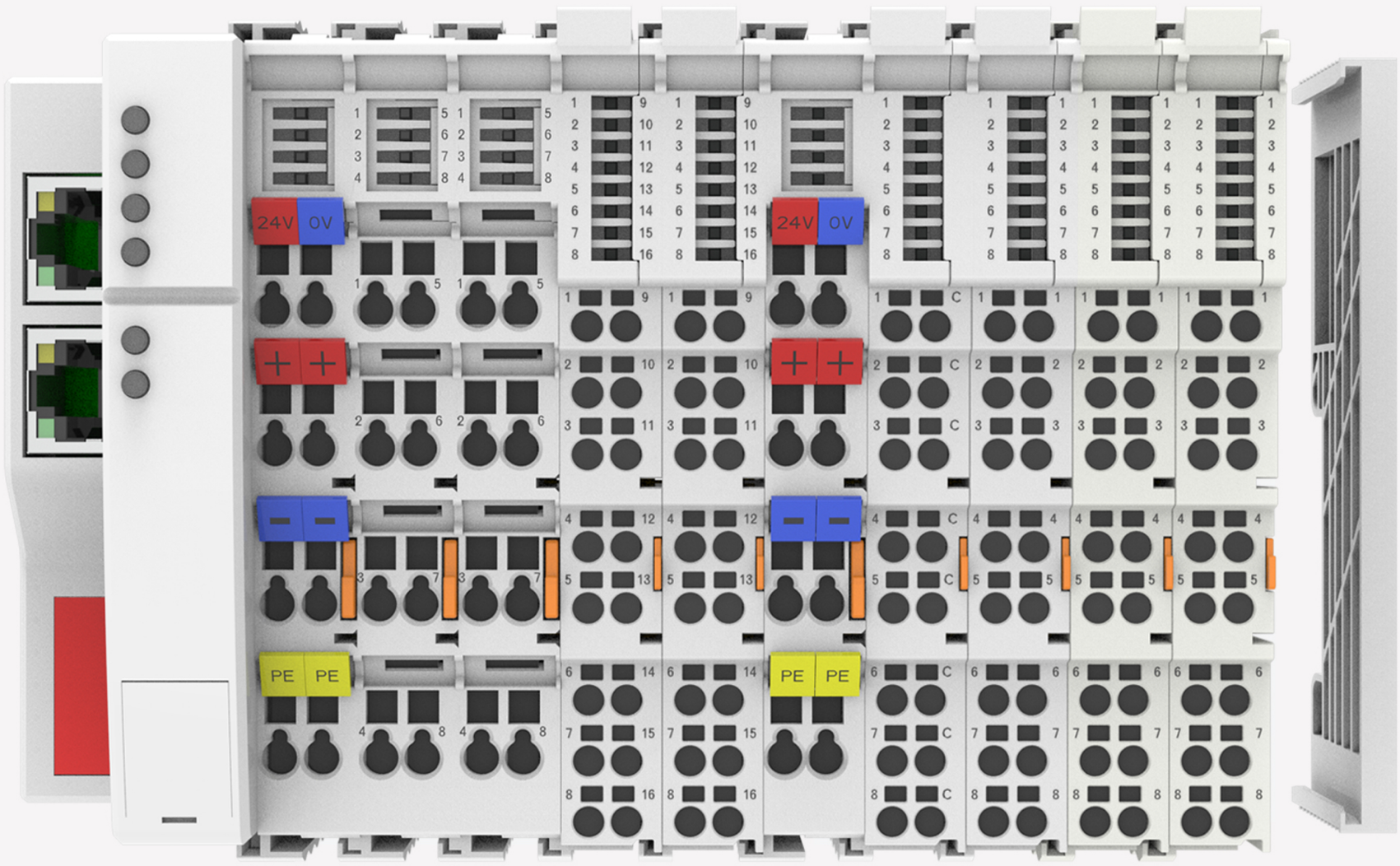
en.kinco.cn

Kinco



Kinco RP Series

Selection Guide

PROFINET COUPLER

RP00PN

LED1

Input Power Indicator Light

LED2

Output Power Indicator Light

LED3

80% Load Indicator Light

LED4

Field Side Power Indicator Light

Technical Specifications			
Size (W×H×D: mm)	Coupler Module: 48×69×100		
Ambient Operating Temperature	-10~+60℃		
Ambient Storage Temperature	-20~+75℃		
Ambient Operating Humidity	95% RH, Non-condensing		
IP Rating	IP20		
Power Supply Module	Operating Power Supply: 18~30V Output Voltage: 5VDC Output Current: 2A		
Coupler Module	Operating Power Supply: 5VDC Operating Current: ⩽400 mA		
Bus Protocol	PROFINET		
Data Transmission Medium	100Base-TX 2×2 Twisted Pair Symmetrical Shielded Copper Cable, Meets CAT5 Transmission, IEEE 802.3 Required		
Transmission Distance	⩽100m (Distance Between Stations)		
Transmission Rate	100 Mbps		
Bus interface	2 × RJ45		
Indicator Lights Definitions			
LED1	Input Power Indicator Light	Green	Input Power Access
LED2	Output Power Indicator Light	Green	Normal 5V Output Power
LED3	80% Load Indicator Light	Red	5V Power Output Current Exceeds 1.6A
LED4	Field Side Power Indicator Light	Green	Field Side Power Access
RUN	Operating Status Indicator Light	Green	Steadily on: System operating normally Off: System operating error
BF	Network Alarm Indicator Light	Red	Off: Network connection normal Flashing: Network connection error
SF	System Alarm Indicator Light	Red	Off: Module working normally Steadily On: Module operation error
MT	MAINT Maintenance Indicator Light	Yellow	Off: PROFINET diagnostic alarm, does not need or does not require maintenance. Steadily On: PROFINET diagnostic alarm, needs or requires maintenance.
I/O RUN	Operating Indicator Light	Green	Off: No power access 1Hz Flashing: Non-process data interacting Steadily On: Process data interacting
I/O ERR	Error Indicator Light	Red	Steadily On: X-Bus communication fails or slave station losts Off: Initial state, no power access, or no error

