iR-ECAT

Installation Instruction

1 Installation and Startup Guide

This document covers the installation of iR-ECAT, for the detailed specifications and operation, please refer to Datasheet, Brochure and Remote I/O User Manual. Please read all warnings, precautions, and instructions on the device carefully before use.

Install Environment:

Electrical Environment	The product has been tested to conform to European CE requirements. This means that the circuitry is designed to resist the effects of electrical noise. This does not guarantee noise immunity in severe cases. Proper wire routing and grounding will insure proper operation.
Environmental Considerations	(1) Make sure that the units are installed correctly and that the operating limits are followed. (2) Avoid installing units in environments where severe mechanical vibration or shocks are present. (3) Do not operate the unit in areas subject to explosion hazards due to flammable gases, vapors or dusts, or where acid gas, such as SO2 exists. (4) Relative Humidity: 10% ~ 90% (non-condensing)

2 Unpacking the Unit

Unpack and check the delivery. If damage is found, please contact the supplier.

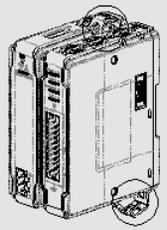
NOTE: **Place the unit on a stable surface during installation. Dropping it or letting it fall may cause damage.**

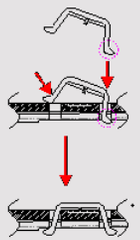
The package includes:

(1) Installation Instruction, 2-sided A4 *1
(2) iR-ECAT *1
(3) Power Connector *1
(4) Spare Clips *2

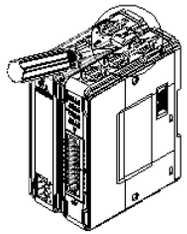
3 Installation Instructions

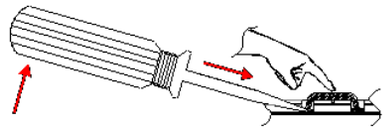
Clip assembly: Insert one side of the clip into the hole on the case. Press down firmly in the direction shown in the figure on the right until hearing the clip snap into the case.





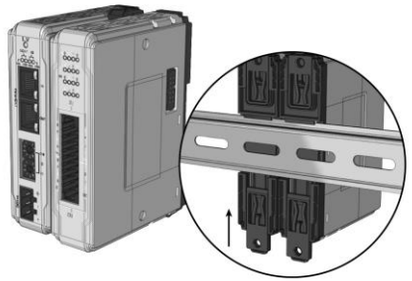
Clip removal: Insert a flathead screwdriver into the gap on the clip and then lift up the screwdriver. Placing a finger on the clip when lifting the screwdriver can prevent the clip from jumping away. The clip can also be removed directly by hand.

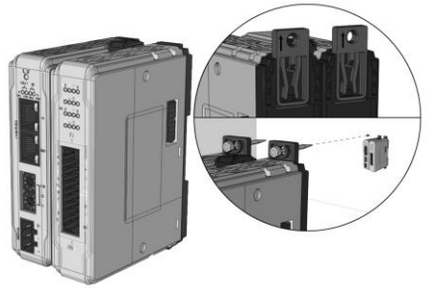




Rail mounting: DIN rail 35mm.
Panel mounting: Use two M4 or #8 panhead screws, mounting hole size is 4.6mm
Plan for adequate space around the unit and inside the enclosure, for ventilation and cables. Consider the heat from other devices inside the enclosure. The ambient temperature around the unit must be 0 ~55°C

NOTE: Please do not touch any of the connectors when the unit is powered up and running.

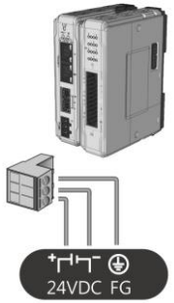




4 Power Connections

Power Connector Specifications:
Wire AWG: 28~12
Operating Temperature: -40°C ~+105°C
Screw Torque: 3.47 lbf-in (max.)

