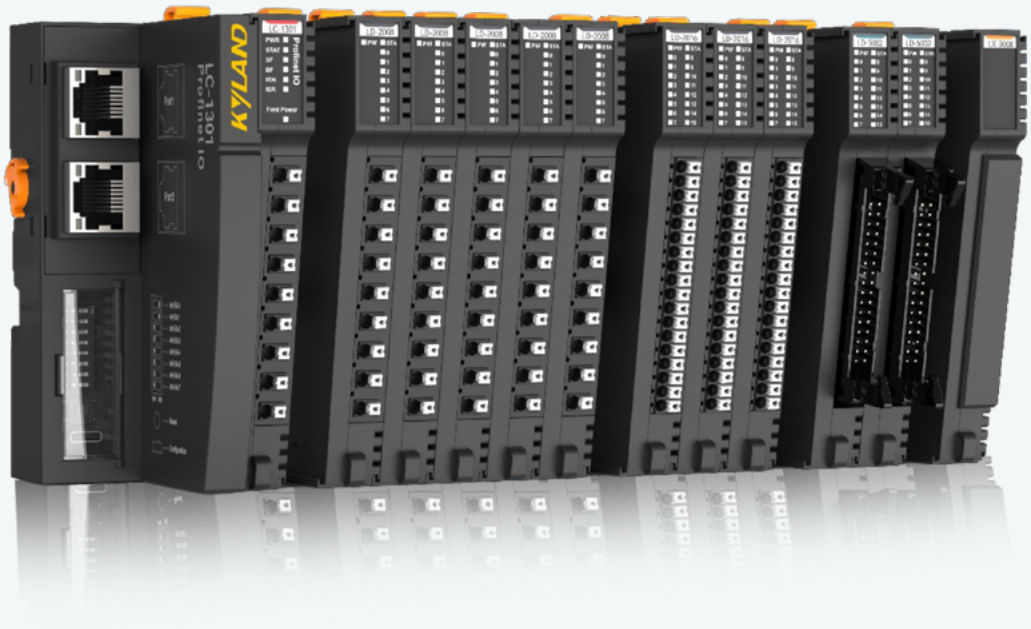
KYLAND

PRODUCT CHECK LIST

KYIO-L Series IO Product



KYIO-L SERIES IO PRODUCT

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KYIO-L Series

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Highly Reliable Industrial Design

- Exclusive heat dissipation design profile. Utilizing High-Quality thermal conductive materials. Ensuring industrial wide temperature range design of -40~85℃ .
- Compliance with EMC Standards, IP20 Protection Level. Meets stringent requirements of industrial application.

Support Multiple Communication Protocols

- The network coupler module supports a variety of protocols, including ProfiNet, Modbus RTU, Modbus TCP, EtherCAT, Ethernet/IP, CANopen and more.
- By using the communication module, it is possible to achieve CANopen and serial port master communication extension.

Variety of Modules, flexible compatibility

- The coupler module can support up to 32 IO modules.
- The coupler module supports a wide range of input/output modules (DI, DO, AI, AO, RTD, TC, PI, PO, Mixed I/O Modules etc.)
- The coupler module can be expanded by using extension modules.

Elegant and Polished Exterior Design

- The coupler module dimensions are 115x51.5x75mm.
- The IO module dimensions are 115x14x75mm.
- Compact Size and modules are easy to disassemble.
- Distributed ultra-thin design. Saving installation space.

Easy Connect Wiring Design

- The terminals are designed with light-guiding holes.
- Terminal with spring, easy for connect.

Channel diagnostics

- The module is equipped with a set of indicator lights that accurately display the module and channel's operational.

Protection Design

- Reverse polarity protection
- Three-Terminal Isolation, Two-Point Grounding

High-Speed Backplane Bus

- Utilize of High-Speed Backplane Bus
- Support for 1ms refresh cycle
- A single coupler module can accommodate up to 32 IO modules.

Coupler Module Standard Specifications

Specifications	LC-2101	LC-3101	LC-1101	LC-1301	LC-1201	LC-1401
Communication Protocols	Modbus-RTU/ASCII	CANopen DS401	Modbus-TCP	Profinet IO Device	EtherCAT	Ethernet/IP
System Power Supply	Power Supply: 9-36VDC (Nominal 24VDC)					
	Protection: Over-current Protection, Reverse polarity protection					
Module Power Consumption	30mA@24VDC	50mA@24VDC		110mA@24VDC		
Internal Bus Supply Current	Max: 2.5A@5VDC			Max: 2A@5VDC		
Isolation	Power Supply from System to Field: Isolation					
Field Power Supply	Power Supply: 22-28V (Nominal 24VDC)					
Field Power Supply Current	Maximum DC Current: 8A					
Supported Module Number	32 modules					
Wire Diameter	Max.1.0mm^2(AWG 17)					
Installation Method	35mm DIN Rail Mounting					
Dimensions	115x51.5x75mm					
Weight	130g					
Operating Temperature	-40~85˚C					
Environmental Humidity	5% - 95% non-Condensing					
Protection Rating	IP20					

