



Zilvertron
mechanics & electronics

Kinco

PLC

➔ Kinco PLC Product Brochure

K6S PLC
Compact Modular PLC



Thinner, High-performance, More powerful.

Multiple interface

CAN*1

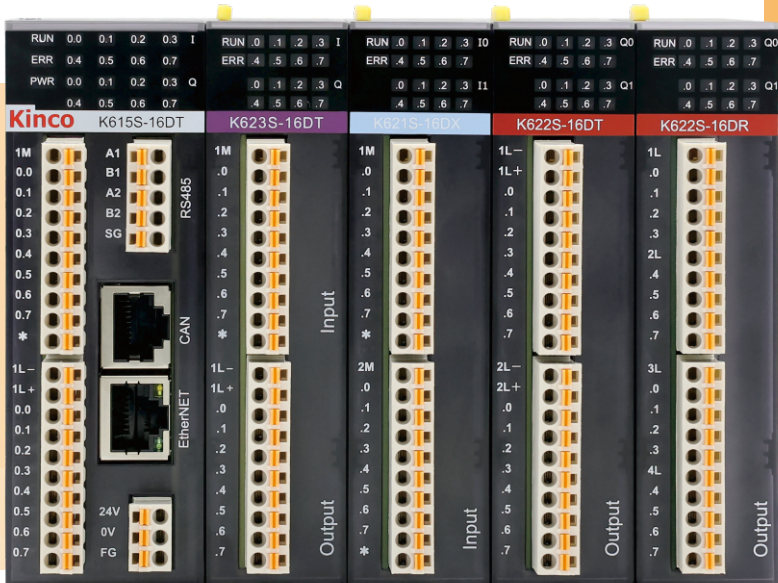
- Support CANopen master, allows a maximum of 64 slave devices to connect.
- Support Kinco motion control functionality, with a maximum support for 16 nodes connection, and can easily connect to Kinco servo and stepper drives.

RS485*2

- Support programming protocols, Modbus master/slave, as well as custom communication protocols.

EtherNet*1

- Come with a standard 10M/100M Ethernet interface, making human-machine interaction more convenient.
- Support Modbus TCP Client/Server industrial bus protocol, with free transmission in TCP Client/Server mode, and free transmission in UDP Peer mode.



Powerful Performance

- Faster instruction execution speed.
- Support 8,000 programming instructions, equipped with 20,000 bytes of data storage, providing assurance for the implementation of complex control systems.
- Support functions such as arrays and stacks.

Integrated High-Speed I/O

4-channel high-speed input

- 3 channel with a maximum counting frequency of 200kHz
- 1 channel with a maximum counting frequency of single-phase 20kHz / two-phase 10kHz

4-channel high-speed output

- 3 channel with a maximum pulse frequency of 200kHz
- 1 channel with a maximum pulse frequency of 10kHz

- The software also provides PLS (PWM or PTO), positioning control instruction sets, and PFLO_Follow instructions, etc. This makes it easy for users to realize simple motion control applications..

K6S Application Solutions

 **Modbus**
RTU




 **Modbus**
RTU



CANopen[®]



 High-Speed Inputs
(200kHz)

 High-Speed Outputs
(200kHz)

