangereux et non dangereux. Chaque produit est livré avec des marquages sur sa plaque d'identification qui indiquent le code de température pour les environnements dangereux. Lorsque plusieurs produits sont combinés dans un système, le code de température le plus défavorable (code de température le plus faible) peut être utilisé pour déterminer le code de température global du système. Les combinaisons d'équipements dans le système sont sujettes à inspection par les autorités locales qualifiées au moment de l'installation.



WARNING: RISQUE D'EXPLOSION

- Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher l'équipement.
- Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher les connecteurs. Fixer tous les connecteurs externes reliés à cet équipement à l'aide de vis, loquets coulissants, connecteurs filetés ou autres moyens fournis avec ce produit.
- La substitution de composants peut rendre cet équipement inadapté à une utilisation en environnement de Classe I, Division 2.
- S'assurer que l'environnement est classé non dangereux avant de changer les piles.

European Hazardous Location Approval

The following applies to products marked II 3 G. Such modules:

- are Equipment Group II, Equipment Category 3, and comply with the Essential Health and Safety Requirements relating to the design and construction of such equipment given in Annex II to Directive 94/9/EC. See the EC Declaration of Conformity at <http://www.rockwellautomation.com> for details. The type of protection used is "Ex nA IIC T- or Ex nC IIC T-" according to EN 60079-15. The specific temperature code is documented in the Additional Resources section and must be verified by the installer by comparing it with the temperature code marked on the product.
- are intended for use in areas in which explosive atmospheres caused by gases, vapors, mists, or air or dust mixtures are unlikely to occur, or are likely to occur only infrequently and for short periods. Such locations correspond to Zone 2 classification according to ATEX directive 1999/92/EC.



WARNING: Special Conditions for Safe Use:

- This equipment must be installed in an enclosure providing at least IP54 protection when applied in Zone 2 environments.
- This equipment shall be used within its specified ratings defined by Rockwell Automation.
- Provision shall be made to prevent the rated voltage from being exceeded by transient disturbances of more than 40% when applied in Zone 2 environments.
- This equipment must be used only with ATEX certified Rockwell Automation backplanes.
- Secure any external connections that mate to this equipment by using screws, sliding latches, threaded connectors, or other means provided with this product.
- Do not disconnect equipment unless power has been removed or the area is known to be nonhazardous.

Specifications

Attribute	1756-EN2T, 1756-EN2TK, 1756-EN2TP, 1756-EN2TPK, 1756-EN2TR, 1756-EN2TRK, 1756-EN2TSC, 1756-EN3TR, 1756-EN3TRK	1756-EN4TR, 1756-EN4TRK	1756-EN2TXT, 1756-EN2TRXT, 1756-EN2TPKT	1756-EN4TRXT
Voltage and current ratings	5.1V DC, 1 A	5.1V DC, 1.2 A	5.1V DC, 1 A	5.1V DC, 1.2 A
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 ≤ Ta ≤ +60 °C (+32 ≤ Ta ≤ +140 °F)	For Series C Chassis: • 0 ≤ Ta ≤ +60 °C (+32 ≤ Ta ≤ +140 °F) For Series B Chassis: • 0 ≤ Ta ≤ +50 °C (+32 ≤ Ta ≤ +122 °F)	-25 ≤ Ta ≤ +70 °C (-13 ≤ Ta ≤ +158 °F)	
Temperature, surrounding air	60 °C (140 °F)	For Series C Chassis: • 60 °C (140 °F) For Series B Chassis: • 50 °C (122 °F)	70 °C (158 °F)	
Enclosure type rating	None (open-style)			
Isolation voltage	30V (continuous), Basic Insulation Type, Ethernet to Backplane, USB to Backplane, and USB to Ethernet, Type tested at 860V AC for 60 s			
Wire size	Ethernet connections: RJ45 connector according to IEC 60603-7, 2 or 4 pair Category 5e minimum cable according to TIA 568-B.1 or Category 5 cable according to ISO/IEC 11801-3.	Ethernet connections: RJ45 connector according to IEC 60603-7, 4 pair Category 5e minimum cable according to TIA 568-B.1 or Category 5 cable according to ISO/IEC 11801-3.	Ethernet connections: RJ45 connector according to IEC 60603-7, 2 or 4 pair Category 5e minimum cable according to TIA 568-B.1 or Category 5 cable according to ISO/IEC 11801-3.	Ethernet connections: RJ45 connector according to IEC 60603-7, 4 pair Category 5e minimum cable according to TIA 568-B.1 or Category 5 cable according to ISO/IEC 11801-3.
North American temp code	T4A			
ATEX temp code	T4			
IECEx temp code	T4			