Coupler Module Communication Specifications

Model	Type	Specifications
LC-2101	Network Protocols	Modbus-RTU/ASCII
	Process Data Area	Maximum Sum of Input and Output is 8192 bytes
	Function Code	01 / 02 / 03 / 04 / 05 / 06 / 15 / 16
	Baud Rate	2400~115200 bps
	Station Number	1~63(DIP Switch Configuration),64~247(Software Configuration)
	Interface	5-Pin Screw Terminal
	Data Bit	7,8
	Parity Bit	No Parity, Odd Parity, Even Parity
	Stopping Bit	1,2
	Maximum Bus Length	1200m (RS485, 2400 Baud Rate)
	Terminal Resistor and Biasing Resistor	DIP Switch Configuration

Model	Type	Specifications
LC-2101	Network Protocols	Modbus-TCP
	Process Data Area	Maximum Sum of Input and Output is 8192 bytes
	Diagnostic Functionality	Support
	Client Connections Number	5
	TCP Keepalive	Support
	Modbus Application Watchdog	Support(by default on, 30 second)
	Function Code	01/02/03/04/05/06/15/16/23
	Network Interface	2 RJ45 Interfaces
	Connection Speed	10/100Mbps, Auto-Negotiation, Full Duplex
	Maximum Bus Length	100m
	IP Address Configuration	DIP Switch or IO Config Configuration Software
LC-1301	Network Protocols	Profinet IO Device
	Process Data Area	Maximum Input: 1440 bytes, Maximum Output: 1440 bytes
	RT	Supported, Minimum Period: 1ms
	IRT	Not supported
	MRP	Not supported
	MRPD	Not supported
	IO Diagnostic Error	Supported (Diagnostic OB82)
	Network Interface	2 RJ45 Interfaces
	Connection Speed	10/100Mbps, Auto negotiation, Full Duplex
	Maximum Bus Length	100m
	Profinet Device Name	DIP Switch Configuration or Profinet Monitor for Modifying Device Name
LC-1201	Network Protocols	EtherCAT
	Process Data Area	Maximum Input: 1024 bytes, Maximum Output: 1024 bytes
	Network Interface	2 RJ45 Interfaces
	Connection Speed	10/100Mbps, Auto negotiation, Full Duplex
	Maximum Bus Length	100m
LC-1401	Network Protocols	Ethernet/IP
	Maximum Input Length	504 bytes (per assembly instance)
	Maximum Output Length	504 bytes (per assembly instance)
	Maximum Explicit Message Connection Count	10
	Maximum Implicit Message Connection Count	5
	Maximum CIP Connection Count	10
	Network Interface	2 RJ45 Interfaces
	Connection Speed	10/100Mbps, Auto negotiation, Full Duplex
	Maximum Bus Length	100m
LC-3101	Network Protocols	CANopen DS401
	Connection Interface	5-Pin Terminal Block
	Station Address	DIP Switch Setting (1-127)
	Process Data Configuration Interface	Maximum Input: 512 Bytes
		Maximum Output: 512 Bytes
		Type-C
	Transfer Rate	10 kbit/s, 20 kbit/s, 50 kbit/s, 100 kbit/s, 125 kbit/s, 250 kbit/s, 500 kbit/s, 800 kbit/s,1000 kbit/s

DI Module Specifications

Specifications		LD-1308	LD-1016	LD-3108	LD-3016	LD-5032
General Specifications	Power	Max.52mA@ 5.0Vdc	Max.60mA@ 5.0Vdc	Max.85mA@ 5.0Vdc	Max.60mA@ 5.0Vdc	Max.70mA@ 5.0Vdc
	Isolation	I/O to Internal Bus: Opto-isolator(3KVrms)				
	Field Power Supply	Rated Voltage: 24Vdc, Input Range: 22~28Vdc				
	Wiring	I/O Wiring: Max.1.0mm^2(AWG 17)				34P Horn Socket 2.54mm
	Installation Method	35mm DIN Rail Mounting				
	Dimensions	115x14x75mm				
	Weights	65g				
	Operating Temperature	-40~85˚C				
	Environmental Humidity	5% to 95% non-condensing				
	Protection Rating	IP20				
	Channel Number	8-channel PNP input	16-channel PNP input	8-channel NPN input	16-channel NPN input	32-channel NPN/PNP input
	Indicator Lights	8 -channel input Indicator Lights	16 -channel input Indicator Lights	8 -channel input Indicator Lights	16 -channel input Indicator Lights	32 -channel input Indicator Lights
	Turn On oltage	Min.10Vdc to Max.28Vdc				High Input: Min. 10Vdc to Max. 28Vdc (Common Terminal: 0Vdc) Low Input: Min. 0Vdc to Max. 14Vdc (Common Terminal: 24Vdc)
	Cutoff Voltage	Max.5Vdc				Input High Input: Max. 5Vdc (Common Terminal: 0Vdc) Low Input: Min.19Vdc (Common Terminal: 24Vdc)
	Inrush Current	Max.5mA/-channel @28V				
	Input Impedance	>7.5kΩ				
	Input Delay	OFF to ON: Max.3ms				
		ON to OFF: Max.2ms				
	Filtering Time	Default 10ms				
	Sampling Frequency	500Hz				
	Counting Frequency	<200Hz				

