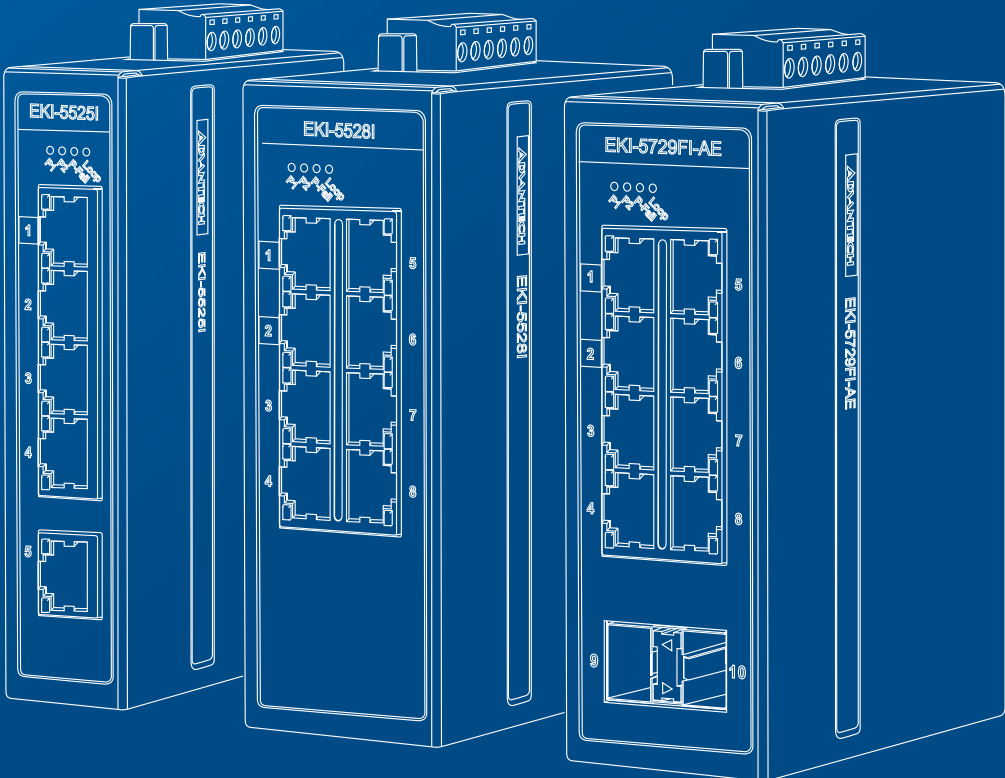


User Manual

EKI-5000 Series

ProView Series Ethernet Switches



P/N: 2020-EKI-5000-01
Version: Edition 4 , 2020/04



Enabling an Intelligent Planet

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Federal Communication Commission Interference Statement

For further certification information, please go to www.advantech.com

Declaration of Conformity

CE

This product has passed the CE test for environmental specifications when shielded cables are used for external wiring. We recommend the use of shielded cables. This kind of cable is available from Advantech. Please contact your local supplier for ordering information.

This product has passed the CE test for environmental specifications. Test conditions for passing included the equipment being operated within an industrial enclosure. In order to protect the product from being damaged by ESD (Electrostatic Discharge) and EMI leakage, we strongly recommend the use of CE-compliant industrial enclosure products.

FCC Class A

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Warnings for Class 1 Division 2

The following statements are required to appear for Class 1 Division 2 requirements

These devices are open-type devices that are to be installed in an enclosure with tool removable cover/door that is suitable for the environment.

WARNING - This equipment is suitable for use in Class I, Division 2, Groups A, B, C, and D or non-hazardous locations only.

WARNING - EXPLOSION HAZARD - Do not connect or disconnect equipment unless power has been removed or the area is known to be non-hazardous."

WARNING - EXPLOSION HAZARD - Substitution of any components may impair suitability for Class I, Division 2."

AVERTISSEMENT - Ce équipement est adapté à une utilisation en Classe I, Division 2, Groupes A, B, C, et D ou non dangereux.

AVERTISSEMENT - RISQUE D'EXPLOSION - Ne pas brancher ou débrancher l'équipement que l'alimentation a été retiré ou la région est connue pour être non dangereux ".

AVERTISSEMENT - RISQUE D'EXPLOSION - Remplacement de tous les composants peut nuire à la conformité de Classe I, Division 2."

ATEX Information

ATEX Directive 94/9/EC (as amended relating to Group II, Category 3 locations)



Standard: EN 60079-0:2012+A11:2013; EN 60079-15:2010

Conditions of safe use:

- The equipment shall only be used in an area of not more than pollution degree 2, as defined in IEC 60664-1.
- The equipment shall be installed in an enclosure that provides a degree of protection not less than IP 54 in accordance with EN 60079-15 and accessible only by the use of a tool.
- Transient protection shall be provided that is set at a level not exceeding 140 % of the peak rated voltage value at the supply terminals to the equipment.

Safety Instructions

- Read these safety instructions carefully.
- Keep this user manual for later reference.
- Disconnect this equipment from any AC outlet before cleaning. Use damp cloth. Do not use liquid or spray detergents for cleaning.
- For plug-in equipment, the power outlet socket must be located near the equipment and must be easily accessible.
- Keep this equipment away from humidity.
- Put this equipment on a reliable surface during installation. Dropping it or letting it fall may cause damage.
- The openings on the enclosure are for air convection. Protect the equipment from overheating. **DO NOT COVER THE OPENINGS.**
- Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
- Position the power cord so that people cannot step on it. Do not place anything over the power cord.
- All cautions and warning on the equipment should be noted.
- If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient over voltage.
- Never pour any liquid into an opening. This may cause fire or electrical shock.
- Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.

- If one of the following situations arises, get the equipment checked by service personnel:
 - The power cord or plug is damaged.
 - Liquid has peretrated into the equipment.
 - The equipment has been exposed to moisture.
 - The equipment does not work well, or you cannot get it to work according to the user manual
 - The equipment has been dropped and damaged.
 - The equipment has obvious signs of breakage.
- Instructions for installation in a pollution Degree 2 environment or equivalent statement.
- PoE requirements:
This product was in-door used and not connected to outside plant, so user manual shall have the description as below or equivalent: “The equipment is to be connected only to PoE networks without routing to the outside plant.”
- Do NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT WHERE THE STORAGE TEMPERATURE MAY GO BELOW -40°C(-40°F) OR ABOVE 75°C(167°F) THIS COULD DAMAGE THE EQUIPMENT. THE EQUIPMENT SHOULD BE IN A CONTROLLED ENVIRONMENT.

Product Warranty (5 years)

Company Address:

ADVANTECH CO.,LTD. (研華股份有限公司)

1 ALY 20 LN 26 RUEIGUANG RD NEIHU DISTRICT TAIPEI 114 TAIWAN

Advantech warrants to you, the original purchaser, that each of its products will be free from defects in materials and workmanship for five years from the date of purchase.

This warranty does not apply to any products which have been repaired or altered by persons other than repair personnel authorized by Advantech, or which have been subject to misuse, abuse, accident or improper installation. Advantech assumes no liability under the terms of this warranty as a consequence of such events.

Because of Advantech’s high quality-control standards and rigorous testing, most of our customers never need to use our repair service. If an Advantech product is defective, it will be repaired or replaced at no charge during the warranty period. For out of-warranty repairs, you will be billed according to the cost of replacement materials, service time and freight. Please consult your dealer for more details.

If you think you have a defective product, follow these steps:

1. Collect all the information about the problem encountered. (For example, CPU speed, Advantech products used, other hardware and software used, etc.) Note anything abnormal and list any on screen messages you get when the problem occurs.
2. Call your dealer and describe the problem. Please have your manual, product, and any helpful information readily available.

-
3. If your product is diagnosed as defective, obtain an RMA (return merchandise authorization) number from your dealer. This allows us to process your return more quickly.
 4. Carefully pack the defective product, a fully-completed Repair and Replacement Order Card and a photocopy proof of purchase date (such as your sales receipt) in a shippable container. A product returned without proof of the purchase date is not eligible for warranty service.
 5. Write the RMA number visibly on the outside of the package and ship it prepaid to your dealer.

Conventions



Warning signs are used to identify immediate hazards for property damage, injury or death.



CAUTION SIGNS ARE USED TO WARN AGAINST POTENTIAL HAZARDS OR TO CAUTION AGAINST UNSAFE PRACTICES.



Note signs are used to provide additional information for the device or settings.

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Technical Support and Assistance

1. Visit the Advantech web site at www.advantech.com/support where you can find the latest information about the product.
2. Contract your distributor, sales representative, or Advantech's customer service center for technical support if you need additional assistance. Please have the following information ready before you call:
 - Product name and serial number
 - Description of your peripheral attachment
 - Description of your software (operating system, version, application software, etc.)
 - A complete description of the problem
 - The exact wording of any error messages

Regional Service & Customization Centers

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|---|--|---|---|--|

Worldwide Offices

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| | |
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| China | |
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| Beijing | 86-10-6298-4346 |
| Shanghai | 86-21-3632-1616 |
| Shenzhen | 86-755-8212-4222 |
| Chengdu | 86-28-8545-0198 |
| Hong Kong | 852-2720-5118 |
| Taiwan | |
| Toll Free | 0800-777-111 |
| Neihu | 886-2-2792-7818 |
| Xindian | 886-2-2218-4567 |
| Taichung | 886-4-2378-6250 |
| Kaohsiung | 886-7-229-3600 |

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| | |
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| Toll Free | 0800-500-1055 |
| Tokyo | 81-3-6802-1021 |
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| Toll Free | 080-363-9494 |
| Seoul | 82-2-3663-9494 |
| Singapore | |
| Singapore | 65-6442-1000 |
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| Toll Free | 1800-88-1809 |
| Kuala Lumpur | 60-3-7725-4188 |
| Penang | 60-4-537-9188 |
| Indonesia | |
| Jakarta | 62-21-769-0525 |
| Thailand | |
| Bangkok | 66-2-248-3140 |
| India | |
| Toll Free | 1-800-425-5070 |
| Pune | 91-20-39482075 |
| Bangalore | 91-80-2545-0206 |
| Australia | |
| Toll Free | 1300-308-531 |
| Melbourne | 61-3-9797-0100 |
| Sydney | 61-2-9476-9300 |

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| | |
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| Toll Free | 00800-2426-8080 |
| Germany | |
| Munich | 49-89-12599-0 |
| Hilden / D'dorf | 49-2103-97-885-0 |
| France | |
| Paris | 33-1-4119-4666 |
| Italy | |
| Milano | 39-02-9544-961 |
| Benelux & Nordics | |
| Breda | 31-76-5233-100 |
| UK | |
| Reading | 44-0118-929-4540 |
| Poland | |
| Warsaw | 48-22-33-23-740 / 41 |
| Russia | |
| Toll Free | 8-800-550-01-50 |
| Moscow | 7-495-232-1692 |

Americas

| | |
|----------------------|-----------------|
| North America | |
| Toll Free | 1-888-576-9668 |
| Cincinnati | 1-513-742-8895 |
| Milpitas | 1-408-519-3898 |
| Irvine | 1-949-420-2500 |
| Brazil | |
| Toll Free | 0800-770-5355 |
| Saude-São Paulo | 55-11-5592-5355 |
| Mexico | |
| Toll Free | 1-800-467-2415 |
| Mexico City | 52-55-6275-2777 |

About This Manual

This user manual is intended to guide professional installers in installing and configuring the ProView Series Ethernet Switches. It includes technical specifications, software utility introduction, as well as procedures for the use of the software utility to self-manage the devices.

Product Overview

Chapter 1

1.1. Supported Models

Standard Models:

Table 1-1. Standard Models

| | | |
|---------------|---------------|--------------|
| EKI-5525S | EKI-5525M | EKI-5525S-ST |
| EKI-5525M-ST | EKI-5524SS | EKI-5524MM |
| EKI-5524SS-ST | EKI-5524MM-ST | EKI-5525 |
| EKI-5725 | EKI-5728 | EKI-5729F |
| EKI-5725FP | EKI-5528 | EKI-5526 |
| EKI-5726 | EKI-5726F | EKI-5629C |
| EKI-5626C | EKI-5624P | EKI-5729P |

Wide Temperature Models:

Table 1-2. Wide Temperature Models

| | | |
|----------------|----------------|---------------|
| EKI-5525SI | EKI-5525MI | EKI-5525SI-ST |
| EKI-5525MI-ST | EKI-5524SSI | EKI-5524MMI |
| EKI-5524SSI-ST | EKI-5524MMI-ST | EKI-5525I |
| EKI-5725I | EKI-5728I | EKI-5729FI |
| EKI-5725FPI | EKI-5528I | EKI-5526I |
| EKI-5726I | EKI-5726FI | EKI-5629CI |
| EKI-5626CI | EKI-5624PI | EKI-5729PI |

1.2. Specifications

Table 1-3. Specifications

| Specifications | Description | |
|----------------|-----------------|--|
| Interface | I/O Port | <ul style="list-style-type: none"> • EKI-5525S/EKI-5525SI: 4 x RJ45 + 1 x SC (single mode) • EKI-5525M/EKI-5525MI: 4 x RJ45 + 1 x SC (multi mode) • EKI-5525S-ST/EKI-5525SI-ST: 4 x RJ45 + 1 x ST (single mode) • EKI-5525M-ST/EKI-5525MI-ST: 4 x RJ45 + 1 x ST (multi mode) • EKI-5524SS/EKI-5524SSI: 4 x RJ45 + 2 x SC (single mode) • EKI-5524MM/EKI-5524MMI: 4 x RJ45 + 2 x SC (multi mode) • EKI-5524SS-ST/EKI-5524SSI-ST: 4 x RJ45 + 2 x ST (single mode) • EKI-5524MM-ST/EKI-5524MMI-ST: 4 x RJ45 + 2 x ST (multi mode) • EKI-5525/EKI-5525I: 5 x 10/100BaseT(X) • EKI-5725/EKI-5725I: 5 x 10/100/1000BaseT(X) • EKI-5728/EKI-5728I: 8 x 10/100/1000BaseT(X) • EKI-5729F/EKI-5729FI: 8 x 10/100/1000BaseT(X) + 2 x 100/1000Base-FX SFP • EKI-5725FP/EKI-5725FPI: 4 x 10/100/1000BaseT(X) with PoE + 1 x 100/1000Base-FX SFP • EKI-5528/EKI-5528I: 8 x 10/100BaseT(X) • EKI-5526/EKI-5526I: 16 x 10/100BaseT(X) • EKI-5726/EKI-5726I: 16 x 10/100/1000BaseT(X) • EKI-5726F/EKI-5726FI: 16 x 10/100/1000BaseT(X) + 2 x 100/1000Base-FX SFP • EKI-5629C/EKI-5629CI: 8 x 10/100BaseT(X) + 2 x 10/100/1000Base-T(X) or 100/1000Base-FX SFP • EKI-5626C/EKI-5626CI: 16 x 10/100BaseT(X) + 2 x 10/100/1000Base-T(X) or 100/1000Base-FX SFP • EKI-5624P/EKI-5624PI: 4 x 10/100BaseT(X) with PoE + 2 x 10/100/1000BaseT(X) • EKI-5729P/EKI-5729PI: 8 x 10/100/1000BaseT(X) with PoE + 2 x 10/100/1000BaseT(X) |
| | Power Connector | 6-pin screw Terminal Block (including relay) |

Table 1-3. Specifications (Continued)

| Specifications | Description | |
|----------------|------------------------|--|
| Physical | Enclosure | Metal Shell |
| | Protection Class | IP30 |
| | Installation | DIN-Rail and Wall-Mount |
| | Dimensions (W x H x D) | <ul style="list-style-type: none"> • EKI-5525S/EKI-5525SI: 27mm x 120mm x 84mm • EKI-5525M/EKI-5525MI: 27mm x 120mm x 84mm • EKI-5525S-ST/EKI-5525SI-ST: 27mm x 120mm x 84mm • EKI-5525M-ST/EKI-5525MI-ST: 27mm x 120mm x 84mm • EKI-5524SS: 28.5mm x 120mm x 85.3mm • EKI-5524SSI: 28.5mm x 120mm x 85.3mm • EKI-5524MM/EKI-5524MMI: 28.5mm x 120mm x 85.3mm • EKI-5524SS-ST/EKI-5524SSI-ST: 28.5mm x 120mm x 85.3mm • EKI-5524MM-ST/EKI-5524MMI-ST: 28.5mm x 120mm x 85.3mm • EKI-5525/EKI-5525I: 27mm x 120mm x 84mm • EKI-5725/EKI-5725I: 27mm x 120mm x 84mm • EKI-5728/EKI-5728I: 43mm x 120mm x 84mm • EKI-5729F/EKI-5729FI: 43mm x 120mm x 84mm • EKI-5725FP/EKI-5725FPI: 74mm x 152mm x 105mm • EKI-5528/EKI-5528I: 43mm x 120mm x 84mm • EKI-5526/EKI-5526I: 74mm x 120mm x 84mm • EKI-5726/EKI-5726I: 74mm x 120mm x 84mm • EKI-5726F/EKI-5726FI: 74mm x 120mm x 84mm • EKI-5629C/EKI-5629CI: 74mm x 120mm x 84mm • EKI-5626C/EKI-5626CI: 74mm x 120mm x 84mm • EKI-5624P/EKI-5624PI: 74mm x 152mm x 105mm • EKI-5729P/EKI-5729PI: 74mm x 152mm x 105mm |
| LED Display | System LED | PWR1, PWR2, P-Fail, Loop detection PoE (only for EKI-5725FP/EKI-5725FPI) |
| | Port LED | Link / Speed / Activity PoE (only for EKI-5725FP/EKI-5725FPI, EKI-5624P/ EKI-5624PI and EKI-5729P/EKI-5729PI) |

Table 1-3. Specifications (Continued)

| Specifications | Description | |
|-------------------|---------------------------|--|
| Environment | Operating Temperature | <ul style="list-style-type: none"> ● Wide Temperature: -40°C ~ 75°C (-40°F ~ 167°F) ● Standard Temperature: <ul style="list-style-type: none"> ● Non PoE Models: -10°C ~ 60°C (14°F ~ 140°F) ● PoE Models: -25°C ~ 60°C(-4°F ~ 140°F) |
| | Storage Temperature | -40°C ~ 85° C (-40°F ~ 185° F) |
| | Ambient Relative Humidity | 10 ~ 95% (non-condensing) |
| Switch Properties | MAC Address | <ul style="list-style-type: none"> ● EKI-5525S/EKI-5525SI: 2K entries ● EKI-5525M/EKI-5525MI: 2K entries ● EKI-5525S-ST/EKI-5525SI-ST: 2K entries ● EKI-5525M-ST/EKI-5525MI-ST: 2K entries ● EKI-5524SS/EKI-5524SSI: 2K entries ● EKI-5524MM/EKI-5524MMI: 2K entries ● EKI-5524SS-ST/EKI-5524SSI-ST: 2K entries ● EKI-5524MM-ST/EKI-5524MMI-ST: 2K entries ● EKI-5525/EKI-5525I: 2K entries ● EKI-5725/EKI-5725I: 2K entries ● EKI-5728/EKI-5728I: 8K entries ● EKI-5729F/EKI-5729FI: 8K entries ● EKI-5725FP/EKI-5725FPI: 2K entries ● EKI-5528/EKI-5528I: 8K entries ● EKI-5526/EKI-5526I: 8K entries ● EKI-5726/EKI-5726I: 8K entries ● EKI-5726F/EKI-5726FI: 8K entries ● EKI-5629C/EKI-5629CI: 8K entries ● EKI-5626C/EKI-5626CI: 8K entries ● EKI-5624P/EKI-5624PI: 2K entries ● EKI-5729P/EKI-5729PI: 8K entries |

Table 1-3. Specifications (Continued)

| Specifications | Description | |
|-------------------|---------------------|---|
| Switch Properties | Switching Bandwidth | <ul style="list-style-type: none"> ● EKI-5525S/EKI-5525SI: 1 Gbps ● EKI-5525M/EKI-5525MI: 1 Gbps ● EKI-5525S-ST/EKI-5525SI-ST: 1 Gbps ● EKI-5525M-ST/EKI-5525MI-ST: 1 Gbps ● EKI-5524SS/EKI-5524SSI: 1.2 Gbps ● EKI-5524MM/EKI-5524MMI: 1.2 Gbps ● EKI-5524SS-ST/EKI-5524SSI-ST: 1.2 Gbps ● EKI-5524MM-ST/EKI-5524MMI-ST: 1.2 Gbps ● EKI-5525/EKI-5525I: 1 Gbps ● EKI-5725/EKI-5725I: 10 Gbps ● EKI-5728/EKI-5728I: 16 Gbps ● EKI-5729F/EKI-5729FI: 20 Gbps ● EKI-5725FP/EKI-5725FPI: 10 Gbps ● EKI-5528/EKI-5528I: 1.6 Gbps ● EKI-5526/EKI-5526I: 3.2 Gbps ● EKI-5726/EKI-5726I: 32 Gbps ● EKI-5726F/EKI-5726FI: 36 Gbps ● EKI-5629C/EKI-5629CI: 5.6 Gbps ● EKI-5626C/EKI-5626CI: 7.2 Gbps ● EKI-5624P/EKI-5624PI: 4.8Gbps ● EKI-5729P/EKI-5729PI: 20Gbps |

Table 1-3. Specifications (Continued)

| Specifications | Description | |
|----------------|-------------------|---|
| Power | Power Consumption | <ul style="list-style-type: none"> ● EKI-5525S/EKI-5525SI: 2.8 watts ● EKI-5525M/EKI-5525MI: 2.8 watts ● EKI-5525S-ST/EKI-5525SI-ST: 2.8 watts ● EKI-5525M-ST/EKI-5525MI-ST: 2.8 watts ● EKI-5524SS/EKI-5524SSI: 4 watts ● EKI-5524MM/EKI-5524MMI: 4 watts ● EKI-5524SS-ST/EKI-5524SSI-ST: 4 watts ● EKI-5524MM-ST/EKI-5524MMI-ST: 4 watts ● EKI-5525/EKI-5525I: 2 watts ● EKI-5725/EKI-5725I: 2 watts ● EKI-5728/EKI-5728I: 5.2 watts ● EKI-5729F/EKI-5729FI: 6.8 watts ● EKI-5725FP/EKI-5725FPI: 89 watts ● EKI-5528/EKI-5528I: 3.6 watts ● EKI-5526/EKI-5526I: 3.84 watts ● EKI-5726/EKI-5726I: 8 watts ● EKI-5726F/EKI-5726FI: 9.6 watts ● EKI-5629C/EKI-5629CI: 5.8 watts ● EKI-5626C/EKI-5626CI: 8.2 watts ● EKI-5624P/EKI-5624PI: 60 watts ● EKI-5729P/EKI-5729PI: 65 watts |
| | Power Input | <ul style="list-style-type: none"> ● 12V ~ 48V (8.4V ~ 52.8V), redundant dual inputs ● 24V ~ 48V (16.8V ~ 62.4V): only for EKI-5725FP/EKI-5725FPI ● 12V ~ 24V (9V ~ 36V): only for EKI-5624P/EKI-5624PI and EKI-5729P/EKI-5729PI |

Table 1-3. Specifications (Continued)

| Specifications | Description | |
|----------------|-------------|---|
| Certifications | Safety | <ul style="list-style-type: none"> • IEC/EN 60950-1, UL508 • UL61010-1+UL61010-2-201 (Only for EKI-5729P/EKI-5729PI, EKI-5624P/EKI-5624PI and EKI-5725FP/EKI-5725FPI) • Class 1 Division 2, IECEx , ATEX |
| | EMC | <ul style="list-style-type: none"> • CE, FCC • e-Mark (Only for EKI-5728/EKI-5728I, EKI-5729F, EKI-5729FI) |
| | EMI | EN 55011/ 55022 Class A, EN 61000-6-4, FCC Part 15 Subpart B Class A |
| | EMS | <ul style="list-style-type: none"> • EN 55024/ EN 61000-6-2 • EN 61000-4-2 (ESD) Level 3 • EN 61000-4-3 (RS) Level 3; • EN 61000-4-4 (EFT) Level 3 • EN 61000-4-5 (Surge) Level 3; • EN 61000-4-6 (CS) Level 3 • EN 61000-4-8 (Magnetic Field) Level 3 |
| | Shock | IEC 60068-2-27 |
| | Freefall | IEC 60068-2-32 |
| | Vibration | IEC 60068-2-6 |

1.3. Hardware Views

1.3.1 Front View

The following view applies to EKI-5525, EKI-5525I, EKI-5725 and EKI-5725I.

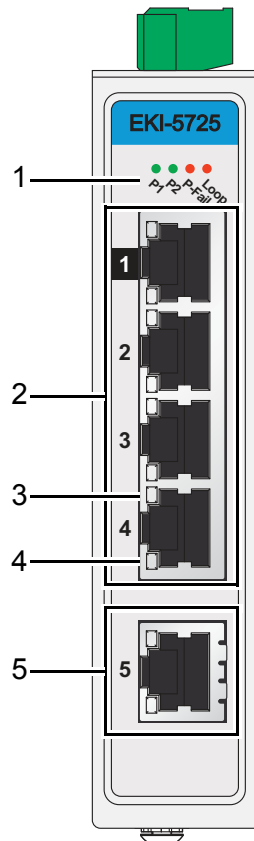


Figure 1-1. Front View

Table 1-4. Front View

| No. | Item | Description |
|-----|------------------|--|
| 1 | System LED panel | See “ System LED Panel ” on page 22 for further details. |
| 2 | ETH port | EKI-5525/EKI-5525I: Four 10/100BaseT(X) ports. EKI-5725/EKI-5725I: Four 10/100/1000BaseT(X) ports. Port numbers in black are designated for port based Quality of Service (QoS) functionality. |
| 3 | LNK/ACT LED | Link activity LED. |

Table 1-4. Front View (Continued)

| No. | Item | Description |
|-----|-----------|---|
| 4 | Speed LED | <ul style="list-style-type: none"> Gigabit Ethernet: <ul style="list-style-type: none"> Green: 1000M Amber: 100M Off: 10M Fast Ethernet: <ul style="list-style-type: none"> Amber: 100M Off: 10M |
| 5 | ETH port | EKI-5525/EKI-5525I: One 10/100BaseT(X) port. EKI-5725/EKI-5725I: One 10/100/1000BaseT(X) port. |

The following view applies to EKI-5528, EKI-5528I, EKI-5728 and EKI-5728I.

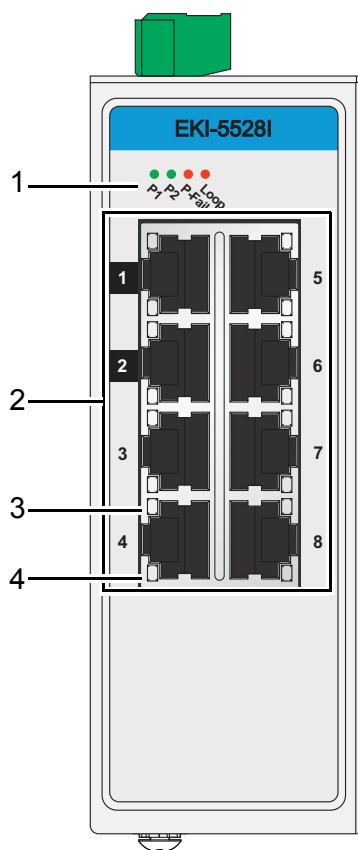


Figure 1-2. Front View

Table 1-5. Front View

| No. | Item | Description |
|-----|------------------|---|
| 1 | System LED panel | See “ System LED Panel ” on page 22 for further details. |

Table 1-5. Front View (Continued)

| No. | Item | Description |
|-----|-------------|---|
| 2 | ETH port | EKI-5528/EKI-5528I: Eight 10/100BaseT(X) ports. EKI-5728/EKI-5728I: Eight 10/100/1000BaseT(X) ports. Port numbers in black are designated for port based Quality of Service (QoS) functionality. |
| 3 | LNK/ACT LED | Link activity LED. |
| 4 | Speed LED | <ul style="list-style-type: none"> • Gigabit Ethernet: <ul style="list-style-type: none"> • Green: 1000M • Amber: 100M • Off: 10M • Fast Ethernet: <ul style="list-style-type: none"> • Amber: 100M • Off: 10M |

The following view applies to EKI-5729F and EKI-5729FI.