Dedicated Bus
Protocol

Kinco

 **Modbus**
TCP/UDP



Specifications of K615S

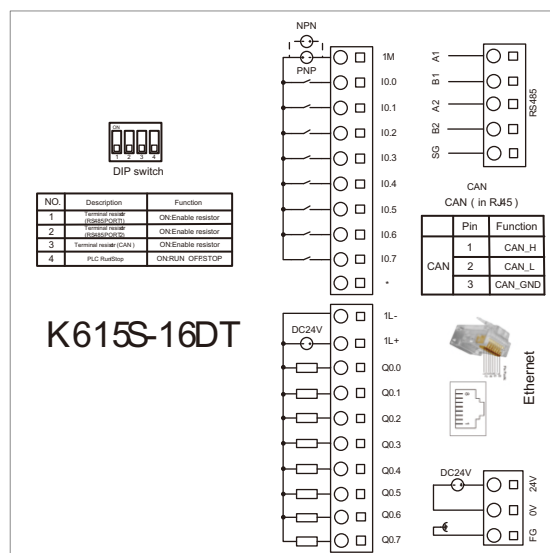
CPU K615S



K615S-16DT

Model	K615S-16DT
Power Supply	24VDC±10%(21.6VDC~26.4V DC)@ 5W
Program Capacity	8K programming instructions
Data Capacity	M Zone:4K Bytes V Zone:16K Bytes
Integrated I/O	8 Digital Inputs: Source/Sink Type, DC24V, Maximum Allowable DC30V 8 Digital Outputs :Transistor PNP Output,300mA @ 24VDC
High-speed Input	4 channels of high-speed pulse output, support PWM function. For 3 channels, the maximum requency is 200kHz (load current greater than 20mA); for 1 channel, the maximum frequency is 10kHz.
High-speed Output	4 channels of high-speed pulse input, support AB phase, P (pulse)/D (direction) mode. For 3 channels, the maximum requency is 200kHz; for 1 channel, the maximum frequency is 20kHz for single-phase or 10KHz for double-phase.
RS485	2 RS485 (isolated, intergrated termination resistor). Support programming protocols, Modbus RTU master and slave, and free communication.
EtherNet	1 Ethernet, support Modbus TCP Client/Server industrial bus protocol. Support free transmission in TCP client/TCP server mode, free transmission in UDP peer mode, program upload/download, and firmware upgrades.
CAN	1 CAN (RJ45, with terminal resistor) Support CANOPEN, free communication in CAN, supports Kinco motion control functions, and Kinco motion control protocol supports a maximum of 16 connected nodes.
Expansion	Supports connecting up to 16 K6S-series expansion modules.
Power-off Retention	V Zone: 1908 bytes(VB0-VB1907) C Zone: C0~C63
RTC	Suppor RTC (Real-Time Clock), with an error of less than 5 minutes per month at 25°C
Dimension	38.00mm x 75.15mm x 106.00 mm
Certification	CE(EN IEC 61000-6.4:2019, EN IEC 61000-6.2:2019)

K615S-16DT



K6S Series Expansion Modules - Digital Input/Output Module Specifications

K623S-16DT

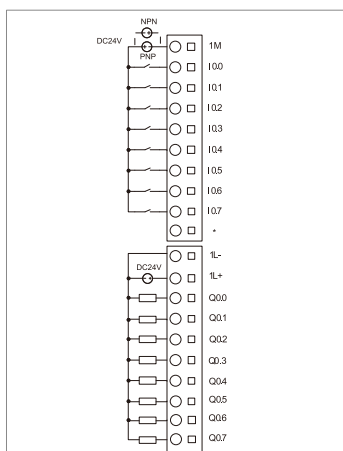


K621S-16DX

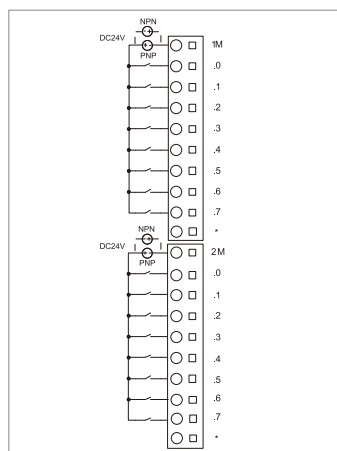


Model	K623S-16DT	K621S-16DX
Overview	Module for 16-channel transistor input/output mixed (8DI/8DO)	Module for 16-channel PNP/NPN-type digital inputs.
Type	Transistor Inputs(NPN/PNP) Transistor Outputs(PNP)	Transistor Inputs(PNP/NPN)
Channels	16 channels(8 channels/group) 8DI/8DO	16 channels(8 channels/group)
Power Supply	Powered by Expansion Bus	Powered by Expansion Bus
Input Range	The maximum input voltage for signal "0" is 5V and the current is 0.8mA. The minimum input voltage for signal "1" is 11V and the current is 2mA.	The maximum input voltage for signal "0" is 5V and the current is 0.8mA. The minimum input voltage for signal "1" is 11V and the current is 2mA.
Input Delay	Turn-on <18μs Turn-off <50μs	Turn-on <18μs Turn-off <50μs
Isolation	Optical isolation, 500VAC/min	Optical isolation, 500VAC/min
Rated Output Voltage	DC20.4V-DC28.8V	-
Output Current per Channel	300mA @ 24VDC	-
Output Leakage Current	10μA	-
Output Impedance	0.20Ω	-
Output Delay	Turn-on <30μs Turn-off <50μs	-
Protection	Inductive load output protection Output polarity reversal protection Short-circuit protection	-
Dimension	27.00mm x 75.15mm x 106.00mm	27.00mm x 75.15mm x 106.00mm
Certification	CE(EN IEC 61000-6.4:2019, EN IEC 61000-6.2:2019)	CE(EN IEC 61000-6.4:2019, EN IEC 61000-6.2:2019)

