

WEINTEK



# iR Series Remote IO

Easy integration x Scalable solution

# Easy Integration

Weintek's iR-Series I/O modules provide unparalleled flexibility, allowing seamless integration with CODESYS-based controllers and compatibility with 3rd-party Modbus TCP, EtherNet/IP, EtherCAT, and CANopen masters. Simple installation, facilitated by a DIN rail-mountable design and an included push-in style terminal block, ensures a hassle-free setup.



## I/O Modules

Coupler protocol: MODBUS TCP/IP, EtherNet/IP, CANopen and EtherCAT

I/O Module: Digital I/O, Analog I/O, and Temperature Module

iR series I/O integrates with CODESYS equipped HMIs to provide an all-in-one solution. In addition, iR couplers support common communication protocols and may be used with 3rd party controllers

## Helpful Features

Software-based noise filtration, user-defined analog-to-digital conversion, and built-in RTD and TC parameters for ease-of-setup

iR-ETN40R I/O coupler is compatible with Modbus TCP/IP and EtherNet/IP, features 24 digital inputs and 16 relay outputs, with the option to configure 4 inputs as high-speed counters

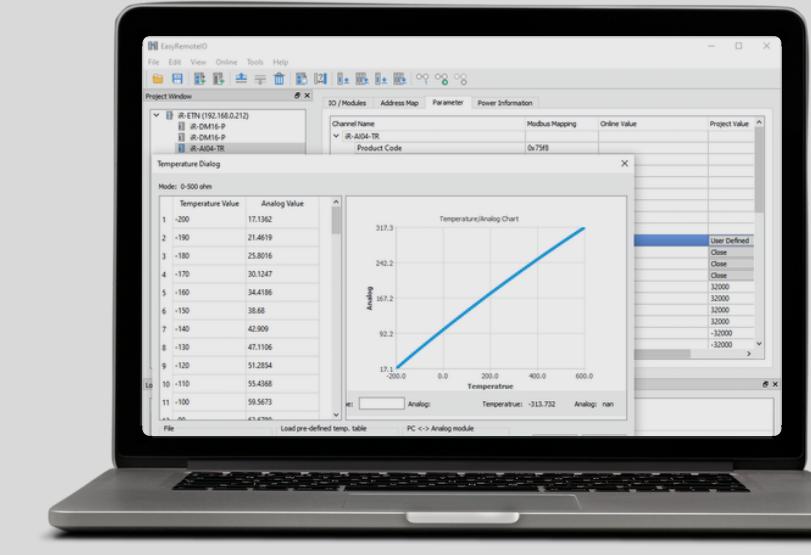
## Flexible and Scalable

Modular design that supports Ethernet cascading in a daisy-chain topology

\*Ethernet cascading supported on iR-ETN I/O couplers

# Simplify. Connect. Control.

EasyRemote IO, an I/O configuration software, streamlines integration with an intuitive interface for connecting, monitoring, and controlling Ethernet-based I/O couplers while enabling seamless device description export to CODESYS and EtherNet/IP masters.



## Auto Detect

Automatically find Ethernet based I/O couplers on your local network

## Easy Deployment

I/O projects may be reused for expedited deployment

## The essentials

Monitor or update I/O values and diagnose analog input errors or channel disconnects for real-time testing

## Special features

Quickly convert analog signals to engineering units via scaling and define custom temperature profiles