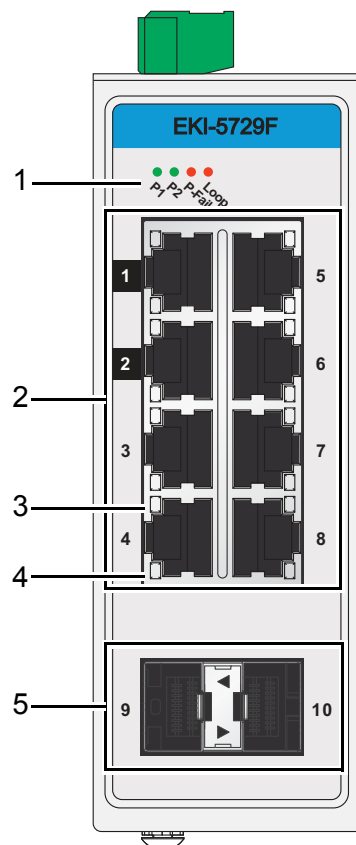


Figure 1-3. Front View

Table 1-6. Front View

| No. | Item | Description |
|-----|------------------|---|
| 1 | System LED panel | See “ System LED Panel ” on page 22 for further details. |

Table 1-6. Front View (Continued)

| No. | Item | Description |
|-----|-------------|---|
| 2 | ETH port | Eight 10/100/1000BaseT(X) ports. Port numbers in black are designated for port based Quality of Service (QoS) functionality. |
| 3 | LNK/ACT LED | Link activity LED. |
| 4 | Speed LED | Gigabit Ethernet: <ul style="list-style-type: none"> • Green: 1000M • Amber: 100M • Off: 10M |
| 5 | ETH port | Two 100/1000Base-FX SFP ports. |

The following view applies to EKI-5525S, EKI-5525SI, EKI-5525M and EKI-5525MI.

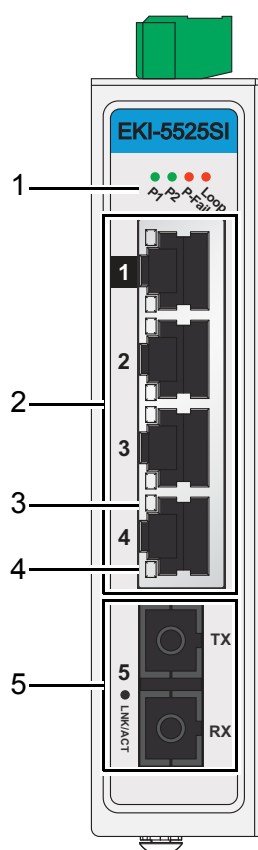


Figure 1-4. Front View

Table 1-7. Front View

| No. | Item | Description |
|-----|------------------|---|
| 1 | System LED panel | See “ System LED Panel ” on page 22 for further details. |
| 2 | ETH port | Four RJ45 ports. Port numbers in black are designated for port based Quality of Service (QoS) functionality. |

Table 1-7. Front View (Continued)

| No. | Item | Description |
|-----|-------------|--|
| 3 | LNK/ACT LED | Link activity LED. |
| 4 | Speed LED | Fast Ethernet: <ul style="list-style-type: none"> • Amber: 100M • Off: 10M |
| 5 | SC port | EKI-5525S/EKI-5525SI: One SC (single mode) port EKI-5525M/EKI-5525MI: One SC (multi mode) port |

The following view applies to EKI-5525S-ST, EKI-5525SI-ST, EKI-5525M-ST and EKI-5525MI-ST.

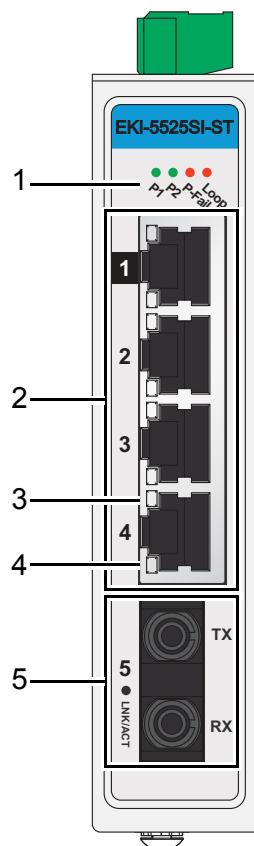


Figure 1-5. Front View

Table 1-8. Front View

| No. | Item | Description |
|-----|------------------|---|
| 1 | System LED panel | See “ System LED Panel ” on page 22 for further details. |
| 2 | ETH port | Four RJ45 ports. Port numbers in black are designated for port based Quality of Service (QoS) functionality. |
| 3 | LNK/ACT LED | Link activity LED. |

Table 1-8. Front View (Continued)

| No. | Item | Description |
|-----|-----------|---|
| 4 | Speed LED | Fast Ethernet: <ul style="list-style-type: none"> ● Amber: 100M ● Off: 10M |
| 5 | ST port | EKI-5525S-ST/EKI-5525SI-ST: One ST (single mode) port. EKI-5525M-ST/EKI-5525MI-ST: One ST (multi mode) port. |

The following view applies to EKI-5524SS, EKI-5524SSI, EKI-5524MM and EKI-5524MMI.

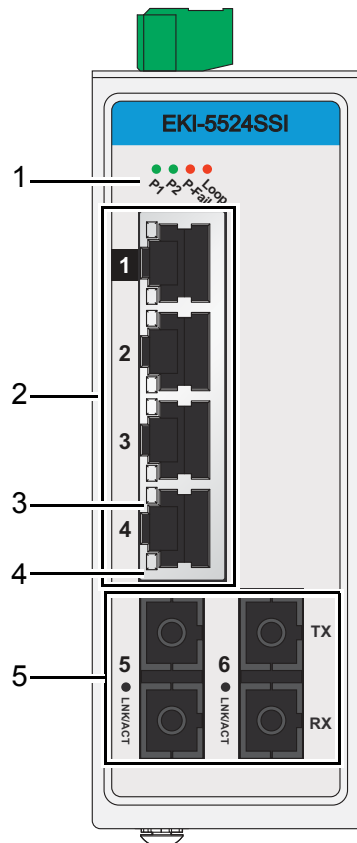


Figure 1-6. Front View

Table 1-9. Front View

| No. | Item | Description |
|-----|------------------|---|
| 1 | System LED panel | See “ System LED Panel ” on page 22 for further details. |
| 2 | ETH port | Four RJ45 ports. Port numbers in black are designated for port based Quality of Service (QoS) functionality. |
| 3 | LNK/ACT LED | Link activity LED. |

Table 1-9. Front View (Continued)

| No. | Item | Description |
|-----|-----------|---|
| 4 | Speed LED | Fast Ethernet: <ul style="list-style-type: none"> • Amber: 100M • Off: 10M |
| 5 | ST port | EKI-5524SS/EKI-5524SSI: Two SC (single mode) ports. EKI-5524MM/EKI-5524MMI: Two SC (multi mode) ports. |

The following view applies to EKI-5524SS-ST, EKI-5524SSI-ST, EKI-5524MM-ST and EKI-5524MMI-ST.

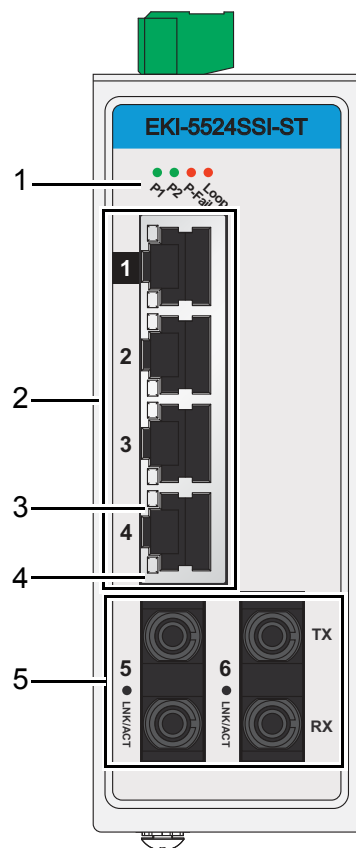


Figure 1-7. Front View

Table 1-10. Front View

| No. | Item | Description |
|-----|------------------|---|
| 1 | System LED panel | See “ System LED Panel ” on page 22 for further details. |
| 2 | ETH port | Four RJ45 ports. Port numbers in black are designated for port based Quality of Service (QoS) functionality. |
| 3 | LNK/ACT LED | Link activity LED. |

Table 1-10. Front View (Continued)

| No. | Item | Description |
|-----|-----------|---|
| 4 | Speed LED | Fast Ethernet: <ul style="list-style-type: none"> • Amber: 100M • Off: 10M |
| 5 | ST port | EKI-5524SS-ST/EKI-5524SSI-ST: Two ST (single mode) ports. EKI-5524MM-ST/EKI-5524MMI-ST: Two ST (multi mode) ports. |

The following view applies to EKI-5526, EKI-5526I, EKI-5726 and EKI-5726I.

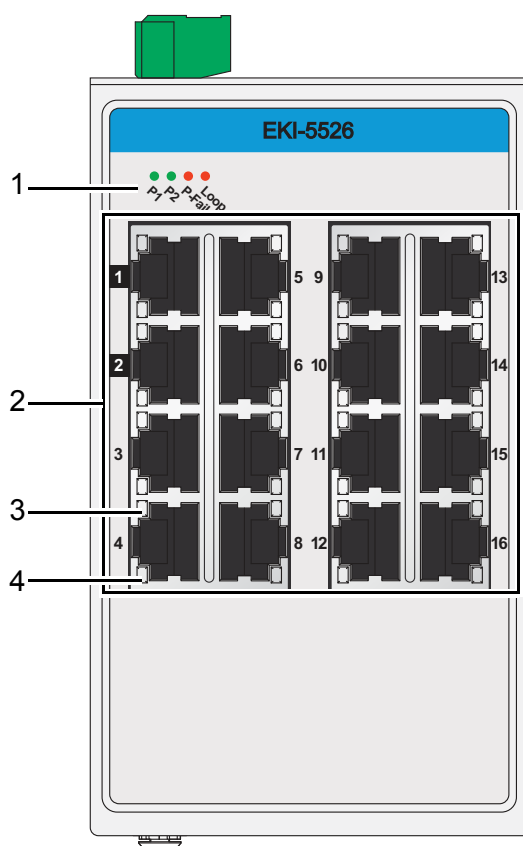


Figure 1-8. Front View

Table 1-11. Front View

| No. | Item | Description |
|-----|------------------|--|
| 1 | System LED panel | See “ System LED Panel ” on page 22 for further details. |
| 2 | ETH port | EKI-5526/EKI-5526I: Sixteen 10/100BaseT(X) ports. EKI-5726/EKI-5726I: Sixteen 10/100/1000BaseT(X) ports. Port numbers in black are designated for port based Quality of Service (QoS) functionality. |
| 3 | LNK/ACT LED | Link activity LED. |

Table 1-11. Front View (Continued)

| No. | Item | Description |
|-----|-----------|--|
| 4 | Speed LED | Fast Ethernet: <ul style="list-style-type: none"> • Amber: 100M • Off: 10M |

The following view applies to EKI-5629C and EKI-5629CI.

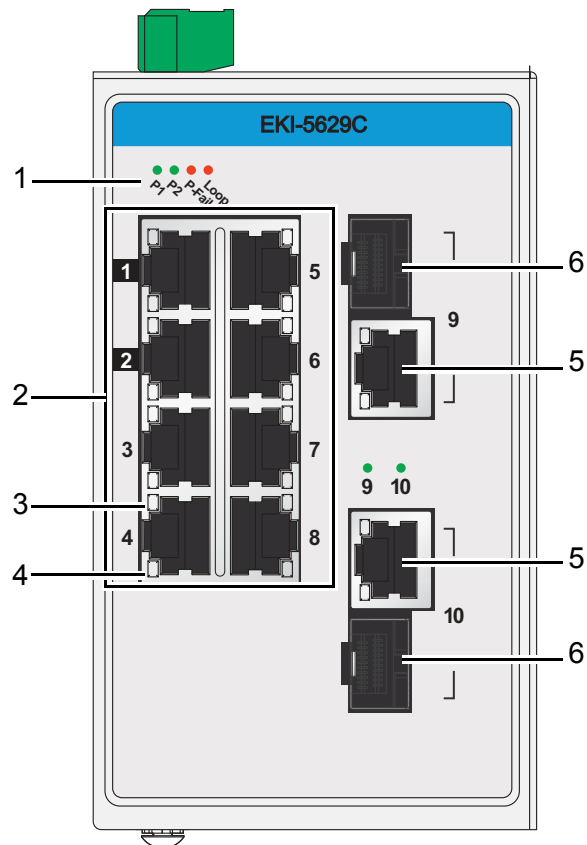


Figure 1-9. Front View

Table 1-12. Front View

| No. | Item | Description |
|-----|------------------|--|
| 1 | System LED panel | See “ System LED Panel ” on page 22 for further details. |
| 2 | ETH port | Eight 10/100BaseT(X) ports. Port numbers in black are designated for port based Quality of Service (QoS) functionality. |
| 3 | LNK/ACT LED | Link activity LED. |
| 4 | Speed LED | Fast Ethernet: <ul style="list-style-type: none"> • Amber: 100M • Off: 10M |
| 5 | ETH port | Two 10/100/1000BaseT(X) ports. |

Table 1-12. Front View (Continued)

| No. | Item | Description |
|-----|----------|--------------------------------|
| 6 | ETH port | Two 100/1000Base-FX SFP ports. |

The following view applies to EKI-5626C and EKI-5626CI.

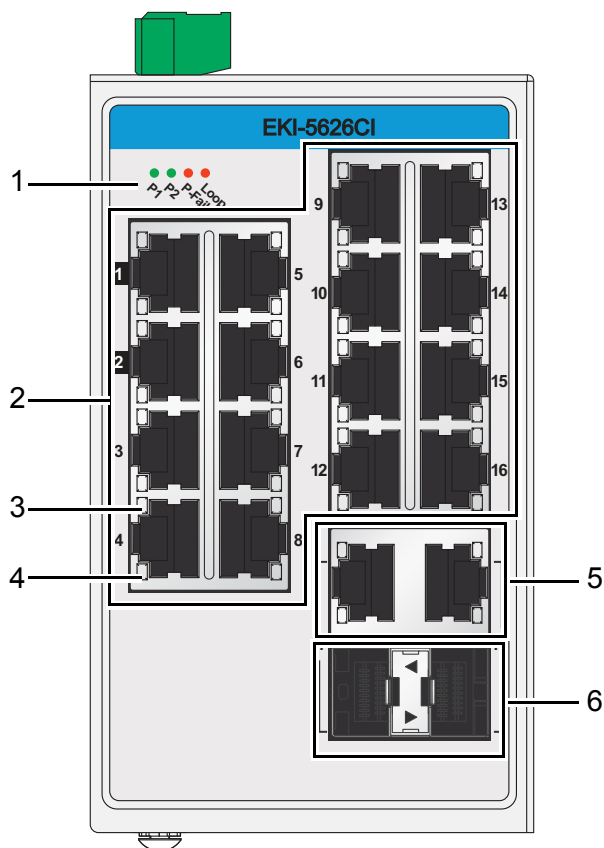


Figure 1-10. Front View

Table 1-13. Front View

| No. | Item | Description |
|-----|------------------|--|
| 1 | System LED panel | See “ System LED Panel ” on page 22 for further details. |
| 2 | ETH port | Sixteen 10/100BaseT(X) ports. Port numbers in black are designated for port based Quality of Service (QoS) functionality. |
| 3 | LNK/ACT LED | Link activity LED. |
| 4 | Speed LED | Fast Ethernet: <ul style="list-style-type: none"> • Amber: 100M • Off: 10M |
| 5 | ETH port | Two 10/100/1000BaseT(X) ports. |
| 6 | ETH port | Two 100/1000Base-FX SFP ports. |

The following view applies to EKI-5726F and EKI-5726FI.

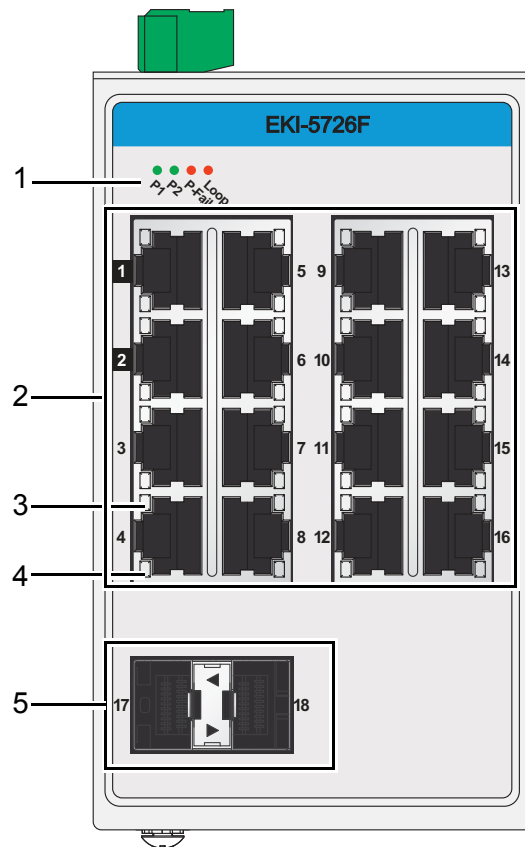


Figure 1-11. Front View

Table 1-14. Front View

| No. | Item | Description |
|-----|------------------|---|
| 1 | System LED panel | See “ System LED Panel ” on page 22 for further details. |
| 2 | ETH port | Sixteen 10/100/1000BaseT(X) ports. Port numbers in black are designated for port based Quality of Service (QoS) functionality. |
| 3 | LNK/ACT LED | Link activity LED. |
| 4 | Speed LED | Gigabit Ethernet: <ul style="list-style-type: none"> • Green: 1000M • Amber: 100M • Off: 10M |
| 5 | ETH port | Two 100/1000Base-FX SFP ports. |

The following view applies to EKI-5725FP and EKI-5725FPI.

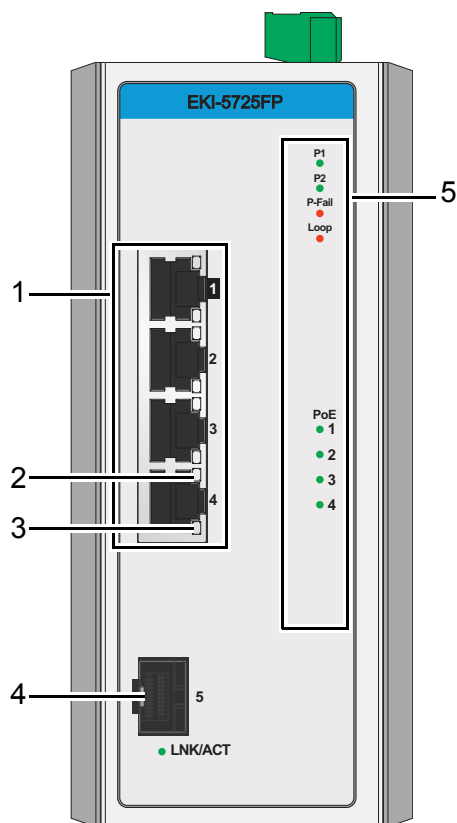


Figure 1-12. Front View

Table 1-15. Front View

| No. | Item | Description |
|-----|------------------|--|
| 1 | ETH port | Four 10/100/1000BaseT(X) with PoE ports. |
| 2 | LNK/ACT LED | Link activity LED. |
| 3 | Speed LED | Gigabit Ethernet: <ul style="list-style-type: none"> ● Green: 1000M ● Amber: 100M ● Off: 10M |
| 4 | ETH port | One 100/1000Base-FX, SFP port. |
| 5 | System LED panel | See “ System LED Panel (only for EKI-5725FP/EKI-5725FPI, EKI-5624P/EKI-5624PI and EKI-5729P/EKI-5729PI) ” on page 23 for further details. |

The following view applies to EKI-5624P and EKI-5624PI.

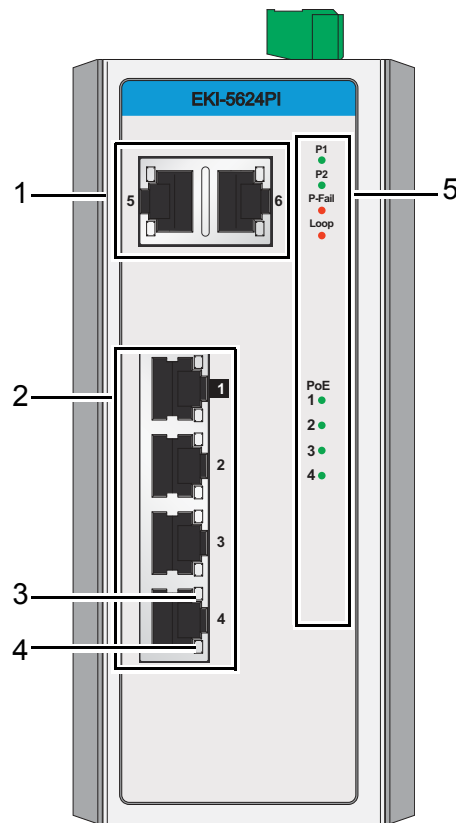


Figure 1-13. Front View

Table 1-16. Front View

| No. | Item | Description |
|-----|------------------|--|
| 1 | ETH port | Two 10/100/1000BaseT(X) ports. |
| 2 | ETH port | Four 10/100BaseT(X) with PoE ports. |
| 3 | LNK/ACT LED | Link activity LED. |
| 4 | Speed LED | Fast Ethernet: <ul style="list-style-type: none"> ● Amber: 100M ● Off: 10M |
| 5 | System LED panel | See “ System LED Panel (only for EKI-5725FP/EKI-5725FPI, EKI-5624P/EKI-5624PI and EKI-5729P/EKI-5729PI) ” on page 23 for further details. |

The following view applies to EKI-5729P and EKI-5729PI.

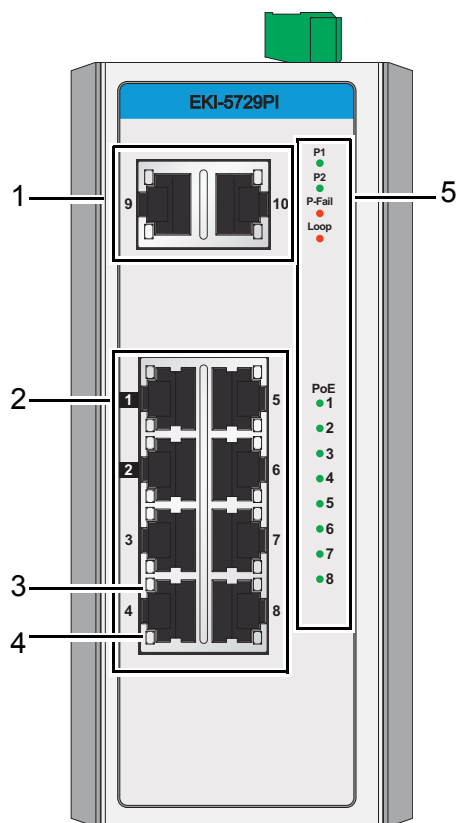


Figure 1-14. Front View

Table 1-17. Front View

| No. | Item | Description |
|-----|------------------|--|
| 1 | ETH port | Two 10/100/1000BaseT(X) ports. |
| 2 | ETH port | Eight 10/100/1000BaseT(X) with PoE ports. |
| 3 | LNK/ACT LED | Link activity LED. |
| 4 | Speed LED | Gigabit Ethernet: <ul style="list-style-type: none"> ● Green: 1000M ● Amber: 100M ● Off: 10M |
| 5 | System LED panel | See “ System LED Panel (only for EKI-5725FP/EKI-5725FPI, EKI-5624P/EKI-5624PI and EKI-5729P/EKI-5729PI) ” on page 23 for further details. |

System LED Panel

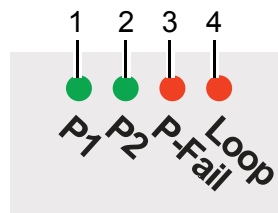


Figure 1-15. System LED Panel

Table 1-18. System LED Panel

| No. | LED Name | LED Color | Description |
|-----|----------|-------------|---|
| 1 | PW1 LED | Solid green | Powered up. |
| | | Off | Powered down or not installed. |
| 2 | PW2 LED | Solid green | Powered up. |
| | | Off | Powered down or not installed. |
| 3 | P-Fail | Solid red | When PW1 or PW2 is disconnected, the LED lights. |
| | | Off | When PW1 and PW2 is connected, the LED is off. |
| 4 | Loop | Solid red | Loop function is disabled by default. In enabled state, if a loop is detected, the LED lights. To enable "Setting Loop Detection" on page 72. |
| | | Off | No loop detected. |

System LED Panel (only for EKI-5725FP/EKI-5725FPI, EKI-5624P/EKI-5624PI and EKI-5729P/EKI-5729PI)

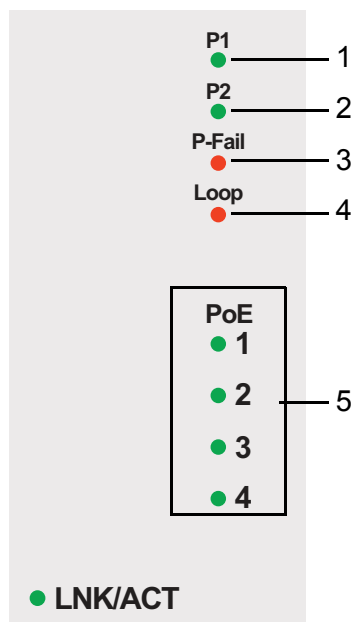


Figure 1-16. System LED Panel

Table 1-19. System LED Panel

| No. | LED Name | LED Color | Description |
|-----|---------------------------------------|-------------|---|
| 1 | PW1 LED | Solid green | Powered up. |
| | | Off | Powered down or not installed. |
| 2 | PW2 LED | Solid green | Powered up. |
| | | Off | Powered down or not installed. |
| 3 | P-Fail | Solid red | When PW1 or PW2 is disconnected, the LED lights. |
| | | Off | When PW1 and PW2 is connected, the LED is off. |
| 4 | Loop | Solid red | Loop function is disabled by default. In enabled state, if a loop is detected, the LED lights. To enable "Setting Loop Detection" on page 72. |
| | | Off | No loop detected. |
| 5 | PoE (depending the PoE ports) | Solid green | PoE activated. |
| | | Off | PoE non-working. |
| | SFP (only for EKI-5725FP/EKI-5725FPI) | Solid green | SFP activated. |
| | | Blinking | Data is being transmitted. |
| | | Off | SFP non-working. |

1.3.2 Rear View

The following view applies to EKI-5525S, EKI-5525SI, EKI-5525M, EKI-5525MI, EKI-5525S-ST, EKI-5525SI-ST, EKI-5525M-ST, EKI-5525MI-ST, EKI-5525, EKI-5525I, EKI-5725 and EKI-5725I.

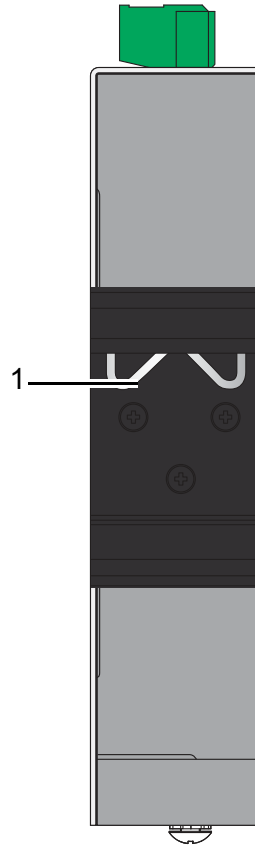


Figure 1-17. Rear View

Table 1-20. Rear View

| No. | Item | Description |
|-----|-------------------------|--|
| 1 | DIN-Rail mounting plate | Mounting plate used for the installation to a standard DIN rail. |

The following view applies to EKI-5728, EKI-5728I, EKI-5729F, EKI-5729FI, EKI-5528, EKI-5528I, EKI-5524SS, EKI-5524SSI, EKI-5524MM, EKI-5524MMI, EKI-5524SS-ST, EKI-5524SSI-ST, EKI-5524MM-ST and EKI-5524MMI-ST.

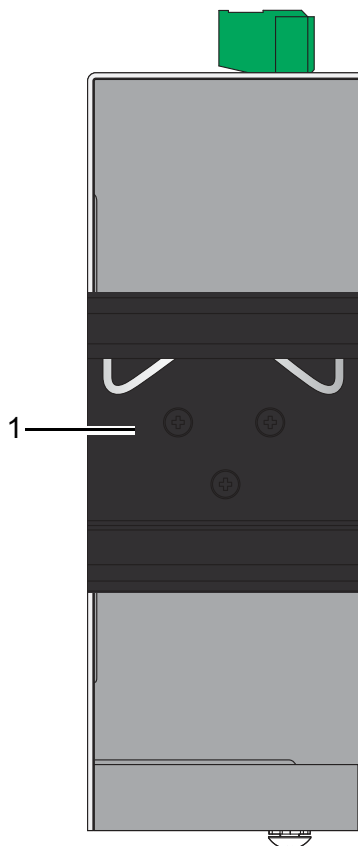


Figure 1-18. Rear View

Table 1-21. Rear View

| No. | Item | Description |
|-----|-------------------------|--|
| 1 | DIN-Rail mounting plate | Mounting plate used for the installation to a standard DIN rail. |

The following view applies to EKI-5526, EKI-5526I, EKI-5629C, EKI-5629CI, EKI-5626C, EKI-5626CI, EKI-5726, EKI-5726I, EKI-5726F and EKI-5726FI.