DO Module Specifications

Specifications		LD-4016	LD-4032
General Specifications	Power	Max.75mA@5.0Vdc	Max.175mA@5.0Vdc
	Isolation	I/O to Internal Bus: Opto-isolator(3KVrms)	
	Field Power Supply	Rated Voltage: 24Vdc	
		Input Range: 22~28Vdc	
	VCLAMP Voltage	Rated Voltage: 24Vdc	
		Input Range: 12~36V	
	Wiring	I/O Wiring: Max.1.0mm^2(AWG 17)	
	Installation Method	35mm DIN Rail Mounting	
	Dimensions	115x14x75mm	
	Weights	65g	
Environment Specifications	Operating Temperature	-40~85°C	
	Environmental Humidity	5% to 95% non-condensing	
	Protection Rating	IP20	
Output Specifications	Channel Number	16-channel NPN Output	32-channel NPN Output
	Indicator Lights	16-channel Output Indicator Lights	32-channel Output Indicator Lights
	Rated Current	Single-channel Output: Max.1000mA in the meantime Output: Max.500mA	Single-channel Output: Max .1000mA/16-channel in the meantime Output: Max.500mA/32-channel in the meantime Output: Max.300mA
	leakage current	Maximum: 10uA	
	On-State Resistance	Typical Value: 500mΩ	
	Output Delay	OFF to ON: Max 100 us / ON to OFF: Max 150 us	
	Protection Functions	Over-temperature shutdown: Typical value 160°C Over-current protection: Typical value 1.8A Short circuit protection: Supported on the new hardware version Interlock protection: 4 channels in one group	

Specifications		LD-2104	LD-2008	LD-2016	LD-2116	LD-2032
General Specifications	Power	Max.30mA@5.0Vdc	Max.80mA@5.0Vdc	Max.175mA@5.0Vdc	Max.175mA@5.0Vdc	Max.185mA@5.0Vdc
	Isolation	I/O to Internal Bus: Opto-isolator(3KVrms)				
	Field Power Supply	Rated Voltage: 24Vdc				
		Input Range: 12~30Vdc				
	Wiring	I/OWiring:Max.1.0mm2(AWG 17)				34P Horn Connecter 2.54mm
	Installation Method	35mm DIN Rail Mounting				
	Dimensions	115x14x75mm				
	Weights	65g				
Environment Specifications	Operating Temperature	-40~85°C				
	Environmental Humidity	5%~95% RH (Non-condensing)				
	Protection Rating	IP20				

Output Specifications	**Channel Number**	4-channel PNP Output	8-channel PNP Output	16-channel PNP Output	16-channel PNP Output (Independent power supply)	32-channel PNP Output
	Indicator Lights	4-channel Output Indicator Lights	8-channel Output Indicator Lights	16-channel Output Indicator Lights	16-channel Output Indicator Lights	32-channel Output Indicator Lights
	Ampacity	Typical value: 2.2A	Typical value: 500mA	Typical value: 500mA	Typical value: 500mA	Typical value: 300mA
	Leakage Current	Maximum value: 10uA	Maximum value: 100uA	Maximum value: 10uA	Maximum value: 10uA	Maximum value: 10uA
	Output Impedance	<90mΩ	<280mΩ	<200mΩ	<200mΩ	<200mΩ
	Output Delay	OFF to ON:Max .5us	OFF to ON: Max.100us	OFF to ON: Max.100us	OFF to ON: Max.100us	OFF to ON: Max.100us
Output Specifications		ON to OFF:Max .200us	ON to OFF: Max.150us	ON to OFF: Max.150us	ON to OFF: Max.150us	ON to OFF: Max.150us
	Protection Functions	Thermal shutdown: Typical value150˚C	Thermal shutdown: Typical value135˚C	Thermal shutdown: Typical value135˚C	Thermal shutdown: Typical value135˚C	Thermal shutdown: Typical value 135˚C
		Overcurrent protection: Typical value 12A	Overcurrent protection: Typical value1.1A	Overcurrent protection: Typical value1.1A Short circuit protection	Overcurrent protection: Typical value1.1A Short circuit protection	Overcurrent protection: Typical value1.1A Short circuit protection