EtherCAT COUPLER

RP00EC

LED1

Input Power Indicator Light

LED2

Output Power Indicator Light

LED3

80% Load Indicator Light

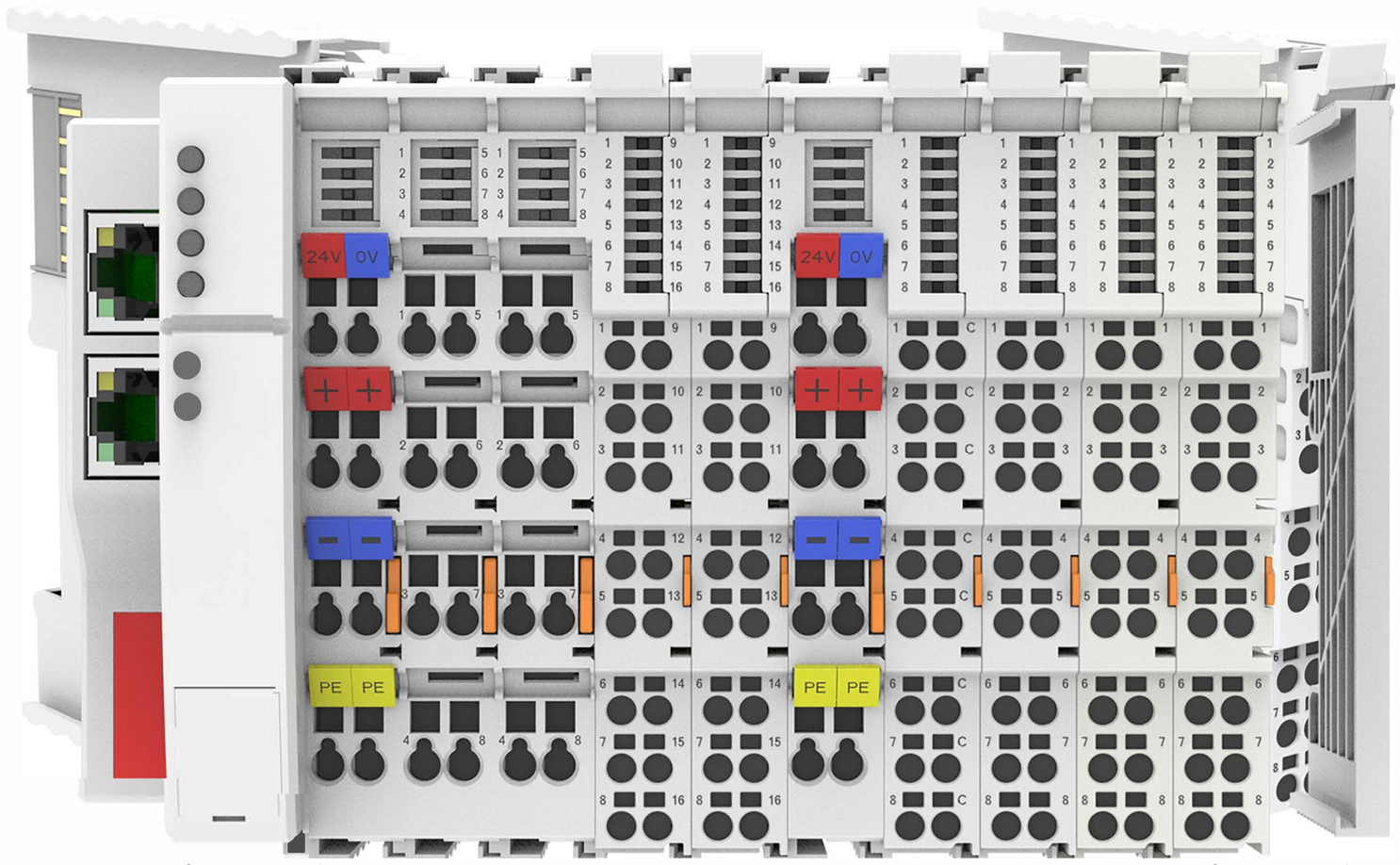
LED4

Field Side Power Indicator Light

Technical Specifications			
Size (W×H×D: mm)	Coupler Module: 48×69×100		
Ambient Operating Temperature	-10~+60℃		
Ambient Storage Temperature	-20~+75℃		
Ambient Operating Humidity	95%RH, Non-condensing		
IP Rating	IP20		
Power Supply Module	Operating Power Supply: 18~30V Output Voltage: 5VDC Output Current: 2A		
Coupler Module	Operating Power Supply: 5VDC Operating Current: ⩽400mA		
Bus Protocol	EtherCAT (MDP)		
Data Transmission Medium	Ethernet/EtherCAT CAT5 Cable		
Transmission Distance	⩽100m (Distance Between Stations)		
Transmission Rate	100 Mbps		
Bus interface	2 × RJ45		
Indicator Lights Definitions			
LED1	Input Power Indicator Light	Green	Input Power Access
LED2	Output Power Indicator Light	Green	Normal 5V Output Power
LED3	80% Load Indicator Light	Red	5V Power Output Current Exceeds 1.6A
LED4	Field Side Power Indicator Light	Green	Field Side Power Access
RUN	Operating Status Indicator Light	Green	Off: Initial state or no power access, EtherCATInit state Steadily On: EtherCAT OP state 5Hz Flashing: EtherCAT PreOP state Flashing off for 1s and steadily on for 200ms: EtherCAT SafeOP state
ERR	Error Indicator Light	Red	Steadily On: Coupler error Off: Initial state, no power access, or no error
I/O RUN	Operating Indicator Light	Green	Off: No power access 1Hz Flashing: Non-process data interacting Steadily On: Process data interacting
I/O ERR	Error Indicator Light	Red	Steadily On: X-Bus communication fails or slave station losts Off: Initial state, no power access, or no error