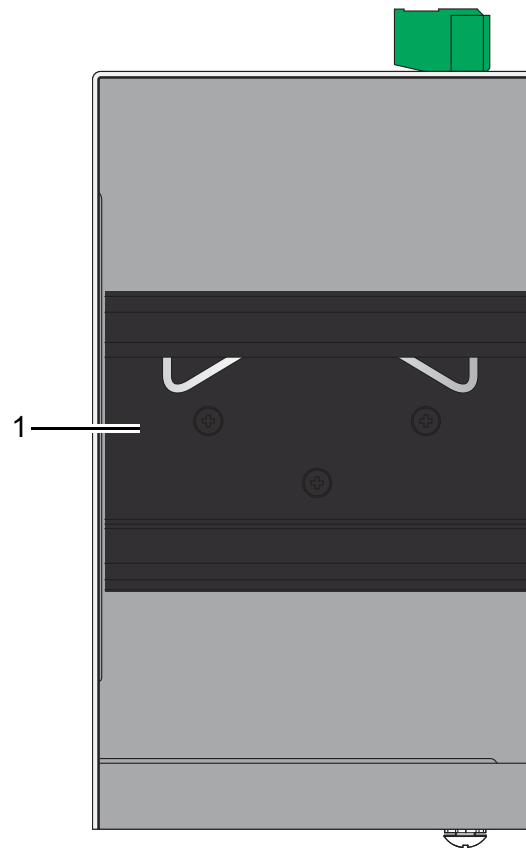


Figure 1-19. Rear View

Table 1-22. Rear View

| No. | Item | Description |
|-----|-------------------------|--|
| 1 | DIN-Rail mounting plate | Mounting plate used for the installation to a standard DIN rail. |

The following view applies to EKI-5725FP, EKI-5725FPI, EKI-5624P, EKI-5624PI, EKI-5729P and EKI-5729PI

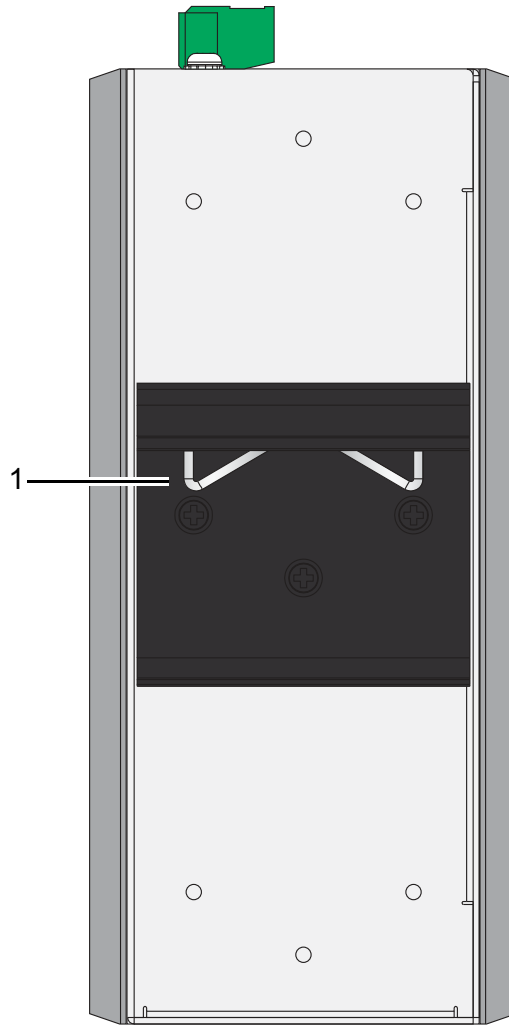


Figure 1-20. Rear View

Table 1-23. Rear View

| No. | Item | Description |
|-----|-------------------------|--|
| 1 | DIN-Rail mounting plate | Mounting plate used for the installation to a standard DIN rail. |

1.3.3 Top View

The following view applies to EKI-5525S, EKI-5525SI, EKI-5525M, EKI-5525MI, EKI-5525S-ST, EKI-5525SI-ST, EKI-5525M-ST, EKI-5525MI-ST, EKI-5525, EKI-5525I, EKI-5725 and EKI-5725I.

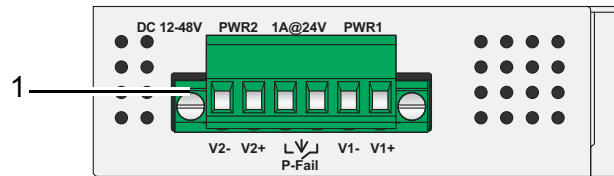


Figure 1-21. Top View

Table 1-24. Top View

| No. | Item | Description |
|-----|----------------|---|
| 1 | Terminal block | Connect cabling for power and alarm wiring. |

The following view applies to EKI-5728, EKI-5728I, EKI-5729F, EKI-5729FI, EKI-5528, EKI-5528I, EKI-5524SS, EKI-5524SSI, EKI-5524MM, EKI-5524MMI, EKI-5524SS-ST, EKI-5524SSI-ST, EKI-5524MM-ST and EKI-5524MMI-ST.

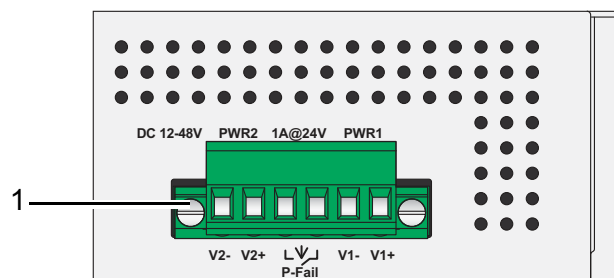


Figure 1-22. Top View

Table 1-25. Top View

| No. | Item | Description |
|-----|----------------|---|
| 1 | Terminal block | Connect cabling for power and alarm wiring. |

The following view applies to EKI-5526, EKI-5526I, EKI-5629C, EKI-5629CI, EKI-5626C and EKI-5626CI.

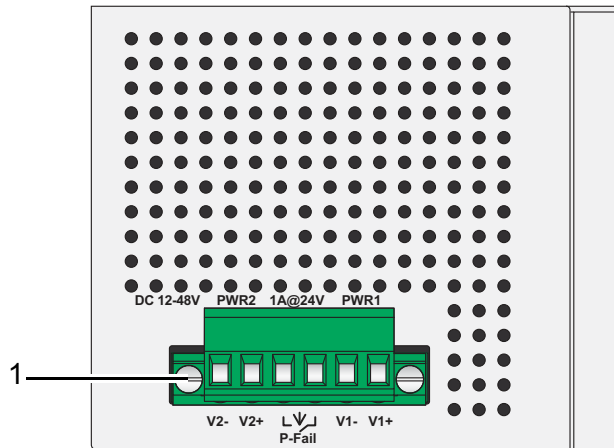


Figure 1-23. Top View

Table 1-26. Top View

| No. | Item | Description |
|-----|----------------|---|
| 1 | Terminal block | Connect cabling for power and alarm wiring. |

The following view applies to EKI-5726, EKI-5726I, EKI-5726I and EKI-5726FI.

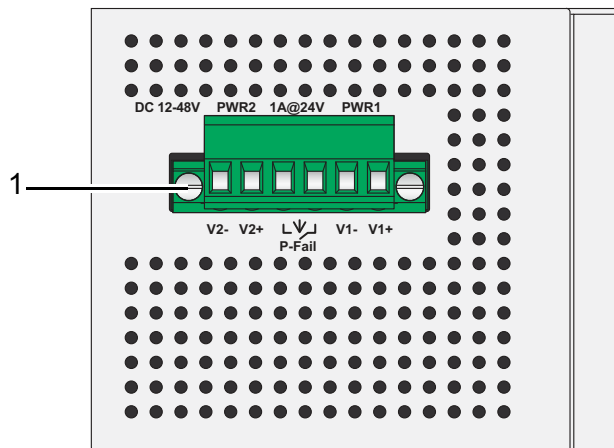


Figure 1-24. Top View

Table 1-27. Top View

| No. | Item | Description |
|-----|----------------|---|
| 1 | Terminal block | Connect cabling for power and alarm wiring. |

The following view applies to EKI-5725FP and EKI-5725FPI.

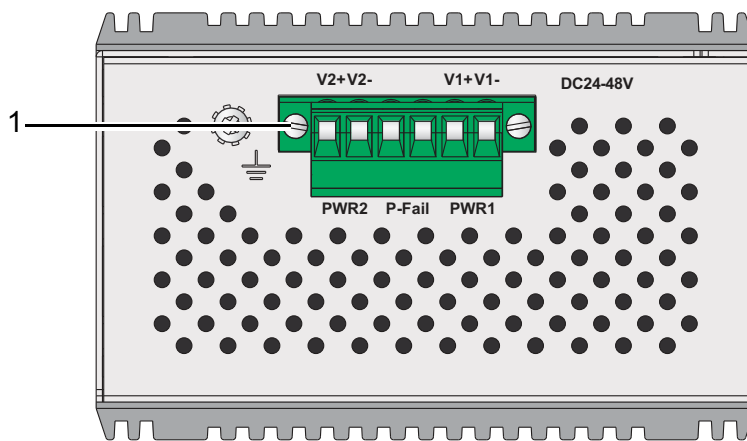


Figure 1-25. Top View

Table 1-28. Top View

| No. | Item | Description |
|-----|----------------|---|
| 1 | Terminal block | Connect cabling for power and alarm wiring. |

The following view applies to EKI-5624P, EKI-5624PI, EKI-5729P and EKI-5729PI.

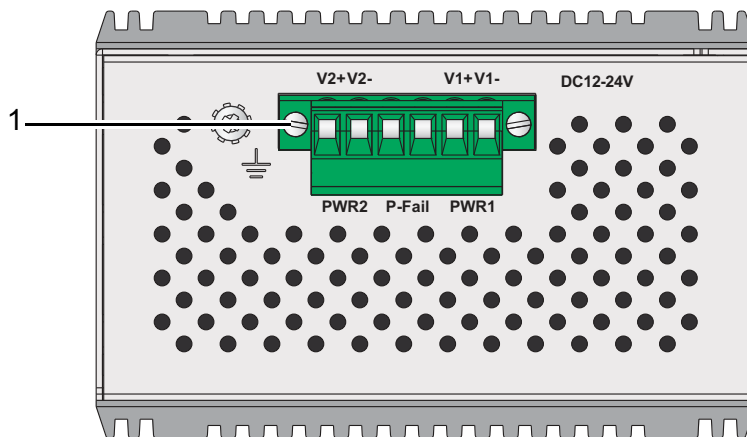


Figure 1-26. Top View

Table 1-29. Top View

| No. | Item | Description |
|-----|----------------|---|
| 1 | Terminal block | Connect cabling for power and alarm wiring. |

1.3.4 Bottom View

The following view applies to EKI-5525S, EKI-5525SI, EKI-5525M, EKI-5525MI, EKI-5525S-ST, EKI-5525SI-ST, EKI-5525M-ST, EKI-5525MI-ST, EKI-5525, EKI-5525I, EKI-5725 and EKI-5725I.

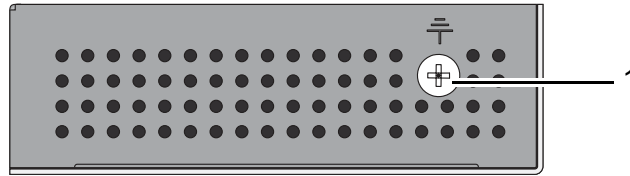


Figure 1-27. Bottom View

Table 1-30. Bottom View

| No. | Item | Description |
|-----|-----------------|--|
| 1 | Ground terminal | Screw terminal used to ground chassis. |

The following view applies to EKI-5728, EKI-5728I, EKI-5729F, EKI-5729FI, EKI-5528, EKI-5528I, EKI-5524SS, EKI-5524SSI, EKI-5524MM, EKI-5524MMI, EKI-5524SS-ST, EKI-5524SSI-ST, EKI-5524MM-ST and EKI-5524MMI-ST.

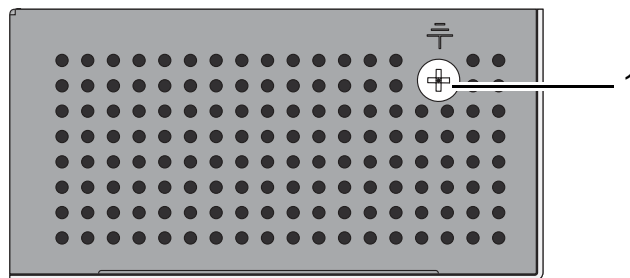


Figure 1-28. Bottom View

Table 1-31. Bottom View

| No. | Item | Description |
|-----|-----------------|--|
| 1 | Ground terminal | Screw terminal used to ground chassis. |

The following view applies to EKI-5526, EKI-5526I, EKI-5629C, EKI-5629CI, EKI-5626C, EKI-5626CI, EKI-5726, EKI-5726I, EKI-5726F and EKI-5726FI.

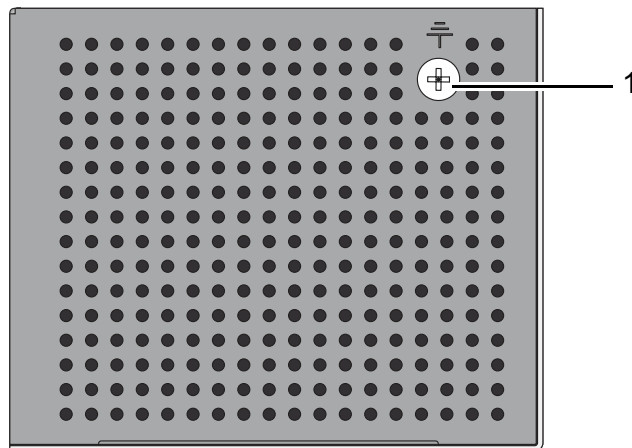


Figure 1-29. Bottom View

Table 1-32. Bottom View

| No. | Item | Description |
|-----|-----------------|--|
| 1 | Ground terminal | Screw terminal used to ground chassis. |

The following view applies to EKI-5725FP, EKI-5725FPI, EKI-5624P, EKI-5624PI, EKI-5729P and EKI-5729PI.

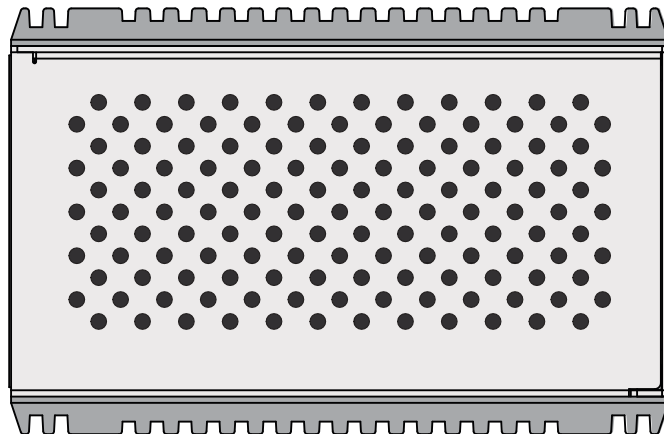


Figure 1-30. Bottom View

1.4. Packing List

The product package you have received should contain the following items. If any of them are not included or damaged, please contact your local vendor for support.

- 1 x Industrial Ethernet Switch
- 1 x Wall-mounting Bracket
- 1 x DIN-Rail mounting Bracket and Screws
- 1 x EKI Device Configuration Utility CD-ROM
- 1 x Startup Manual

Switch Installation

Chapter 2

2.1. Installation Guidelines

The following guidelines are provided to optimize the device performance. Review the guidelines before installing the device.

- Make sure cabling is away from sources of electrical noise. Radios, power lines, and fluorescent lighting fixtures can interference with the device performance.
- Make sure the cabling is positioned away from equipment that can damage the cables.
- Operating environment is within the ranges listed range, see “Specifications” on page 2.
- Relative humidity around the switch does not exceed 95 percent (noncondensing).
- Altitude at the installation site is not higher than 10,000 feet.
- In 10/100 and 10/100/1000 fixed port devices, the cable length from the switch to connected devices can not exceed 100 meters (328 feet).
- Make sure airflow around the switch and respective vents is unrestricted. Without proper airflow the switch can overheat. To prevent performance degradation and damage to the switch, make sure there is clearance at the top and bottom and around the exhaust vents.

2.1.1 Connecting Hardware

In this instruction, it will explain how to find a proper location for your Modbus Gateways, and how to connect to the network, hook up the power cable, and connect to the EKI-5000 Series.

2.2. Verifying Switch Operation

Before installing the device in a rack or on a wall, power on the switch to verify that the switch passes the power-on self-test (POST). To connect the cabling to the power source see “Power Supply Installation” on page 43.

At startup (POST), the System LED blinks green, while the remaining LEDs are a solid green. Once the switch passes POST self-test, the System LED turns green. The other LEDs turn off and return to their operating status. If the switch fails POST, the System LED switches to an amber state.

After a successful self-test, power down the switch and disconnect the power cabling.

The switch is now ready for installation on its final location.

2.3. Installing the Switch

2.3.1 DIN Rail Mounting

The DIN rail mount option is the quickest installation option. Additionally, it optimizes the use of rail space.

The metal DIN rail kit is secured to the rear of the switch. The device can be mounted onto a standard 35mm (1.37") x 75 mm (3") height DIN rail. The devices can be mounted vertically or horizontally. Refer to the following guidelines for further information.



A corrosion-free mounting rail is advisable.

When installing, make sure to allow for enough space to properly install the cabling.

Installing the DIN-Rail Mounting Kit

1. Insert the top back of the mounting bracket over the DIN rail.
2. Push the bottom of the switch towards the DIN rail until it snaps into place.

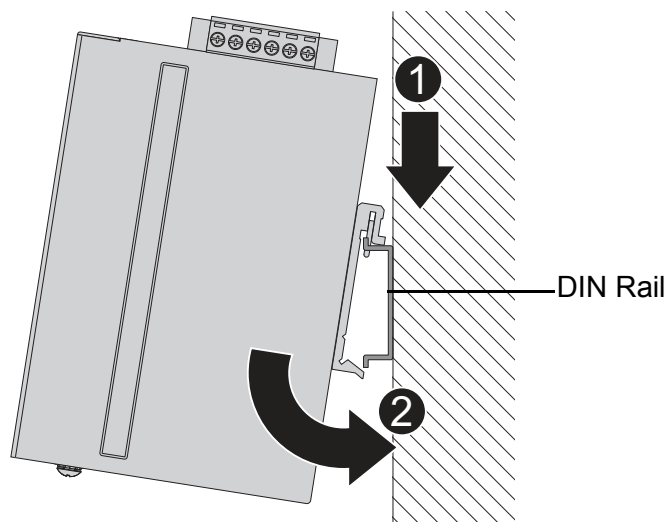


Figure 2-1. Installing the DIN-Rail Mounting Kit

Removing the DIN-Rail Mounting Kit

1. Push the switch down to free the bottom of the plate from the DIN rail.
2. Rotate the bottom of the device towards you and away from the DIN rail.
3. Once the bottom is clear of the DIN rail, lift the device straight up to unhook it from the DIN rail.

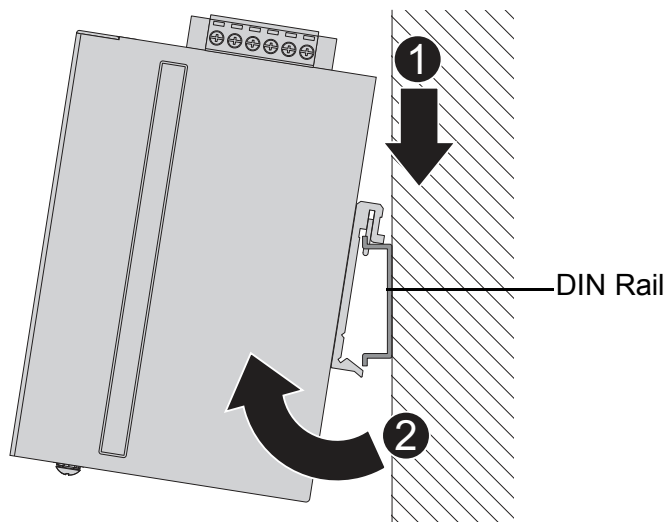


Figure 2-2. Removing the DIN-Rail

2.3.2 Wall-Mounting

The wall mounting option provides better shock and vibration resistance than the DIN rail vertical mount.



When installing, make sure to allow for enough space to properly install the cabling.

Before the device can be mounted on a wall, you will need to remove the DIN rail plate.

1. Rotate the device to the rear side and locate the DIN mounting plate.
2. Remove the screws securing the DIN mounting plate to the rear panel of the switch.
3. Remove the DIN mounting plate. Store the DIN mounting plate and provided screws for later use.
4. Align the wall mounting plates on the rear side. The screw holes on the device and the mounting plates must be aligned, see the following illustration.

- Secure the wall mount plates with M3 screws, see the following figure.

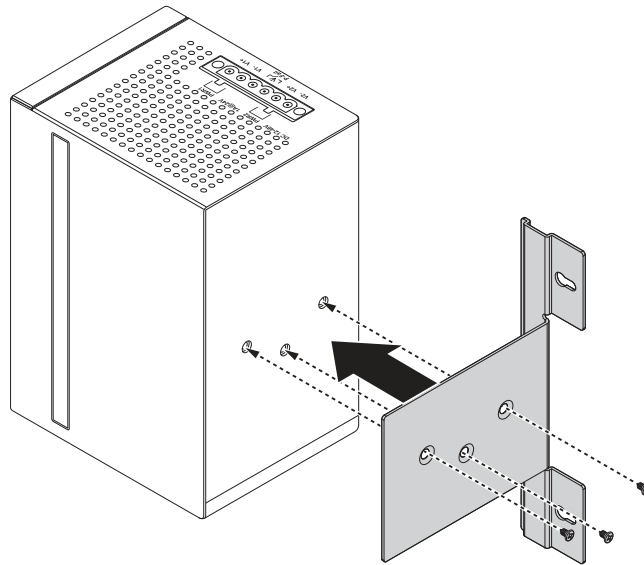


Figure 2-3. Installing Wall Mount Plates

Once the wall mounting plates are secure on the device, you will need to attach the wall screws (x3).

- Locate the installation site and place the switch against the wall, making sure it is the final installation location.
- Use the wall mount plates as a guide to mark the locations of the screw holes.
- Drill four holes over the four marked locations on the wall, keeping in mind that the holes must accommodate wall sinks in addition to the screws.
- Insert the wall sinks into the walls.
- Insert the screws into the wall sinks. Leave a 2 mm gap between the wall and the screw head to allow for wall mount plate insertion.



Figure 2-4. Securing Wall Mounting Screws



- *Make sure the screws dimensions are suitable for use with the wall mounting plate.*
- *Do not completely tighten the screws into the wall. A final adjustment may be needed before fully securing the wall mounting plates on the wall.*

- Align the wall mount plate over the screws on the wall.

12. Install the wall mount plate on the screws and slide it forward to lock in place, see the following figure.

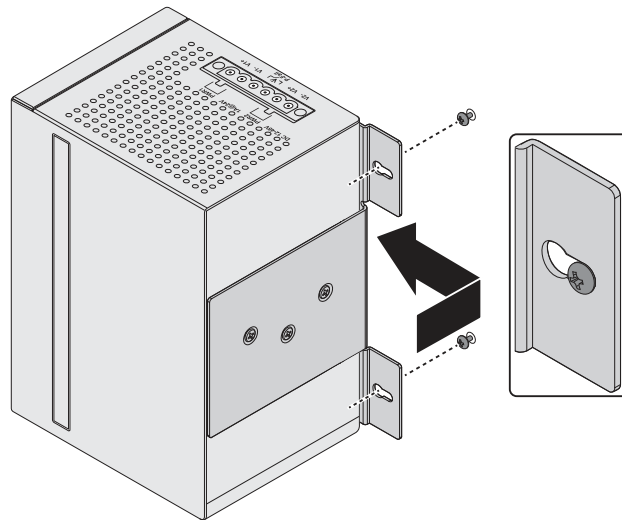


Figure 2-5. Wall Mount Installation

13. Once the device is installed on the wall, tighten the screws to secure the device.

2.4. Installing and Removing SFP Modules

Up to two fiber optic ports are available (dependent on model) for use in the switch. Refer to the technical specifications for details.

The Gigabit Ethernet ports on the switch are 100/1000Base SFP Fiber ports, which require using the 100M or 1G mini-GBIC fiber transceivers to work properly. Advantech provides completed transceiver models for different distance requirement.

The concept behind the LC port and cable is quite straight forward. Suppose that you are connecting devices I and II; contrary to electrical signals, optical signals do not require a circuit in order to transmit data. Consequently, one of the optical lines is used to transmit data from device I to device II, and the other optical line is used transmit data from device II to device I, for full-duplex transmission.

Remember to connect the Tx (transmit) port of device I to the Rx (receive) port of device II, and the Rx (receive) port of device I to the Tx (transmit) port of device II. If you make your own cable, we suggest labeling the two sides of the same line with the same letter (A-to-A and B-to-B, as shown below, or A1-to-A2 and B1-to-B2).



This is a Class 1 Laser/LED product. To avoid causing serious damage to your eyes, do not stare directly into the Laser Beam.

2.4.1 Installing SFP Modules

To connect the fiber transceiver and LC cable, use the following guidelines:

1. Remove the dust plug from the fiber optic slot chosen for the SFP transceiver.

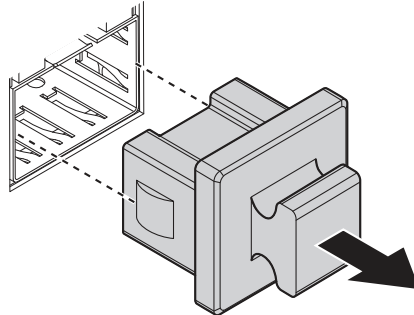


Figure 2-6. Removing the Dust Plug from an SFP Slot



Do not remove the dust plug from the SFP slot if you are not installing the transceiver at this time. The dust plug protects hardware from dust contamination.

2. Position the SFP transceiver with the handle on top, see the following figure.
3. Locate the triangular marking in the slot and align it with the bottom of the transceiver.
4. Insert the SFP transceiver into the slot until it clicks into place.
5. Make sure the module is seated correctly before sliding the module into the slot. A click sounds when it is locked in place.

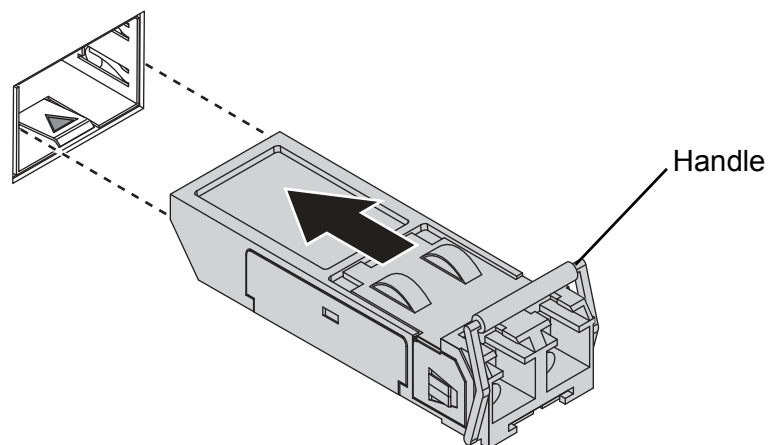


Figure 2-7. Installing an SFP Transceiver



If you are attaching fiber optic cables to the transceiver, continue with the following step. Otherwise, repeat the previous steps to install the remaining SFP transceivers in the device.

6. Remove the protective plug from the SFP transceiver.



Do not remove the dust plug from the transceiver if you are not installing the fiber optic cable at this time. The dust plug protects hardware from dust contamination.

7. Insert the fiber cable into the transceiver. The connector snaps into place and locks.

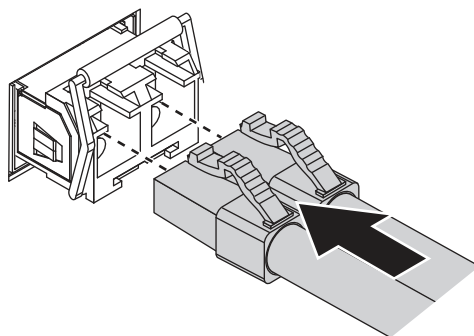


Figure 2-8. Attaching a Fiber Optic Cable to a Transceiver

8. Repeat the previous procedures to install any additional SFP transceivers in the switch. The fiber port is now setup.

2.4.2 Removing SFP Modules

To disconnect an LC connector, use the following guidelines:

1. Press down and hold the locking clips on the upper side of the optic cable.
2. Pull the optic cable out to release it from the transceiver.