Specifications		**LD-8008**
General Specifications	**Power**	Max.280mA@5.0Vdc
	Isolation	I/O to Internal Bus: Coil isolation(1600VAC)
	Field Power Supply	Not used
	Wiring	I/O Wiring: Max.1.0mm2(AWG 17)
	Installation Method	35mm DIN Rail Mounting
	Dimensions	115x14x75mm
	Weights	65g
Environment Specifications	**Operating Temperature**	-40~85˚C
	Environmental Humidity	5% to 95% non-condensing
	Protection Rating	IP20
Output Specifications	**Channel Number**	8-channel NO relay outputs
	Indicator Lights	8-channel Output Indicator Lights
	Maximum Switching Current	2A
	Maximum switching Voltage	250VAC/220VDC
	Maximum Switching Power	62.5VA/60W
	Contact resistance	≤100mΩ
	Output Delay	ON to OFF:Max.3ms/OFF to ON:Max.3ms
	Mechanical Durability	$1x10^8$ cycles
	Electrical Durability	$1x10^5$ cycles
	Vibration	10Hz~55Hz 3.3mm double amplitude
	Shock	Intensity: 980m/s2 / Stability: 735m/s2

AI Module Specifications

Specifications		LA-3008
General Specifications	Power	Max.100mA@5.0Vdc
	Isolation	I/O to Internal Bus: Opto-isolator(3KVrms)
	Field Power Supply	Not used
	Wiring	I/OWiring: Max.1.0mm2(AWG 17)
	Installation Method	35mm DIN Rail Mounting
	Dimensions	115x14x75mm
	Weights	65g
Environment Specifications	Operating Temperature	-40~85˚C
	Environmental Humidity	5%~95% RH (Non-condensing)
	Protection Rating	IP20
Output Specifications	Channel Number	8-channel Voltage input
	Indicator Lights	8-channel input Indicator Lights
	Input Voltage Range	0~5VDC,0~10VDC,±5VDC,±10VDC
	Resolution	15 Bit/16 Bit
	Accuracy	±0.3%@25˚C /±0.5@-40~85˚C
	Sampling Rate	1ms/8-channel
	Input Impedance	1MΩ
	Common Terminal	Common-ground input
	Channel Disabled	Supported
	Diagnostic Function	Channel disable fault value: -32767 Overflow: 32767 (supported only in standard mode) Underflow: -32768 (supported only in standard mode)

Specifications		LA-1004	LA-1008	LA-1108
General Specifications	Power	Max.65mA@5.0Vdc		
	Isolation	I/O to internal bus: Magnetic isolation (2.5KVrms) /Power Isolation: DC-DC		
	Wiring	I/O Wiring: Max.1.0mm^2 (AWG 17)		
	Installation Method	35mm DIN Rail Mounting		
	Dimensions	115x14x75mm		
	Weights	65g		
Environment Specifications	Operating Temperature	-40~85˚C		
	Environmental Humidity	5% to 95% non-condensing		
	Protection Rating	IP20		

Output Specifications	**Channel Number**	4-channel input current	8-channel input current	
	Indicator Lights	4 LED-channel status indicator lights	8 LED-channel status indicator lights	
	Input Range	Maximum: 0~23.5mA		Maximum: -23.5~23.5mA
	Resolution	15 Bit		
	Acquisition Accuracy	±0.3% of full scale, @25˚C /±0.5% full scale, @-20~70˚C		
	Sampling Rate	6ms/4-channel (Filter level 0)	12ms/8-channel	28ms/8-channel
Output Specifications	**Data format**	16-bit signed integer		
	Diagnostic Function	——		Standard mode: Overflow 32767, Standard mode: Underflow -32768, Channel disabled: -32767

AO Module Specifications

Specifications		LA- 4004	LA-4008	LA-2004
General Specifications	**Power**	Max 500 mA@5.0Vdc		
	Isolation	I/O to internal bus: Electromagnetic Isolation(3KVrms)		
	Wiring	I/O Wiring: Max.1.0mm2(AWG 17)		
	Installation Method	35mm DIN Rail Mounting		
	Dimensions	115x14x75mm		
	Weights	65g		
Environment Specifications	**Operating Temperature**	-40~85˚C		
	Environmental Humidity	5%~95% RH (Non-condensing)		
	Protection Rating	IP20		
Output Specifications	**Channel Number**	4-channel Voltage Output	8-channel Voltage Output	4-channel Current Output
	Indicator Lights	4-channel Output Indicator Lights	8-channel Output Indicator Lights	4-channel Output Indicator Lights
	Output Voltage/ Current Range	>5kΩ		Max.1KΩ
	Load Resistance	16 bits		
	Resolution	±0.1% (full scale)@25˚C		
	Accuracy	±0.3(full scale)@-40~85˚C		
	Conversion Time	1ms/every channel		2ms/every channel
	Diagnostic	Overtemperature/Overcurrent State Monitoring		Open Circuit or Overload, Field Power Supply error
	Overcurrent Protection	20mA		
	Common Terminal	Common ground Output		0V common ground, Non-isolated between channels

