



## 1756 EtherNet/IP Communication Modules

Standard Catalog Numbers: 1756-EN2T, 1756-EN2TP, 1756-EN2TR, 1756-EN3TR, 1756-EN4TR

Harsh Environment Catalog Numbers: 1756-EN2TK, 1756-EN2TPK, 1756-EN2TRK, 1756-EN3TRK, 1756-EN4TRK,  
1756-EN2TPXT, 1756-EN2TRXT, 1756-EN2TXT, 1756-EN4TRXT

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### Summary of Changes

This publication contains the following new or updated information. This list includes substantive updates only and is not intended to reflect all changes.

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Added ControlLogix-ZXT chassis installation information	5
Added 1756-EN4TRXT/B information	Throughout



**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.

Activities including installation, adjustments, putting into service, use, assembly, disassembly, and maintenance are required to be carried out by suitably trained personnel in accordance with applicable code of practice. If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

注意：在安装、配置、操作和维护本产品前，请阅读本文档以及“其他资源”部分列出的有关设备安装、配置和操作的相应文档。除了所有适用规范、法律和标准的相关要求之外，用户还必须熟悉安装和接线说明。

安装、调整、投运、使用、组装、拆卸和维护等各项操作必须由经过适当训练的专业人员按照适用的操作规范实施。

如果未按照制造商指定的方式使用该设备，则可能会损害设备提供的保护。

**ATENCIÓN:** Antes de instalar, configurar, poner en funcionamiento o realizar el mantenimiento de este producto, lea este documento y los documentos listados en la sección Recursos adicionales acerca de la instalación, configuración y operación de este equipo. Los usuarios deben familiarizarse con las instrucciones de instalación y cableado y con los requisitos de todos los códigos, leyes y estándares vigentes.

El personal debidamente capacitado debe realizar las actividades relacionadas a la instalación, ajustes, puesta en servicio, uso, ensamblaje, desensamblaje y mantenimiento de conformidad con el código de práctica aplicable. Si este equipo se usa de una manera no especificada por el fabricante, la protección provista por el equipo puede resultar afectada.

**ATENÇÃO:** Leia este e os demais documentos sobre instalação, configuração e operação do equipamento que estão na seção Recursos adicionais antes de instalar, configurar, operar ou manter este produto. Os usuários devem se familiarizar com as instruções de instalação e fiação além das especificações para todos os códigos, leis e normas aplicáveis.

É necessário que as atividades, incluindo instalação, ajustes, colocação em serviço, utilização, montagem, desmontagem e manutenção sejam realizadas por pessoal qualificado e especializado, de acordo com o código de prática aplicável.

Caso este equipamento seja utilizado de maneira não estabelecida pelo fabricante, a proteção fornecida pelo equipamento pode ficar prejudicada.

**ВНИМАНИЕ:** Перед тем как устанавливать, настраивать, эксплуатировать или обслуживать данное оборудование, прочитайте этот документ и документы, перечисленные в разделе «Дополнительные ресурсы». В этих документах изложены сведения об установке, настройке и эксплуатации данного оборудования. Пользователи обязаны ознакомиться с инструкциями по установке и прокладке соединений, а также с требованиями всех применимых норм, законов и стандартов.

Все действия, включая установку, наладку, ввод в эксплуатацию, использование, сборку, разборку и техническое обслуживание, должны выполняться обученным персоналом в соответствии с применимыми нормами и правилами.

Если оборудование используется не предусмотренным производителем образом, защита оборудования может быть нарушена.

注意：本製品を設置、構成、稼働または保守する前に、本書および本機器の設置、設定、操作についての参考資料の該当箇所に記載されている文書に目を通してください。ユーザは、すべての該当する条例、法律、規格の要件に加えて、設置および配線の手順に習熟している必要があります。

設置調整、運転の開始、使用、組立て、解体、保守を含む諸作業は、該当する実施規則に従って訓練を受けた適切な作業員が実行する必要があります。

本機器が製造メーカーにより指定されていない方法で使用されている場合、機器により提供されている保護が損なわれる恐れがあります。

**ACHTUNG:** Lesen Sie dieses Dokument und die im Abschnitt „Weitere Informationen“ aufgeführten Dokumente, die Informationen zu Installation, Konfiguration und Bedienung dieses Produkts enthalten, bevor Sie dieses Produkt installieren, konfigurieren, bedienen oder warten. Anwender müssen sich neben den Bestimmungen aller anwendbaren Vorschriften, Gesetze und Normen zusätzlich mit den Installations- und Verdrahtungsanweisungen vertraut machen.