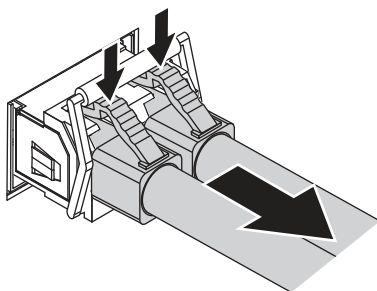


Figure 2-9. Removing a Fiber Optic Cable to a Transceiver

3. Hold the handle on the transceiver and pull the transceiver out of the slot.

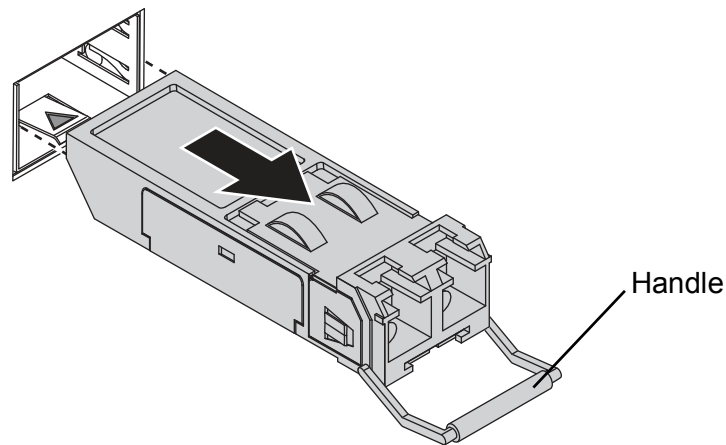


Figure 2-10. Removing an SFP Transceiver



Replace the dust plug on the slot if you are not installing a transceiver. The dust plug protects hardware from dust contamination.

2.5. Connecting the Switch to Ethernet Ports

2.5.1 RJ45 Ethernet Cable Wiring

For RJ45 connectors, data-quality, twisted pair cabling (rated CAT5 or better) is recommended. The connector bodies on the RJ45 Ethernet ports are metallic and connected to the GND terminal. For best performance, use shielded cabling. Shielded cabling may be used to provide further protection.

Table 2-1. RJ45 Ethernet Wiring for Reference

| Straight-thru Cable Wiring | | Cross-over Cable Wiring | |
|----------------------------|-------|-------------------------|-------|
| Pin 1 | Pin 1 | Pin 1 | Pin 3 |
| Pin 2 | Pin 2 | Pin 2 | Pin 6 |
| Pin 3 | Pin 3 | Pin 3 | Pin 1 |
| Pin 6 | Pin 6 | Pin 6 | Pin 2 |

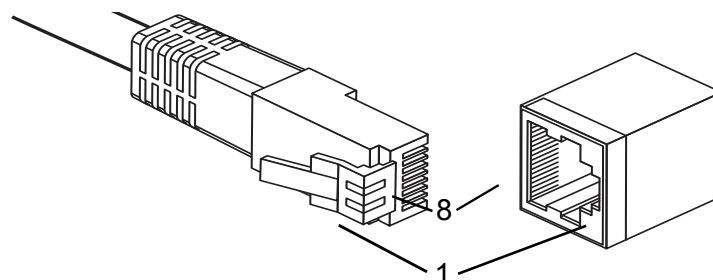


Figure 2-11. Ethernet Plug & Connector Pin Position

Maximum cable length: 100 meters (328 ft.) for 10/100/1000BaseT.

2.6. Power Supply Installation

2.6.1 Overview



POWER DOWN AND DISCONNECT THE POWER CORD BEFORE SERVICING OR WIRING THE SWITCH.



Do not disconnect modules or cabling unless the power is first switched off. The device only supports the voltage outlined in the type plate. Do not use any other power components except those specifically designated for the switch device.



Disconnect the power cord before installation or cable wiring.

The switches can be powered by using the same DC source used to power other devices. A DC voltage range of 12 to 48 VDC must be applied between the V1+ terminal and the V1- terminal (PW1), see the following illustrations. A Class 2 power supply is required to maintain a UL60950 panel listing. The chassis ground screw terminal should be tied to the panel or chassis ground. A redundant power configuration is supported through a secondary power supply unit to reduce network down time as a result of power loss.

EKI-5000 Series support 12 and 48 VDC. Dual power inputs are supported and allow you to connect a backup power source.

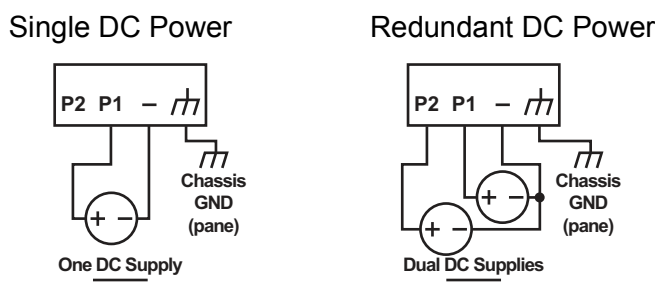


Figure 2-12. Power Wiring for EKI-5000 Series

2.6.2 Considerations

Take into consideration the following guidelines before wiring the device:

- The Terminal Block (CN1) is suitable for 12-24 AWG (3.31 - 0.205 mm²). Torque value 7 lb-in.
- The cross sectional area of the earthing conductors shall be at least 3.31 mm².
- Calculate the maximum possible current for each power and common wire. Make sure the power draw is within limits of local electrical code regulations.
- For best practices, route wiring for power and devices on separate paths.
- Do not bundle together wiring with similar electrical characteristics.

- Make sure to separate input and output wiring.
- Label all wiring and cabling to the various devices for more effective management and servicing.



Routing communications and power wiring through the same conduit may cause signal interference. To avoid interference and signal degradation, route power and communications wires through separate conduits.

2.6.3 Grounding the Device



Do not disconnect modules or cabling unless the power is first switched off. The device only supports the voltage outlined in the type plate. Do not use any other power components except those specifically designated for the switch device.



Before connecting the device properly ground the device. Lack of a proper grounding setup may result in a safety risk and could be hazardous.



Do not service equipment or cables during periods of lightning activity.



Do not service any components unless qualified and authorized to do so.



Do not block air ventilation holes.

Electromagnetic Interference (EMI) affects the transmission performance of a device. By properly grounding the device to earth ground through a drain wire, you can setup the best possible noise immunity and emissions.

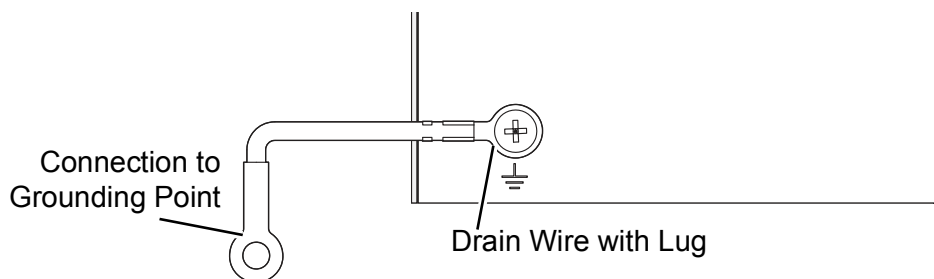


Figure 2-13. Grounding Connection

By connecting the ground terminal by drain wire to earth ground the switch and chassis can be ground.



Before applying power to the grounded switch, it is advisable to use a volt meter to ensure there is no voltage difference between the power supply's negative output terminal and the grounding point on the switch.

2.6.4 Wiring a Relay Contact

The following section details the wiring of the relay output. The terminal block on the EKI-5000 Series is wired and then installed onto the terminal receptor located on the EKI-5000 Series.

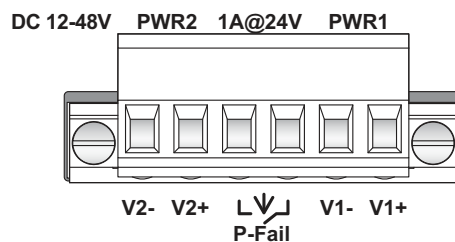


Figure 2-14. Terminal Receptor: Relay Contact

The terminal receptor includes a total of six pins: two for PWR1, two for PWR2 and two for a fault circuit.

2.6.5 Wiring the Power Inputs



Do not disconnect modules or cabling unless the power is first switched off. The device only supports the voltage outlined in the type plate. Do not use any other power components except those specifically designated for the switch device.



POWER DOWN AND DISCONNECT THE POWER CORD BEFORE SERVICING OR WIRING THE SWITCH.

There are two power inputs for normal and redundant power configurations. The power input 2 is used for wiring a redundant power configuration. See the following for terminal block connector views.

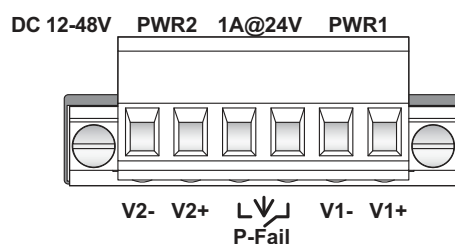


Figure 2-15. Terminal Receptor: Power Input Contacts

To wire the power inputs:

Make sure the power is not connected to the switch or the power converter before proceeding.

1. Loosen the screws securing terminal block to the terminal block receptor.
2. Remove the terminal block from the switch.

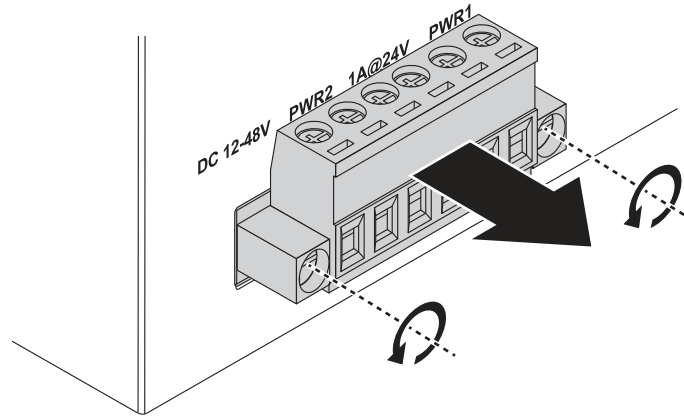


Figure 2-16. Removing a Terminal Block

3. Insert a small flat-bladed screwdriver in the V1+/V1- wire-clamp screws, and loosen the screws.
4. Insert the negative/positive DC wires into the V+/V- terminals of PW1. If setting up power redundancy, connect PW2 in the same manner.
5. Tighten the wire-clamp screws to secure the DC wires in place.

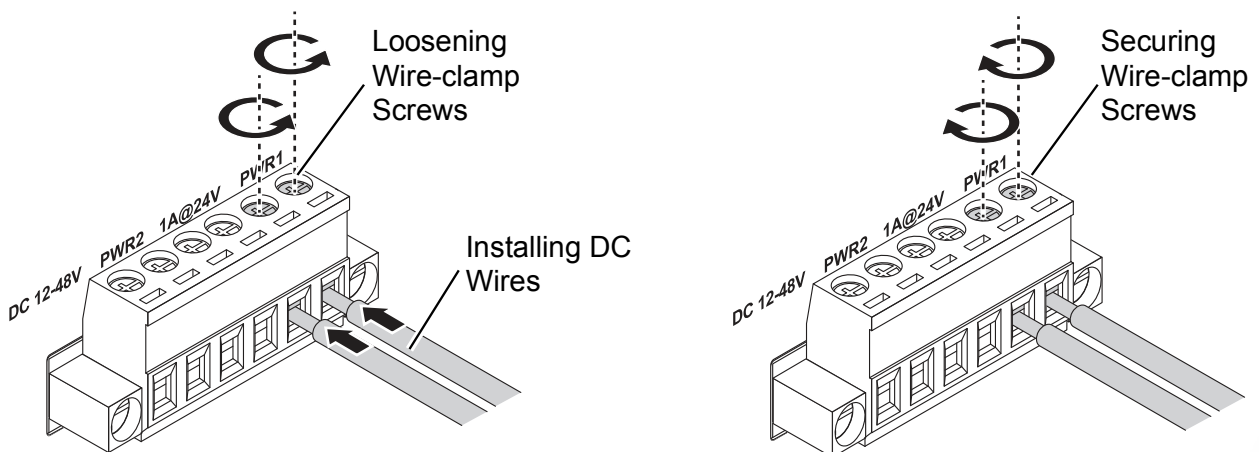


Figure 2-17. Installing DC Wires in a Terminal Block

6. Align the terminal block over the terminal block receptor on the switch.
7. Insert the terminal block and press it in until it is flush with the terminal block receptor.

8. Tighten the screws on the terminal block to secure it to the terminal block receptor. If there is no gap between the terminal block and the terminal receptor, the terminal block is seated correctly.

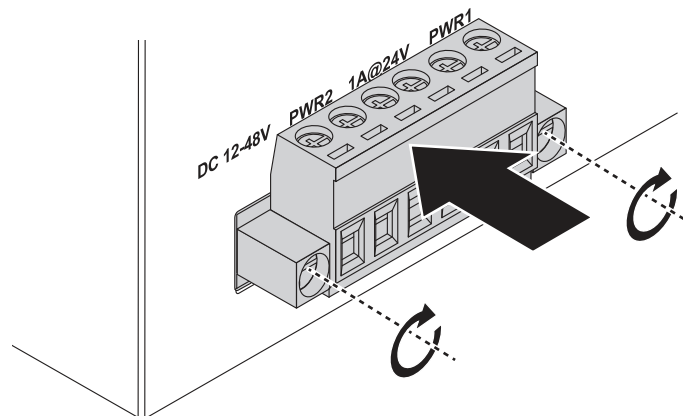


Figure 2-18. Securing a Terminal Block to a Receptor

Configuration Utility

Chapter 3

3.1. Overview

This section describes the installation procedures for the Advantech EKI Device Configuration Utility. The Configuration Utility provides the monitoring function, which allows to easy access to monitoring of location, topology, status and more.

3.2. Enabling ProView Function

The configuration of a ProView switch can be accessed by using the EKI Device Configuration Utility. It can be installed on a Windows[®] 7 or Windows 10 operating systems, both are supported.

To install the software utility see “Installing the Configuration Utility” on page 50.

The ProView features for the device must be enabled. The following guidelines allow you to enable and disable the ProView features.



Microsoft Windows 7 is used as a reference for the development of the following guidelines. The following navigation references may differ depending on your operating system.

To fully access all the available options in the Configuration Utility, administrative privileges are required. Without the use of administrative privileges, some functions of the Configuration Utility are not accessible.

Before continuing further, any devices selected for configuration must be connected and powered on, see “Installation Guidelines” on page 35.

1. From your Windows desktop, locate the **Start** button to open the Start Menu.
2. Navigate to **All Programs > EKI Device Configuration Utility**.
3. Locate **Advantech EKI Device Configuration Utility** and right-click on it. From the pop-up menu, select **Run as Administrator**. See your network administrator to obtain the privileges required.
4. A security screen displays, select **Yes** to continue.
5. Select **Search Again** to detect any connected devices.
Once a device is detected, it is listed under the **EKI Device** listing in the **Tree View**.
6. Select the device to configure by clicking on it.
7. Select **System** tab to bring up the **Enable ProView Features** field.
Before a device can be configured, the ProView feature must be enabled.

8. Click the Enable ProView Features radio button and click **Apply** to configure the device.

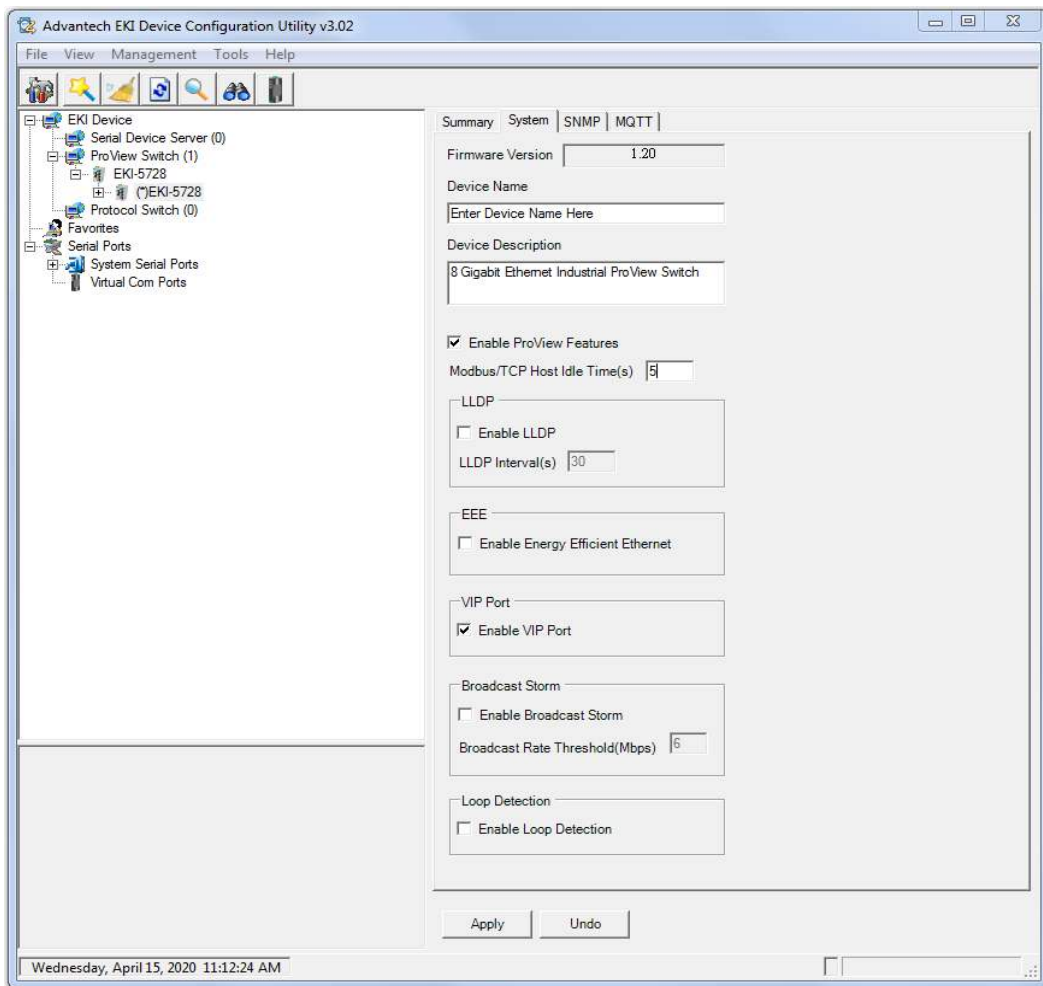


Figure 3-1. Enabling ProView Features

The ProView function is enabled and the switch can be configured.

3.3. Installing the Configuration Utility



Microsoft .NET Framework version 2.0 or greater is required for this application.

1. Insert the Advantech EKI Device Configuration Utility CD-ROM into the CD-ROM drive (whereas E:\ is the drive name of your CD-ROM) on the host PC.
2. Use Windows explorer or the Windows Run command to execute the setup program, the path for the setup program on the CD-ROM is as follows:
E:\EKI_Device_Configuration_UTILITY_v1.70.exe
3. If there is an existing COM port mapping utility on the host PC, remove it at this time. A system reboot may be necessary before continuing the installation.

- Once the InstallShield Wizard screen displays, click **Next** to proceed with the installation.

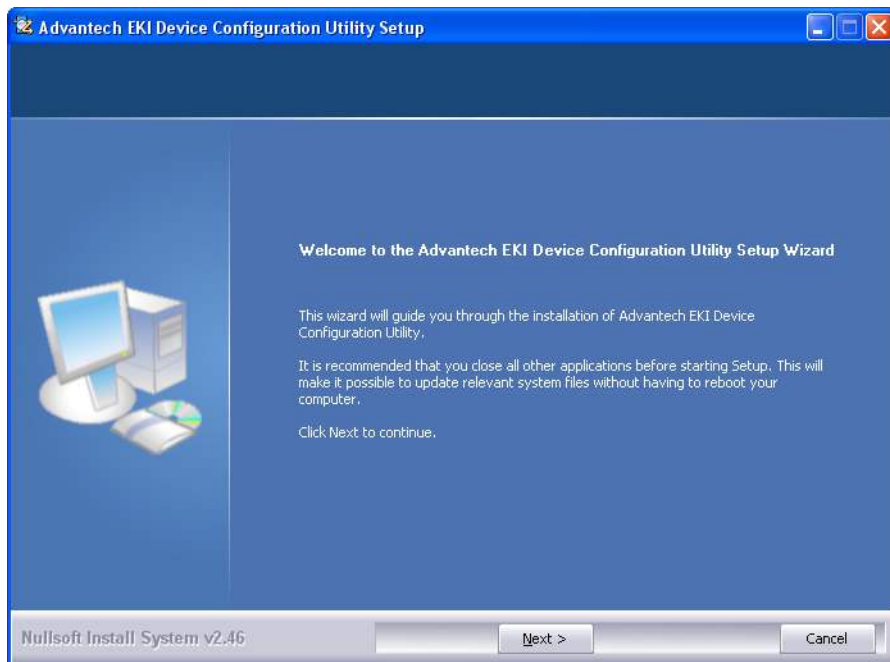


Figure 3-2. InstallShield Wizard 1 of 4

- The Software License Agreement displays, press **I Agree** to continue or **Cancel** to stop the installation.

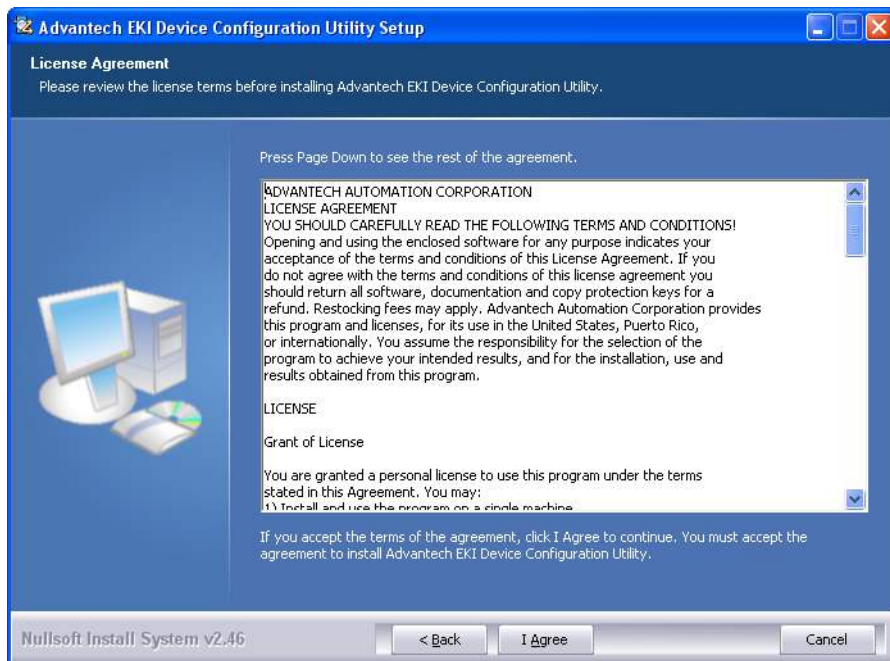


Figure 3-3. InstallShield Wizard 2 of 4

The InstallShield continues and a status screen displays. The default installation path is C:\Program Files\EKI Device Configuration Utility.

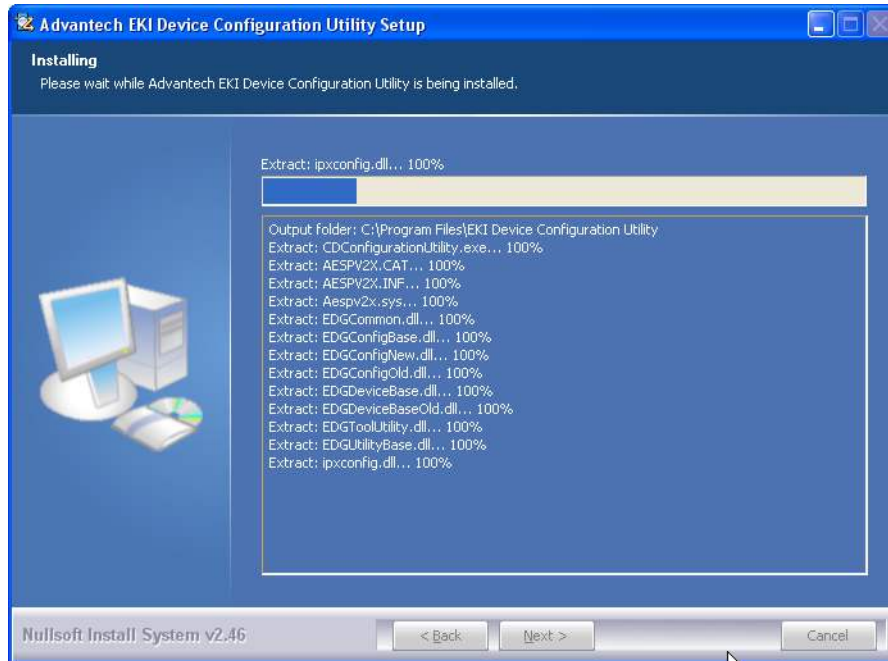


Figure 3-4. InstallShield Wizard 3 of 4

6. Once the installation of the package is finished a Configuration Utility Setup screen displays. Click **Finish** to conclude the process and exit the InstallShield Wizard.

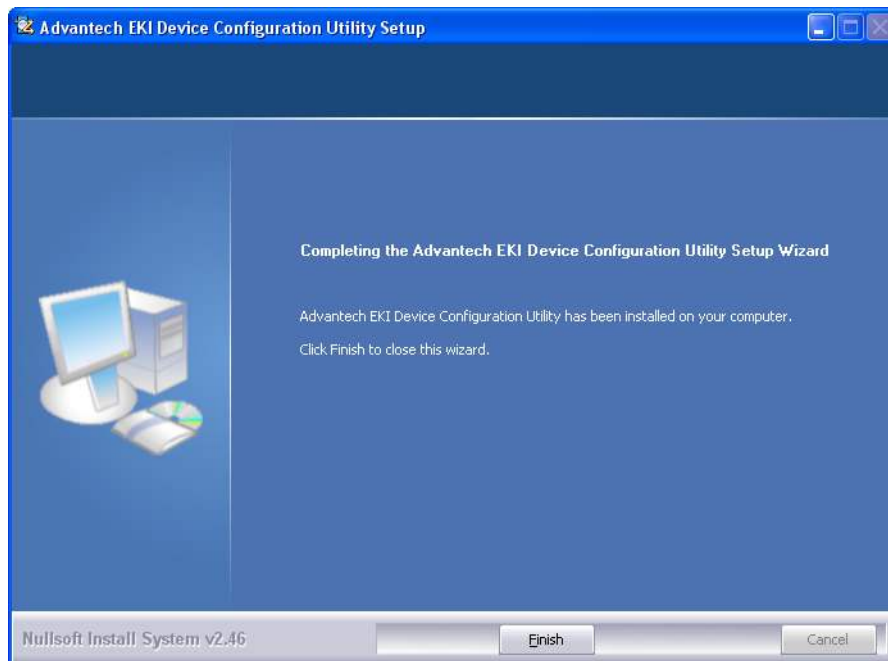


Figure 3-5. InstallShield Wizard 4 of 4

3.4. Utility Menu Map

The EKI Configuration Utility can be installed on different operating systems, however, Windows 7 is the recommended version.

Click **Start > All Programs > EKI Device Configuration Utility > Advantech EKI Device Configuration Utility**. The EKI Device Configuration Utility screen appears, see the following figure.