Additional Resources

These resources contain information about related products from Rockwell Automation.

Resource	Description
EtherNet/IP Modules Installation Instructions, publication ENET-IN002	Provides details on how to install and configure EtherNet/IP communication modules.
Ethernet Design Considerations Reference Manual, publication ENET-RM002	Provides details about how to use EtherNet/IP communication modules with Logix 5000™ controllers and communicate with other devices on the EtherNet/IP network.
EtherNet/IP Secure Communication User Manual, publication ENET-UM003	Provides information on system architecture, configuring secure communication, and diagnostics.
EtherNet/IP Network Configuration User Manual, publication ENET-UM001	Describes how you can use EtherNet/IP communication modules with your Logix 5000 controller and communicate with various devices on the Ethernet network.
EtherNet/IP Embedded Switch Technology Application Guide, publication ENET-AP005	Provides details about how to install, configure, and maintain linear and Device Level Ring (DLR) networks by using Rockwell Automation EtherNet/IP devices that are equipped with embedded switch technology.
EtherNet/IP Media Planning and Installation Manual This manual is available from the Open DeviceNet Vendor Association (ODVA) at http://www.odva.org	Provides details about how to use the required media components and provides information on how to plan for, install, verify, troubleshoot, and certify your EtherNet/IP network.

You can view or download Rockwell Automation publications at <http://www.rockwellautomation.com/literature/>.

To order paper copies of technical documentation, contact your local Allen-Bradley distributor or Rockwell Automation sales representative.

Rockwell Automation maintains current product environmental information on its website at <http://www.rockwellautomation.com/rockwellautomation/about-us/sustainability/ethics/product-environmental-compliance.page>.

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**ATTENTION:**

- Read this document and the documents listed in the Additional Resources section about installation, configuration, and operation of this equipment before you install, configure, operate, or maintain this product. Users are required to familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards.
- Installation, adjustments, putting into service, use, assembly, disassembly, and maintenance shall be carried out by suitably trained personnel in accordance with applicable code of practice. In case of malfunction or damage, no attempts at repair should be made. The module should be returned to the manufacturer for repair. Do not dismantle the module.
- If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
- This equipment is certified for use only within the surrounding air temperature range of 0...60 °C (32...140 °F) [1756-EN2T, 1756-EN2TP, 1756-EN2TPK, 1756-EN2TR, 1756-EN2TSC, 1756-EN3TR, 1756-EN4TR (Series C Chassis only), 1756-EN4TRK (Series C Chassis only)], 0...50 °C (32...122 °F) [1756-EN4TR (Series B Chassis), 1756-EN4TRK (Series B Chassis)], or -25...+70 °C (-13...+158 °F) [1756-EN2TXT, 1756-EN2TRXT, 1756-EN2TPXT, 1756-EN4TRXT]. The equipment must not be used outside of this range.
- Use only a soft dry anti-static cloth to wipe down equipment. Do not use any cleaning agents.
- The USB port is intended for temporary local programming purposes only and not intended for permanent connection.
- The USB cable is not to exceed 3.0 m (9.84 ft) and must not contain hubs.