RTD Module Specifications

Specifications		LA-7003	LA-7004
General Specifications	Power	Max.35mA@5.0Vdc	Max.65mA@5.0Vdc
	Isolation	I/O to internal bus: Magnetic Isolation(2.5KVrms)	
	Field Power Supply	Not used	
	Wiring	I/O Wiring: Max.1.0mm2(AWG 17)	
	Installation Method	35mm DIN Rail Mounting	
	Dimensions	115x14x75mm	
	Weights	65g	
Environment Specifications	Operating Temperature	-40~85℃	
	Environmental Humidity	5%~95% RH (Non-condensing)	
	Protection Rating	IP20	
Input Specifications	Channel Number	3-channel Thermistor Input	4-channel Thermistor Input
	Indicator Lights	3 green LED	4 green LED
	Resolution	15 bits	
	Sensor type	PT100	
	Measurement Range	-240~880℃	
	Measurement Accuracy	0.5℃	
	Conversion Rate	400ms/3-channel	
	Diagnostic function	32766: Sensor not connected or disconnected -32766: Short circuit condition 32765: Chip failure 32767: Temperature overflow -32768: Temperature underflow	

TC Module Specifications

Specifications		LA-9004	LA-9008
General Specifications	Power	Max.50mA@5.0Vdc	Max.60mA@5.0Vdc
	Isolation	I/O to internal bus: Magnetic Isolation(2.5KVrms)	
	Field Power Supply	Not used	
	Wiring	I/O Wiring: Max.1.0mm^2(AWG 17)	
	Installation Method	35mm DIN Rail Mounting	
	Dimensions	115x14x75mm	
	Weights	65g	
Environment Specifications	Operating Temperature	-40~85˚C	
	Environmental Humidity	5%~95% RH (Non-condensing)	
	Protection Rating	IP20	
Input Specifications	Channel Number	4-channel Thermocouple Input	8-channel Thermocouple Input
	Indicator Lights	4 Input Indicator Lights	8 Input Indicator Lights
	Sensor type	J / K / E / T / S / R / B / N type thermocouples	
	Acquisition Accuracy	±0.3% of full scale, @25˚C	
		±0.5% full scale, @-40~85˚C	
	Sampling Rate	70ms/4-channel	
	Measurement Range	J Type -210~1200˚C / K Type -270~1370˚C / E Type-270~1000˚C / T Type-270~400˚C / S Type -50~1760˚C /R Type-50~1760˚C / B Type 100~1820˚C / N Type -270~1300˚C	
	Data format	16-bit signed integer	
	Diagnostic function	-32767: Thermocouple type not selected (disable this channel)	
		32766: Open circuit or disconnected	
		32767: Temperature overflow	
		-32768: Temperature underflow	
		32765: ADC chip failure	
		32764: Cold junction compensation conversion fault value	

Position Measurement Module Specifications

Specifications		LP-1002	LP-3002	LP-7002	LP-5002	
General Specifications	Power	Max.65mA@5.0Vdc				
	Isolation	I/O to internal bus: Magnetic Isolation(3KVrms)				
	Field Power Supply	Rated Voltage: 24Vdc, Input Range: 20~28Vdc				
	Wiring	I/O Wiring: Max.1.0mm^2(AWG 17)				
	Installation Method	35mm DIN Rail Mounting				
	Dimensions	115x14x75mm				
	Weights	65g				
Environment Specifications	Operating Temperature	-40~85℃				
	Environmental Humidity	5% to 95% non-condensing				
	Protection Rating	IP20				
Input Specifications	Channel Number	2-channel Encoder				
	Indicator Lights	16 channels input Indicator Lights				
	Encoder signal types	ABZ input standard: 5V DC, range ±10%	ABZ input standard: 24Vdc, range ±10%	Differential input, voltage output range 0-5V.	SSI absolute value input.	
	Encoder Input Impedance	Internal pull-up or pull-down resistor 4.7K.		——	Data frame length	10-40 bits
	Encoder Filter Time	Configurable, default 0.5us			Length	32 bits maximum
	Encoder Counting Frequency	<1.5MHz		<10MHz	Format	Gray code or binary
	Encoder Multiplication Mode	x1/x2/x4			LSB/MSB	Configurable
	Encoder measurement functionality	Measurement of load speed or input signal frequency			SSI Encoder clock frequency	≤2MHz
	DI Turn on Voltage	Min.5Vdc to Max.28Vdc				
	DI Turn Off Voltage	Max.2.7Vdc				
	DI Inrush current	Max.5mA/Channel @28V				
	DI Input Impedance	>10.0kΩ				
	DI Input Delay	OFF to ON: Max.3ms				
		ON to OFF: Max.2ms				
	DO Output Voltage	24V, Range ±10%				
	DO Output Current	Max.500mA				
	DO Output Leakage Current	Max.5uA				

Mixed Digital Input/Output Module Specifications

Specifications		LD-0008
General Specifications	Power	Max.85mA@5.0Vdc
	Isolation	I/O to Internal Bus: Opto-isolator(3KVrms)
	Field Power Supply	Rated Voltage: 24Vdc
		Input Range: 22~28Vdc
	Wiring	I/O Wiring: Max.1.0mm^2(AWG 17)
	Installation Method	35mm DIN Rail Mounting
	Dimensions	115x14x75mm
	Weights	65g
Environment Specifications	Operating Temperature	-40~85˚C
	Environmental Humidity	5% to 95% non-condensing
	Protection Rating	IP20