K623S-16DT



K621S-16DX



K6S Series Expansion Modules - Digital I/O Module

K622S-16DT



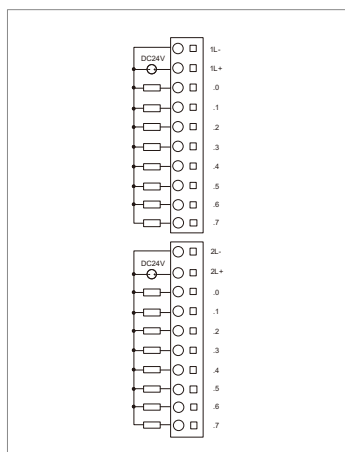
K622S-16DR



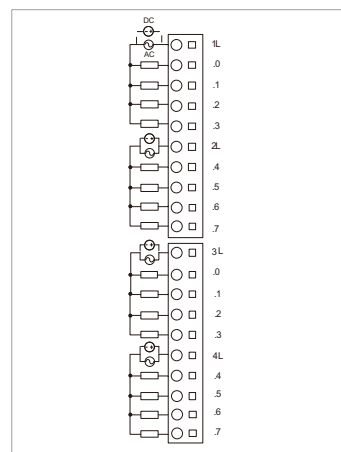
Model	K622S-16DT
Overview	Module for 16-channel PNP-type digital outputs.
Type	Transistor PNP Output (source type)
Channels	16 channels (8 channels/ group)
Power Supply	Powered by Expansion Bus
Output Voltage	DC20.4V-DC28.8V
Output Current per Channel	300mA @ 24VDC
Output Leakage Current	10μA
Output Impedance	0.20Ω
Output Delay	Turn-on <30μs Turn-off <50μs
Protection	Inductive load output protection Output polarity reversal protection Short-circuit protection
Isolation	Optical isolation, 500VAC/min
Dimension	27.00mm x 75.15mm x 106.00mm
Certification	CE(EN IEC 61000-6.4:2019, EN IEC 61000-6.2:2019)

Model	K622S-16DR
Overview	Module for 16-channel relay-type outputs.
Type	Relay-type output
Channels	16 channels (4 channels/ group)
Power Supply	Powered by Expansion Bus
Permissible load voltage	DC24V/AC250V
Current with resistive load	2A per point, 4A per group 1A per point, 4A per group
Current with capacitive load	1A per point, 4A per group
Output Delay	Turn-on ≤ 10ms Turn-off ≤ 5ms
Expected mechanical lifespan	No-load 20,000,000 times (1200 times/min)
Expected electrical lifespan	Rated load 1,000,000 times (6 times/min)
Isolation	Relay isolation Isolation voltage 2000Vms
Dimension	27.00mm x 75.15mm x 106.00 mm
Certification	CE(EN IEC 61000-6.4:2019, EN IEC 61000-6.2:2019)

K622S-16DT



K622S-16DR



K6S Series Expansion Modules - Digital Input/Output Module Specifications

K622S-16DTN



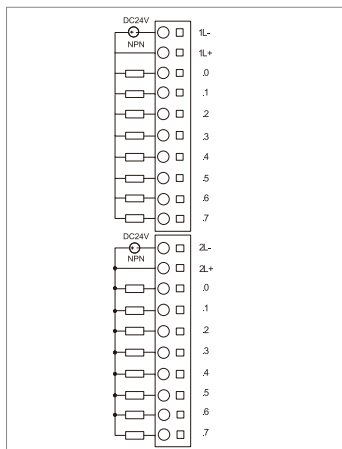
K633S-06IV



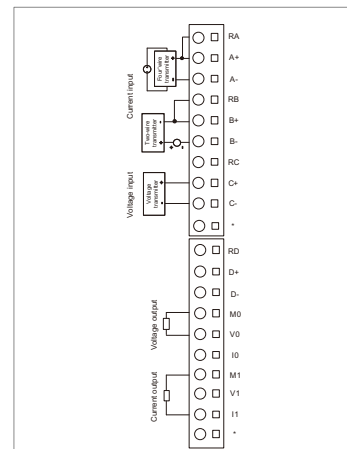
Model	K622S-16DTN
Type(DO)	Transistor NPN Output
Channels	16 (4 channels/set, a total of 4 sets)
Rated Output Voltage	DC24V, allowable range: DC20.4V-DC28.8V
Output Current per	MAX, 300mA@24VDC
Output Leakage	10μA, Max
Output Impedance	0.3Ω, Max
Output Delay	Turn-on Delay ≤ 30μs Turn-off Delay ≤ 50μs
Protection	Inductive load output protection Short circuit protection Output polarity reversal protection, allowing the application of reverse polarity signals at the output terminal for up to 10 seconds.
Channel parallel	Only support between channels with in the same group.
Isolation	Optoelectronic isolation, 500VAC/minute
Status Indication	Corresponding LED lights up in green when an output signal is valid.
DO Image Area	2 bytes
Dimensions	27.00mm × 75.15mm × 106.00mm
Certification	CE(EN IEC 61000-6.4:2019, EN IEC 61000-6.2:2019)

