

KNC-PLC-RP20 Digital Modules



FEATURES

- 8-16 Input Channels
- 16 Output Channels
- Sourcing and Sinking Inputs
- NPN / PNP Transistor Outputs
- 24 VDC



DESCRIPTION

The KNC-PLC-RP20 Digital Modules provides robust industrial design and manufacturing quality, outstanding performance, and comprehensive feature integration. The RP20 series are not only widely applicable in the field of general industrial automation but also highly suitable for various specialized smart sectors such as building automation, agricultural intelligence, energy monitoring, and energy management. The RP20's are designed to offer customers versatile and flexible solution possibilities. This series has various options with 16-channel digital transistor outputs with either PNP or NPN outputs (KNC-PLC-RP20-0016DTP or KNC-PLC-RP20-0016DTN). A 16-channel digital input module that supports sourcing and sinking types (KNC-PLC-RP20-1600DT). The KNC-PLC-RP20-0808DTP has 8 digital outputs (Transistor, PNP) and 8 digital inputs (supports only sourcing input).

SPECIFICATIONS

Parameter	KNC-PLC-RP20-0016DTP
	DO 16 X DC24V, PNP
Output Channels	16
Output Type	Transistor Output, PNP
Turn-On Delay	<50µs
Turn-Off Delay	<50µs
"0" Signal Level	MOSFET Off
"1" Signal Level	MOSFET On
On-State Resistance	Typical: 0.15Ω
Rated Output Voltage	24VDC, Allowable Range: 20.4VDC - 28.8VDC
Load	Resistive Load: 12A/point, 48W/module
	Inductive Load: 6W/point, 24W/module
	Lamp Load: 5W/point, 20W/module
Maximum Switching Frequency	100Hz (resistive load)
Output Leakage Current	Maximum 10µA
Protection	Short-circuit protection
	Overcurrent protection
Isolation	√
K-Bus Current Consumption	135mA (5VDC, room temperature)
Indicator	The corresponding LED light is on when there is an Output Signal
Dimensions (W × H × D)	12mm × 100mm × 80mm
Weight	0.15 lbs

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KNC-PLC-RP20 Digital Modules



SPECIFICATIONS

Parameter	KNC-PLC-RP20-0016DTN
	DO 16 X DC24V, NPN
Output Channels	16
Output Type	Transistor Output, NPN
Turn-On Delay	<50µs
Turn-Off Delay	<50µs
“0” Signal Level	MOSFET Off
“1” Signal Level	MOSFET On
On State Resistance	Typical: 0.15Ω, Maximum: 0.3Ω
Rated Output Voltage	24VDC, allowable range: 20.4VDC - 28.8VDC
Load	Resistive Load: 12A/point, 48W/module
	Inductive Load: 6W/point, 24W/module
	Lamp Load: 5W/point, 20W/module
Maximum Switching Frequency	100Hz (Resistive Load)
Output Leakage Current	Maximum 10µA
Protection	Short-Circuit Protection, Overcurrent Protection
Isolation	√
Indicator	The Corresponding LED Light is on when there is an Output Signal
K-Bus Current Consumption	135mA (5VDC, Room Temperature)
Dimensions (W × H × D)	12mm × 100mm × 80mm
Weight	0.15 lbs

Parameter	KNC-PLC-RP20-1600DT
	DI 16 X DC24V
Input Channels	16
Input Type	Sourcing/Sinking
Turn-On Delay	<50µs
Turn-Off Delay	<50µs
Rated Input Voltage	24VDC
Logic “0” Max. Input Voltage	5V, 0.8A
Logic “1” Min. Input Voltage	15V, 2mA
Input Current	3.5mA@ 24VDC
Input Impedance	6.8K
Isolation	√
Indicator	The Corresponding LED Light is on when there is an Input Signal
K-Bus Current Consumption	135mA (5VDC, Room Temperature)
Dimensions (W × H × D)	12mm × 100mm × 80mm
Weight	0.15 lbs