I/O Module

RP Series Products



8-channel 16-channel

Model	Description
RP00EC	EtherCAT Coupler (With End Cover)
RP00PN	PROFINET Coupler (With End Cover)
RP0800N	8DI, NPN, Filter Range 0-20 ms
RP0800P	8DI, PNP, Filter Range 0-20 ms
RP1600N	16DI, NPN, Filter Range 0-20 ms
RP1600P	16DI, PNP, Filter Range 0-20 ms
RP0808N	8DI, NPN, Filter Range 0-20 ms 8DO, NPN, 0.5 A
RP0808P	8DI, PNP, Filter Range 0-20 ms 8DO, PNP, 0.5 A
RP0016N	16DO, NPN, 0.5 A
RP0016P	16DO, PNP, 0.5 A
RP0008N	8DO, NPN, 0.5 A
RP0008P	8DO, PNP, 0.5 A
RP0800V	8AI, ±10 V, 16 Bit, Single-Ended
RP0800A	8AI, 0-20 mA, 16 Bit, Single-Ended
RP0008V	8AO, ± 10V, 12 Bit, Single-Ended
RP0008A	8AO, 0-20 mA, 16 Bit, Single-Ended
RP0400V	4AI, ±10 V, 16 Bit, Single-Ended
RP0400A	4AI, 0-20 mA, 16 Bit, Single-Ended
RP0004V	4AO, ±10 V, 12 Bit, Single-Ended
RP0004A	4AO, 0-20 mA, 12 Bit, Single-Ended
RP01ABZ1	1 Channel Incremental ABZ Encoder Counter Module, 24 V Single-Ended, NPN & PNP
RP01ABZ2	1 Channel Incremental ABZ Encoder Counter Module, 5 V Differential
RP01SSI	1 Channel Absolute SSI Encoder Counter Module, 5 V Differential
RP01RS	1 Channel Serial Communication, RS485/RS422/RS232 Three-In-One Interface
RP01EX	Common End Expansion Module
RP04RD	4 Channels Temperature Acquisition Module, Thermal Resistance & Thermocouple
PR01PW	Power Expansion Module. Provides 5 V system-side power and 18-30 V field-side power
RP01CO	End Cover (Note: The coupler is included. No need to purchase separately.)

Digital Signal Parameters

RP Series Products

Model		
Digital Input	Rated Voltage	24VDC (±25%)
	Number of Signal Points	8, 16
	Signal Type	NPN/PNP
	"0" Signal Voltage (PNP)	-3~+3 V
	"1" Signal Voltage (PNP)	15~30 V
	"0" Signal Voltage (NPN)	15~30 V
	"1" Signal Voltage (NPN)	-3~+3 V
	Input Filter	3 ms
	Input Current	4 mA
	Isolation Method	Opticalcoupler Isolation
	Isolation Withstand Voltage	500 V
	Channel Indicator Light	Green LED Light
Digital Output	Rated Voltage	24 VDC (±25%)
	Number of Signal Points	8, 16
	Signal Type	NPN/PNP
	Load Type	Resistive Load, Inductive Load
	Single Channel Rated Current	NPN Type Max: 500 mA
		PNP Type Max: 500 mA
	Port Protection	Overvoltage And Overcurrent Protection
	Isolation Method	Opticalcoupler Isolation
	Isolation Withstand Voltage	500 V
	Channel Indicator Light	Green LED Light
Common Port Expansion Module Parameters	Rated Voltage	125VDC/AC 250V
	Rated Current	8 A
	Number of Common Port	2 Sets (8Pin/CH)
Wiring Parameters	Conductor Cross Section	0.2~2.5 mm^2
	Connectable Guide Cross Section AWG	28~12AWG
	Stripping Length	8-9 mm