IMPORTANT

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Environment and Enclosure

ATTENTION: This equipment is intended for use in a Pollution Degree 2 industrial environment, in overvoltage Category II applications (as defined in IEC/EN 60664-1), at altitudes up to 2000 m (6562 ft) without derating.

This equipment is not intended for use in residential environments and may not provide adequate protection to radio communication services in such environments. This equipment is supplied as open-type equipment for indoor use. It must be mounted within an enclosure that is suitably designed for those specific environmental conditions that will be present and appropriately designed to prevent personal injury resulting from accessibility to live parts. The enclosure must have suitable flame-retardant properties to prevent or minimize the spread of flame, complying with a flame spread rating of 5VA or be approved for the application if non-metallic. The interior of the enclosure must be accessible only by the use of a tool. Subsequent sections of this publication may contain more information regarding specific enclosure type ratings that are required to comply with certain product safety certifications.

In addition to this publication, see the following:

- Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1, for more installation requirements.
- NEMA Standard 250 and IEC/EN 60529, as applicable, for explanations of the degrees of protection provided by enclosures.

North American Hazardous Location Approval

The following information applies when operating this equipment in hazardous locations: Products marked "CL 1, DIV 2, GP A, B, C, D" are suitable for use in Class I Division 2 Groups A, B, C, D, Hazardous Locations and nonhazardous locations only. Each product is supplied with markings on the rating nameplate indicating the hazardous location temperature code. When combining products within a system, the most adverse temperature code (lowest "T" number) may be used to help determine the overall temperature code of the system. Combinations of equipment in your system are subject to investigation by the local authority having jurisdiction at the time of installation.

**WARNING: EXPLOSION HAZARD**



- Do not disconnect equipment unless power has been removed or the area is known to be nonhazardous.
- Do not disconnect connections to this equipment unless power has been removed or the area is known to be nonhazardous. Secure any external connections that mate to this equipment by using screws, sliding latches, threaded connectors, or other means provided with this product.
- Substitution of components may impair suitability for Class I, Division 2.
- If this product contains batteries, they must be changed only in an area known to be nonhazardous.

Informations sur l'utilisation de cet équipement en environnements dangereux:
Les produits marqués "CL 1, DIV 2, GP A, B, C, D" ne conviennent qu'à une utilisation en environnements de Classe I Division 2 Groupes A, B, C, D dangereux et non dangereux. Chaque produit est livré avec des marquages sur sa plaque d'identification qui indiquent le code de température pour les environnements dangereux. Lorsque plusieurs produits sont combinés dans un système, le code de température le plus défavorable (code de température le plus faible) peut être utilisé pour déterminer le code de température global du système. Les combinaisons d'équipements dans le système sont sujettes à inspection par les autorités locales qualifiées au moment de l'installation.

**AVERTISSEMENT: RISQUE D'EXPLOSION**

- Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher l'équipement.
- Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher les connecteurs. Fixer tous les connecteurs externes reliés à cet équipement à l'aide de vis, loquets coulissants, connecteurs filetés ou autres moyens fournis avec ce produit.
- La substitution de composants peut rendre cet équipement inadapté à une utilisation en environnement de Classe I, Division 2.
- S'assurer que l'environnement est classé non dangereux avant de changer les piles.

European Hazardous Location Approval

The following applies to products marked   II 3 G.