Input Specifications	Channel Number	8-channel NPN/PNP bidirectional Input	Output Specifications	Channel Number	8-channel NPN/PNP Output
	Indicator Lights	8-channel input Indicator Lights		Indicator Lights	8-channel Output Indicator Lights
	Turn On Voltage	High input: Min.10Vdc to Max.28Vdc (Common terminal:0Vdc) Low input: Min.0Vdc to Max.14Vdc (Common terminal:24Vdc)		Ampacity	Typical value: 0.5A
	Turn off Voltage	High input:Max.5Vdc (Common terminal:0Vdc) Low input: Min.19Vdc (Common terminal:24Vdc)		Leakage current	Maximum value: 10uA
	Inrush current	Max.5mA/channel @28V			
	Input Impedance	>7.5kΩ		Output Impedance	<200mΩ
	Input Delay	OFF to ON: Max.3ms		Output Delay	OFF to ON: Max.100us
		ON to OFF: Max.2ms			ON to OFF: Max.150us
Input Specifications	Filter Time	Default time: 10ms		Protection Functions	Over Temperature Protection: Typical value135˚C
	Sampling Frequency	500Hz			Over-Current Protection: Typical value1.1A
	Counting Frequency	<200Hz			Short circuit protection

Communication Submodule Specifications

Specifications		KYIO-LS-1211	KYIO-LS-1111
General Specifications	Power	Max.50mA@5.0Vdc	
	Isolation	I/O to Internal Bus: Opto-isolator(3KVrms)	
	Field Power Supply	Rated Voltage: 24Vdc	
		Input Range: 22~28Vdc	
	Wiring	I/O Wiring: Max.1.0mm^2(AWG 17)	
	Installation Method	35mm DIN Rail Mounting	
	Dimensions	115x14x75mm	
	Weights	65g	
Environment Specifications	Operating Temperature	-40~85℃	
	Environmental Humidity	5% to 95% non-condensing	
	Protection Rating	IP20	
Input Specifications	Channel Number	1	1
	Interface	RS485/RS232/RS422	CAN
	Protocol	Modbus RTU/ASCII	CANopen
	Operating Mode	Modbus master, slave, and transparent pass-through	Master Mode
	Master/Slave/ Transparent Modes Universal Communication Specifications	Baud rate: 300bps-500Kbps; Data bits: 7, 8 bits; Parity: None, Odd, Even parity Stop bits: 1, 2 bits; Character spacing: 1.5t-200t	
	Master Communication Specifications	Read data processing mode: Keep the last input value, Clear the input value. Data output mode: Polling, Event-triggered (data change) Module control enable: Disable, Enable Module control mode: Level-triggered, Rising edge-triggered. Power-on event output: Enable, Disable	Supported number of slave: 16 Baud rate: 10K~1Mbps Mode: PDO, SDO, Heartbeat, NMT, EMCY, Network scan PDO number: Default disabled, Automatically assigned if supported PDO COB-ID: Default disabled, Automatically assigned if supported Reset: One-click reset, Restore to factory settings
	Slave Communication Specifications	Slave ID: Customizable, default is 1. Response time: Customizable, default is 50	
	Transparent Mode Specifications	Byte order conversion: Disable and Enable	

Coupler Module Ordering Information

Product Model	Model Specification
KYIO-LC-3101	CANopen slave/64 TPDOs/64 RPDOs/Operating voltage 24VDC
KYIO-LC-1201	EtherCAT protocol/32 slots/ maximum total input of 1024 bytes/ maximum total output 1024 bytes
KYIO-LC-1401	EtherNet/IP protocol/32 slots/maximum total input of 504 bytes/ maximum total output 504 bytes
KYIO-LC-2101	Modbus-RTU protocol/32 slots/ maximum total input and output 8192 bytes
KYIO-LC-1101	Modbus-TCP protocol/32 slots/maximum total input and output 8192 bytes/2 RJ45 Interfaces/Max supported 5 Modbus-TCP client simultaneous access
KYIO-LC-1301	Profinet protocol/32 slots/maximum total input of 1440 bytes/ maximum total output 1440 bytes/supported RT/Not supported Ring