Arbeiten im Rahmen der Installation, Anpassung, Inbetriebnahme, Verwendung, Montage, Demontage oder Instandhaltung dürfen nur durch ausreichend geschulte Mitarbeiter und in Übereinstimmung mit den anwendbaren Ausführungsvorschriften vorgenommen werden.

Wenn das Gerät in einer Weise verwendet wird, die vom Hersteller nicht vorgesehen ist, kann die Schutzfunktion beeinträchtigt sein.

**ATTENTION:** Lisez ce document et les documents listés dans la section Ressources complémentaires relatifs à l'installation, la configuration et le fonctionnement de cet équipement avant d'installer, configurer, utiliser ou entretenir ce produit. Les utilisateurs doivent se familiariser avec les instructions d'installation et de câblage en plus des exigences relatives aux codes, lois et normes en vigueur.

Les activités relatives à l'installation, le réglage, la mise en service, l'utilisation, l'assemblage, le démontage et l'entretien doivent être réalisées par des personnes formées selon le code de pratique en vigueur.

Si cet équipement est utilisé d'une façon qui n'a pas été définie par le fabricant, la protection fournie par l'équipement peut être compromise.

주요: 본 제품 설치, 설정, 작동 또는 유지 보수가 하기 전에 본 문서를 포함하여 설치, 설정 및 작동에 관한 참고 자료 섹션의 문서들을 반드시 읽고 숙지하십시오. 사용자는 모든 관련 규정, 법규 및 표준에서 요구하는 사항에 대해 반드시 설치 및 배선 지침을 숙지해야 합니다.

설치, 조정, 가동, 사용, 조립, 분해, 유지보수 등 모든 작업은 관련 규정에 따라 적절한 교육을 받은 사용자를 통해서만 수행해야 합니다.

본 장비를 제조사가 명시하지 않은 방법으로 사용하면 장비의 보호 기능이 손상될 수 있습니다.

**ATTENZIONE:** Prima di installare, configurare ed utilizzare il prodotto, o effettuare interventi di manutenzione su di esso, leggere il presente documento ed i documenti elencati nella sezione "Altre risorse", riguardanti l'installazione, la configurazione ed il funzionamento dell'apparecchiatura. Gli utenti devono leggere e comprendere le istruzioni di installazione e cablaggio, oltre ai requisiti previsti dalle leggi, codici e standard applicabili.

Le attività come installazione, regolazioni, utilizzo, assemblaggio, disassemblaggio e manutenzione devono essere svolte da personale adeguatamente addestrato, nel rispetto delle procedure previste.

Qualora l'apparecchio venga utilizzato con modalità diverse da quanto previsto dal produttore, la sua funzione di protezione potrebbe venire compromessa.

**DİKKAT:** Bu ürünün kurulumu, yapılandırılması, işletilmesi veya bakımı öncesinde bu dokümanı ve bu ekipmanın kurulumu, yapılandırılması ve işletimi ile ilgili ilave Kaynaklar bölümünde yer listelenmiş dokümanları okuyun. Kullanıcılar yürürlükteki tüm yönetmelikler, yasalar ve standartların gereksinimlerine ek olarak kurulum ve kablolama talimatlarını da öğrenmek zorundadır. Kurulum, ayarlama, hizmete alma, kullanma, parçaları birleştirme, parçaları sökme ve bakım gibi aktiviteler sadece uygun eğitimleri almış kişiler tarafından yürürlükteki uygulamaya yönetmeliklerine uygun şekilde yapılabilir.

Bu ekipman üretici tarafından belirlenmiş amacın dışında kullanılırsa, ekipman tarafından sağlanan koruma bozulabilir.