- Such modules are Equipment Group II, Equipment Category 3, and comply with the Essential Health and Safety Requirements relating to the design and construction of such equipment given in Annex II to Directive 2014/34/EU. See the EC Declaration of Conformity at <http://www.rockwellautomation.com/products/certification> for details.
- The type of protection for the 1756-EN2T, 1756-EN2TP, 1756-EN2TPXT, 1756-EN2TR, 1756-EN2TRXT, 1756-EN2TSC, 1756-EN2TXT, and 1756-EN3TR is "Ex nA IIC T4 Gc" according to EN 60079-15.
- The type of protection for the 1756-EN4TR, 1756-EN4TRK, and 1756-EN4TRXT is "Ex ec IIC T4 Gc" according to EN 60079-0 and EN 60079-7.
- The modules 1756-EN2T, 1756-EN2TP, 1756-EN2TPXT, 1756-EN2TR, 1756-EN2TRXT, 1756-EN2TSC, 1756-EN2TXT, and 1756-EN3TR comply to standards: EN 60079-0:2012+A11:2013, EN 60079-15:2010, reference certificate number DEMKO13ATEX1325026X.
- The modules 1756-EN4TR, 1756-EN4TRK, and 1756-EN4TRXT comply to standards: EN IEC 60079-0:2018, EN 60079-7:2015+A1:2018, reference certificate number DEMKO18ATEX2139X.
- Such modules may have catalog numbers followed by a "K" to indicate conformal coating option.
- These modules are intended for use in areas in which explosive atmospheres caused by gases, vapors, mists, or air are unlikely to occur, or are likely to occur only infrequently and for short periods. Such locations correspond to Zone 2 classification according to ATEX directive 2014/34/EU.

**WARNING: Special Conditions for Safe Use:**

- This equipment is not resistant to sunlight or other sources of UV radiation.
- This equipment shall be used within its specified ratings defined by Rockwell Automation.
- Provision shall be made to prevent the rated voltage from being exceeded by transient disturbances of more than 140% of the peak rated voltage when applied in Zone 2 environments.
- The instructions in the user manual shall be observed.
- This equipment must be used only with ATEX/IECEx certified Rockwell Automation backplanes.
- Secure any external connections that mate to this equipment by using screws, sliding latches, threaded connectors, or other means provided with this product.
- Do not disconnect equipment unless power has been removed or the area is known to be nonhazardous.
- 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.
- For the 1756-EN4TR, 1756-EN4TRK, and 1756-EN4TRXT:
 - The equipment shall only be used in an area of at least pollution degree 2, as defined in IEC/EN 60664-1.
 - The equipment shall be installed in an enclosure with tool removable door or cover that provides a degree of protection not less than IP 54 in accordance with IEC/EN 60079-0.



At the end of its life, this equipment should be collected separately from any unsorted municipal waste.

IEC Hazardous Location Approval

The following applies to products with IECEx certification:

- Such modules are intended for use in areas in which explosive atmospheres caused by gases, vapors, mists, or air are unlikely to occur, or are likely to occur only infrequently and for short periods. Such locations correspond to Zone 2 classification to IEC 60079-0.
- The type of protection for catalog numbers 1756-EN2T, 1756-EN2TP, 1756-EN2TR, 1756-EN2TPXT, 1756-EN2TRXT, 1756-EN2TSC, 1756-EN2TXT, and 1756-EN3TR is "Ex nA IIC T4 Gc" according to IEC 60079-15.
- The type of protection for catalog numbers 1756-EN4TR, 1756-EN4TRK, and 1756-EN4TRXT is "Ex ec IIC T4 Gc" according to IEC 60079-0 and IEC 60079-7.
- Such modules may have catalog numbers followed by a "K" to indicate the conformal coating option.
- The modules 1756-EN2T, 1756-EN2TP, 1756-EN2TR, 1756-EN2TPXT, 1756-EN2TRXT, 1756-EN2TSC, 1756-EN2TXT, and 1756-EN3TR comply to Standards IEC 60079-0:2011, IEC 60079-15:2010, reference IECEx certificate number IECEx14.0008X.
- The modules 1756-EN4TR, 1756-EN4TRK, and 1756-EN4TRXT comply to Standards IEC 60079-0, Edition 7, and IEC 60079-7, Edition 5.1, reference IECEx certificate number IECExUL18.0130X.