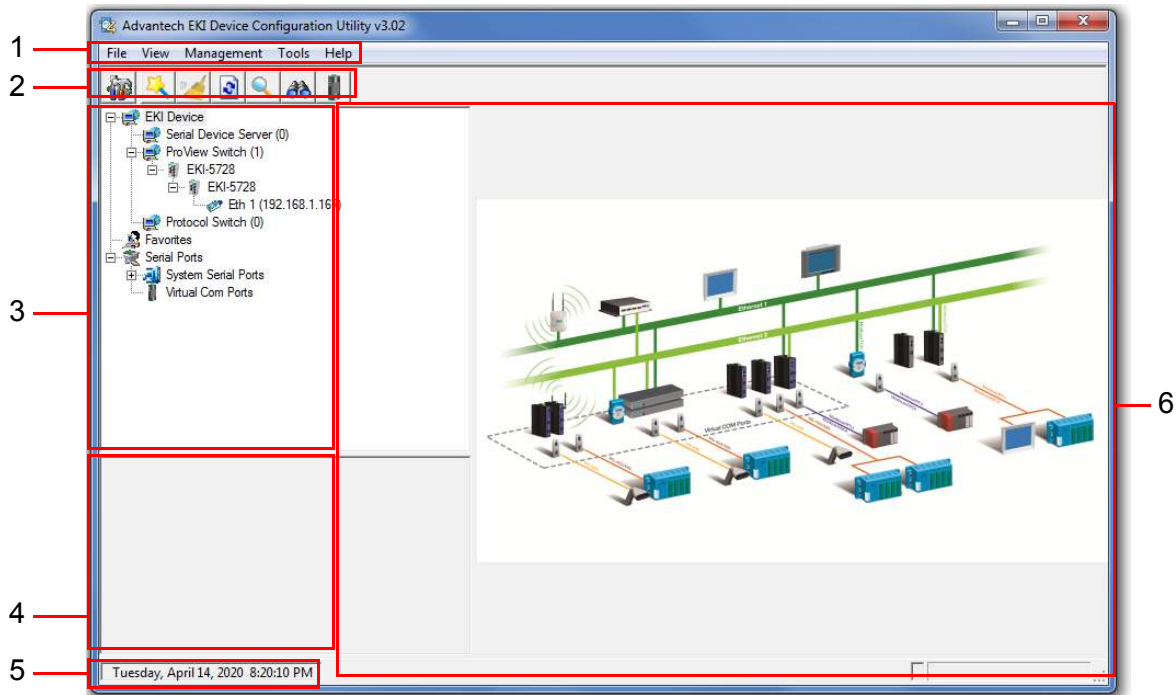


Figure 3-6. Configuration Utility Overview

Table 3-1. Configuration Utility Overview

| No | Item | Description |
|----|--------------------|---|
| 1 | Menu Bar | Displays File, View, Management, Tools and Help. |
| 2 | Tool Bar | Useful management functions' shortcuts. |
| 3 | Tree View | All devices will be searched and listed in this area. You can arrange different favorite group and virtual COM ports. |
| 4 | Information Panel | Click on the devices or move cursor to the devices, the related information is shown in this area. |
| 5 | Status Bar | Displays the current time. |
| 6 | Configuration Area | Click on the items on the TreeView Area, the configuration page displays in this area. |

3.5. Menu Bar

3.5.1 View Menu

Utility Settings

Click **View** > **Settings** to configure utility settings.

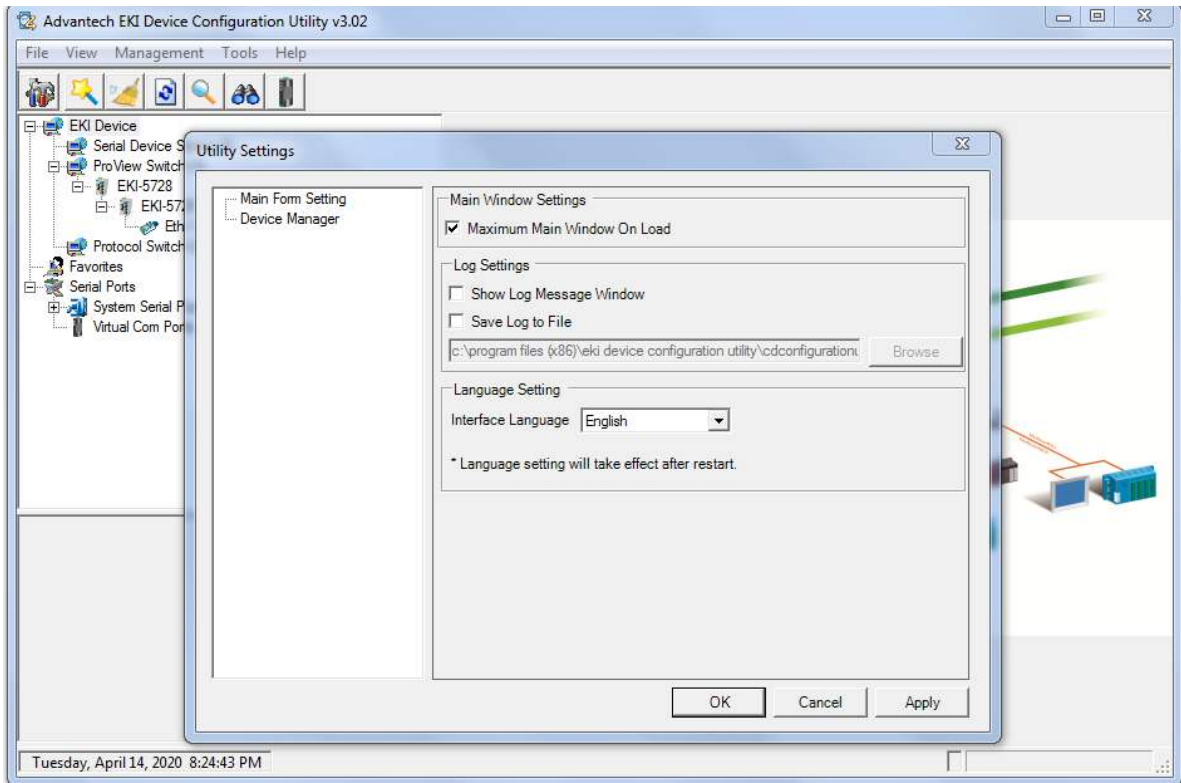


Figure 3-7. View > Settings > Main Form Setting

Table 3-2. Utility Settings > Main Form Setting

| Item | Description |
|-----------------------------|---|
| Main Window Settings | |
| Maximum Main Window On Load | Check the box to enable the limiting of main windows on-load to the maximum value. |
| Log Settings | |
| Show Log Message Window | Check the checkbox to show the log message. |
| Save Log to File | Check the checkbox to save log to file. |
| Browse | Click Browse to choose a file to save. |
| Language Settings | |
| Interface Language | Click the drop-down menu to select an interface language: Traditional Chinese, Simplified Chinese or English. |

Table 3-2. Utility Settings > Main Form Setting (Continued)

| Item | Description |
|--------|---|
| OK | Click OK to save and exit the utility setting. |
| Cancel | Click Cancel to discard the changes. |
| Apply | Click Apply to save the utility setting. |

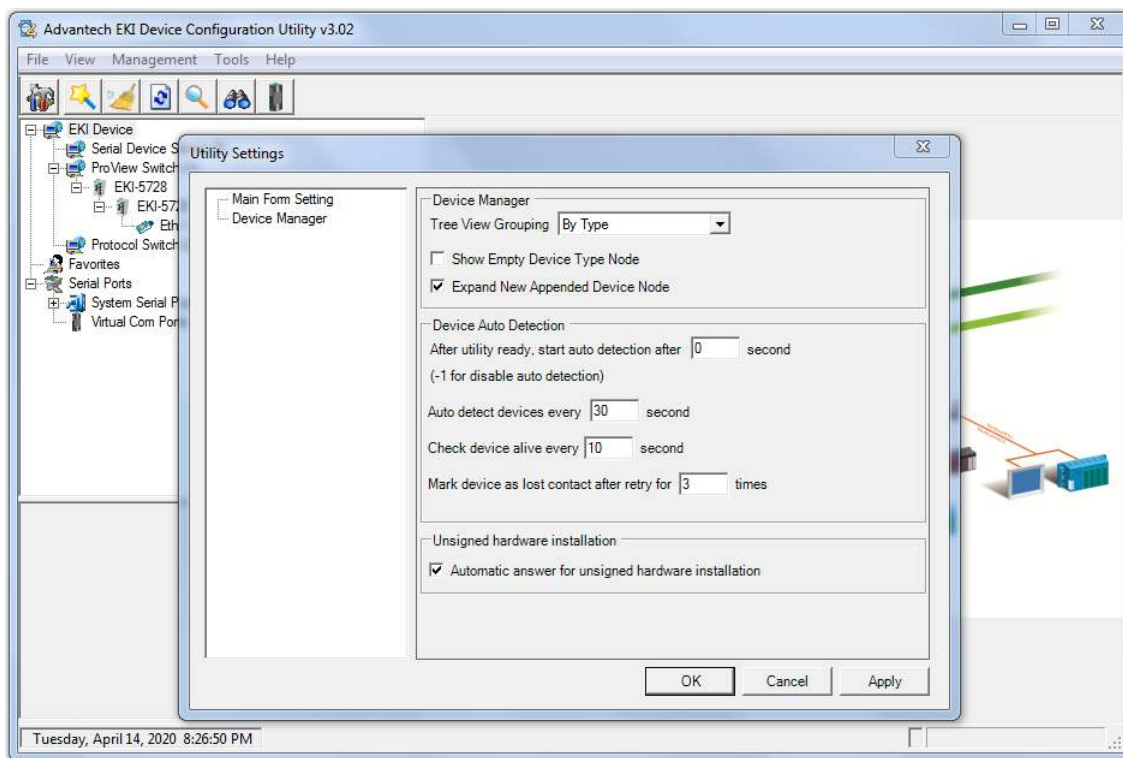


Figure 3-8. View > Settings > Device Manager

Table 3-3. Utility Settings > Device Manager

| Item | Description |
|--|---|
| Device Manager | |
| Tree View Grouping | Click the drop-down menu to enable or disable grouping. |
| Show Empty Device Type Node | Check the checkbox to show empty device type node or not. |
| Expand New Appended Device Node | Check the checkbox to expand a new appended device node or not. |
| Device Auto Detection | |
| After utility ready, start auto detection after X second | Enter a value to specify the time to auto detection time (-1 means disable auto detection). |
| Auto detect devices every X second | Enter a value to specify the time to auto detect devices. |
| Check device alive every X second | Enter a value to specify the time to check device alive. |

Table 3-3. Utility Settings > Device Manager (Continued)

| Item | Description |
|---|--|
| Mark device as lost contact after retry for X times | Enter a value to specify the time to mark device as lost contact. |
| Unsigned Hardware Installation | |
| Automatic answer for unsigned hardware installation | Check the checkbox to enable or disable answer automatically for unsigned hardware installation. |
| OK | Click OK to save and exit the utility setting. |
| Cancel | Click Cancel to discard the changes. |
| Apply | Click Apply to save the utility setting. |

3.5.2 Management Menu

Table 3-4. Management

| Item | Description |
|--|---|
| Configuration Wizard | Start the software wizard (setup assistant) to leads you through the VCOM configuration process for device server product. |
| Clear Device List and Search Again | Clear all device list and re-search devices. |
| Search Again | Re-search devices. |
| Add IP Address to Favorite | Add one device to Favorites. |
| Search for a Range of IP Addresses | Add a group of device to Favorites. |
| Manual Direct Mapping Virtual COM Port | Click to add a target by selecting a Device Type and inputting the IP address, physically connecting the serial device server to the network is not required. |

3.5.3 Help Menu








Table 3-5. Help

| Item | Description |
|----------------------|---|
| Check Utility Update | Select to update configuration utility. |
| About | Select to show the information about the configuration utility. |

3.6. Tool Bar

The tool bar is a list of shortcuts for the most frequently used menu functions. Icons are provided for each function. By clicking on the icon, the most frequently used functions can be accessed.

Table 3-6. Tool Bar

| Icon | Item | Description |
|---|--|---|
|  | Utility Settings | Refer to “Utility Settings” on page 54. |
|  | Configuration Wizard | Refer to “Management Menu” on page 56. |
|  | Clear Device List and Search Again | Refer to “Management Menu” on page 56. |
|  | Auto Search (Search Again) | Refer to “Management Menu” on page 56. |
|  | Add IP Address to Favorite | Refer to “Management Menu” on page 56. |
|  | Search for a Range of IP Addresses | Refer to “Management Menu” on page 56. |
|  | Manual Direct Mapping Virtual COM Port | Refer to “Management Menu” on page 56. |

3.7. TreeView

The TreeView configuration area displays the selected device’s configurable settings. From this area you can directly group devices in the favorite’s list. See “Utility Menu Map” on page 53.

3.8. Information Panel

The Information Panel area displays the selected device’s related information. See “Utility Menu Map” on page 53.

3.9. Status Bar

The Status Bar area displays the current time. See “Utility Menu Map” on page 53.

3.10. Configuration Area

The Configuration Area displays correlating information from selected menu items within the TreeView area. See “Utility Menu Map” on page 53.

Managing Switch

Chapter 4

4.1. Discovering Switches

4.1.1 First Time Installation

Enabling ProView Function

See “Enabling ProView Function” on page 49 for further information.

Configuring Network Settings

EKI Device Configuration Utility provides two ways to configure network settings: DHCP + Auto IP Settings or Static Settings.

DHCP + Auto IP Settings

1. Select Ethernet under the desired device.
2. Click the drop-down menu to select **DHCP + Auto-IP**.
3. Click **Apply** to confirm the settings.

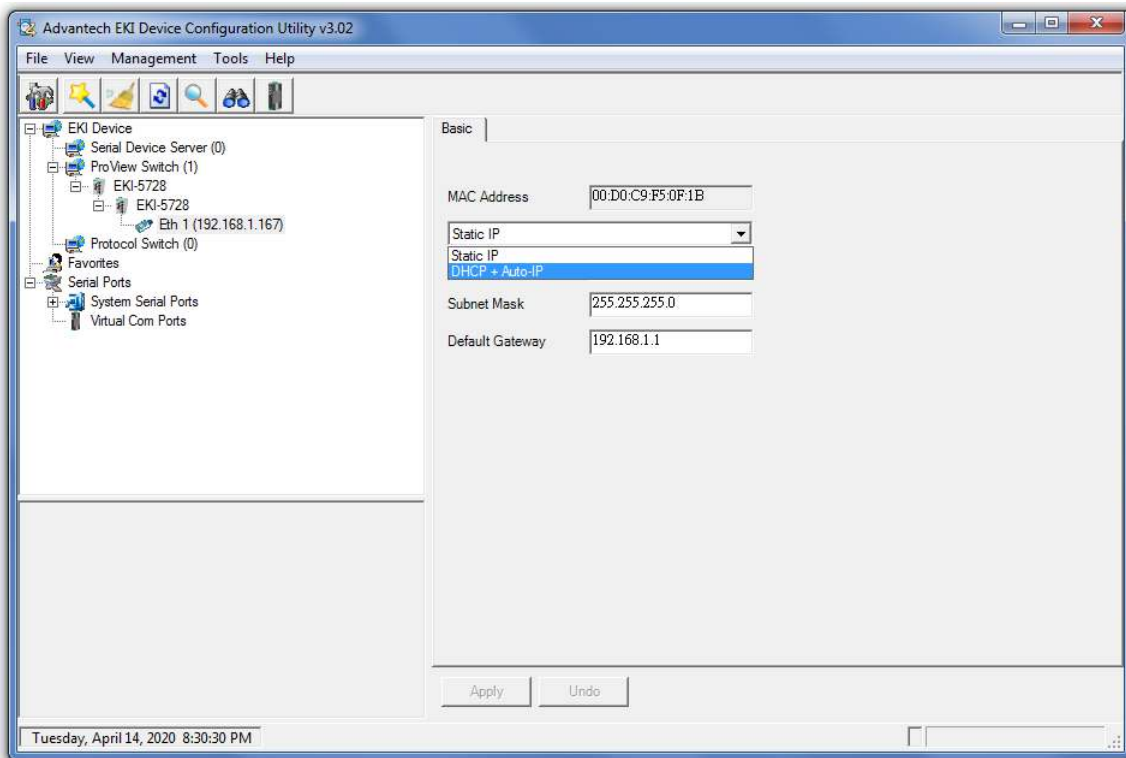


Figure 4-1. Selecting Networking Setting

Static Settings

1. Select Ethernet under the desired device.
2. Click the drop-down menu to select **Static IP**.
3. Enter the IP Address, Subnet Mask and Gateway.

4. Click **Apply** to confirm the settings.

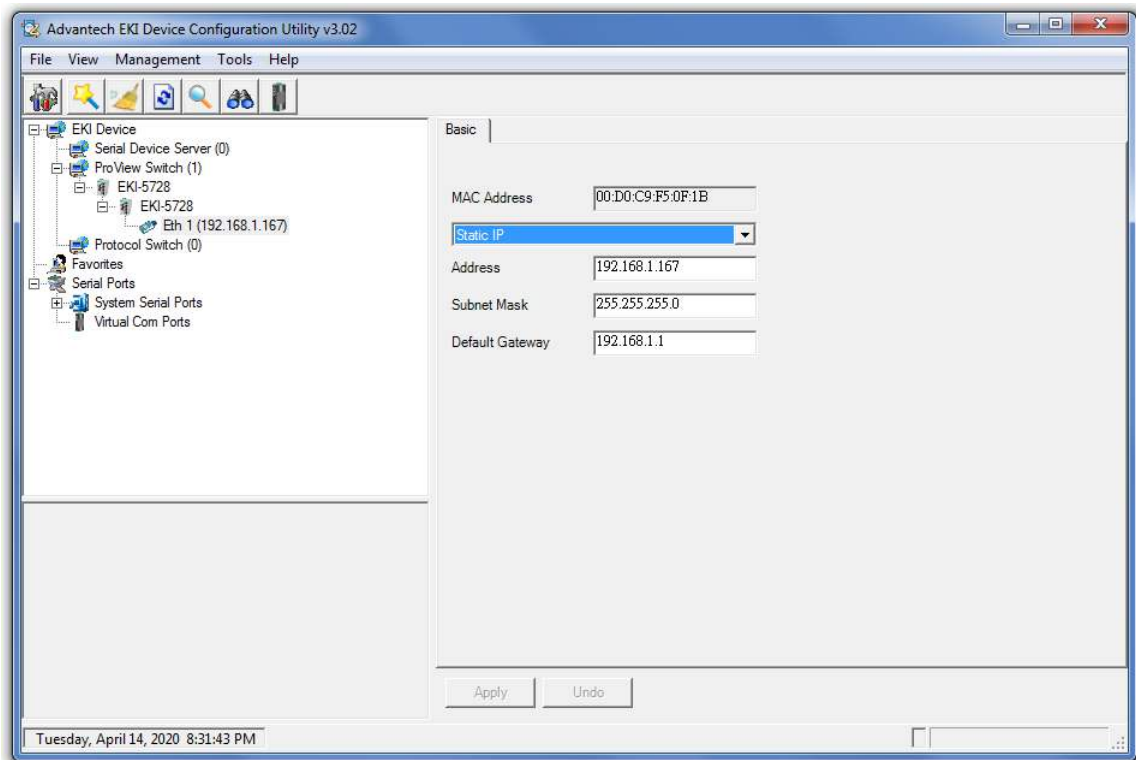


Figure 4-2. Configuring a Static IP Setting

4.1.2 Discovering Switches

Auto Search

Only devices within the same network domain can be listed through the search function. Once a device is listed, the features and configuration details are accessible by clicking on the device name.

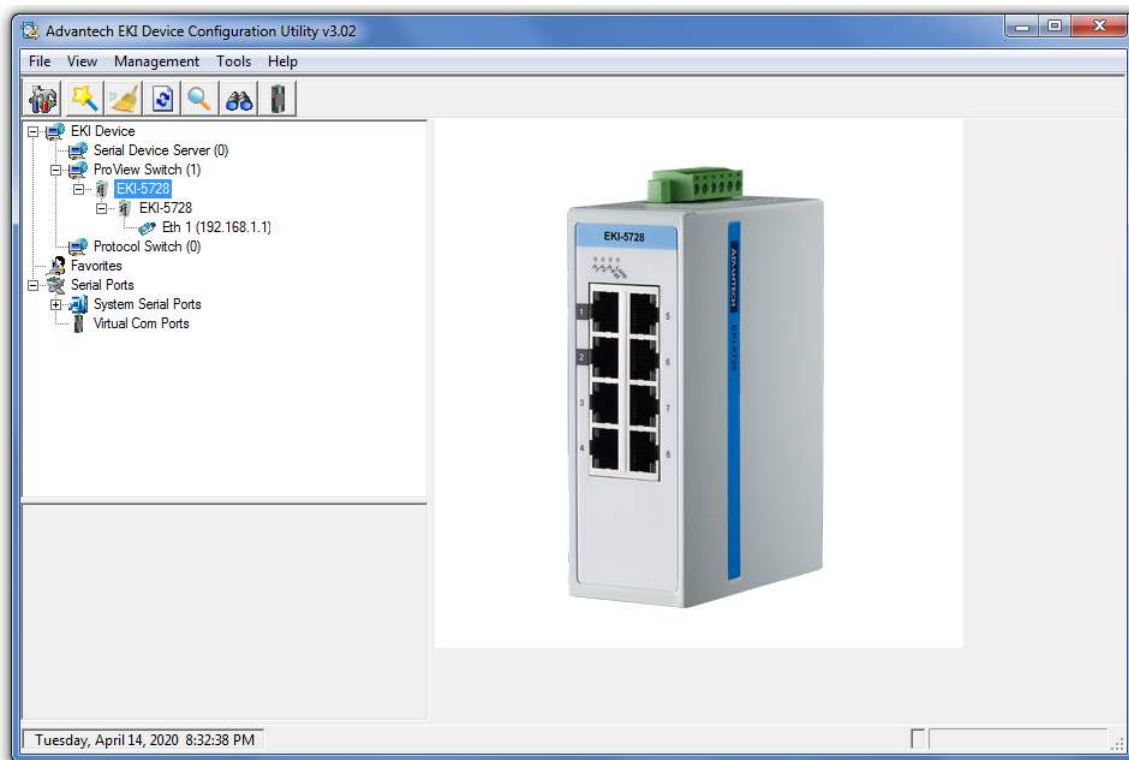



Figure 4-3. Auto Searching Screen

To search for a device:

1. From the Tool Bar, click the **Search Again**  button.

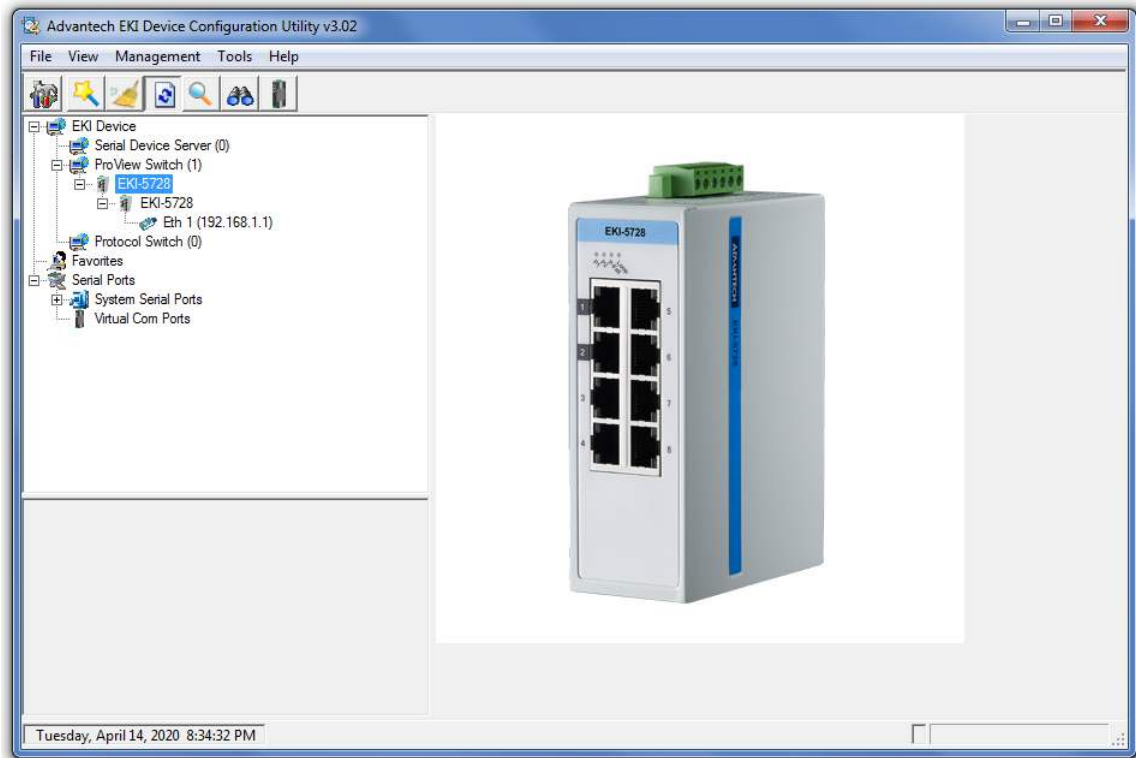



Figure 4-4. Selecting Search Again



Access to the utility's full function list requires administrator privileges.

Clearing Device List and Search Again

The search list can be cleared for a new search request by clicking the **Clearing Device List and Search Again**  button. The function clears the listing of the devices. You can use the Search function again to detect any devices connected to the network domain.

4.1.3 Group Management

Creating Groups

Groups are best used to identify a set of devices with a common characteristic and to better organize the device pool.

To create a favorite group, please follow the instructions as follows:

1. Right-click Favorite to display the settings.
2. Select **Create Group** to enter group name.

3. Enter a group name and click **OK**.

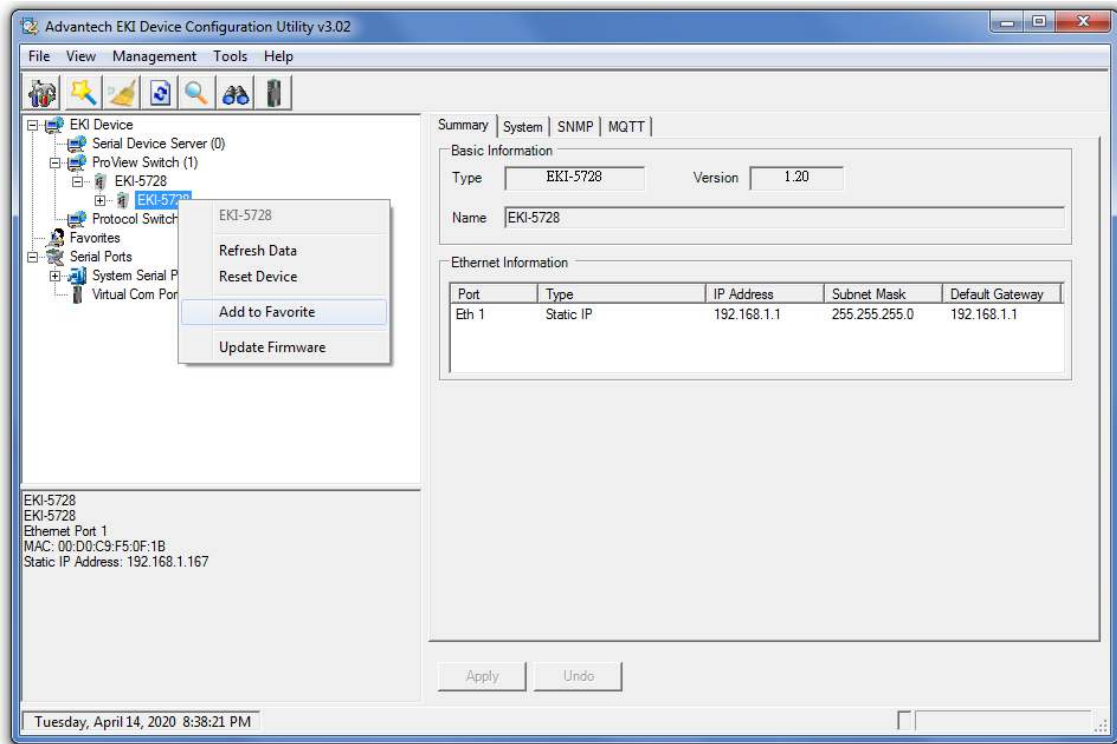


Figure 4-5. Adding a Group

The group is created and is available in the Favorite's List.

Favorite's List

A favorite's list is simple a way to organize the available devices by a category.

There are three ways to create a favorite's list: selecting a device, selecting an IP address, and selecting an IP address range. The following guidelines allow you to create a favorite's list.

Adding a Device

1. Right-click a desired device to display the settings menu.
2. Select **Add to Favorite**.

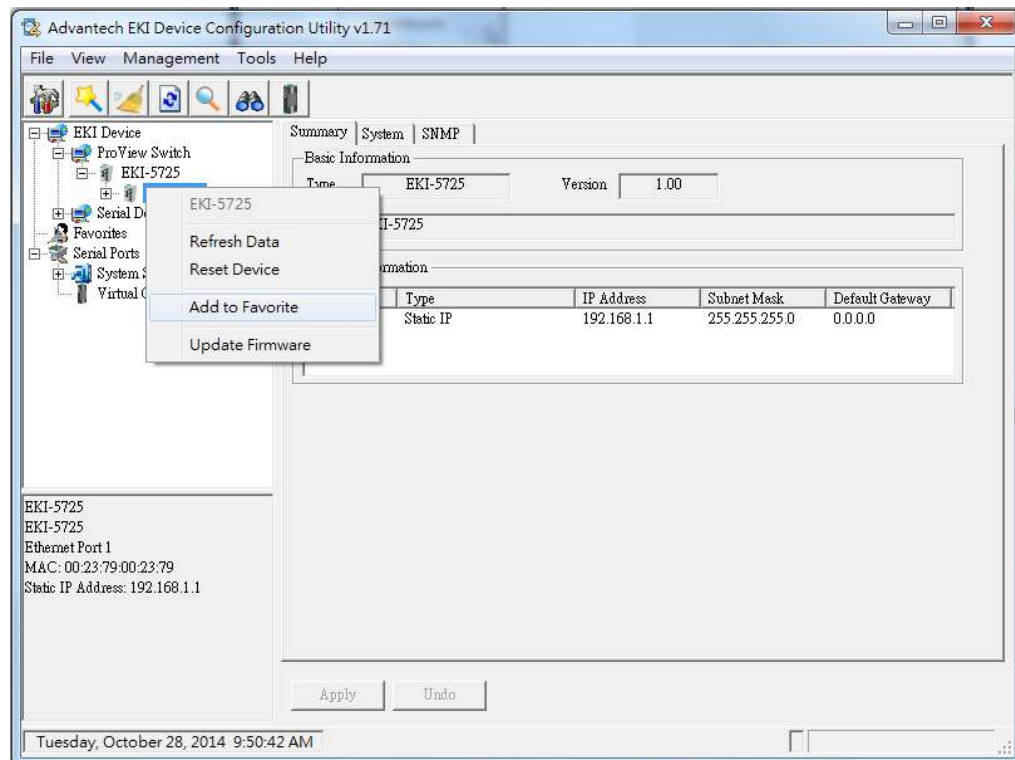



Figure 4-6. Adding a Switch to Favorites

In the event that there are existing groups, you can select the specific favorite group to include the selected device.