# Communication Coupler

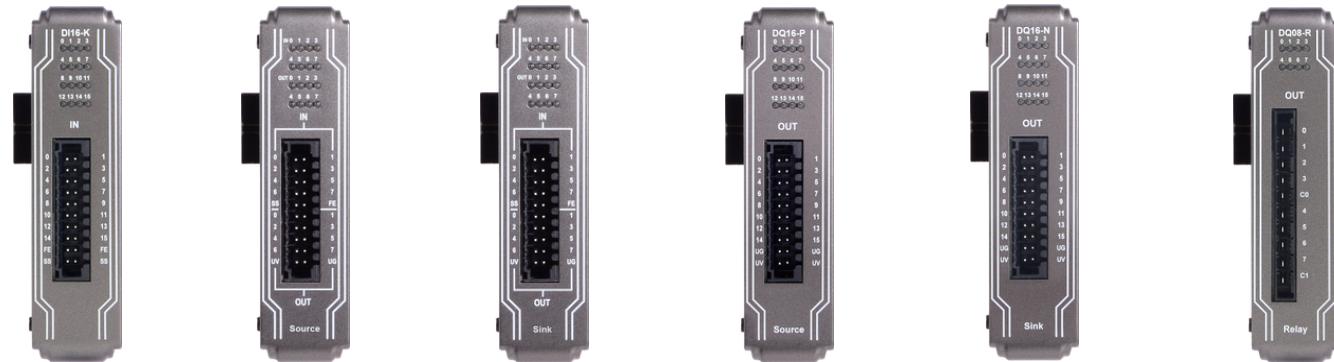


	Model	iR-ETN	iR-COP	iR-ECAT
<b>Expansion I/O Module</b>	Number of Bus Terminals	Depends on Power Consumption	Depends on Power Consumption	Depends on Power Consumption
	Digital Input Point	Max. 256	Max. 256	Max. 256
	Digital Output Point	Max. 128	Max. 128	Max. 128
	Analog Input Channel	Max. 64	Max. 64	Max. 64
	Analog Output Channel	Max. 64	Max. 64	Max. 64
<b>Data Transfer Rate</b>		10/100 Mbps	50k~1 Mbps	100 Mbps
<b>Max Number of TCP/IP Connections</b>		8 Connections	-	-
<b>Protocol</b>		Modbus TCP/IP Server, EtherNet/IP adapter	CANopen Slave	EtherCAT Slave
<b>Isolation</b>		Network to Logic Isolation : Yes	CAN bus Isolation : Yes	Network to Logic Isolation : Yes
<b>Power</b>	Power Supply	24 VDC (-15%/+20%)	24 VDC (-15%/+20%)	24 VDC (-15%/+20%)
	Power Consumption	Nominal 100mA@24VDC	Nominal 100mA@24VDC	Nominal 100mA@24VDC
	Current for Internal Bus	Max 2A@5VDC	Max 2A@5VDC	Max 2A@5VDC
	Current Consumption	220mA@5VDC	170mA@5VDC	270mA@5VDC
	Power Isolation	Yes	Yes	Yes
	Back-up Fuse	≤ 1.6A Self-recovery	≤ 1.6A Self-recovery	≤ 1.6A Self-recovery
 <b>Specification</b>	PCB Coating	Yes	Yes	Yes
	Enclosure	Plastic	Plastic	Plastic
	Dimensions WxHxD	27 x 109 x 81 mm	27 x 109 x 81 mm	27 x 109 x 81 mm
	Weight	Approx. 0.15 kg	Approx. 0.15 kg	Approx. 0.15 kg
	Mount	35mm DIN rail mounting	35mm DIN rail mounting	35mm DIN rail mounting
 <b>Environment</b>	Protection Structure	IP20	IP20	IP20
	Storage Temperature	-20° ~ 70°C (-4° ~ 158°F)	-20° ~ 70°C (-4° ~ 158°F)	-20° ~ 70°C (-4° ~ 158°F)
	Operating Temperature	0° ~ 55°C (32° ~ 131°F)	0° ~ 55°C (32° ~ 131°F)	0° ~ 55°C (32° ~ 131°F)
	Relative Humidity	10% ~ 90% (non-condensing)	10% ~ 90% (non-condensing)	10% ~ 90% (non-condensing)
 <b>Certification</b>	EMC Immunity	Conforms to: EN 55032: 2012+AC: 2013, Class A   EN 61000-6-4: 2007+A1:2011   EN 55024: 2010+A1: 2015   EN 61000-6-2:2005		
	UL	cULus Listed		
	CE	CE Marked		

# Ethernet I/O module



Model		iR-ETN40R
Expansion I/O Module		
No. of Bus Terminals	Depends on Power Consumption	
Digital Input Point	Max. 224	
Digital Output Point	Max. 112	
Analog Input Channel	Max. 64	
Analog Output Channel	Max. 64	
Data Transfer Rate	10/100 Mbps	
Max. Number of TCP/IP Connections	8 connections	
Protocol	Modbus TCP Server, EtherNet/IP adapter	
Isolation	Network to Logic Isolation : Yes	
No. of Ports	1	
Digital Output		
Total Number of Outputs	16	
Output Logic	Relay	
Output Voltage	250VAC/30VDC	
Output Current	2A per channel (Max 8A)	
Digital Input		
Total Number of Inputs	24	
General Input		
Input Logic	Sink or Source	
Number of Inputs	20	
Logic 1 Input Voltage	15~28 VDC	
Logic 0 Input Voltage	0~5 VDC	
Input Impedance	5.6 kΩ	
Number of Inputs	4	
Input Logic	SINK INPUT (PNP)	
Logic 1 Input Voltage	15~28 VDC	
Logic 0 Input Voltage	0~5 VDC	
Max. Input Frequency	20KHz	
Input Impedance	3 kΩ	
High-speed Input		
Isolation Power		
Specification		
Power Supply	24 VDC (-15%/+20%)	
Power Consumption	Nominal 255mA@24VDC	
Current for Internal Bus	Max 2A@5VDC	
Current Consumption	520mA@5VDC	
Power Isolation	Yes	
Back-up Fuse	≤ 1.6A Self-recovery	
PCB Coating	Yes	
Enclosure	Plastic	
Dimensions WxHxD	64 x 109 x 81 mm	
Weight	Approx. 0.27 kg	
Mount	35mm DIN rail mounting	
Environment		
Protection Structure	IP20	
Storage Temperature	-20° ~ 70°C (-4° ~ 158°F)	
Operating Temperature	-10° ~ 60°C (14° ~ 140°F)	
Certification		
EMC Immunity	Conforms to EN 55032: 2012+AC: 2013, Class A; EN 61000-6-4: 2007+A1:2011; EN 55024: 2010+A1: 2015; EN 61000-6-2:2005	
EtherNet/IP	ODVA Conformance Test	
UL	cULus Listed	
CE	CE Marked	