NOTE: **Connect positive DC line to the '+' terminal and the DC ground to the '-' terminal.**



EtherCAT®

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5 LED Indicators

L.V LED

L.V LED State	Description
OFF	24V power normal
Blinking	Detect 24V power
ON	24V power error

IO RUN/ERR LED

RUN LED	ERR LED	Description
OFF	OFF	Power off or no power
Blinking	OFF	IO initiating
Blinking	ON	IO initiation error
ON	OFF	IO working
ON	Blinking	IO module alarm
ON	ON	IO communication fault

ECAT-RUN LED

LED State	Description
OFF	The device is in state INIT
Blinking	The device is in state PRE-OPERATIONAL
Single Flash	The device is in state SAFE-OPERATIONAL
ON	The device is in state OPERATIONAL
Flickering	The device is in state BOOTSTRAP

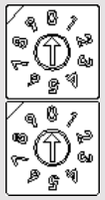
ECAT-ERR LED

LED State	Description
ON	Error in the coupler
Double Flash	Process Data Watchdog Timeout/ EtherCAT Watchdog Timeout
Single Flash	Device changes state from Op to SafeOp Error due to a synchronization error.
Blinking	Configuration Error
OFF	No error

RJ45 Link/Act LED

Link/Act (green)	Description
OFF	No link
ON	Link without activity
Blinking	Link and activity

6 ID Type Setup Rotary



Setting	Description
0	Invalid Node Address
1~99	Valid Node Address

CAUTION

NOTE: Make sure that all local and national electrical standards are met when installing the unit. Contact your local authorities to determine which codes apply.

Power	Use power output that meets SELV (Safety Extra-Low Voltage) requirements. The unit can be powered by DC power only, voltage range: 24VDC (-15%/+20%), compatible with most controller DC systems. The power conditioning circuitry inside the unit is accomplished by a switching power supply. The peak starting current can be as high as 2A.
Fusing Require-ments	If none of the LEDs turn on after the power supply is connected, remove power. A resettable fuse will protect against overcurrent faults in DC circuit and the resetting will take place after a period of time. Check wiring for proper connections and try to power up again.
High Voltage	A resettable fuse will prevent damage for overcurrent condition however it isn't guaranteed. DC voltage sources should provide proper isolation from main AC power and similar hazards.
Emergency Stop	A Hard-wired EMERGENCY STOP should be fitted in any system using the product.
Supply Voltage Condition	Do not power the unit and inductive DC loads, or input circuitry to the controller, with the same power supply. Note: The 24 VDC output from some controllers may not have enough current to power the unit.
Wire Routing	a. Power wire length should be minimized (Max: 500m shielded, 300m unshielded). b. Please use twisted pair cables for power wire and signal wire and conform to the impedance matching. c. If wiring is to be exposed to lightning or surges, use appropriate surge suppression devices. d. Keep AC, high energy, and rapidly switching DC power wiring separated from signal wires. e. Add a resistor and capacitor in the parallel connection between the ungrounded DC power supply and the frame ground. This provides a path for static and high frequency dissipation. Typical values to use are 1M Ohm and 4700pF

DANGER

Hardware Considerations	The system designer should be aware that devices in Controller systems could fail and thereby create an unsafe condition. Furthermore, electrical interference in an operator interface can lead to equipment start-up, which could result in property damage and/or physical injury to the operator. If you use any programmable control systems that require an operator, be aware that this potential safety hazard exists and take appropriate precautions. Although the specific design steps depend on your particular application, the following precautions generally apply to installation of solid-state programmable control devices, and conform to the guidelines for installation of Controllers recommended Control Standards.
Programming Considerations	Checks should be placed in the controller to ensure that all writable registers that control critical parts of plant or machinery have limit checks built into the program, with an out-of-limit safe shut down procedure to ensure safety of personnel.

Limited Warranty

This product is limited warranted against defects in design and manufacture.
The proven defective product will either be repaired or replaced, at Weintek's discretion.
This warranty shall not cover any product which is
(a) Out of warranty period which is 12 months from the manufacturing month of the HMI products.
(b) Damage caused by Force Majeure, accident, negligence, improper installation or misuse.
(c) Product has been repaired or taken apart by unauthorized technicians.
(d) Products whose identification markings have been removed or damaged.