Prevent Electrostatic Discharge**ATTENTION:**

- This equipment is sensitive to electrostatic discharge, which can cause internal damage and affect normal operation. Follow these guidelines when you handle this equipment:
- Touch a grounded object to discharge potential static.
- Wear an approved grounding wriststrap.
- Do not touch connectors or pins on component boards.
- Do not touch circuit components inside the equipment.
- Use a static-safe workstation, if available.
- Store the equipment in appropriate static-safe packaging when not in use.

Removal and Insertion Under Power (RIUP)

WARNING: When you insert or remove the module while backplane power is on, an electric arc can occur. This could cause an explosion in hazardous location installations.

Be sure that power is removed or the area is nonhazardous before proceeding. Repeated electric arcing causes excessive wear to contacts on both the module and its mating connector. Worn contacts may create electrical resistance that can affect module operation.

Multi-point Network Communication

WARNING: If you connect or disconnect the communication cable with power applied to this module or any device on the network, an electric arc can occur. This could cause an explosion in hazardous location installations.

Be sure that power is removed or the area is nonhazardous before proceeding.

Packing List
装箱单

Seller(卖方公司):Xiamen Rongfeng Electrical Equipment Co., Ltd.
 Contact person(联系人):Yawen Phone NO(电话):+86 13376987741
 Address(地址):9B, Huguang Building, Hubin Sili, Siming District, Xiamen City, Fujian

Buyer(买方公司):AL HILLO TRADING CO W.L.L.
 Contact person(联系人): Nimal Prakash Phone NO(电话): (+973) 17770615
 Address(地址):Building No:907,Road No:3922,East Riffa 939,P.O.Box:37601,East Riffa,Kingdom of Bahrain.

size:30.5*25*20.5

NO of pkgs (箱数)	Name of goods (商品名称)	Quantity (数量)	Unit (单位)	Net weight(KG)	Gross weight(KG)
1	Bently 1900/65A-01-01-03-00-01 HMI controller	1	pcs	1.37	2.08

Total No of pkgs:1

Total Net weight(KG):1.37

Total Gross weight(KG):2.08

Seller's signature/chop commando: Yawen Yu



Install the Module

You can install or remove a module while chassis power is applied.



WARNING: When you insert or remove the module while backplane power is on, an electric arc can occur. The insertion or removal of the module while the backplane power is on can cause an explosion in hazardous location installations. Be sure that power is removed or the area is nonhazardous before proceeding. Repeated electric arcs can cause excessive wear to contacts on both the module and its mating connector. Worn contacts can create electrical resistance that can affect module operation.

For equipment with multi-point network communication connections.



WARNING: If you connect or disconnect the communication cable with power that is applied to this module or any device on the network, an electric arc can occur. This connection or disconnection of the module with applied power can cause an explosion in hazardous location installations. Be sure that power is removed or the area is nonhazardous before proceeding.



ATTENTION: If you are using the 1756-EN4TR or 1756-EN4TRK above 50 °C (122 °F), it must be installed in a Series C chassis.



ATTENTION: In order to operate over its full rated temperature range, the 1756-EN4TRXT must be used with a Series CXT Chassis.

Follow these steps to install the module.

- Set the network IP address on a module.

For more information about how to configure an EtherNet/IP network, see the EtherNet/IP Network Configuration User Manual, publication ENET-UM001.

Depending on the 1756 EtherNet/IP communication module, you can use some or all of these tools to set the network Internet Protocol (IP) address:

 - Rotary switches
 - Bootstrap Protocol (BOOTP)/Dynamic Host Configuration Protocol (DHCP) server
 - RSLinx® Classic software
 - The Studio 5000® environment

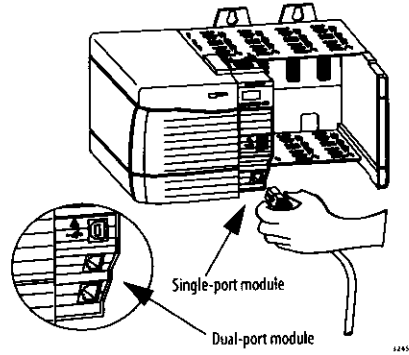
The module uses these tools sequentially to set the IP address.
- Determine module slot location.
- Install the module.
 - Align the circuit board with top and bottom guides in the chassis.
 - Slide the module into the chassis.