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Parameter	KNC-PLC-RP20-0808DTP
Digital Input Specifications	
	DI 8 X 24VDC, Sourcing
Input Channels	8
Input Type	Sourcing
Turn-On Delay	<50µs
Turn-Off Delay	<50µs
Rated Input Voltage	24VDC
Logic "0" Max. Input Voltage	5V, 0.8mA
Logic "1" Min. Input Voltage	15V
Input Current	3.5mA@ 24VDC
Input Impedance	6.8K
Isolation	√
Indicator	The Corresponding LED Light is on when there is an Input Signal
Digital Output Specifications	
	DO 8 X 24VDC, PNP
Output Channels	8
Output type	Transistor Output, PNP
Turn-On Delay	<50µs
Turn-Off Delay	<50µs
"0" Signal Level	MOSFET Off
"1" Signal Level	MOSFET On
On-State Resistance	Typical: 0.15Ω, Maximum 0.3Ω
Rated Output Voltage	24VDC, Allowable Range: 20.4VDC - 28.8VDC
Load	Resistive Load: 12A/point, 48W/module
Maximum Switching Frequency	Inductive Load: 6W/point, 24W/module
	Lamp Load: 5W/point, 20W/module
	100Hz (Resistive Load)
Output Leakage Current	Maximum 10µA
Protection	Short-Circuit Protection, Overcurrent Protection
Isolation	√
Indicator	The corresponding LED light is on when there is an Output Signal
General Specifications	
K-Bus Current Consumption	135mA (5VDC, Room Temperature)
Dimensions (W × H × D)	12mm x 100mm x 80 mm
Weight	0.15 lbs

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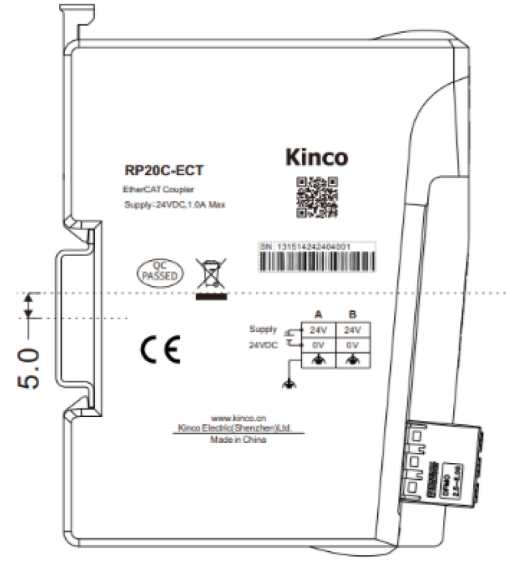
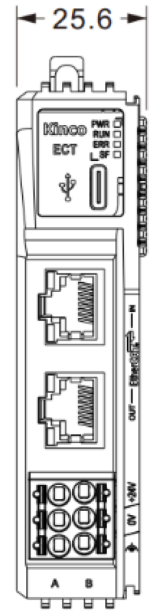
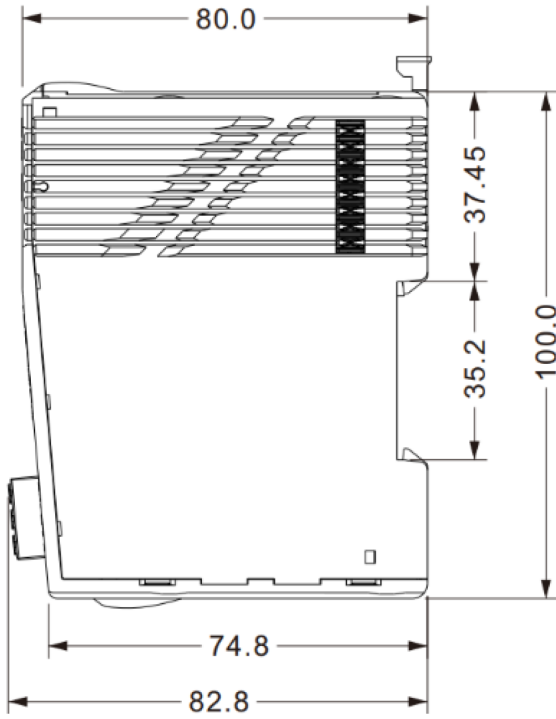
Operating Environment		
Climatic Conditions	Ambient Temperature	-40°C~+70°C
	Relative Humidity	10%~95%, No Condensation
	Atmospheric Pressure	Equivalent to 0-3000 Meters Above Sea Level
Mechanical Conditions	Free Fall	With Transport Packaging, Allows 5 Drops from 1m Height to the Cement Floor
Operating Conditions		
Climatic Conditions	Ambient Temperature	Open Device with Natural Ventilation, Ambient Temperature Range: -20°C~55°C
	Relative Humidity	10%~95%, No Condensation
	Atmospheric Pressure	Altitude ≤ 2000 Meters
	Pollution Level	Suitable for Pollution Level 2
Mechanical Conditions	Sine Vibration	5 < f, 8.4 Hz, Random: 3.5mm Displacement; Continuous: 1.75mm Displacement
		8.4 < f < 150 Hz, Random: 1.0g Acceleration; Continuous: 0.5g Acceleration
	Shock	Half Sine Wave, 15g, 11ms, 6 Times Per Axis
Electromagnetic Compatibility	EMC Immunity Level	Zone B, IEC61131-2
	Electrostatic Discharge	Air Discharge 8kV, Contact Discharge 4kV
		Performance Level A
	Surge	DC Power Supply 0.5kV CM, 0.5kV DM
I/O and Communication Ports: 1kV CM		
		Performance Level A
	Fast Transient Burst	Power Coupling: 2kV, 5kHz. I/O and Communication Coupling: 1kV, 5kHz Performance Level A
Protection Level		IP20
Cooling Type		Natural Air Cooling
Installation Type		DIN35 Rail Mounting