Analog Signal Parameters

RP Series Products

Model				
Analog Input	Number of Input Points	4、8		
	Input Signal (Voltage Type)	0~+10 V, -10 V~+10 V (range adjustable)		
	Input Signal (Current Type)	0~20 mA, 4~20 mA (range adjustable)		
	Resolution	16 bit		
	Sampling Rate	RP0400V/RP0800V	≤1 ksps	
		RP0400A/RP0800A	≤1 ksps	
	Accuracy	RP0400V/RP0800V	±0.2%	
		RP0400A/RP0800A	±0.2%	
	Input Filter	10 times (Filter Times Adjustable)	Smooth Level 1~200	
	Input Impedance (Voltage Type)	≥2 kΩ		
	Input Impedance (Current Type)	100 Ω		
	Isolation Withstand Voltage	500 V		
	Channel Indicator Light	Green LED Light		
Temperature Input	Number of Channels	4		
	Sensor Type	Thermocouple	Thermal Resistance	Resistance
		K: -200~1370℃	**Pt100**: −200~850℃	15Ω~3kΩ
		J: -200~1200℃	**Pt200**: −200~600℃	
		E: -200~1000℃	**Pt500**: −200~600℃	
		S: -50~1690℃	**Pt1000**: −200~600℃	
		B: 50~1800℃		
	Sensitivity	0.1℃	0.1℃	0.1Ω
	Accuracy	±0.3%	±1℃	±0.1%
	Conversion Time (when filter level of all channels is 1)	40ms	125ms	125ms
	Filter	Single Channel Filter, Configurable (level 1~10)		
	Resolution	16 Bit (int type)		
	Channel Indicator Light	Green LED Light		
Analog Output	Number of Output Points	٨ ٤		
	Output Signal (Voltage Type)	0~+10 V, -10~+10 V (range adjustable)		
	Output Signal (Current Type)	0~20 mA, 4~20 mA (range adjustable)		
	Resolution	12 bit		
	Load Impedance (Voltage Type)	≥2 kΩ		
	Load Impedance (Current Type)	≤200 Ω		
	Accuracy	RP0008V	±0.2%	
		RP0004A	±0.2%	
	Isolation Withstand Voltage	500 V		
	Channel Indicator Light	Green LED Light		

Encoder Module Parameters

RP Series Products

RP01ABZ1		1 channel encoder counting, 2 way probe input, 2 way comparison output
24V Single-ended Incremental Encoder Counting Module	Number of Channels	1
	Z Phase Clear	Support
	Report Channel Real-time Speed	Support
	Encoder Pulse Input Frequency	1MHz
	Encoder Pulse Input Mode	AB Orthogonality (ABZ), Direction Pulse (Pul+Dir), Double Pulse (CW/CCW)
	Counting Magnification Setting	4 times/2 times/1 times (default at 1 times)
	Encoder Ring Counting Resolution Setting	Support (ring counting resolution setting range 0~65535)
	Probing Function	2 Way (can be used as normal input)
	Power-down Storage	Support
	Common Digital Input/Output	1 Way/ 2 Way
	Comparison Output function	2 Way (can be used as normal output)

RP01ABZ2		1 channel encoder counting, 2 way probe input, 2 way comparison output
5V Differential Incremental Encoder Counting Module	Number of Channels	1
	Z Phase Clear	Support
	Report Channel Real-time Speed	Support
	Encoder Pulse Input Frequency	1MHz
	Encoder Pulse Input Mode	AB Orthogonality (ABZ), Direction Pulse (Pul+Dir), Double Pulse (CW/CCW)
	Counting Magnification Setting	4 times/2 times/1 times (typical at 1 times)
	Encoder Ring Counting Resolution Setting	Support (ring counting resolution setting range 0~65535)
	Probing Function	2 Way (can be used as normal input)
	Power-down Storage	Support
	Comparison Output function	2 Way (can be used as normal output)
	Common Digital Input/Output	1 Way/ 2 Way

RP01SSI		1 channel encoder counting, 2 way probe input
5V Differential Incremental Encoder Counting Module	Number of Channels	1
	Pulse Input Mode	5V Differerntial Absolute Value SSI
	Report Channel Real-time Speed	Support
	Encoder Pulse Input Frequency	2 MHz Max. (configurable)
	Support Encoding	Gray Code and Binary Code
	Frame Length	10-40
	Data Bit Length	32 Bit Max
	Probing Function	2 Way (can be used as normal input)
	Read Interval	Adjustable
	Location Value LSB/MSB	Adjustable
	Common Digital Input/Output	1 Way/ 4 Way