注意事項：在安装、設定、操作或維護本产品前，請先閱讀此文件以及列於「其他資源」章節中有關安裝、設定與操作此設備的文件。使用者必須熟悉安裝和配線指示，並符合所有法規、法律和標準要求。

包括安裝、調整、交付使用、使用、組裝、拆卸和維護等動作都必須交由已經過適當訓練的人員進行，以符合適用的實作法規。

如果將設備用於非製造商指定的用途時，可能會造成設備所提供的保護功能受損。

**POZOR:** Než začnete instalovat, konfigurovat či provozovat tento výrobek nebo provádět jeho údržbu, přečtěte si tento dokument a dokumenty uvedené v části Dodatečné zdroje ohledně instalace, konfigurace a provozu tohoto zařízení. Uživatelé se musejí vedle požadavků všech relevantních vyhlášek, zákonů a norem nutně seznámit také s pokyny pro instalaci a elektrické zapojení.

Činnosti zahrnující instalaci, nastavení, uvedení do provozu, užívání, montáž, demontáž a údržbu musí vykonávat vhodně proškolený personál v souladu s příslušnými prováděcími předpisy. Pokud se toto zařízení používá způsobem neodpovídajícím specifikaci výrobce, může být narušena ochrana, kterou toto zařízení poskytuje.

**UWAGA:** Przed instalacją, konfiguracją, użytkowaniem lub konserwacją tego produktu należy przeczytać niniejszy dokument oraz wszystkie dokumenty wymienione w sekcji Dodatkowe źródła omawiające instalację, konfigurację i procedury użytkowania tego urządzenia. Użytkownicy mają obowiązek zapoznać się z instrukcjami dotyczącymi instalacji oraz oprzewodowania, jak również z obowiązującymi kodeksami, prawem i normami.

Działania obejmujące instalację, regulację, przekazanie do użytkowania, użytkowanie, montaż, demontaż oraz konserwację muszą być wykonywane przez odpowiednio przeszkolony personel zgodnie z obowiązującym kodeksem postępowania.

Jeśli urządzenie jest użytkowane w sposób inny niż określony przez producenta, zabezpieczenie zapewniane przez urządzenie może zostać ograniczone.

**OBS!** Läs detta dokument samt dokumentet, som står listat i avsnittet Övriga resurser, om installation, konfigurering och drift av denna utrustning innan du installerar, konfigurerar eller börjar använda eller utföra underhållsarbete på produkten. Användare måste bekanta sig med instruktioner för installation och kabeldragning, förutom krav enligt gällande koder, lagar och standarder.

Åtgärder som installation, justering, service, användning, montering, demontering och underhållsarbete måste utföras av personal med lämplig utbildning enligt lämpligt bruk.

Om denna utrustning används på ett sätt som inte anges av tillverkaren kan det hända att utrustningens skyddsanordningar försätts ur funktion.

**LET OP:** Lees dit document en de documenten die genoemd worden in de paragraaf Aanvullende informatie over de installatie, configuratie en bediening van deze apparatuur voordat u dit product installeert, configureert, bedient of onderhoudt. Gebruikers moeten zich vertrouwd maken met de installatie en de bedringsinstructies, naast de vereisten van alle toepasselijke regels, wetten en normen.

Activiteiten zoals het installeren, afstellen, in gebruik stellen, gebruiken, monteren, demonteren en het uitvoeren van onderhoud mogen uitsluitend worden uitgevoerd door hiervoor opgeleide personeel en in overeenstemming met de geldende praktijkregels.

Indien de apparatuur wordt gebruikt op een wijze die niet is gespecificeerd door de fabrikant, dan bestaat het gevaar dat de beveiliging van de apparatuur niet goed werkt.

## Product Advisories



**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-EN3TR, 1756-EN4TR, 1756-EN4TRK] 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**

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

### 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 help 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.

### 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.


### North American Hazardous Location Approval

The following information applies when operating this equipment in hazardous locations.	Informations sur l'utilisation de cet équipement en environnements dangereux.
<p>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.</p>	<p>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.</p>
 <p><b>WARNING: Explosion Hazard -</b></p> <ul style="list-style-type: none"> <li>• Do not disconnect equipment unless power has been removed or the area is known to be nonhazardous.</li> <li>• 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.</li> <li>• Substitution of components may impair suitability for Class I, Division 2.</li> <li>• If this product contains batteries, they must only be changed in an area known to be nonhazardous.</li> </ul>	 <p><b>AVERTISSEMENT: Risque d'Explosion -</b></p> <ul style="list-style-type: none"> <li>• Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher l'équipement.</li> <li>• 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.</li> <li>• La substitution de composants peut rendre cet équipement inadapté à une utilisation en environnement de Classe I, Division 2.</li> <li>• S'assurer que l'environnement est classé non dangereux avant de changer les piles.</li> </ul>