Make sure that the module backplane connector properly connects to the chassis backplane. The module is properly installed when it is flush with the power supply or other installed modules.
- Connect the module to an EtherNet/IP network via an RJ45 connection.



Connector Number	Color	1585J 8-pin Cables with Support for 10/100/1000 Mbps	1585J 8-pin Cables with Support for 10/100 Mbps	1585I 4-pin Cables with Support for 10/100 Mbps
1	White/Orange	BI_DA+	TxData +	
2	Orange	BI_DA-	TxData -	
3	White/Green	BI_DB+	Recv Data +	
4	Blue	BI_DC+	Unused	N/A
5	White/Blue	BI_DC-	Unused	N/A
6	Green	BI_DB-	Recv Data -	
7	White/Brown	BI_DD+	Unused	N/A
8	Brown	BI_DD-	Unused	N/A

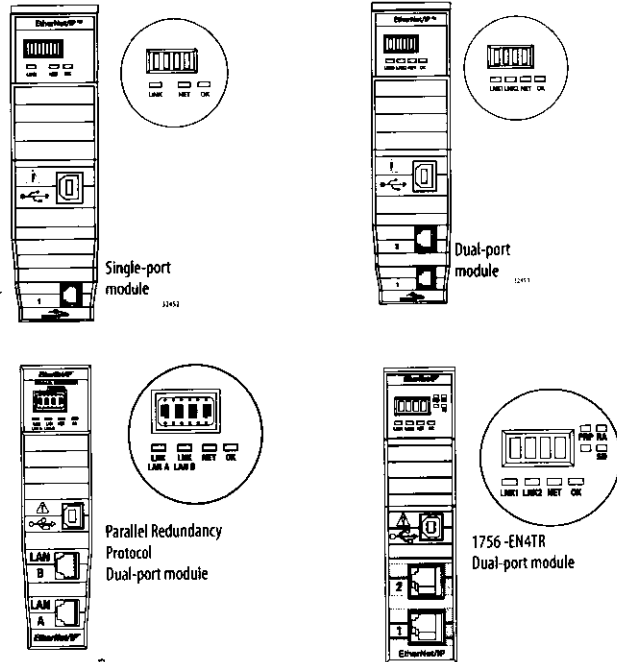
- Attach the cable with the RJ45 connector to the Ethernet port on the module as shown.



- Download the Add-on Profile from the Product Compatibility and Download website at <http://www.ab.com>.
- Connect to the module via the USB port (if the module is equipped with a USB port).
- Download the firmware from the Product Compatibility and Download website at <http://www.ab.com>.
- Apply chassis power and check status indicators.

Status Indicators

These 1756 EtherNet/IP communication modules use the same status indicators. This graphic shows the front of the module for these modules (Extended-temperature modules not shown.)



For more information on the status indicators, see the EtherNet/IP Modules Installation Instructions, publication ENET-IN002.

Network Connectors and Cable

This product includes a USB port.



WARNING: The USB ports are intended only for temporary use and must not be connected or disconnected unless the area is nonhazardous. Do not use the USB port in hazardous locations. The USB cable is not to exceed 3.0 m (9.84 ft) and must not contain hubs.

Modules	Ports	Requirements
EtherNet/IP	Copper Ethernet	Connector/cable: RJ45 connector according to IEC 60603-7, 2 or 4 pair Category 5e minimum cable according to TIA 568-B.1 or Category 5 cable according to ISO/IEC 11801-3. Connector/cable: For 1756-EN4TR, 1756-EN4TRK, and 1756-EN4TRXT, RJ45 connector according to IEC 60603-7, 4 pair Category 5e minimum cable according to TIA 568-B.1 or Category 5 cable according to ISO/IEC 11801-3.