Model	K633S-06IV
Channels(AI)	4
Type	4-20mA, 1-5V, 0-20mA, 0-10V
Resolution	12 bits
Accuracy	0.3% F.S.
Input Limits	Current input ≤ 24mA Voltage input ≤ 12V
Conversion Rate (per channel)	Approximately 15 times/second
Input Impedance	I-mode: ≤ 250Ω V-mode: > 4MΩ
Channels(AO)	2
Type	4-20mA, 1-5V, 0-20mA, 0-10V
Resolution (including sign bit)	12 bits
Accuracy	0.3% F.S.
Conversion Rate (per channel)	Approximately 15 times/second
External Load	I-mode: ≤ 500Ω
Capacity	V-mode: > 10kΩ
Others	
State Instruction	When the value of the channel exceeds the rated range, the corresponding indicator light will illuminate (red)
Image Area	
AI Image Area	8 bytes (2 bytes/channel)
AO Image Area	4 bytes (2 bytes/channel)
Dimensions	27.00mm × 75.15mm × 106.00mm
Certification	CE(EN IEC 61000-6.4:2019, EN IEC 61000-6.2:2019)

K621S-16DTN



K633S-06IV



K6S Series Expansion Modules - Digital Input/Output Module Specifications

K631S-04TC



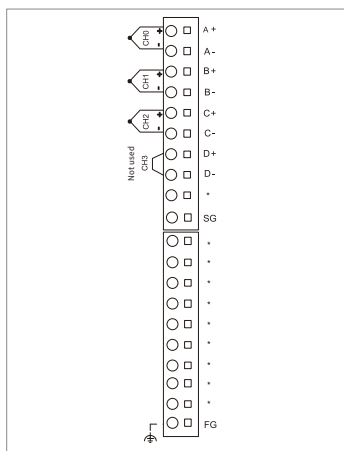
K631S-04RD



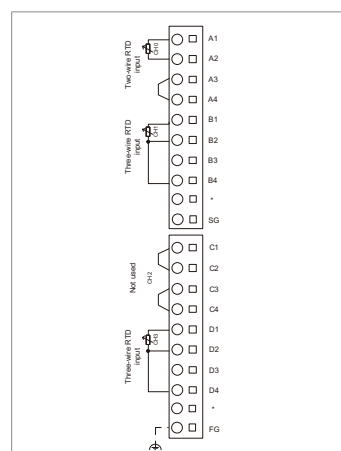
Model	K631S-04TC
Channels(TC)	4
Type of Signal	J-type, K-type, E-type, S-type, T-type
Compensation Method	thermocouple cold junction compensation (CJC) options include internal and external compensation.
Resolution (including sign bit)	24 bits
Accuracy	0.1% F.S.
Conversion Rate (per channel)	Approximately 1 time/second
Input Impedance	>20KΩ
Status Indication	The corresponding channel LED will turn red to indicate that the input value has exceeded the selected range.
Image Area	
AI Image Area	8 bytes (2 bytes/channel))
AO Image Area	-
Dimensions	27.00mm × 75.15mm × 106.00mm
Certification	CE(EN IEC 61000-6.4:2019, EN IEC 61000-6.2:2019)

Model	K631S-04RD
Channels(RDT)	4
Rated Power Supply	DC 24V, ≥100mA
Type of Signal	Pt100, Cu50, Pt1000, Resistor
Wiring-type	Two-wire or Three-wire
Resolution (including sign bit)	24 bits
Accuracy	Temperature: ±0.5°C; Resistor: ±1Ω
Conversion Rate (per channel)	Approximately 1 time/second
Status Indication	The corresponding channel LED will turn red to indicate that the input value has exceeded the selected range.
Image Area	
AI Image Area	8 bytes (2 bytes/channel)
AO Image Area	-
Dimensions	27.00mm × 75.15mm × 106.00mm
Certification	CE(EN IEC 61000-6.4:2019, EN IEC 61000-6.2:2019)