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## UK and European Hazardous Location Approval

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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 EU Directive 2014/34/EU and Schedule 1 of the UKEX Regulation 2016 No. 1107. See the UKEX and EU Declaration of Conformity at [rok.auto/certifications](http://rok.auto/certifications) for details.
  - The type of protection is <Ex ec IIC T4 Gc> Equipment protection by increased safety “e”.
  - Equipment protection by increased safety “e”, reference certificate number UL22ATEX2818X and UL22UKEX2604X.
  - 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 UKEX Regulation 2016 No. 1107 and ATEX directive 2014/34/EU.
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## Special Conditions for Safe Use

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### WARNING:

- This equipment is not resistant to sunlight or other sources of UV radiation.
  - This equipment shall be mounted in an UKEX/ATEX/IECEx Zone 2 certified enclosure with a minimum ingress protection rating of at least IP54 (in accordance with EN/IEC 60079-0) and used in an environment of not more than Pollution Degree 2 (as defined in EN/IEC 60664-1) when applied in Zone 2 environments. The enclosure must be accessible only by the use of a tool.
  - This equipment shall be used within its specified ratings defined by Rockwell Automation.
  - Transient protection shall be provided that is set at a level not exceeding 140% of the peak rated voltage at the supply terminals to the equipment.
  - The instructions in the user manual shall be observed.
  - This equipment must be used only with UKEX/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.
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## IEC Hazardous Location Approval

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The following applies to products with IECEx certification. Such products:

- 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.
  - The type of protection is <Ex ec IIC T4 Gc>.
  - IECEx certificate number IECEx UL 22.0063X.
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## Prevent Electrostatic Discharge

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### 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.
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## Removal and Insertion Under Power (RIUP)

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**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.

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## Network Connector and Cable Requirements

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.



**ATTENTION:** The 1756 EtherNet/IP Communication Modules that are listed on [page 1](#) of this document that end with a “K” or “XT” are shipped with port protection plugs installed to provide a layer of protection from corrosive atmospheres. Port plugs must remain installed in unused ports at all times during storage and operation for the product to meet its corrosive atmosphere rating. If temporary access is required, plugs can be removed, and should be reinserted after temporary access is complete.

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.

## 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.

Follow these steps to install the module.

1. Set the network IP address on a module.

For more information about how to configure an EtherNet/IP™ network, see the *EtherNet/IP Network Devices*, publication [ENET-UM006](#).

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 or FactoryTalk® Linx software
- The Studio 5000® environment

The module uses these tools sequentially to set the IP address.

2. Use the Mode Rotary Switch to set the mode on the 1756-EN4TR module.

The rotary switch in the upper left corner of the module is reserved for DLR, PRP, and redundancy features. The default position of the switch is 0.

Switch Position	Capability
9	DLR or Single-port
8	PRP or Single-port
7	Redundant Adapter and DLR or single-port topologies
6	Redundant Adapter and PRP



**ATTENTION:** If the mode rotary switch is set to 9 (DLR), and you insert the module into a PRP network, it can disable the network because it will directly connect PRP LAN A and PRP LAN B.

### IMPORTANT

If you use a redundant adapter pair, the mode rotary switches on each of the two modules in the pair must be set to the same value.

For more information on the mode rotary switch, see the *ControlLogix® EtherNet/IP Network Devices User Manual*, publication [1756-UM004](#).

3. Determine module slot location.
4. If you're using a ControlLogix-ZXT chassis, remove the backplane connector cover from the slot into which you're installing the module.