Adding an IP Address

1. From the Tool Bar, click the **Add IP Address to Favorite**  button.
2. Enter an IP address.
3. Click **OK** to add the IP address into the favorites list

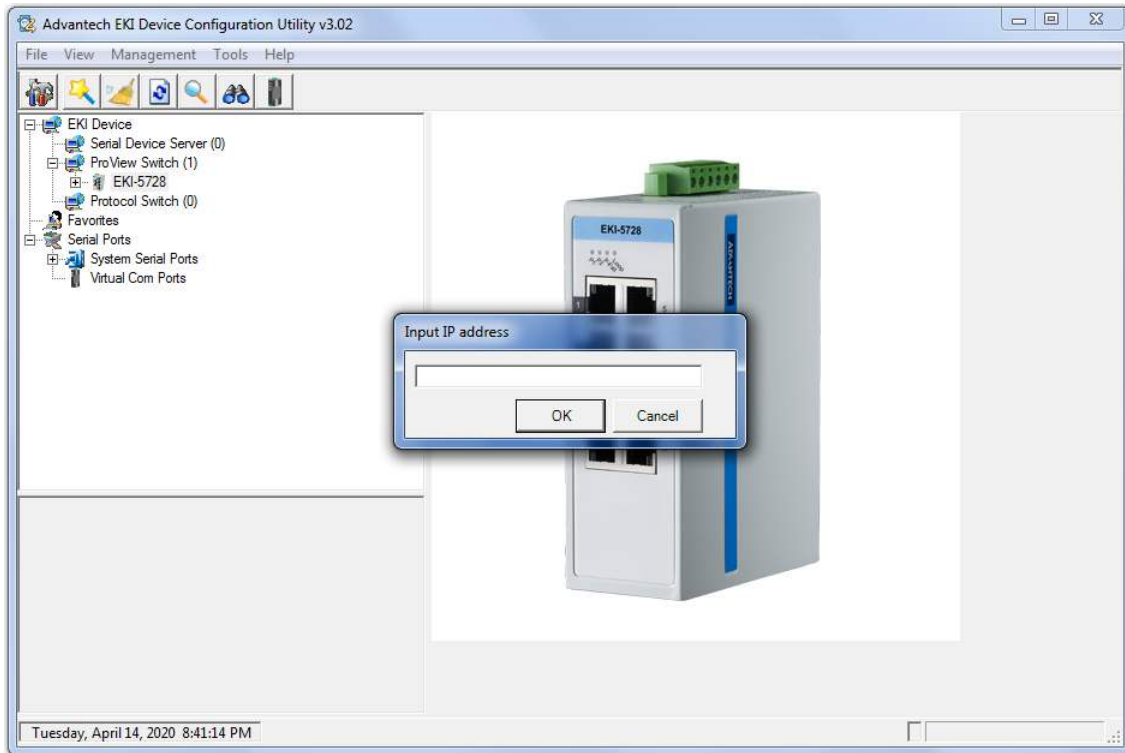



Figure 4-7. Add IP Address to Favorite

In the event that there are existing groups, you can select the specific favorite group to include the selected IP address.

Adding an IP Address Range

1. From the Tool Bar, click the **Search for a Range of IP Addresses**  button.
2. Enter a starting and ending IP address range.
3. Click **OK** to add the range into the favorites list.

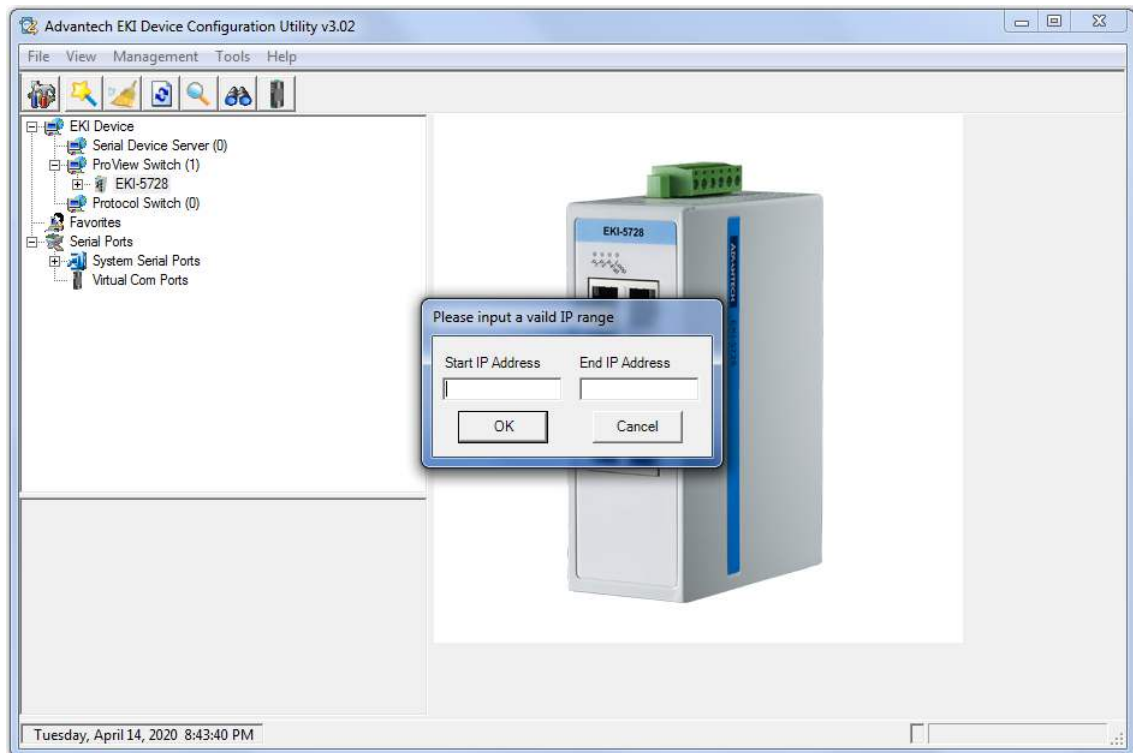


Figure 4-8. Adding an IP Address Range

In the event that there are existing groups, you can select the specific favorite group to include the selected IP address range.

4.1.4 Configuring the System

Changing Device Name

1. Select the device to configure by clicking on it.
2. In the Configuration Area, select **System** tab.
3. Locate the **Device Name** field, and enter a device name.
4. Click **Apply** to configure the device.

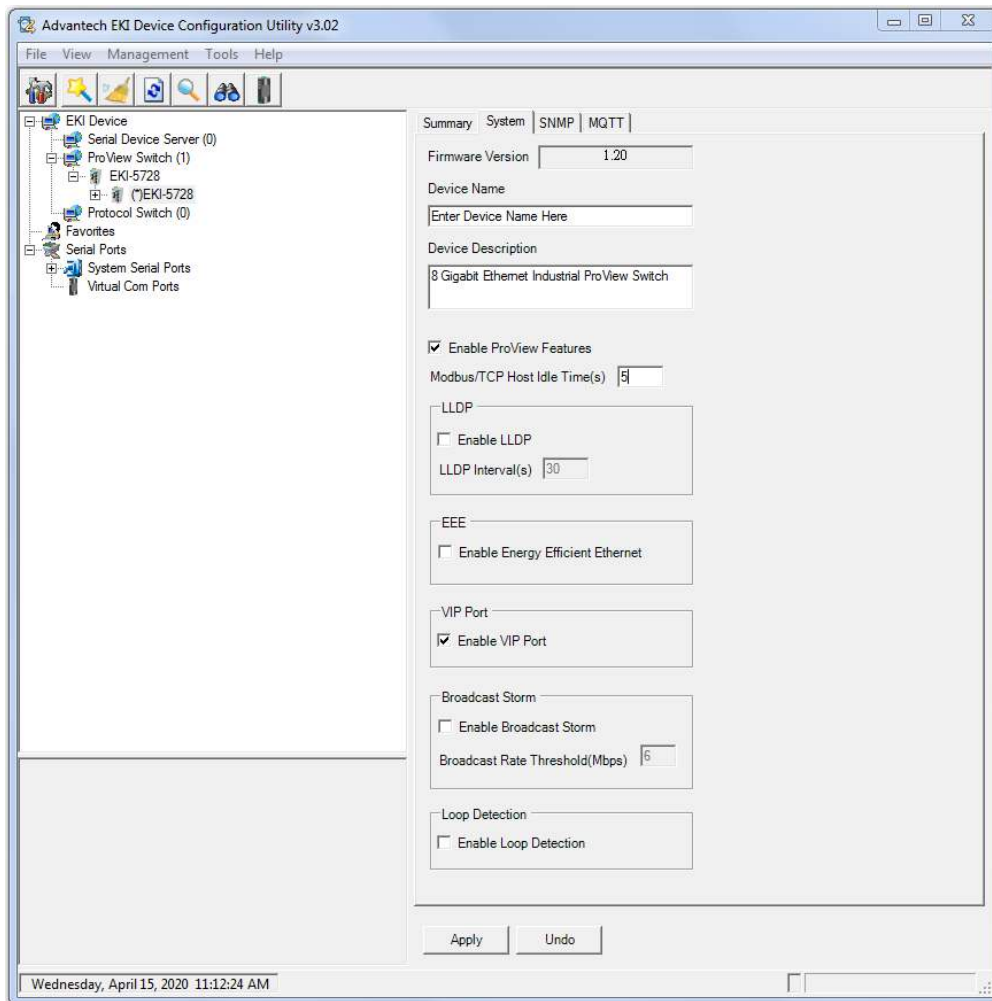


Figure 4-9. Changing Device Name

The device name is changed.

Setting Modbus/TCP Idle Time

1. Select the device to configure by clicking on it.
2. In the Configuration Area, select the **System** tab.
3. Locate the **Modbus/TCP Host Idle Time(s)** field.
4. Enter a variable representing the idle time for the Modbus/TCP host function. ProView provides the following information to SCADA through Modbus/TCP.
 - Vendor Name

- Production Name
- Firmware Version
- Ethernet MAC Address
- IP Address
- Port Status
- Port Speed
- Flow Control
- Port Description
- Link Up Counter
- PoE Status
- Tx Packets Counter
- Rx Packets Counter
- Tx Error Packets Counter
- Rx Error Packets Counter

5. Click **Apply** to configure the function.

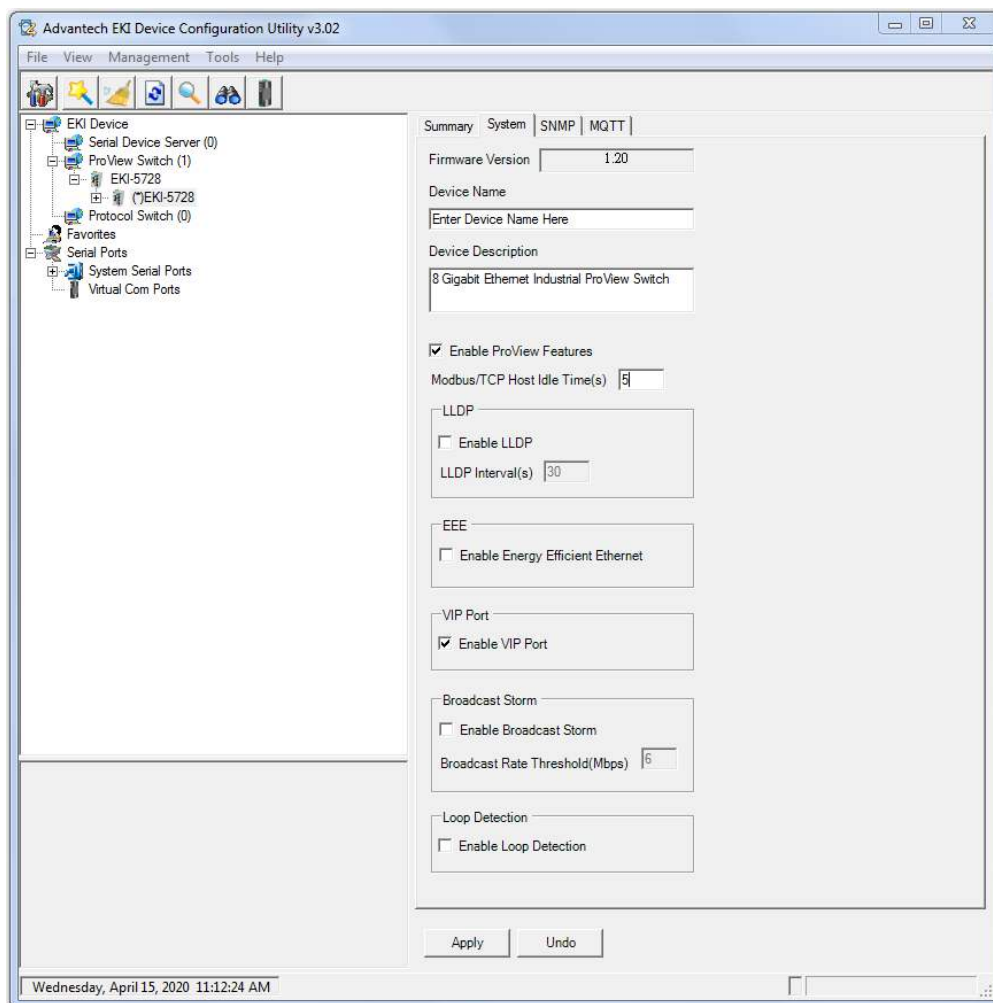


Figure 4-10. Setting Modbus/TCP Idle Time

The Modbus/TCP idle time is now set.

Setting LLDP

1. Select the device to configure by clicking on it.
2. In the Configuration Area, select the **System** tab.
3. Make sure the Enable ProView Features option is enabled. If it isn't, click on the radio box to enable it.
4. Check **Enable LLDP** feature to enable the LLDP feature. This feature enables the switch to forward LLDP messages when the function is disabled.
5. Enter a variable to designate the amount of time neighbor devices must hold the received information before discarding it.
6. Click **Apply** to configure the function.

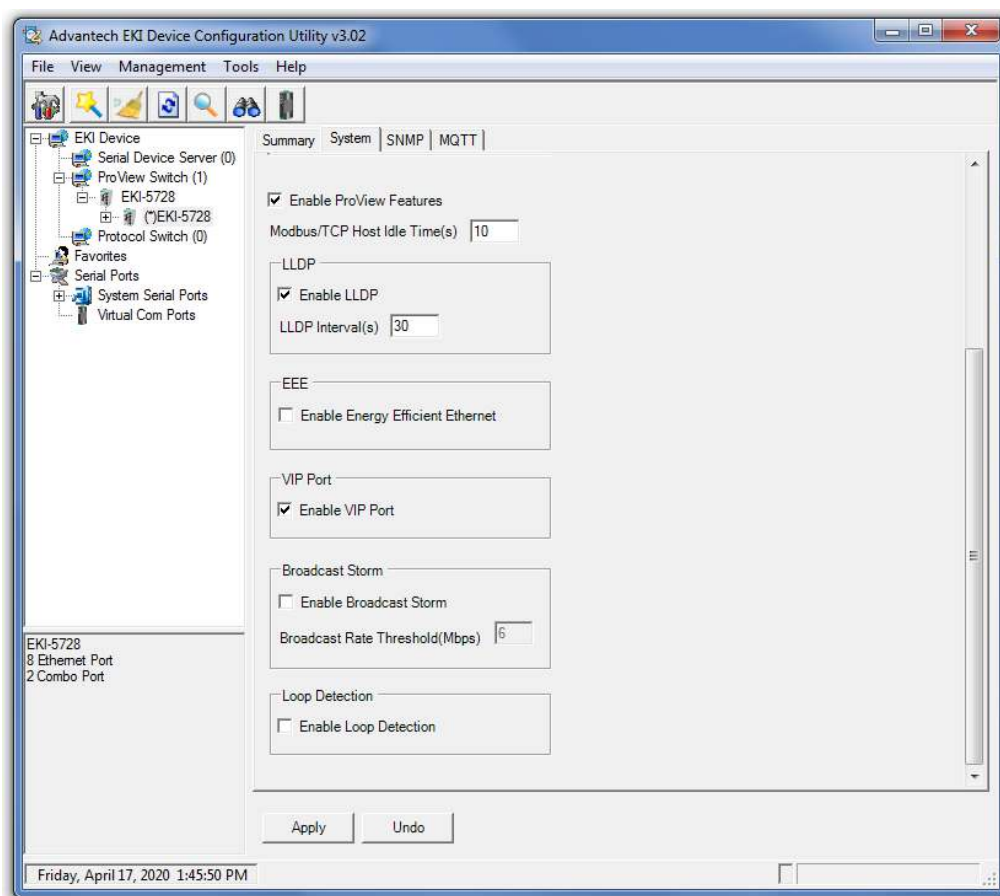


Figure 4-11. Setting LLDP

The LLDP function is set.

Setting EEE

EEE is a technology to reduce power consumption during periods of low network traffic.

1. Select the device to configure by clicking on it.
2. In the Configuration Area, select the **System** tab.
3. Under EEE, check **Enable Energy Efficient Ethernet** feature to enable the EEE feature. This feature is used by the device to reduce power consumption during low network traffic.

4. Click **Apply** to configure the function.

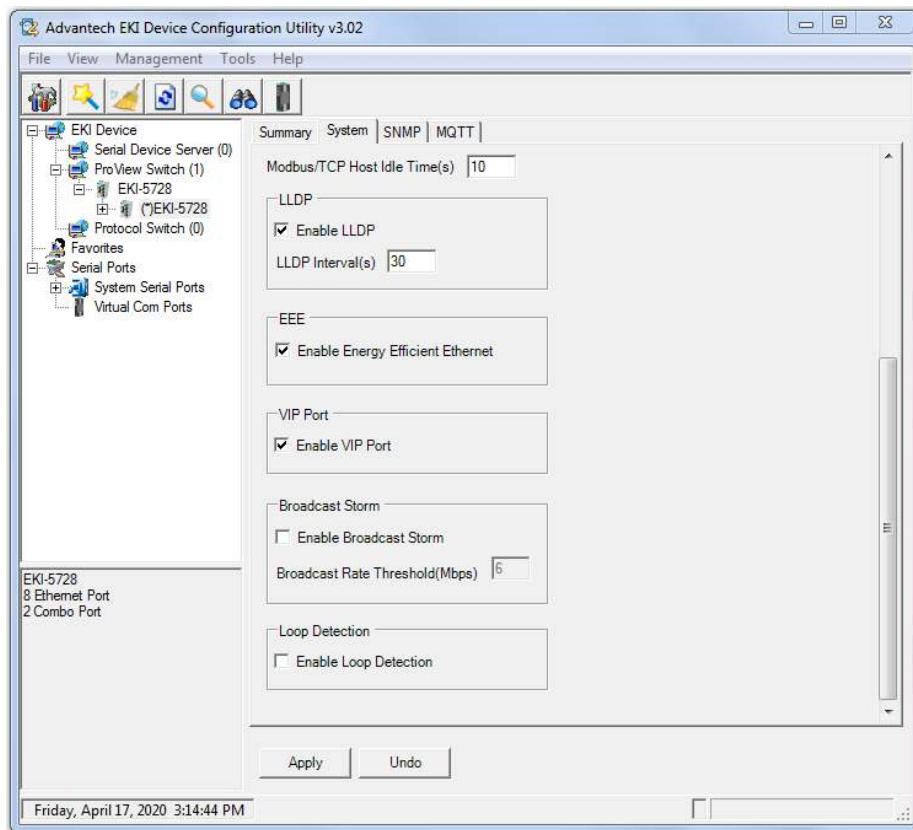


Figure 4-12. Setting EEE

The EEE function is set.

Setting VIP Port

1. Select the device to configure by clicking on it.
2. In the Configuration Area, select the **System** tab.
3. Under VIP Port, check **Enable VIP Port** to enable the VIP Port feature. This feature enables traffic from the VIP port to have a higher forwarding priority than non-VIP ports.

VIP ports are assigned as follows:

- For Ethernet ports < 8 , the VIP port is assigned to port 1
- For Ethernet ports greater ≥ 8 , the VIP port is assigned to ports 1 and 2

4. Click **Apply** to configure the function.

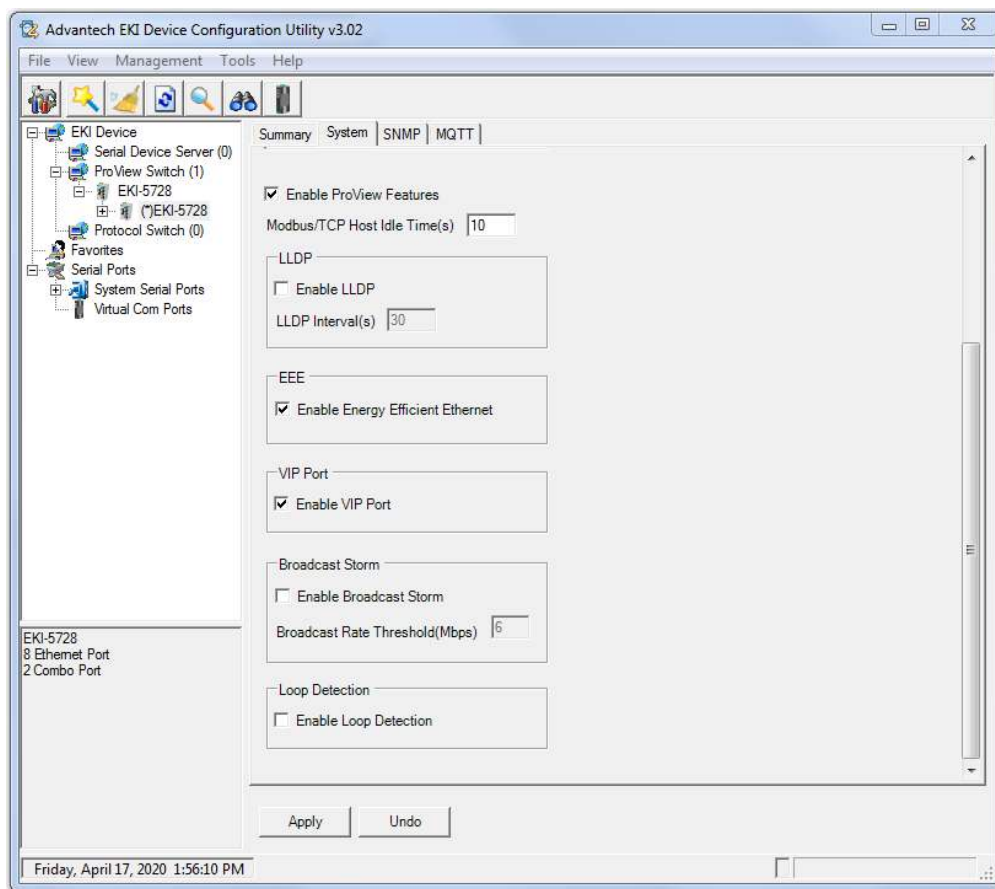


Figure 4-13. Setting VIP Port

The VIP Port function is set.

Setting Broadcast Storm

1. Select the device to configure by clicking on it.
2. In the Configuration Area, select the **System** tab.
3. Under Broadcast Storm, check **Enable Broadcast Storm** to enable the Broadcast Storm feature. This feature is used by the device to enable storm control prevention of LAN interfaces from a broadcast storm.
4. Enter a variable representing the threshold (Mbps) indicator. The threshold is use as the standard to measure broadcast activity over a one-second interval. If the threshold is reached, the broadcast activity remains suppressed for the duration of the interval. Broadcast suppression is disabled by default.

5. Click **Apply** to configure the function.

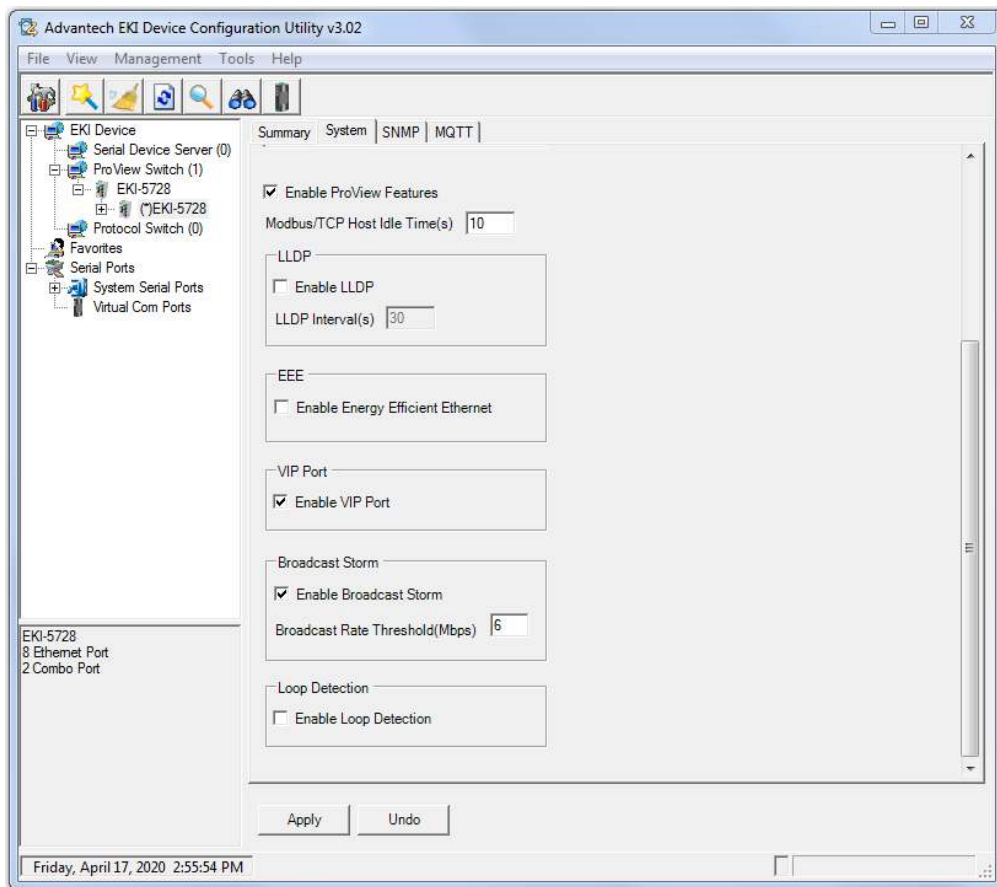


Figure 4-14. Setting Broadcast Storm

The Broadcast Storm function is set.

Setting Loop Detection

1. Select the device to configure by clicking on it.
2. In the Configuration Area, select the **System** tab.
3. Under Loop Detection, check **Enable Loop Detection** to enable the Loop Detection feature. Once the device detects a network loop, the Loop LED is activated. A loop in the network is marked by the switch having connected to itself causing network traffic to loop, resulting in continuously growing traffic.