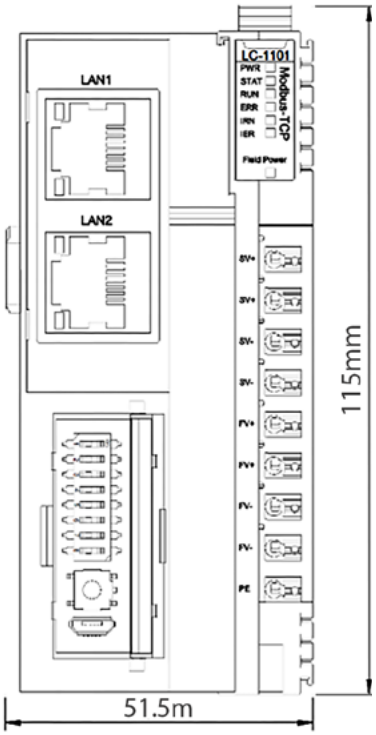
Expansion Module Ordering Information

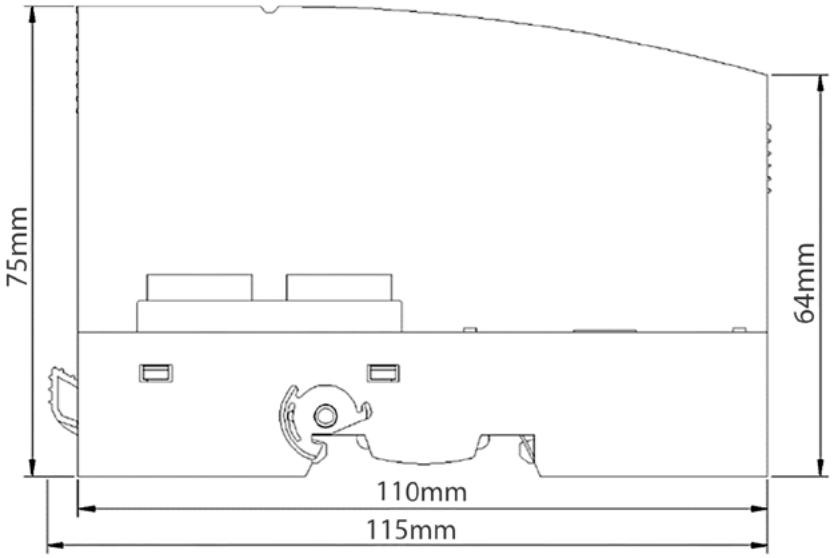
Product Model	Model Specification
KYIO-LX-7032	Rail installation/32-channel horn connector/Spring Wiring
KYIO-LX-4006	6-channel Field Power Supply distribution module 0V+24V+PE
KYIO-LX-4009	9-channel Field Power Supply distribution module 0V+24V
KYIO-LX-4018	18-channel Field Power Supply distribution module 0V
KYIO-LX-4118	18-channel Field Power Supply distribution module 24V
KYIO-LX-4218	18-channel Field Power Supply distribution module PE
KYIO-LX-4108	Field Power Supply expansion module (8A)/No configuration required
KYIO-LX-1005	Bus expansion master module/Not exceeding 8 meters/No more than 5 stops
KYIO-LX-6108	Power supply expansion module (system power) input 24VDC/ Output 5VDC/2A; Field Power Supply input 24VDC/ Output 24VDC/8A)
KYIO-LX-6008	Power supply expansion module (system power) input 24VDC/ Output 5VDC/2A; Field Power Supply input 24VDC/ Output 24VDC/8A)/No configuration required/No Slot occupied/No Diagnostic function
KYIO-LX-2005	Bus expansion slave module/Not exceeding 8 meters/Not more than 5 stations
KYIO-LX-3000	Terminal module/No configuration required/Required
KYIO-LX-8002	2-meter length/Flame-retardant material/Soft cable/Both ends with female horn connectors