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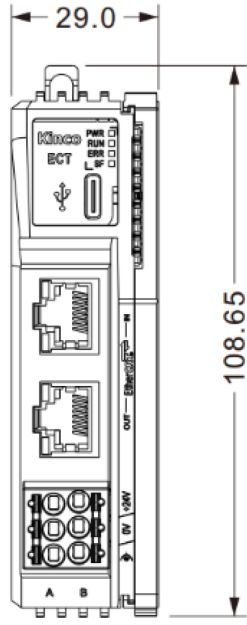
KNC-PLC-RP20 Digital Modules



DIMENSIONS



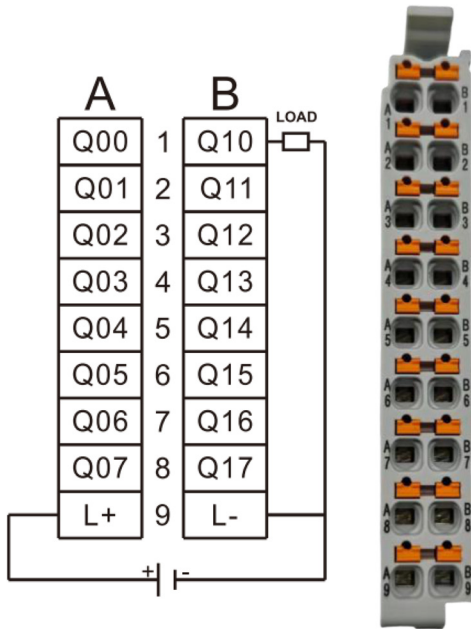
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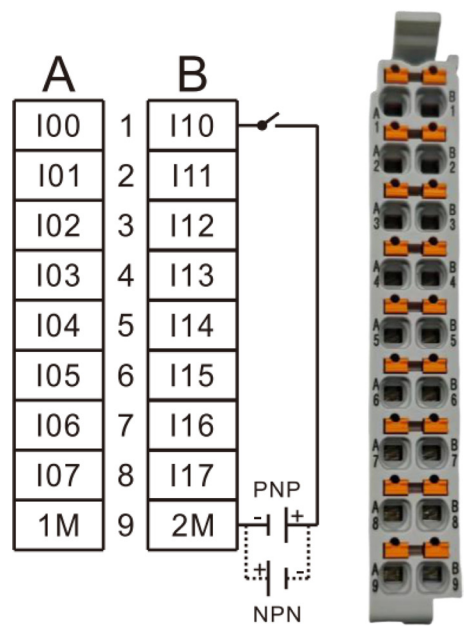
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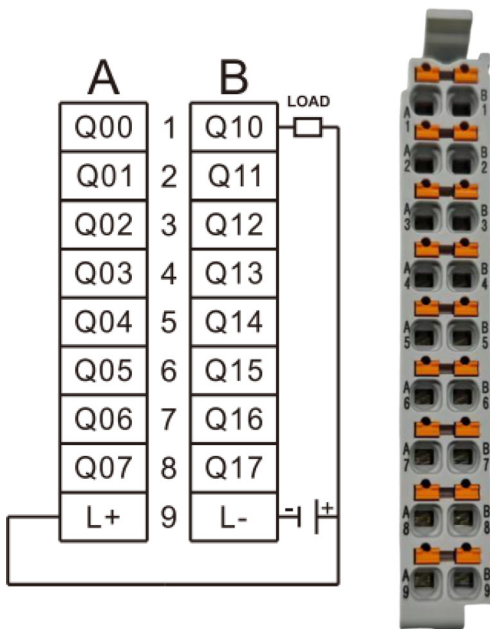
KNC-PLC-RP20-0016DTP



KNC-PLC-RP20-1600DT



KNC-PLC-RP20-0016DTN



KNC-PLC-RP20-0808DTP