Model	iR-DI16-K	iR-DM16-P	iR-DM16-N	iR-DQ16-P	iR-DQ16-N	iR-DQ08-R
<b>Input Logic</b>	Sink or Source	Sink or Source	Sink or Source	N/A	N/A	N/A
<b>Number of Inputs</b>	16	8	8	0	0	0
<b>Output Logic</b>	N/A	Source	Sink	Source	Sink	Relay
<b>Number of Outputs</b>	0	8	16	16	16	8
<b>Current Consumption</b>	83mA@5VDC	130mA@5VDC	130mA@5VDC	196mA@5VDC	205mA@5VDC	220mA@5VDC
<b>HIGH Level Input Voltage</b>	15~28VDC	15~28VDC	15~28VDC	N/A	N/A	N/A
<b>LOW Level Input Voltage</b>	0~5 VDC	0~5 VDC	0~5 VDC	N/A	N/A	N/A
<b>Output Voltage</b>	N/A	11~28VDC	11~28VDC	11~28VDC	11~28VDC	250VAC/ 30VDC
<b>Output Current</b>	N/A	0.5A per channel (Max 4A)	0.5A per channel (Max 4A)	0.5A per channel (Max 4A)	0.5A per channel (Max 4A)	2A per channel (Max 8A)
<b>Isolation</b>	Input: Optical Isolation Output: N/A	Input: Optical Isolation Output: Optical Isolation	Input: Optical Isolation Output: Optical Isolation	Input: N/A Output: Optical Isolation	4A Input: N/A Output: Optical Isolation	Input: N/A Output: Electromagnetic Isolation
<b>Specification</b>	Enclosure	Plastic				
	Dimensions WxHxD	27 x 109 x 81 mm				
	Weight	Approx. 0.12 kg				Approx. 0.13 kg
	Mount	35mm DIN rail mounting				
<b>Environment</b>	Protection Structure	IP20				
	Storage Temperature	-20° ~ 70°C (-4° ~ 158°F)				
	Operating Temperature	0° ~ 55°C (32° ~ 131°F)				
<b>Connection</b>	Cross-section	AWG 28-16				AWG 24-16
<b>Certification</b>	EMC Immunity	Conforms to EN 55032: 2012+AC: 2013, Class A; EN 61000-6-4: 2007+A1:2011; EN 55024: 2010+A1: 2015; EN 61000-6-2:2005				
	UL	cULus Listed				
	CE	CE Marked				

# Analog I/O



Model	iR-AI04-VI	iR-AM06-VI	iR-AQ04-VI	iR-AI04-TR
Number of Analog Inputs	4 ( $\pm 10V / \pm 20mA$ )	4 ( $\pm 10V / \pm 20mA$ )	0	4 (RTD/Thermocouple)
Number of Analog outputs	0	2 ( $\pm 10V / \pm 20mA$ )	4 ( $\pm 10V / \pm 20mA$ )	0
Current Consumption	70mA@5VDC	70mA@5VDC	65mA@5VDC	65mA@5VDC
Analog Power Supply	24 VDC(20.4 VDC~28.8 VDC) (-15%~+20%)	24 VDC(20.4 VDC~28.8 VDC) (-15%~+20%)	24 VDC(20.4 VDC~28.8 VDC) (-15%~+20%)	24 VDC(20.4 VDC~28.8 VDC) (-15%~+20%)
Specification	PCB Coating: Yes Enclosure: Plastic Dimensions WxHxD: 27 x 109 x 81 mm Weight: Approx. 0.12 kg Mount: 35mm DIN rail mounting			
Environment	Protection Structure: IP20 Storage Temperature: -20° ~ 70°C (-4° ~ 158°F) Operating Temperature: 0° ~ 55°C (32° ~ 131°F) Relative Humidity: 10% ~ 90% (non-condensing)			
Connection	Cross-section: AWG 28-16		AWG 24-16	
Certification	EMC Immunity: Conforms to: EN 55032: 2012+AC: 2013, Class A   EN 61000-6-4: 2007+A1:2011   EN 55024: 2010+A1: 2015   EN 61000-6-2:2005 UL: cULus Listed CE: CE Marked			

Founded in 1996, Weintek Labs is a global-leading HMI manufacturer and is dedicated to the development, design, and manufacturing of practical HMI solutions. Weintek Lab's mission is to provide quality, customizable HMI-solutions that meet the needs of all industrial automation requirements while maintaining customer satisfaction by providing "on-demand" customer service. Weintek Labs brought their innovative technology to the United States in 2016, Weintek USA, INC., to provide quality and expedient solutions to the North American industrial market.

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