4. Click **Apply** to configure the function.

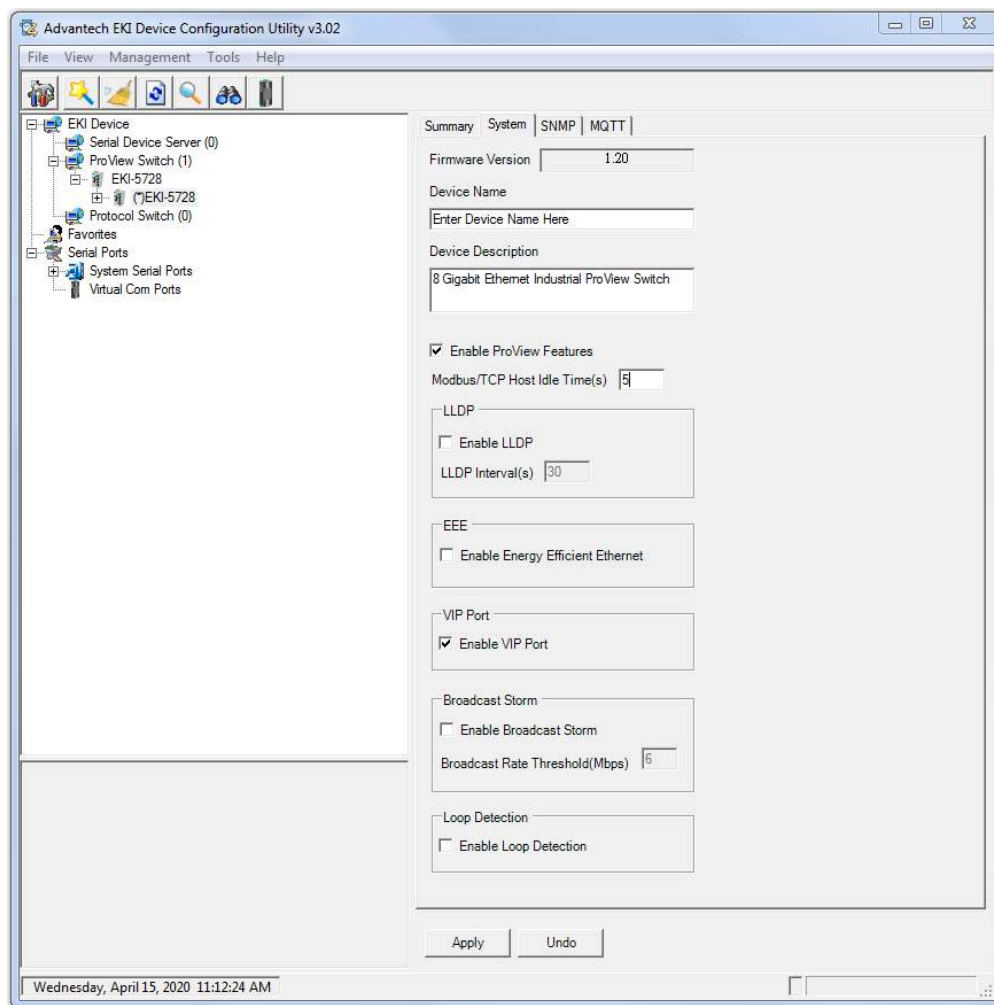


Figure 4-15. Setting Loop Detection

The Loop Detection function is set.

Setting Networks Parameters

For setting networks parameters, see “Configuring Network Settings” on page 59.

Setting SNMP

1. Select the device to configure by clicking on it.
2. In the Configuration Area, select **SNMP** tab.
The Basic and Community settings are listed for configuration.
3. In the SNMP Basic Settings selection, enter a contact and location in the respective fields.
4. In the SNMP Community Settings selection, the read-only and read-write strings are required.
5. In the SNMP Trap Setting selection, enter the IP address of the SNMP trap server.

6. Click **Apply** to configure the function.

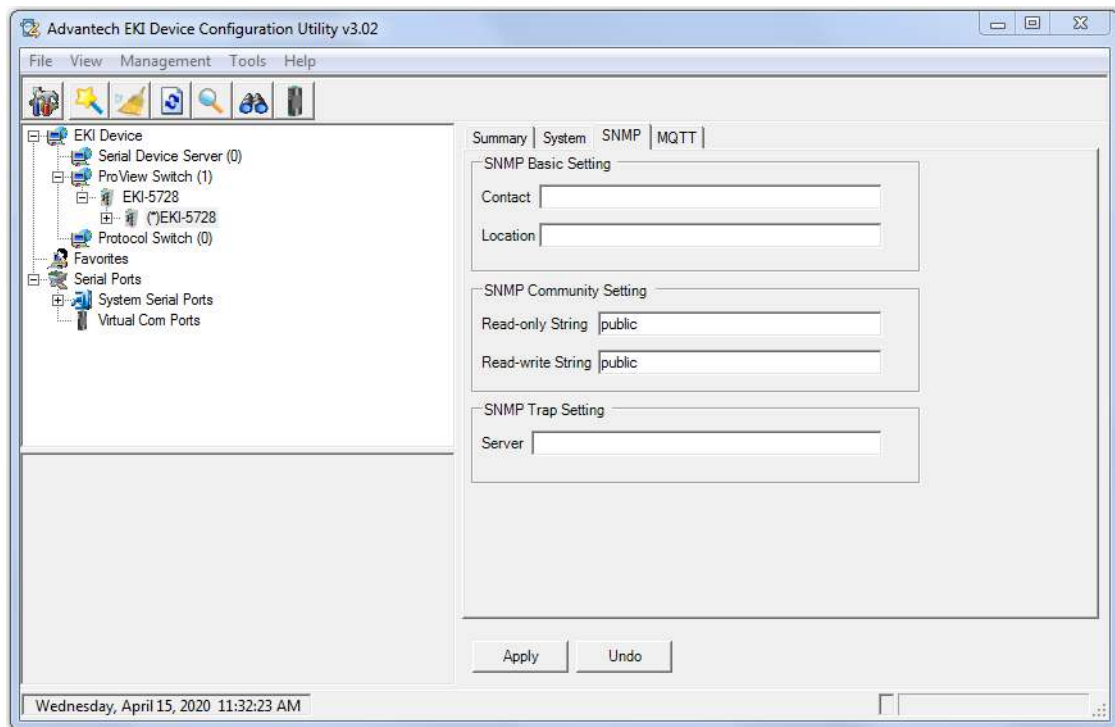


Figure 4-16. Setting SNMP

4.2. Modbus/TCP Mapping

The data map addresses of Advantech switches shown in the following table start from Modbus address 30001 for function code 4.

In the given example, the address offset 0x1000 (hex) equals Modbus address 34097, while the address offset 0x1100 (hex) equals Modbus address 34353.

The information given by the Advantech is shown in hex mode.