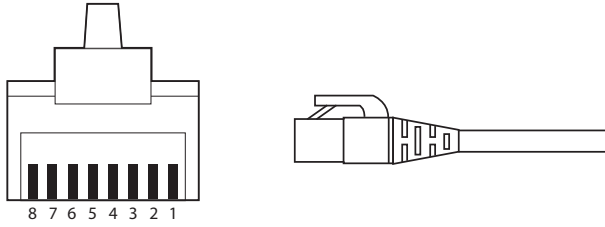


**ATTENTION:** ControlLogix-ZXT chassis are shipped with backplane connector covers installed to provide a layer of protection from corrosive atmospheres. Once the factory packaging seal is broken, these covers must remain installed in unused slots at all times for the chassis to maintain its corrosive atmosphere rating. If the module is later removed, reinstall a backplane connector cover in the vacated slot to maintain the corrosive atmosphere rating of the chassis.

5. Install the module.
  - a. Align the circuit board with top and bottom guides in the chassis.
  - b. Slide the module into the chassis.

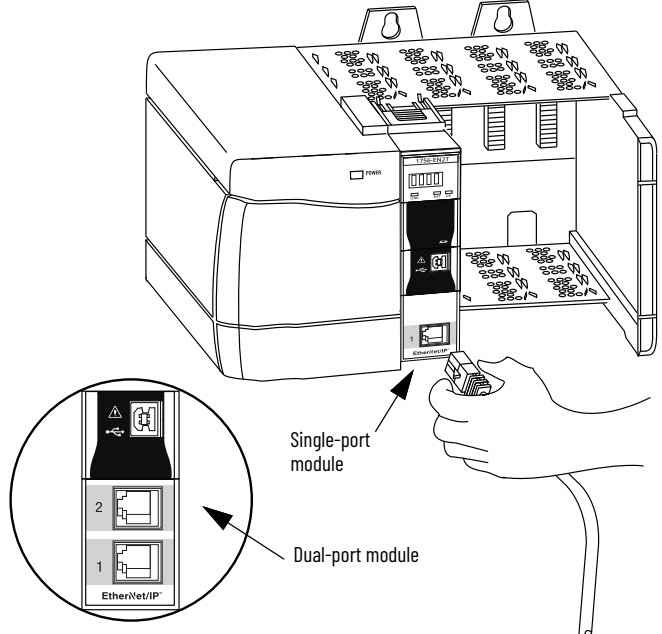
Make sure that the module backplane connector properly connects to the chassis backplane. The module is properly installed when it is flush with the power supply or other installed modules.

- Connect a cable that is equipped with an RJ45 connector to the EtherNet/IP network.



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

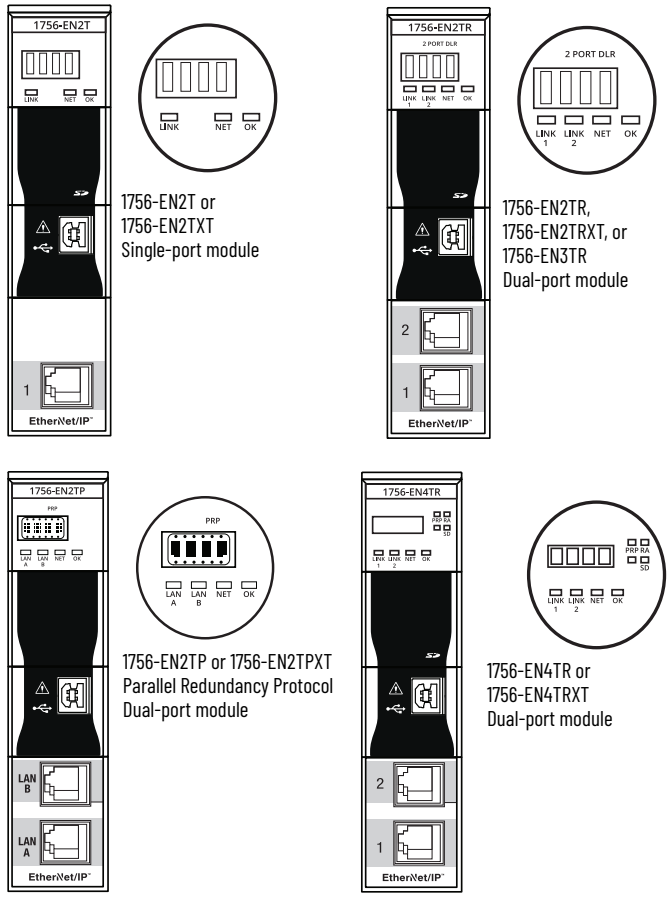
- Attach the other end of the RJ45 cable to the Ethernet port on the module.