IO Module Ordering Information

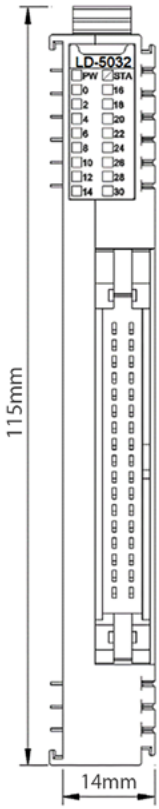
Product Model	Model Specification
KYIO-LD-1308	8-channel digital input/Sink/24VDC/Supports counting function (maximum clocking frequency of 200Hz) /PNP
KYIO-LD-1016	16-channel digital input/Sink//24VDC/Supports counting function (maximum clocking frequency of 200Hz) /PNP
KYIO-LD-3108	8-channel digital input/Source/24VDC/Supports counting function (maximum clocking frequency of 200Hz) /NPN
KYIO-LD-3016	16-channel digital input/Source/24VDC/Supports counting function (maximum clocking frequency of 200Hz) /NPN
KYIO-LD-5032	32-channel digital input/Bidirectional/With KYIO-LX-7032/34 Pin male horn connector/24VDC/Supports counting function (maximum clocking frequency of 200Hz)
KYIO-LD-2104	4-channel digital output/Source/5.5-40VDC Single channel maximum 3.3A/4-channel maximum per channel 2A/Channels can be used in parallel/PNP
KYIO-LD-2008	8-channel digital output/Source/24VDC/0.5A/PNP
KYIO-LD-2016	16-channel digital output/Source/24VDC/0.5A/PNP
KYIO-LD-2116	16-channel digital output/Source/24VDC/0.5A/PNP/Independent power supply
KYIO-LD-2032	32-channel digital output/Source/24VDC/0.5A/With KYIO-LX-7032/34 Pin male horn connector/PNP
KYIO-LD-8008	8-channel relay output (9~30VDC@2A/110Vac@0.55A/250Vac@0.25A)
KYIO-LD-4016	16-channel digital output/sink/24VDC/0.5A/NPN
KYIO-LD-4032	32-channel digital output/24VDC/NPN/Can be used to boot device/electromagnetic protection/Overcurrent protection/ With KYIO-LX-7032/34 Pin male horn connector/
KYIO-LD-0008	8-channel digital input/24VDC/PNP or NPN & 8-channel digital output/24VDC
KYIO-LA-1004	4-channel analog input/0&4-20mA/15-bit/Single Terminal
KYIO-LA-1008	8-channel analog input/0&4-20mA/15-bit/Single Terminal
KYIO-LA-1108	8-channel analog input/-20-20mA/15-bit/Single Terminal
KYIO-LA-3008	8-channel analog input/0~5VDC/-5~5VDC/0~10VDC/-10~10 VDC/15-bit/Single Terminal
KYIO-LA-2004	4-channel analog output/0&4-20mA/16-bit/Single Terminal
KYIO-LA-4004	4-channel analog output/0~5VDC/-5~5VDC/0~10VDC/-10~10VDC/16-bit/Single Terminal
KYIO-LA-4008	8-channel analog output/0~5VDC/-5~5VDC/0~10VDC/-10~10VDC/16-bit/Single Terminal
KYIO-LA-7003	3-channel RTD input (PT100)
KYIO-LA-7004	4-channel RTD-PT100 Temperature Acquisition Module
KYIO-LA-7006	6-channel RTD input RTD-PT100/Non-isolated acquisition accuracy between channels<=0.5-C
KYIO-LA-9004	4-channel TC input (J/K/E/T/S/R/B/N/C)
KYIO-LA-9008	8-channel TC input (J/K/E/T/S/R/B/N/C)/15bit
KYIO-LP-3002	2-channel Encoder/24V input/Quadrature Decoder/Direction Pulse/high-speed counting/2-channel DI/2-channel DO/ 2-wire 24VDC output/32bit/Maximum output Frequency 1.5MHz
KYIO-LP-7002	2-channel Encoder/Differential input/Quadrature Decoder/Direction Pulse/high-speed counting/2-channel DI/2-channel DO/32bit/Maximum Input Frequency 10MHz
KYIO-LP-5002	2-channel Encoder/SSI input/Each channel supports SSI absolute encoder signal input/1 digital signal input/Input Voltage 5VDC or 24VDC/Each channel supports 1 digital output signal/Output Voltage 5VDC/
KYIO-LP-1002	2-channel Encoder/5V Input/Quadrature Decoder/Direction Pulse/high-speed counting/2-channel DI/2-channel DO/ 2-wire 5V Output/32bit/Maximum output Frequency 1.5MHz
KYIO-LP-4002	2-channel 4-wire PWM output Module/24V Single Terminal/Switching Frequency≤200KHz
KYIO-LS-1111	1-channel CANopen communication module supports CANopen master mode
KYIO-LS-1211	1-channel serial communication module (RS232/RS485/RS422/Support Modbus-RTU/ASCII/"Master-Slave mode/ Transparent mode

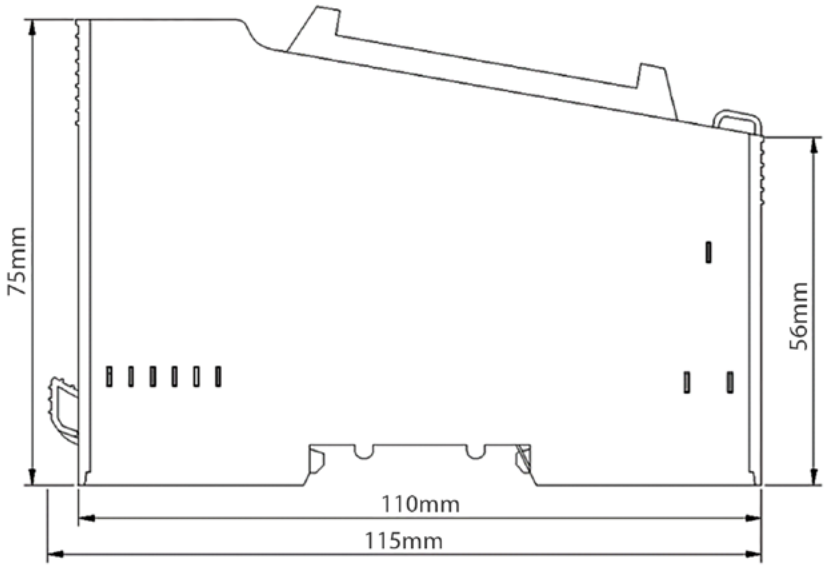
Coupler Module Dimension Drawing





IO Module Dimension Drawing





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