4.2.1 Modbus/TCP Mapping Table

Table 4-1. Modbus/TCP Mapping Table

| Catalog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|-------------|---------------------|-----------|---------|----------------|----------------------|------------|--------------------|
| System Info | Vendor ID = 0x'13FE | 1 word | 16 bits | HEX | 0x0000 | 30001 | Vendor ID = 0x13FE |
| | Unit ID = 0xFF | 1 word | 16 bits | HEX | 0x0001 | 30002 | Unit ID = 0xFF |
| | Product Code | 1 word | 16 bits | HEX | 0x0002 | 30003 | Product Code |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catalog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|-------------|---------------------------|-----------|----------|----------------|----------------------|------------|--|
| System Info | Vendor Name = "Advantech" | 16 words | 32 chars | ASCII | 0x0010 | 30017 | Vendor Name = "Advantech" Word 0 Hi byte = 'A' Word 0 Lo byte = 'd' Word 1 Hi byte = 'v' Word 1 Lo byte = 'a' Word 2 Hi byte = 'n' Word 2 Lo byte = 't' Word 3 Hi byte = 'e' Word 3 Lo byte = 'c' Word 4 Hi byte = 'h' Word 4 Lo byte = '\0' |
| | Product Name = "EKI-xxxx" | 16 words | 32 chars | ASCII | 0x0020 | 30033 | Product Name = "EKI-xxxx" Word 0 Hi byte = 'E' Word 0 Lo byte = 'K' Word 1 Hi byte = 'I' Word 1 Lo byte = '-' Word 2 Hi byte = 'x' Word 2 Lo byte = 'x' Word 3 Hi byte = 'x' Word 3 Lo byte = 'x' Word 4 Hi byte = '\0' |
| | Firmware Version | 2 words | 32 bits | HEX | 0x020A | 30523 | Firmware Version Word 0 Hi byte = major Word 0 Lo byte = minor Word 1 Hi byte = release Word 1 Lo byte = build |
| | Ethernet MAC Address | 3 words | 48 bits | HEX | 0x020E | 30527 | Ethernet MAC Address Ex: MAC = 00-19-CB-01-02-03 Word 0 Hi byte = 0x00 Word 0 Lo byte = 0x19 Word 1 Hi byte = 0xCB Word 1 Lo byte = 0x01 Word 2 Hi byte = 0x02 Word 2 Lo byte = 0x03 |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catalog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|-------------|-----------------|-----------|----------|----------------|----------------------|---------------|---|
| System Info | Revision Number | 16 words | 32 chars | ASCII | 0x0211 | 30530 | Product Name = "YYY.xxxxx" Word 0 Hi byte = 'Y' Word 0 Lo byte = 'Y' Word 1 Hi byte = 'Y' Word 1 Lo byte = '.' Word 2 Hi byte = 'x' Word 2 Lo byte = 'x' Word 3 Hi byte = 'x' Word 3 Lo byte = 'x' Word 4 Hi byte = 'x' Word 4 Lo byte = '\0' |
| | IP Address | 2 words | 32 bits | HEX | 0x0400 | 31025 | IP Address Ex: IP = 192.168.1.1 Word 0 Hi byte = 0xC0 Word 0 Lo byte = 0xA8 Word 1 Hi byte = 0x01 Word 1 Lo byte = 0x01 |
| Port Info | Port Status | 1 word | 16 bits | HEX | 0x1000 ~ 0x101F | 34097 ~ 34128 | Port Status 0x0000: Link down 0x0001: Link up 0xFFFF: No port |
| | Port 1 Status | 1 word | 16 bits | HEX | 0x1000 | 34097 | |
| | Port 2 Status | 1 word | 16 bits | HEX | 0x1001 | 34098 | |
| | Port 3 Status | 1 word | 16 bits | HEX | 0x1002 | 34099 | |
| | Port 4 Status | 1 word | 16 bits | HEX | 0x1003 | 34100 | |
| | Port 5 Status | 1 word | 16 bits | HEX | 0x1004 | 34101 | |
| | Port 6 Status | 1 word | 16 bits | HEX | 0x1005 | 34102 | |
| | Port 7 Status | 1 word | 16 bits | HEX | 0x1006 | 34103 | |
| | Port 8 Status | 1 word | 16 bits | HEX | 0x1007 | 34104 | |
| | Port 9 Status | 1 word | 16 bits | HEX | 0x1008 | 34105 | |
| | Port 10 Status | 1 word | 16 bits | HEX | 0x1009 | 34106 | |
| | Port 11 Status | 1 word | 16 bits | HEX | 0x100A | 34107 | |
| | Port 12 Status | 1 word | 16 bits | HEX | 0x100B | 34108 | |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catalog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|----------------|----------------|-----------|---------|----------------|----------------------|------------|-------------|
| | | | | | | | |
| Port Info | Port 13 Status | 1 word | 16 bits | HEX | 0x100C | 34109 | |
| | Port 14 Status | 1 word | 16 bits | HEX | 0x100D | 34110 | |
| | Port 15 Status | 1 word | 16 bits | HEX | 0x100E | 34111 | |
| | Port 16 Status | 1 word | 16 bits | HEX | 0x100F | 34112 | |
| | Port 17 Status | 1 word | 16 bits | HEX | 0x1010 | 34113 | |
| | Port 18 Status | 1 word | 16 bits | HEX | 0x1011 | 34114 | |
| | Port 19 Status | 1 word | 16 bits | HEX | 0x1012 | 34115 | |
| | Port 20 Status | 1 word | 16 bits | HEX | 0x1013 | 34116 | |
| | Port 21 Status | 1 word | 16 bits | HEX | 0x1014 | 34117 | |
| | Port 22 Status | 1 word | 16 bits | HEX | 0x1015 | 34118 | |
| | Port 23 Status | 1 word | 16 bits | HEX | 0x1016 | 34119 | |
| | Port 24 Status | 1 word | 16 bits | HEX | 0x1017 | 34120 | |
| | Port 25 Status | 1 word | 16 bits | HEX | 0x1018 | 34121 | |
| | Port 26 Status | 1 word | 16 bits | HEX | 0x1019 | 34122 | |
| | Port 27 Status | 1 word | 16 bits | HEX | 0x101A | 34123 | |
| | Port 28 Status | 1 word | 16 bits | HEX | 0x101B | 34124 | |
| | Port 29 Status | 1 word | 16 bits | HEX | 0x101C | 34125 | |
| | Port 30 Status | 1 word | 16 bits | HEX | 0x101D | 34126 | |
| Port 31 Status | 1 word | 16 bits | HEX | 0x101E | 34127 | | |
| Port 32 Status | 1 word | 16 bits | HEX | 0x101F | 34128 | | |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catalog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|---------------|---------------|-----------|---------|----------------|----------------------|---------------|---|
| Port Info | Port Speed | 1 word | 16 bits | HEX | 0x1100 ~ 0x111F | 34353 ~ 34384 | Port Speed 0x0000: 10M-Half 0x0001: 10M-Full 0x0002: 100M-Half 0x0003: 100M-Full 0x0004: 1000M-Half 0x0005: 1000M-Full 0xFFFF: No port |
| | Port 1 Speed | 1 word | 16 bits | HEX | 0x1100 | 34353 | |
| | Port 2 Speed | 1 word | 16 bits | HEX | 0x1101 | 34354 | |
| | Port 3 Speed | 1 word | 16 bits | HEX | 0x1102 | 34355 | |
| | Port 4 Speed | 1 word | 16 bits | HEX | 0x1103 | 34356 | |
| | Port 5 Speed | 1 word | 16 bits | HEX | 0x1104 | 34357 | |
| | Port 6 Speed | 1 word | 16 bits | HEX | 0x1105 | 34358 | |
| | Port 7 Speed | 1 word | 16 bits | HEX | 0x1106 | 34359 | |
| | Port 8 Speed | 1 word | 16 bits | HEX | 0x1107 | 34360 | |
| | Port 9 Speed | 1 word | 16 bits | HEX | 0x1108 | 34361 | |
| | Port 10 Speed | 1 word | 16 bits | HEX | 0x1109 | 34362 | |
| | Port 11 Speed | 1 word | 16 bits | HEX | 0x110A | 34363 | |
| | Port 12 Speed | 1 word | 16 bits | HEX | 0x110B | 34364 | |
| | Port 13 Speed | 1 word | 16 bits | HEX | 0x110C | 34365 | |
| | Port 14 Speed | 1 word | 16 bits | HEX | 0x110D | 34366 | |
| | Port 15 Speed | 1 word | 16 bits | HEX | 0x110E | 34367 | |
| | Port 16 Speed | 1 word | 16 bits | HEX | 0x110F | 34368 | |
| | Port 17 Speed | 1 word | 16 bits | HEX | 0x1110 | 34369 | |
| | Port 18 Speed | 1 word | 16 bits | HEX | 0x1111 | 34370 | |
| Port 19 Speed | 1 word | 16 bits | HEX | 0x1112 | 34371 | | |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catalog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|---------------------|---------------------|-----------|---------|----------------|----------------------|---------------|--|
| Port Info | Port 20 Speed | 1 word | 16 bits | HEX | 0x1113 | 34372 | |
| | Port 21 Speed | 1 word | 16 bits | HEX | 0x1114 | 34373 | |
| | Port 22 Speed | 1 word | 16 bits | HEX | 0x1115 | 34374 | |
| | Port 23 Speed | 1 word | 16 bits | HEX | 0x1116 | 34375 | |
| | Port 24 Speed | 1 word | 16 bits | HEX | 0x1117 | 34376 | |
| | Port 25 Speed | 1 word | 16 bits | HEX | 0x1118 | 34377 | |
| | Port 26 Speed | 1 word | 16 bits | HEX | 0x1119 | 34378 | |
| | Port 27 Speed | 1 word | 16 bits | HEX | 0x111A | 34379 | |
| | Port 28 Speed | 1 word | 16 bits | HEX | 0x111B | 34380 | |
| | Port 29 Speed | 1 word | 16 bits | HEX | 0x111C | 34381 | |
| | Port 30 Speed | 1 word | 16 bits | HEX | 0x111D | 34382 | |
| | Port 31 Speed | 1 word | 16 bits | HEX | 0x111E | 34383 | |
| | Port 32 Speed | 1 word | 16 bits | HEX | 0x111F | 34384 | |
| | Flow Control | 1 word | 16 bits | HEX | 0x1200 ~ 0x121F | 34609 ~ 34640 | Flow Control 0x0000: Off 0x0001: On 0xFFFF: No port |
| | Port 1 Flow Control | 1 word | 16 bits | HEX | 0x1200 | 34609 | |
| | Port 2 Flow Control | 1 word | 16 bits | HEX | 0x1201 | 34610 | |
| | Port 3 Flow Control | 1 word | 16 bits | HEX | 0x1202 | 34611 | |
| | Port 4 Flow Control | 1 word | 16 bits | HEX | 0x1203 | 34612 | |
| Port 5 Flow Control | 1 word | 16 bits | HEX | 0x1204 | 34613 | | |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catalog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|-----------|----------------------|-----------|---------|----------------|----------------------|------------|-------------|
| Port Info | Port 6 Flow Control | 1 word | 16 bits | HEX | 0x1205 | 34614 | |
| | Port 7 Flow Control | 1 word | 16 bits | HEX | 0x1206 | 34615 | |
| | Port 8 Flow Control | 1 word | 16 bits | HEX | 0x1207 | 34616 | |
| | Port 9 Flow Control | 1 word | 16 bits | HEX | 0x1208 | 34617 | |
| | Port 10 Flow Control | 1 word | 16 bits | HEX | 0x1209 | 34618 | |
| | Port 11 Flow Control | 1 word | 16 bits | HEX | 0x120A | 34619 | |
| | Port 12 Flow Control | 1 word | 16 bits | HEX | 0x120B | 34620 | |
| | Port 13 Flow Control | 1 word | 16 bits | HEX | 0x120C | 34621 | |
| | Port 14 Flow Control | 1 word | 16 bits | HEX | 0x120D | 34622 | |
| | Port 15 Flow Control | 1 word | 16 bits | HEX | 0x120E | 34623 | |
| | Port 16 Flow Control | 1 word | 16 bits | HEX | 0x120F | 34624 | |
| | Port 17 Flow Control | 1 word | 16 bits | HEX | 0x1210 | 34625 | |
| | Port 18 Flow Control | 1 word | 16 bits | HEX | 0x1211 | 34626 | |
| | Port 19 Flow Control | 1 word | 16 bits | HEX | 0x1212 | 34627 | |
| | Port 20 Flow Control | 1 word | 16 bits | HEX | 0x1213 | 34628 | |
| | Port 21 Flow Control | 1 word | 16 bits | HEX | 0x1214 | 34629 | |
| | Port 22 Flow Control | 1 word | 16 bits | HEX | 0x1215 | 34630 | |
| | Port 23 Flow Control | 1 word | 16 bits | HEX | 0x1216 | 34631 | |
| | Port 24 Flow Control | 1 word | 16 bits | HEX | 0x1217 | 34632 | |
| | Port 25 Flow Control | 1 word | 16 bits | HEX | 0x1218 | 34633 | |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catalog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|-----------|----------------------|-----------|----------|----------------|----------------------|---------------|--|
| | | | | | | | |
| Port Info | Port 26 Flow Control | 1 word | 16 bits | HEX | 0x1219 | 34634 | |
| | Port 27 Flow Control | 1 word | 16 bits | HEX | 0x121A | 34635 | |
| | Port 28 Flow Control | 1 word | 16 bits | HEX | 0x121B | 34636 | |
| | Port 29 Flow Control | 1 word | 16 bits | HEX | 0x121C | 34637 | |
| | Port 30 Flow Control | 1 word | 16 bits | HEX | 0x121D | 34638 | |
| | Port 31 Flow Control | 1 word | 16 bits | HEX | 0x121E | 34639 | |
| | Port 32 Flow Control | 1 word | 16 bits | HEX | 0x121F | 34640 | |
| | Port Description | 20 words | 40 chars | ASCII | 0x1400 ~ 0x166C | 35121 ~ 35741 | Port Description Port Description = "100RX,RJ45." Word 0 Hi byte = '1' Word 0 Lo byte = '0' Word 1Hi byte = '0' Word 1 Lo byte = 'R' Word 2 Hi byte = 'X' Word 2 Lo byte = ',' Word 3 Hi byte = 'R' Word 3 Lo byte = 'J' Word 4 Hi byte = '4' Word 4 Lo byte = '5' Word 5 Hi byte = '.' Word 5 Lo byte = '\0' |
| | Port 1 Description | 20 words | 40 chars | ASCII | 0x1400 | 35121 | |
| | Port 2 Description | 20 words | 40 chars | ASCII | 0x1414 | 35141 | |
| | Port 3 Description | 20 words | 40 chars | ASCII | 0x1428 | 35161 | |
| | Port 4 Description | 20 words | 40 chars | ASCII | 0x143C | 35181 | |
| | Port 5 Description | 20 words | 40 chars | ASCII | 0x1450 | 35201 | |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catalog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|-----------|---------------------|-----------|----------|----------------|----------------------|------------|-------------|
| Port Info | Port 6 Description | 20 words | 40 chars | ASCII | 0x1464 | 35221 | |
| | Port 7 Description | 20 words | 40 chars | ASCII | 0x1478 | 35241 | |
| | Port 8 Description | 20 words | 40 chars | ASCII | 0x148C | 35261 | |
| | Port 9 Description | 20 words | 40 chars | ASCII | 0x14A0 | 35281 | |
| | Port 10 Description | 20 words | 40 chars | ASCII | 0x14B4 | 35301 | |
| | Port 11 Description | 20 words | 40 chars | ASCII | 0x14C8 | 35321 | |
| | Port 12 Description | 20 words | 40 chars | ASCII | 0x14DC | 35341 | |
| | Port 13 Description | 20 words | 40 chars | ASCII | 0x14F0 | 35361 | |
| | Port 14 Description | 20 words | 40 chars | ASCII | 0x1504 | 35381 | |
| | Port 15 Description | 20 words | 40 chars | ASCII | 0x1518 | 35401 | |
| | Port 16 Description | 20 words | 40 chars | ASCII | 0x152C | 35421 | |
| | Port 17 Description | 20 words | 40 chars | ASCII | 0x1540 | 35441 | |
| | Port 18 Description | 20 words | 40 chars | ASCII | 0x1554 | 35461 | |
| | Port 19 Description | 20 words | 40 chars | ASCII | 0x1568 | 35481 | |
| | Port 20 Description | 20 words | 40 chars | ASCII | 0x157C | 35501 | |
| | Port 21 Description | 20 words | 40 chars | ASCII | 0x1590 | 35521 | |
| | Port 22 Description | 20 words | 40 chars | ASCII | 0x15A4 | 35541 | |
| | Port 23 Description | 20 words | 40 chars | ASCII | 0x15B8 | 35561 | |
| | Port 24 Description | 20 words | 40 chars | ASCII | 0x15CC | 35581 | |
| | Port 25 Description | 20 words | 40 chars | ASCII | 0x15E0 | 35601 | |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catalog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|-------------------------|-------------------------|-----------|----------|----------------|----------------------|---------------|--|
| | | | | | | | |
| Port Info | Port 26 Description | 20 words | 40 chars | ASCII | 0x15F4 | 35621 | |
| | Port 27 Description | 20 words | 40 chars | ASCII | 0x1608 | 35641 | |
| | Port 28 Description | 20 words | 40 chars | ASCII | 0x161C | 35661 | |
| | Port 29 Description | 20 words | 40 chars | ASCII | 0x1630 | 35681 | |
| | Port 30 Description | 20 words | 40 chars | ASCII | 0x1644 | 35701 | |
| | Port 31 Description | 20 words | 40 chars | ASCII | 0x1658 | 35721 | |
| | Port 32 Description | 20 words | 40 chars | ASCII | 0x166C | 35741 | |
| | Link Up Counter | 1 word | 16 bits | HEX | 0x1700 ~ 0x171F | 35889 ~ 35920 | Link Up Counter Ex: port link up counter = 13 Received MODBUS response: 0x000D |
| | Port 1 Link Up Counter | 1 word | 16 bits | HEX | 0x1700 | 35889 | |
| | Port 2 Link Up Counter | 1 word | 16 bits | HEX | 0x1701 | 35890 | |
| | Port 3 Link Up Counter | 1 word | 16 bits | HEX | 0x1702 | 35891 | |
| | Port 4 Link Up Counter | 1 word | 16 bits | HEX | 0x1703 | 35892 | |
| | Port 5 Link Up Counter | 1 word | 16 bits | HEX | 0x1704 | 35893 | |
| | Port 6 Link Up Counter | 1 word | 16 bits | HEX | 0x1705 | 35894 | |
| | Port 7 Link Up Counter | 1 word | 16 bits | HEX | 0x1706 | 35895 | |
| | Port 8 Link Up Counter | 1 word | 16 bits | HEX | 0x1707 | 35896 | |
| | Port 9 Link Up Counter | 1 word | 16 bits | HEX | 0x1708 | 35897 | |
| | Port 10 Link Up Counter | 1 word | 16 bits | HEX | 0x1709 | 35898 | |
| Port 11 Link Up Counter | 1 word | 16 bits | HEX | 0x170A | 35899 | | |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catalog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|-----------|-------------------------|-----------|---------|----------------|----------------------|------------|-------------|
| Port Info | Port 12 Link Up Counter | 1 word | 16 bits | HEX | 0x170B | 35900 | |
| | Port 13 Link Up Counter | 1 word | 16 bits | HEX | 0x170C | 35901 | |
| | Port 14 Link Up Counter | 1 word | 16 bits | HEX | 0x170D | 35902 | |
| | Port 15 Link Up Counter | 1 word | 16 bits | HEX | 0x170E | 35903 | |
| | Port 16 Link Up Counter | 1 word | 16 bits | HEX | 0x170F | 35904 | |
| | Port 17 Link Up Counter | 1 word | 16 bits | HEX | 0x1710 | 35905 | |
| | Port 18 Link Up Counter | 1 word | 16 bits | HEX | 0x1711 | 35906 | |
| | Port 19 Link Up Counter | 1 word | 16 bits | HEX | 0x1712 | 35907 | |
| | Port 20 Link Up Counter | 1 word | 16 bits | HEX | 0x1713 | 35908 | |
| | Port 21 Link Up Counter | 1 word | 16 bits | HEX | 0x1714 | 35909 | |
| | Port 22 Link Up Counter | 1 word | 16 bits | HEX | 0x1715 | 35910 | |
| | Port 23 Link Up Counter | 1 word | 16 bits | HEX | 0x1716 | 35911 | |
| | Port 24 Link Up Counter | 1 word | 16 bits | HEX | 0x1717 | 35912 | |
| | Port 25 Link Up Counter | 1 word | 16 bits | HEX | 0x1718 | 35913 | |
| | Port 26 Link Up Counter | 1 word | 16 bits | HEX | 0x1719 | 35914 | |
| | Port 27 Link Up Counter | 1 word | 16 bits | HEX | 0x171A | 35915 | |
| | Port 28 Link Up Counter | 1 word | 16 bits | HEX | 0x171B | 35916 | |
| | Port 29 Link Up Counter | 1 word | 16 bits | HEX | 0x171C | 35917 | |
| | Port 30 Link Up Counter | 1 word | 16 bits | HEX | 0x171D | 35918 | |
| | Port 31 Link Up Counter | 1 word | 16 bits | HEX | 0x171E | 35919 | |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catalog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|---------------------|-------------------------|-----------|---------|----------------|----------------------|---------------|--|
| | | | | | | | |
| Port Info | Port 32 Link Up Counter | 1 word | 16 bits | HEX | 0x171F | 35920 | |
| | PoE Voltage | 1 word | 16 bits | HEX | 0x1800 ~ 0x181F | 36145 ~ 36176 | PoE Voltage (V) Ex: poe voltage = 5 Received MODBUS response: 0x0005 |
| | Port 1 PoE Voltage | 1 word | 16 bits | HEX | 0x1800 | 36145 | |
| | Port 2 PoE Voltage | 1 word | 16 bits | HEX | 0x1801 | 36146 | |
| | Port 3 PoE Voltage | 1 word | 16 bits | HEX | 0x1802 | 36147 | |
| | Port 4 PoE Voltage | 1 word | 16 bits | HEX | 0x1803 | 36148 | |
| | Port 5 PoE Voltage | 1 word | 16 bits | HEX | 0x1804 | 36149 | |
| | Port 6 PoE Voltage | 1 word | 16 bits | HEX | 0x1805 | 36150 | |
| | Port 7 PoE Voltage | 1 word | 16 bits | HEX | 0x1806 | 36151 | |
| | Port 8 PoE Voltage | 1 word | 16 bits | HEX | 0x1807 | 36152 | |
| | Port 9 PoE Voltage | 1 word | 16 bits | HEX | 0x1808 | 36153 | |
| | Port 10 PoE Voltage | 1 word | 16 bits | HEX | 0x1809 | 36154 | |
| | Port 11 PoE Voltage | 1 word | 16 bits | HEX | 0x180A | 36155 | |
| | Port 12 PoE Voltage | 1 word | 16 bits | HEX | 0x180B | 36156 | |
| | Port 13 PoE Voltage | 1 word | 16 bits | HEX | 0x180C | 36157 | |
| | Port 14 PoE Voltage | 1 word | 16 bits | HEX | 0x180D | 36158 | |
| | Port 15 PoE Voltage | 1 word | 16 bits | HEX | 0x180E | 36159 | |
| | Port 16 PoE Voltage | 1 word | 16 bits | HEX | 0x180F | 36160 | |
| Port 17 PoE Voltage | 1 word | 16 bits | HEX | 0x1810 | 36161 | | |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catalog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|-----------|---------------------|-----------|---------|----------------|----------------------|---------------|--|
| Port Info | Port 18 PoE Voltage | 1 word | 16 bits | HEX | 0x1811 | 36162 | |
| | Port 19 PoE Voltage | 1 word | 16 bits | HEX | 0x1812 | 36163 | |
| | Port 20 PoE Voltage | 1 word | 16 bits | HEX | 0x1813 | 36164 | |
| | Port 21 PoE Voltage | 1 word | 16 bits | HEX | 0x1814 | 36165 | |
| | Port 22 PoE Voltage | 1 word | 16 bits | HEX | 0x1815 | 36166 | |
| | Port 23 PoE Voltage | 1 word | 16 bits | HEX | 0x1816 | 36167 | |
| | Port 24 PoE Voltage | 1 word | 16 bits | HEX | 0x1817 | 36168 | |
| | Port 25 PoE Voltage | 1 word | 16 bits | HEX | 0x1818 | 36169 | |
| | Port 26 PoE Voltage | 1 word | 16 bits | HEX | 0x1819 | 36170 | |
| | Port 27 PoE Voltage | 1 word | 16 bits | HEX | 0x181A | 36171 | |
| | Port 28 PoE Voltage | 1 word | 16 bits | HEX | 0x181B | 36172 | |
| | Port 29 PoE Voltage | 1 word | 16 bits | HEX | 0x181C | 36173 | |
| | Port 30 PoE Voltage | 1 word | 16 bits | HEX | 0x181D | 36174 | |
| | Port 31 PoE Voltage | 1 word | 16 bits | HEX | 0x181E | 36175 | |
| | Port 32 PoE Voltage | 1 word | 16 bits | HEX | 0x181F | 36176 | |
| | PoE Current | 1 word | 16 bits | HEX | 0x1820 ~ 0x183F | 36177 ~ 36208 | PoE Current (mA) Ex: poe current = 13 Received MODBUS response: 0x000D |
| | Port 1 PoE Current | 1 word | 16 bits | HEX | 0x1820 | 36177 | |
| | Port 2 PoE Current | 1 word | 16 bits | HEX | 0x1821 | 36178 | |
| | Port 3 PoE Current | 1 word | 16 bits | HEX | 0x1822 | 36179 | |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catalog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|-----------|---------------------|-----------|---------|----------------|----------------------|------------|-------------|
| | | | | | | | |
| Port Info | Port 4 PoE Current | 1 word | 16 bits | HEX | 0x1823 | 36180 | |
| | Port 5 PoE Current | 1 word | 16 bits | HEX | 0x1824 | 36181 | |
| | Port 6 PoE Current | 1 word | 16 bits | HEX | 0x1825 | 36182 | |
| | Port 7 PoE Current | 1 word | 16 bits | HEX | 0x1826 | 36183 | |
| | Port 8 PoE Current | 1 word | 16 bits | HEX | 0x1827 | 36184 | |
| | Port 9 PoE Current | 1 word | 16 bits | HEX | 0x1828 | 36185 | |
| | Port 10 PoE Current | 1 word | 16 bits | HEX | 0x1829 | 36186 | |
| | Port 11 PoE Current | 1 word | 16 bits | HEX | 0x182A | 36187 | |
| | Port 12 PoE Current | 1 word | 16 bits | HEX | 0x182B | 36188 | |
| | Port 13 PoE Current | 1 word | 16 bits | HEX | 0x182C | 36189 | |
| | Port 14 PoE Current | 1 word | 16 bits | HEX | 0x182D | 36190 | |
| | Port 15 PoE Current | 1 word | 16 bits | HEX | 0x182E | 36191 | |
| | Port 16 PoE Current | 1 word | 16 bits | HEX | 0x182F | 36192 | |
| | Port 17 PoE Current | 1 word | 16 bits | HEX | 0x1830 | 36193 | |
| | Port 18 PoE Current | 1 word | 16 bits | HEX | 0x1831 | 36194 | |
| | Port 19 PoE Current | 1 word | 16 bits | HEX | 0x1832 | 36195 | |
| | Port 20 PoE Current | 1 word | 16 bits | HEX | 0x1833 | 36196 | |
| | Port 21 PoE Current | 1 word | 16 bits | HEX | 0x1834 | 36197 | |
| | Port 22 PoE Current | 1 word | 16 bits | HEX | 0x1835 | 36198 | |
| | Port 23 PoE Current | 1 word | 16 bits | HEX | 0x1836 | 36199 | |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catalog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|-----------|---------------------|-----------|---------|----------------|----------------------|---------------|---|
| Port Info | Port 24 PoE Current | 1 word | 16 bits | HEX | 0x1837 | 36200 | |
| | Port 25 PoE Current | 1 word | 16 bits | HEX | 0x1838 | 36201 | |
| | Port 26 PoE Current | 1 word | 16 bits | HEX | 0x1839 | 36202 | |
| | Port 27 PoE Current | 1 word | 16 bits | HEX | 0x183A | 36203 | |
| | Port 28 PoE Current | 1 word | 16 bits | HEX | 0x183B | 36204 | |
| | Port 29 PoE Current | 1 word | 16 bits | HEX | 0x183C | 36205 | |
| | Port 30 PoE Current | 1 word | 16 bits | HEX | 0x183D | 36206 | |
| | Port 31 PoE Current | 1 word | 16 bits | HEX | 0x183E | 36207 | |
| | Port 32 PoE Current | 1 word | 16 bits | HEX | 0x183F | 36208 | |
| | PoE Power | 1 word | 16 bits | HEX | 0x1840 ~ 0x185F | 36209 ~ 36240 | PoE Power (W) Ex: poe power = 10 Received MODBUS response: 0x000A |
| | Port 1 PoE Power | 1 word | 16 bits | HEX | 0x1840 | 36209 | |
| | Port 2 PoE Power | 1 word | 16 bits | HEX | 0x1841 | 36210 | |
| | Port 3 PoE Power | 1 word | 16 bits | HEX | 0x1842 | 36211 | |
| | Port 4 PoE Power | 1 word | 16 bits | HEX | 0x1843 | 36212 | |
| | Port 5 PoE Power | 1 word | 16 bits | HEX | 0x1844 | 36213 | |
| | Port 6 PoE Power | 1 word | 16 bits | HEX | 0x1845 | 36214 | |
| | Port 7 PoE Power | 1 word | 16 bits | HEX | 0x1846 | 36215 | |
| | Port 8 PoE Power | 1 word | 16 bits | HEX | 0x1847 | 36216 | |
| | Port 9 PoE Power | 1 word | 16 bits | HEX | 0x1848 | 36217 | |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catalog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|-------------------|-------------------|-----------|---------|----------------|----------------------|------------|-------------|
| | | | | | | | |
| Port Info | Port 10 PoE Power | 1 word | 16 bits | HEX | 0x1849 | 36218 | |
| | Port 11 PoE Power | 1 word | 16 bits | HEX | 0x184A | 36219 | |
| | Port 12 PoE Power | 1 word | 16 bits | HEX | 0x184B | 36220 | |
| | Port 13 PoE Power | 1 word | 16 bits | HEX | 0x184C | 36221 | |
| | Port 14 PoE Power | 1 word | 16 bits | HEX | 0x184D | 36222 | |
| | Port 15 PoE Power | 1 word | 16 bits | HEX | 0x184E | 36223 | |
| | Port 16 PoE Power | 1 word | 16 bits | HEX | 0x184F | 36224 | |
| | Port 17 PoE Power | 1 word | 16 bits | HEX | 0x1850 | 36225 | |
| | Port 18 PoE Power | 1 word | 16 bits | HEX | 0x1851 | 36226 | |
| | Port 19 PoE Power | 1 word | 16 bits | HEX | 0x1852 | 36227 | |
| | Port 20 PoE Power | 1 word | 16 bits | HEX | 0x1853 | 36228 | |
| | Port 21 PoE Power | 1 word | 16 bits | HEX | 0x1854 | 36229 | |
| | Port 22 PoE Power | 1 word | 16 bits | HEX | 0x1855 | 36230 | |
| | Port 23 PoE Power | 1 word | 16 bits | HEX | 0x1856 | 36231 | |
| | Port 24 PoE Power | 1 word | 16 bits | HEX | 0x1857 | 36232 | |
| | Port 25 PoE Power | 1 word | 16 bits | HEX | 0x1858 | 36233 | |
| | Port 26 PoE Power | 1 word | 16 bits | HEX | 0x1859 | 36234 | |
| | Port 27 PoE Power | 1 word | 16 bits | HEX | 0x185A | 36235 | |
| | Port 28 PoE Power | 1 word | 16 bits | HEX | 0x185B | 36236 | |
| Port 29 PoE Power | 1 word | 16 bits | HEX | 0x185C | 36237 | | |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catalog | Name | Data Type | | Inter-pretation | Address Offset (Hex) | Address 3X | Description |
|-------------------------|-------------------------|-----------|---------|-----------------|----------------------|---------------|---|
| Port Info | Port 30 PoE Power | 1 word | 16 bits | HEX | 0x185D | 36238 | |
| | Port 31 PoE Power | 1 word | 16 bits | HEX | 0x185E | 36239 | |
| | Port 32 PoE Power | 1 word | 16 bits | HEX | 0x185F | 36240 | |
| | PoE Temperature | 1 word | 16 bits | HEX | 0x1860 ~ 0x187F | 36241 ~ 36272 | PoE Temperature (C) Ex: poe temperature = 32 Received MODBUS response: 0x0020 |
| | Port 1 PoE Temperature | 1 word | 16 bits | HEX | 0x1860 | 36241 | |
| | Port 2 PoE Temperature | 1 word | 16 bits | HEX | 0x1861 | 36242 | |
| | Port 3 PoE Temperature | 1 word | 16 bits | HEX | 0x1862 | 36243 | |
| | Port 4 PoE Temperature | 1 word | 16 bits | HEX | 0x1863 | 36244 | |
| | Port 5 PoE Temperature | 1 word | 16 bits | HEX | 0x1864 | 36245 | |
| | Port 6 PoE Temperature | 1 word | 16 bits | HEX | 0x1865 | 36246 | |
| | Port 7 PoE Temperature | 1 word | 16 bits | HEX | 0x1866 | 36247 | |
| | Port 8 PoE Temperature | 1 word | 16 bits | HEX | 0x1867 | 36248 | |
| | Port 9 PoE Temperature | 1 word | 16 bits | HEX | 0x1868 | 36249 | |
| | Port 10 PoE Temperature | 1 word | 16 bits | HEX | 0x1869 | 36250 | |
| | Port 11 PoE Temperature | 1 word | 16 bits | HEX | 0x186A | 36251 | |
| | Port 12 PoE Temperature | 1 word | 16 bits | HEX | 0x186B | 36252 | |
| | Port 13 PoE Temperature | 1 word | 16 bits | HEX | 0x186C | 36253 | |
| | Port 14 PoE Temperature | 1 word | 16 bits | HEX | 0x186D | 36254 | |
| Port 15 PoE Temperature | 1 word | 16 bits | HEX | 0x186E | 36255 | | |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catalog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|-------------------------|-------------------------|-----------|---------|----------------|----------------------|------------|-------------|
| | | | | | | | |
| Port Info | Port 16 PoE Temperature | 1 word | 16 bits | HEX | 0x186F | 36256 | |
| | Port 17 PoE Temperature | 1 word | 16 bits | HEX | 0x1870 | 36257 | |
| | Port 18 PoE Temperature | 1 word | 16 bits | HEX | 0x1871 | 36258 | |
| | Port 19 PoE Temperature | 1 word | 16 bits | HEX | 0x1872 | 36259 | |
| | Port 20 PoE Temperature | 1 word | 16 bits | HEX | 0x1873 | 36260 | |
| | Port 21 PoE Temperature | 1 word | 16 bits | HEX | 0x1874 | 36261 | |
| | Port 22 PoE Temperature | 1 word | 16 bits | HEX | 0x1875 | 36262 | |
| | Port 23 PoE Temperature | 1 word | 16 bits | HEX | 0x1876 | 36263 | |
| | Port 24 PoE Temperature | 1 word | 16 bits | HEX | 0x1877 | 36264 | |
| | Port 25 PoE Temperature | 1 word | 16 bits | HEX | 0x1878 | 36265 | |
| | Port 26 PoE Temperature | 1 word | 16 bits | HEX | 0x1879 | 36266 | |
| | Port 27 PoE Temperature | 1 word | 16 bits | HEX | 0x187A | 36267 | |
| | Port 28 PoE Temperature | 1 word | 16 bits | HEX | 0x187B | 36268 | |
| | Port 29 PoE Temperature | 1 word | 16 bits | HEX | 0x187C | 36269 | |
| | Port 30 PoE Temperature | 1 word | 16 bits | HEX | 0x187D | 36270 | |
| | Port 31 PoE Temperature | 1 word | 16 bits | HEX | 0x187E | 36271 | |
| Port 32 PoE Temperature | 1 word | 16 bits | HEX | 0x187F | 36272 | | |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catalog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|-------------|--------------------|-----------|---------|----------------|----------------------|---------------|--|
| Packet Info | Tx Packets Counter | 4 words | 64 bits | HEX | 0x2000 ~ 0x207C | 38193 ~ 38317 | Tx Packets Ex: port 1 Tx Packet Amount = 11223344 Received MODBUS response: 0xAB4130 Word 0 = 0x0000 Word 1 = 0x0000 Word 2 = 0x00AB Word 3 = 0x4130 |
| | Port 1 Tx Packets | 4 words | 64 bits | HEX | 0x2000 | 38193 | |
| | Port 2 Tx Packets | 4 words | 64 bits | HEX | 0x2004 | 38197 | |
| | Port 3 Tx Packets | 4 words | 64 bits | HEX | 0x2008 | 38201 | |
| | Port 4 Tx Packets | 4 words | 64 bits | HEX | 0x200C | 38205 | |
| | Port 5 Tx Packets | 4 words | 64 bits | HEX | 0x2010 | 38209 | |
| | Port 6 Tx Packets | 4 words | 64 bits | HEX | 0x2014 | 38213 | |
| | Port 7 Tx Packets | 4 words | 64 bits | HEX | 0x2018 | 38217 | |
| | Port 8 Tx Packets | 4 words | 64 bits | HEX | 0x201C | 38221 | |
| | Port 9 Tx Packets | 4 words | 64 bits | HEX | 0x2020 | 38225 | |
| | Port 10 Tx Packets | 4 words | 64 bits | HEX | 0x2024 | 38229 | |
| | Port 11 Tx Packets | 4 words | 64 bits | HEX | 0x2028 | 38233 | |
| | Port 12 Tx Packets | 4 words | 64 bits | HEX | 0x202C | 38237 | |
| | Port 13 Tx Packets | 4 words | 64 bits | HEX | 0x2030 | 38241 | |
| | Port 14 Tx Packets | 4 words | 64 bits | HEX | 0x2034 | 38245 | |
| | Port 15 Tx Packets | 4 words | 64 bits | HEX | 0x2038 | 38249 | |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catalog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|--------------------|--------------------|-----------|---------|----------------|----------------------|------------|-------------|
| Packet Info | Port 16 Tx Packets | 4 words | 64 bits | HEX | 0x203C | 38253 | |
| | Port 17 Tx Packets | 4 words | 64 bits | HEX | 0x2040 | 38257 | |
| | Port 18 Tx Packets | 4 words | 64 bits | HEX | 0x2044 | 38261 | |
| | Port 19 Tx Packets | 4 words | 64 bits | HEX | 0x2048 | 38265 | |
| | Port 20 Tx Packets | 4 words | 64 bits | HEX | 0x204C | 38269 | |
| | Port 21 Tx Packets | 4 words | 64 bits | HEX | 0x2050 | 38273 | |
| | Port 22 Tx Packets | 4 words | 64 bits | HEX | 0x2054 | 38277 | |
| | Port 23 Tx Packets | 4 words | 64 bits | HEX | 0x2058 | 38281 | |
| | Port 24 Tx Packets | 4 words | 64 bits | HEX | 0x205C | 38285 | |
| | Port 25 Tx Packets | 4 words | 64 bits | HEX | 0x2060 | 38289 | |
| | Port 26 Tx Packets | 4 words | 64 bits | HEX | 0x2064 | 38293 | |
| | Port 27 Tx Packets | 4 words | 64 bits | HEX | 0x2068 | 38297 | |
| | Port 28 Tx Packets | 4 words | 64 bits | HEX | 0x206C | 38301 | |
| | Port 29 Tx Packets | 4 words | 64 bits | HEX | 0x2070 | 38305 | |
| | Port 30 Tx Packets | 4 words | 64 bits | HEX | 0x2074 | 38309 | |
| | Port 31 Tx Packets | 4 words | 64 bits | HEX | 0x2078 | 38313 | |
| Port 32 Tx Packets | 4 words | 64 bits | HEX | 0x207C | 38317 | | |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catalog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|-------------|--------------------|-----------|---------|----------------|----------------------|---------------|--|
| Packet Info | Rx Packets Counter | 4 words | 64 bits | HEX | 0x2100 ~0x217C | 38449 ~ 38573 | Rx Packets Ex: port 1 Rx Packet Amount = 11223344 Received MODBUS response: 0xAB4130 Word 0 = 0x0000 Word 1 = 0x0000 Word 2 = 0x00AB Word 3 = 0x4130 |
| | Port 1 Rx Packets | 4 words | 64 bits | HEX | 0x2100 | 38449 | |
| | Port 2 Rx Packets | 4 words | 64 bits | HEX | 0x2104 | 38453 | |
| | Port 3 Rx Packets | 4 words | 64 bits | HEX | 0x2108 | 38457 | |
| | Port 4 Rx Packets | 4 words | 64 bits | HEX | 0x210C | 38461 | |
| | Port 5 Rx Packets | 4 words | 64 bits | HEX | 0x2110 | 38465 | |
| | Port 6 Rx Packets | 4 words | 64 bits | HEX | 0x2114 | 38469 | |
| | Port 7 Rx Packets | 4 words | 64 bits | HEX | 0x2118 | 38473 | |
| | Port 8 Rx Packets | 4 words | 64 bits | HEX | 0x211C | 38477 | |
| | Port 9 Rx Packets | 4 words | 64 bits | HEX | 0x2120 | 38481 | |
| | Port 10 Rx Packets | 4 words | 64 bits | HEX | 0x2124 | 38485 | |
| | Port 11 Rx Packets | 4 words | 64 bits | HEX | 0x2128 | 38489 | |
| | Port 12 Rx Packets | 4 words | 64 bits | HEX | 0x212C | 38493 | |
| | Port 13 Rx Packets | 4 words | 64 bits | HEX | 0x2130 | 38497 | |
| | Port 14 Rx Packets | 4 words | 64 bits | HEX | 0x2134 | 38501 | |
| | Port 15 Rx Packets | 4 words | 64 bits | HEX | 0x2138 | 38505 | |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catalog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|--------------------|--------------------|-----------|---------|----------------|----------------------|------------|-------------|
| | | | | | | | |
| Packet Info | Port 16 Rx Packets | 4 words | 64 bits | HEX | 0x213C | 38509 | |
| | Port 17 Rx Packets | 4 words | 64 bits | HEX | 0x2140 | 38513 | |
| | Port 18 Rx Packets | 4 words | 64 bits | HEX | 0x2144 | 38517 | |
| | Port 19 Rx Packets | 4 words | 64 bits | HEX | 0x2148 | 38521 | |
| | Port 20 Rx Packets | 4 words | 64 bits | HEX | 0x214C | 38525 | |
| | Port 21 Rx Packets | 4 words | 64 bits | HEX | 0x2150 | 38529 | |
| | Port 22 Rx Packets | 4 words | 64 bits | HEX | 0x2154 | 38533 | |
| | Port 23 Rx Packets | 4 words | 64 bits | HEX | 0x2158 | 38537 | |
| | Port 24 Rx Packets | 4 words | 64 bits | HEX | 0x215C | 38541 | |
| | Port 25 Rx Packets | 4 words | 64 bits | HEX | 0x2160 | 38545 | |
| | Port 26 Rx Packets | 4 words | 64 bits | HEX | 0x2164 | 38549 | |
| | Port 27 Rx Packets | 4 words | 64 bits | HEX | 0x2168 | 38553 | |
| | Port 28 Rx Packets | 4 words | 64 bits | HEX | 0x216C | 38557 | |
| | Port 29 Rx Packets | 4 words | 64 bits | HEX | 0x2170 | 38561 | |
| | Port 30 Rx Packets | 4 words | 64 bits | HEX | 0x2174 | 38565 | |
| | Port 31 Rx Packets | 4 words | 64 bits | HEX | 0x2178 | 38569 | |
| Port 32 Rx Packets | 4 words | 64 bits | HEX | 0x217C | 38573 | | |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catalog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|-------------|--------------------------|-----------|---------|----------------|----------------------|---------------|--|
| Packet Info | Tx Error Packets Counter | 2 words | 32 bits | HEX | 0x2200 ~ 0x223E | 38705 ~ 38767 | Tx Error Packets Ex: port 1 Tx Packet Amount = 11223344 Received MODBUS response: 0xAB4130 Word 0 = 0x00AB Word 1 = 0x4130 |
| | Port 1 Tx Error Packets | 2 words | 32 bits | HEX | 0x2200 | 38705 | |
| | Port 2 Tx Error Packets | 2 words | 32 bits | HEX | 0x2202 | 38707 | |
| | Port 3 Tx Error Packets | 2 words | 32 bits | HEX | 0x2204 | 38709 | |
| | Port 4 Tx Error Packets | 2 words | 32 bits | HEX | 0x2206 | 38711 | |
| | Port 5 Tx Error Packets | 2 words | 32 bits | HEX | 0x2208 | 38713 | |
| | Port 6 Tx Error Packets | 2 words | 32 bits | HEX | 0x220A | 38715 | |
| | Port 7 Tx Error Packets | 2 words | 32 bits | HEX | 0x220C | 38717 | |
| | Port 8 Tx Error Packets | 2 words | 32 bits | HEX | 0x220E | 38719 | |
| | Port 9 Tx Error Packets | 2 words | 32 bits | HEX | 0x2210 | 38721 | |
| | Port 10 Tx Error Packets | 2 words | 32 bits | HEX | 0x2212 | 38723 | |
| | Port 11 Tx Error Packets | 2 words | 32 bits | HEX | 0x2214 | 38725 | |
| | Port 12 Tx Error Packets | 2 words | 32 bits | HEX | 0x2216 | 38727 | |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catelog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|-------------|--------------------------|-----------|---------|----------------|----------------------|------------|-------------|
| Packet Info | Port 13 Tx Error Packets | 2 words | 32 bits | HEX | 0x2218 | 38729 | |
| | Port 14 Tx Error Packets | 2 words | 32 bits | HEX | 0x221A | 38731 | |
| | Port 15 Tx Error Packets | 2 words | 32 bits | HEX | 0x221C | 38733 | |
| | Port 16 Tx Error Packets | 2 words | 32 bits | HEX | 0x221E | 38735 | |
| | Port 17 Tx Error Packets | 2 words | 32 bits | HEX | 0x2220 | 38737 | |
| | Port 18 Tx Error Packets | 2 words | 32 bits | HEX | 0x2222 | 38739 | |
| | Port 19 Tx Error Packets | 2 words | 32 bits | HEX | 0x2224 | 38741 | |
| | Port 20 Tx Error Packets | 2 words | 32 bits | HEX | 0x2226 | 38743 | |
| | Port 21 Tx Error Packets | 2 words | 32 bits | HEX | 0x2228 | 38745 | |
| | Port 22 Tx Error Packets | 2 words | 32 bits | HEX | 0x222A | 38747 | |
| | Port 23 Tx Error Packets | 2 words | 32 bits | HEX | 0x222C | 38749 | |
| | Port 24 Tx Error Packets | 2 words | 32 bits | HEX | 0x222E | 38751 | |
| | Port 25 Tx Error Packets | 2 words | 32 bits | HEX | 0x2230 | 38753 | |
| | Port 26 Tx Error Packets | 2 words | 32 bits | HEX | 0x2232 | 38755 | |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catalog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|-------------|--------------------------|-----------|---------|----------------|----------------------|---------------|--|
| Packet Info | Port 27 Tx Error Packets | 2 words | 32 bits | HEX | 0x2234 | 38757 | |
| | Port 28 Tx Error Packets | 2 words | 32 bits | HEX | 0x2236 | 38759 | |
| | Port 29 Tx Error Packets | 2 words | 32 bits | HEX | 0x2238 | 38761 | |
| | Port 30 Tx Error Packets | 2 words | 32 bits | HEX | 0x223A | 38763 | |
| | Port 31 Tx Error Packets | 2 words | 32 bits | HEX | 0x223C | 38765 | |
| | Port 32 Tx Error Packets | 2 words | 32 bits | HEX | 0x223E | 38767 | |
| | Rx Error Packets Counter | 2 words | 32 bits | HEX | 0x2300 ~ 0x233E | 38961 ~ 39023 | Rx Error Packets Ex: port 1 Rx Packet Amount = 11223344 Received MODBUS response: 0xAB4130 Word 0 = 0x00AB Word 1 = 0x4130 |
| | Port 1 Rx Error Packets | 2 words | 32 bits | HEX | 0x2300 | 38961 | |
| | Port 2 Rx Error Packets | 2 words | 32 bits | HEX | 0x2302 | 38963 | |
| | Port 3 Rx Error Packets | 2 words | 32 bits | HEX | 0x2304 | 38965 | |
| | Port 4 Rx Error Packets | 2 words | 32 bits | HEX | 0x2306 | 38967 | |
| | Port 5 Rx Error Packets | 2 words | 32 bits | HEX | 0x2308 | 38969 | |
| | Port 6 Rx Error Packets | 2 words | 32 bits | HEX | 0x230A | 38971 | |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catelog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|-------------|--------------------------|-----------|---------|----------------|----------------------|------------|-------------|
| Packet Info | Port 7 Rx Error Packets | 2 words | 32 bits | HEX | 0x230C | 38973 | |
| | Port 8 Rx Error Packets | 2 words | 32 bits | HEX | 0x230E | 38975 | |
| | Port 9 Rx Error Packets | 2 words | 32 bits | HEX | 0x2310 | 38977 | |
| | Port 10 Rx Error Packets | 2 words | 32 bits | HEX | 0x2312 | 38979 | |
| | Port 11 Rx Error Packets | 2 words | 32 bits | HEX | 0x2314 | 38981 | |
| | Port 12 Rx Error Packets | 2 words | 32 bits | HEX | 0x2316 | 38983 | |
| | Port 13 Rx Error Packets | 2 words | 32 bits | HEX | 0x2318 | 38985 | |
| | Port 14 Rx Error Packets | 2 words | 32 bits | HEX | 0x231A | 38987 | |
| | Port 15 Rx Error Packets | 2 words | 32 bits | HEX | 0x231C | 38989 | |
| | Port 16 Rx Error Packets | 2 words | 32 bits | HEX | 0x231E | 38991 | |
| | Port 17 Rx Error Packets | 2 words | 32 bits | HEX | 0x2320 | 38993 | |
| | Port 18 Rx Error Packets | 2 words | 32 bits | HEX | 0x2322 | 38995 | |
| | Port 19 Rx Error Packets | 2 words | 32 bits | HEX | 0x2324 | 38997 | |
| | Port 20 Rx Error Packets | 2 words | 32 bits | HEX | 0x2326 | 38999 | |

Table 4-1. Modbus/TCP Mapping Table (Continued)

| Catalog | Name | Data Type | | Interpretation | Address Offset (Hex) | Address 3X | Description |
|-------------|--------------------------|-----------|---------|----------------|----------------------|------------|-------------|
| Packet Info | Port 21 Rx Error Packets | 2 words | 32 bits | HEX | 0x2328 | 39001 | |
| | Port 22 Rx Error Packets | 2 words | 32 bits | HEX | 0x232A | 39003 | |
| | Port 23 Rx Error Packets | 2 words | 32 bits | HEX | 0x232C | 39005 | |
| | Port 24 Rx Error Packets | 2 words | 32 bits | HEX | 0x232E | 39007 | |
| | Port 25 Rx Error Packets | 2 words | 32 bits | HEX | 0x2330 | 39009 | |
| | Port 26 Rx Error Packets | 2 words | 32 bits | HEX | 0x2332 | 39011 | |
| | Port 27 Rx Error Packets | 2 words | 32 bits | HEX | 0x2334 | 39013 | |
| | Port 28 Rx Error Packets | 2 words | 32 bits | HEX | 0x2336 | 39015 | |
| | Port 29 Rx Error Packets | 2 words | 32 bits | HEX | 0x2338 | 39017 | |
| | Port 30 Rx Error Packets | 2 words | 32 bits | HEX | 0x233A | 39019 | |
| | Port 31 Rx Error Packets | 2 words | 32 bits | HEX | 0x233C | 39021 | |
| | Port 32 Rx Error Packets | 2 words | 32 bits | HEX | 0x233E | 39023 | |