- Download the Add-on Profile from the Product Compatibility and Download website at [rok.auto/pcdc](http://rok.auto/pcdc).
- 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 [rok.auto/pcdc](http://rok.auto/pcdc).
- Apply chassis power and check status indicators.

## Status Indicators

This graphic shows the front of various 1756 EtherNet/IP communication modules with similar status indicators.



For more information on the status indicators, see the *ControlLogix EtherNet/IP Network Devices User Manual*, publication [1756-UM004](http://1756-UM004).

## Specifications - 1756 ControlLogix Standard Communication Modules

Attribute	1756-EN2T, 1756-EN2TP, 1756-EN2TR, 1756-EN3TR	1756-EN4TR
Voltage and current ratings	5.1V DC, 1 A	5.1V DC, 1.2 A
Temperature, operating <ul style="list-style-type: none"> <li>IEC 60068-2-1 (Test Ad, Operating Cold)</li> <li>IEC 60068-2-2 (Test Bd, Operating Dry Heat)</li> <li>IEC 60068-2-14 (Test Nb, Operating Thermal Shock)</li> </ul>	$0 \leq T_a \leq +60 \text{ }^\circ\text{C}$ ( $+32 \leq T_a \leq +140 \text{ }^\circ\text{F}$ )	$0 \text{ }^\circ\text{C} \leq T_a \leq +60 \text{ }^\circ\text{C}$ ( $+32 \text{ }^\circ\text{F} \leq T_a \leq +140 \text{ }^\circ\text{F}$ ) for Standard Chassis, Series C $0 \text{ }^\circ\text{C} \leq T_a \leq +50 \text{ }^\circ\text{C}$ ( $+32 \text{ }^\circ\text{F} \leq T_a \leq +122 \text{ }^\circ\text{F}$ ) for Standard Chassis, Series B
Temperature, surrounding air	60 °C (140 °F)	60 °C (140 °F) for Standard Chassis, Series C 50 °C (122 °F) for Standard Chassis, Series B
Conformal Coated	No	
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.
Temperature code	T4	

## Specifications - 1756 ControlLogix Harsh Environment Communication Modules

Attribute	1756-EN2TK, 1756-EN2TPK, 1756-EN2TRK, 1756-EN3TRK	1756-EN2TXT, 1756-EN2TRXT, 1756-EN2TPXT	1756-EN4TRK	1756-EN4TRXT/A	1756-EN4TRXT/B
Voltage and current ratings	5.1V DC, 1 A			5.1V DC, 1.2 A	
Temperature, operating <ul style="list-style-type: none"> <li>IEC 60068-2-1 (Test Ad, Operating Cold)</li> <li>IEC 60068-2-2 (Test Bd, Operating Dry Heat)</li> <li>IEC 60068-2-14 (Test Nb, Operating Thermal Shock)</li> </ul>	$0 \leq T_a \leq +60 \text{ }^\circ\text{C}$ ( $+32 \leq T_a \leq +140 \text{ }^\circ\text{F}$ )	$-25 \leq T_a \leq +70 \text{ }^\circ\text{C}$ ( $-13 \leq T_a \leq +158 \text{ }^\circ\text{F}$ ) for XT Chassis, Series C or ZXT Chassis	$0 \text{ }^\circ\text{C} \leq T_a \leq +60 \text{ }^\circ\text{C}$ ( $+32 \text{ }^\circ\text{F} \leq T_a \leq +140 \text{ }^\circ\text{F}$ ) for Series C Chassis $0 \text{ }^\circ\text{C} \leq T_a \leq +50 \text{ }^\circ\text{C}$ ( $+32 \text{ }^\circ\text{F} \leq T_a \leq +122 \text{ }^\circ\text{F}$ ) for Series B Chassis	$-25 \text{ }^\circ\text{C} \leq T_a \leq +70 \text{ }^\circ\text{C}$ ( $-13 \text{ }^\circ\text{F} \leq T_a \leq +158 \text{ }^\circ\text{F}$ ) for XT Chassis, Series C or ZXT Chassis	$-25 \text{ }^\circ\text{C} \leq T_a \leq +70 \text{ }^\circ\text{C}$ ( $-13 \text{ }^\circ\text{F} \leq T_a \leq +158 \text{ }^\circ\text{F}$ ) for XT Chassis, Series C
Temperature, surrounding air	60 °C (140 °F)	70 °C (158 °F) for XT Chassis, Series C or ZXT Chassis	60 °C (140 °F) for Series C Chassis 50 °C (122 °F) for Series B Chassis	70 °C (158 °F) for XT Chassis, Series C or ZXT Chassis	70 °C (158 °F) for XT Chassis, Series C
Conformal Coated	Yes				
Corrosive Atmosphere <ul style="list-style-type: none"> <li>ASTM B845-97 Method H Accelerated Test (20-Day Exposure)</li> </ul>	Severity Level G3 <sup>(1)</sup> per ANSI/ISA 71.04-2013, Airborne Contaminants—Gases Severity Level CX <sup>(1)(2)</sup> per IEC 60721-3-3:2019, Chemically Active Substances				—
<ul style="list-style-type: none"> <li>ASTM B845-97 Method K Accelerated Test (30-Day Exposure) plus additional Rockwell Automation proprietary accelerated corrosive environment test protocol for specific industries with sources of gaseous sulfur compounds</li> </ul>	—				Severity Level GX <sup>(3)(4)</sup> per ANSI/ISA 71.04-2013, Airborne Contaminants—Gases Severity Level CX <sup>(3)</sup> per IEC 60721-3-3:2019, Chemically Active Substances
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		
Temperature code	T4				