K631S-04TC



K631S-04RD



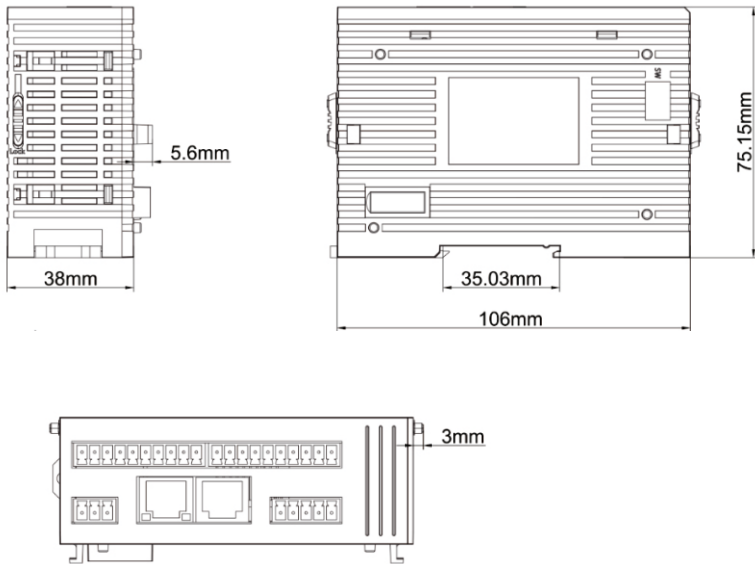
Quick Selection List for K6S Series

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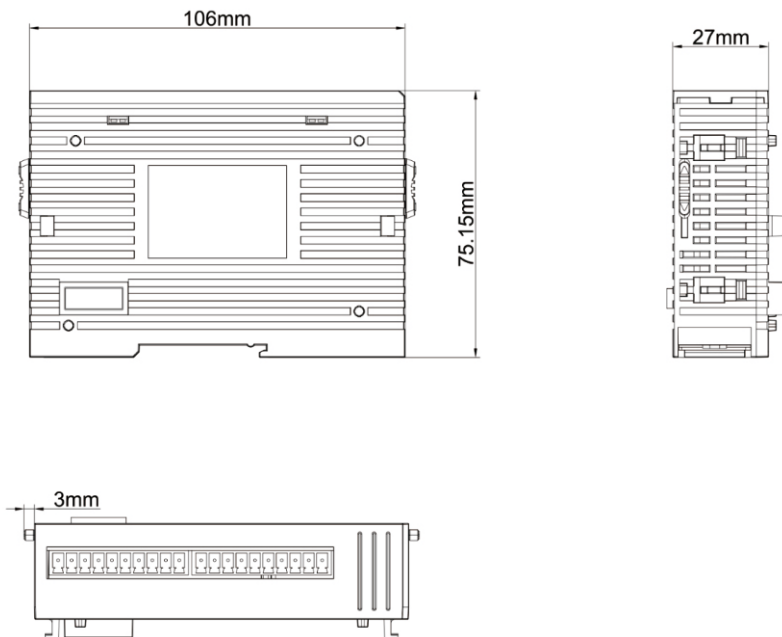
Model	Description
CPU	
K615S-16DT	Power Supply: DC24V Digital Inputs: 8 channels, DC24V (PNP/NPN) Digital Outputs: 8 channels, DC24V (PNP) Support 3 channels of high-speed Input at 200KHz, 1 channel at single-phase 20KHz/double-phase 10KHz Support 3 channels of high-speed Output output at 200KHz, 1 channel at maximum 10KHz Communication Interfaces: 2 * RS485, 1 * Ethernet, 1 * CAN Support connecting up to 16 K6S-series expansion modules
Expansion Module	
K621S-16DX	DI 16 * DC24V (NPN/PNP)
K622S-16DT	DO 16*DC24V (PNP)
K622S-16DR	DO 16*Relay
K623S-16DT	DI 8*DC24V (NPN/PNP) , DO 8*DC24V (PNP)
K622S-16DTN	DO 16*DC24V (NPN)
K633S-06IV	12-bit resolution, accuracy 0.3% F.S. (Full Scale) AI * 4: 4-20mA,1-5V,0-20mA,0-10V AO * 2: 4-20mA,1-5V,0-20mA,0-10V
K631S-04TC	4 channels of thermocouple input Support J-type, K-type, E-type, S-type ,T-type thermocouples Cold junction compensation, external compensation optional 24-bit resolution, accuracy 0.1% F.S. (Full Scale)
K631S-04RD	4 channels of thermal resistance (RTD) input Support Pt100, Cu50, Pt1000 resistance forms Support two-wire, three-wire, connection methods 24-bit resolution Temperature: $\pm 0.6^{\circ}\text{C}$; Resistance: ± 10

Dimension Drawing of CPU(mm)

Dimension Drawing of CPU(mm)



Dimension Drawing of Modules(mm)



PROVEN PERFORMANCE

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