

iR Series



Communication Interface Specifications

	Model	iR-ETN	iR-COP	iR-ECAT	
Expansion I/O module	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	
Data Transfer Rate		10/100 Mbps	50k~1 Mbps	100 Mbps	
Max. Number of TCP/IP Connections		8 Connections	-	-	
Protocol		Modbus TCP/IP Server, EtherNet/IP™	CANopen Slave	EtherCAT® Slave	
Power	Power Supply	24 VDC (-15%/+20%)	24 VDC (-15%/+20%)	24 VDC (-15%/+20%)	
	Power Dissipation	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	
	Electrical Isolation	Network to Logic : Isolation	Network to Logic : Isolation	Isolated CANopen : Yes	Network to Logic : Isolation
		Logic to Field power : Isolation	Logic to Field power : Isolation	Isolated power : Yes	Logic to Field power : Isolation
	Back-up Fuse	≤ 1.6A Self-recovery	≤ 1.6A Self-recovery	≤ 1.6A Self-recovery	
	PCB Coating	Yes	Yes	Yes	
	Specification	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	
Environment	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)	
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	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	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	cULus Listed	

Digital Input/Output Specifications



Model		iR-DI16-K	iR-DM16-P	iR-DM16-N	iR-DQ16-P	iR-DQ16-N	iR-DQ08-R	
Input Logic		Sink or Source	Sink or Source	Sink or Source	N/A	N/A	N/A	
Number of Inputs		16	8	8	0	0	0	
Output Logic		N/A	Source	Sink	Source	Sink	Relay	
Number of Outputs		0	8	8	16	16	8	
Current Consumption		83mA@5VDC	130mA@5VDC	130mA@5VDC	196mA@5VDC	205mA@5VDC	220mA@5VDC	
HIGH Level Input Voltage		15~28VDC	15~28VDC	15~28VDC	N/A	N/A	N/A	
LOW Level Input Voltage		0~5 VDC	0~5 VDC	0~5 VDC	N/A	N/A	N/A	
Output Voltage		N/A	11~28VDC	11~28VDC	11~28VDC	11~28VDC	250VAC/ 30VDC	
Output Current		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)	
Specification	Enclosure	Plastic						
	Dimensions WxHxD	27 x 109 x 81 mm						
	Weight	Approx. 0.12 kg						Approx. 0.13 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						

Analog Input/Output Specifications



Model		iR-AI04-VI	iR-AM06-VI	iR-AQ04-VI
Number of Analog Inputs		4 ($\pm 10V/ \pm 20mA$)	4 ($\pm 10V/ \pm 20mA$)	0
Number of Analog outputs		0	2 ($\pm 10V/ \pm 20mA$)	4 ($\pm 10V/ \pm 20mA$)
Current Consumption		70mA@5VDC	70mA@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%)
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		



Temperature Specifications

Model		iR-AI04-TR
Number of Input Channels		4 (RTD/ Thermocouple)
Current Consumption		65mA@5VDC
Analog Power Supply Specification		24 VDC(20.4 VDC~28.8 VDC) (-15%~+20%)
	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
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



Motion Control Specifications

Model		iR-PU01-P	
Input Logic		Digital input/ output	Differential input/ output
Number of Inputs		Sink Input	Differential Input
Output Logic		4	3 (A/B/Z phase)
Number of Outputs		Source Output	Differential Output
HIGH Level Input Voltage		4	2(A/B phase)
LOW Level Input Voltage		15~28 VDC	-
Input current		0~5 VDC	-
Input Impedance		24 VDC, 5 mA	Meets the Requirements of ANSI Standards TIA/EIA-485-A
System Indicators		3 K Ω	-
Output Voltage		Red LED Input State	
Output Current		24VDC	Meets the Requirements of ANSI Standards TIA/EIA-485-A
Maximum input frequency		50 mA	
Maximum Output frequency		200KHz	2MHz
		40KHz	2MHz
Specification	Number of Axis	1- Axis	
	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	
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	