(1) Port plugs/covers must remain installed in unused ports at all times during storage and operation for the product to maintain its corrosive atmosphere rating.

(2) Up to 9.6 microns per year, corrosion rate of copper.

(3) Port plugs/covers must remain installed in unused ports at all times, once the factory packaging seal is broken, for the product to maintain its corrosive atmosphere rating.

(4) Up to 2100 angstroms of film growth per 30 days of copper and/or silver reactivity.

### IMPORTANT

ControlLogix-XT system components are rated for extreme environmental conditions **only** when used properly with other system components that share the same extreme-environment ratings. The extreme-environment ratings of ControlLogix-XT components are nullified when used with other system components that do not share comparable attributes.

**EXAMPLE:** If the temperature rating found in the Technical Data publication for your ControlLogix-XT module is 70 °C and you pair it with a ControlLogix chassis rated for 60 °C, the system is rated 60 °C.

To ensure that your system is equipped for extreme environmental conditions, compare the corrosive atmosphere and temperature ratings found in the Technical Data publication for each system component.

### IMPORTANT

When a ControlLogix-XT module is used as a replacement for a standard ControlLogix module, all functional and environmental requirements of the standard ControlLogix module apply, with the exception of the power output ratings.

## Additional Resources

These resources contain information about related products from Rockwell Automation.

Resource	Description
Ethernet Design Considerations Reference Manual, publication <a href="#">ENET-RM002</a>	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 Network Devices, publication <a href="#">ENET-UM006</a>	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 Secure Communication User Manual, publication <a href="#">ENET-UM003</a>	Provides information on system architecture, configuring secure communication, and diagnostics.
ControlLogix EtherNet/IP Network Devices User Manual, publication <a href="#">1756-UM004</a>	Describes how you can use ControlLogix EtherNet/IP communication modules with a Logix 5000 controller and communicate with various devices on the Ethernet/IP network.
EtherNet/IP Device Level Ring Application Technique, publication <a href="#">ENET-AT007</a>	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, available from the Open DeviceNet® Vendor Association (ODVA) at <a href="https://www.odva.org/">https://www.odva.org/</a>	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 publications at [rok.auto/literature](http://rok.auto/literature).

## Waste Electrical and Electronic Equipment (WEEE)







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

Rockwell Automation maintains current product environmental compliance information on its website at [rok.auto/pec](http://rok.auto/pec).

Your comments help us serve your documentation needs better. If you have any suggestions on how to improve our content, complete the form at [rok.auto/docfeedback](http://rok.auto/docfeedback).

For technical support, visit [rok.auto/support](http://rok.auto/support).

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