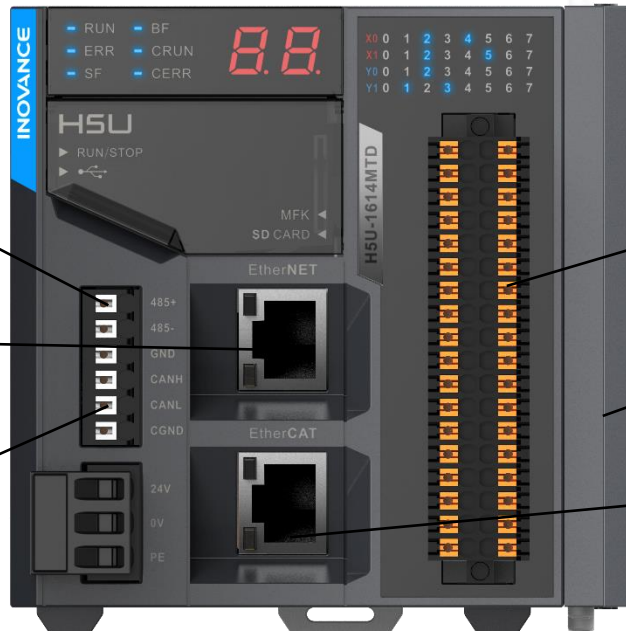


INOVANCE

Introduction of H5U
Marx RAN , 5 Nov 2021



Hardware Configuration



RS485 port

Ethernet port:
Modbus TCP
Socket instruction

CAN port:
CANlink,
CANopen

Built-in
16 DI (with 4 x 200kHz channels), support **source/sink** input type
14 DO (with 4 x 200kHz channels), only support **NPN** output type

16 extension modules
(Local Bus)

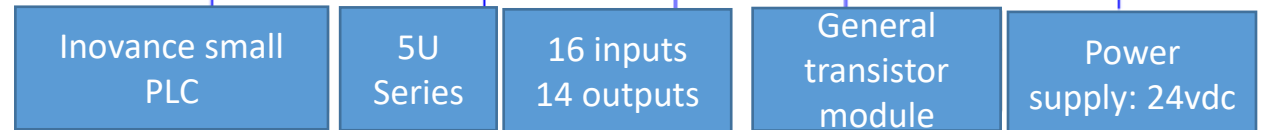
72
EtherCAT slave stations

Models:

- H5U-1614MTD: supports 32 axes
- H5U-1614MTD-A16: supports 16 axes
- H5U-1614MTD-A8: supports 8 axes
- H5U-1614MTD-A8S: supports 8 axes(without CAN/CAM)

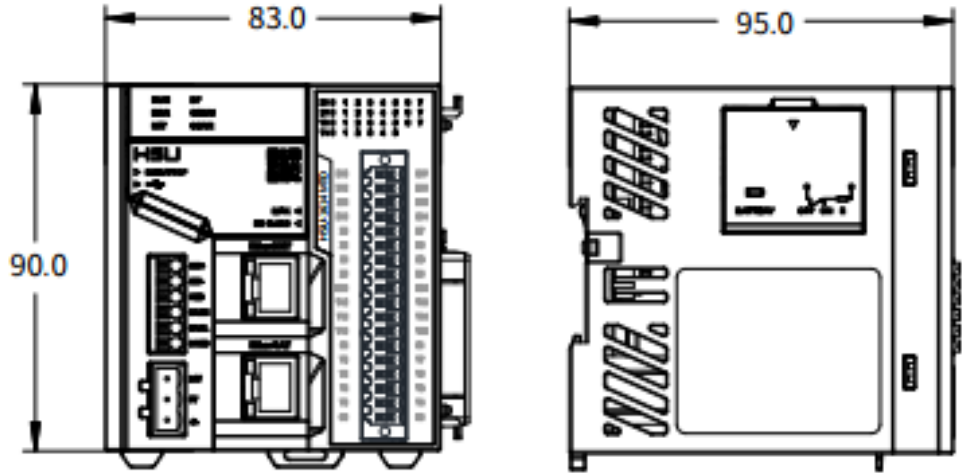
Model Type Definition

H5U-1614MTD



Hardware Configuration

H5U	Specifications
Storage	200K program storage, 2MByte custom variable storage
Axes	EtherCAT: 32 axes Local Pulse: 4 axes
Serial port	1 x RS485
CAN port	CANlink, CANopen
Fast input	4 channel 200K
Fast output	4 channel 200K
Extension modules	16 Up to 72 EtherCAT stations (including Servos)
Program Language	LD, SFC, supports FB/FC (LD)
Ethernet	Modbus TCP, Socket, program upload/download Supports EtherCAT
USB、SD card	Program upload/download and firmware upgrade (only SD card)
Structure	Compact and small size: 83 x 90 x 95 (mm)



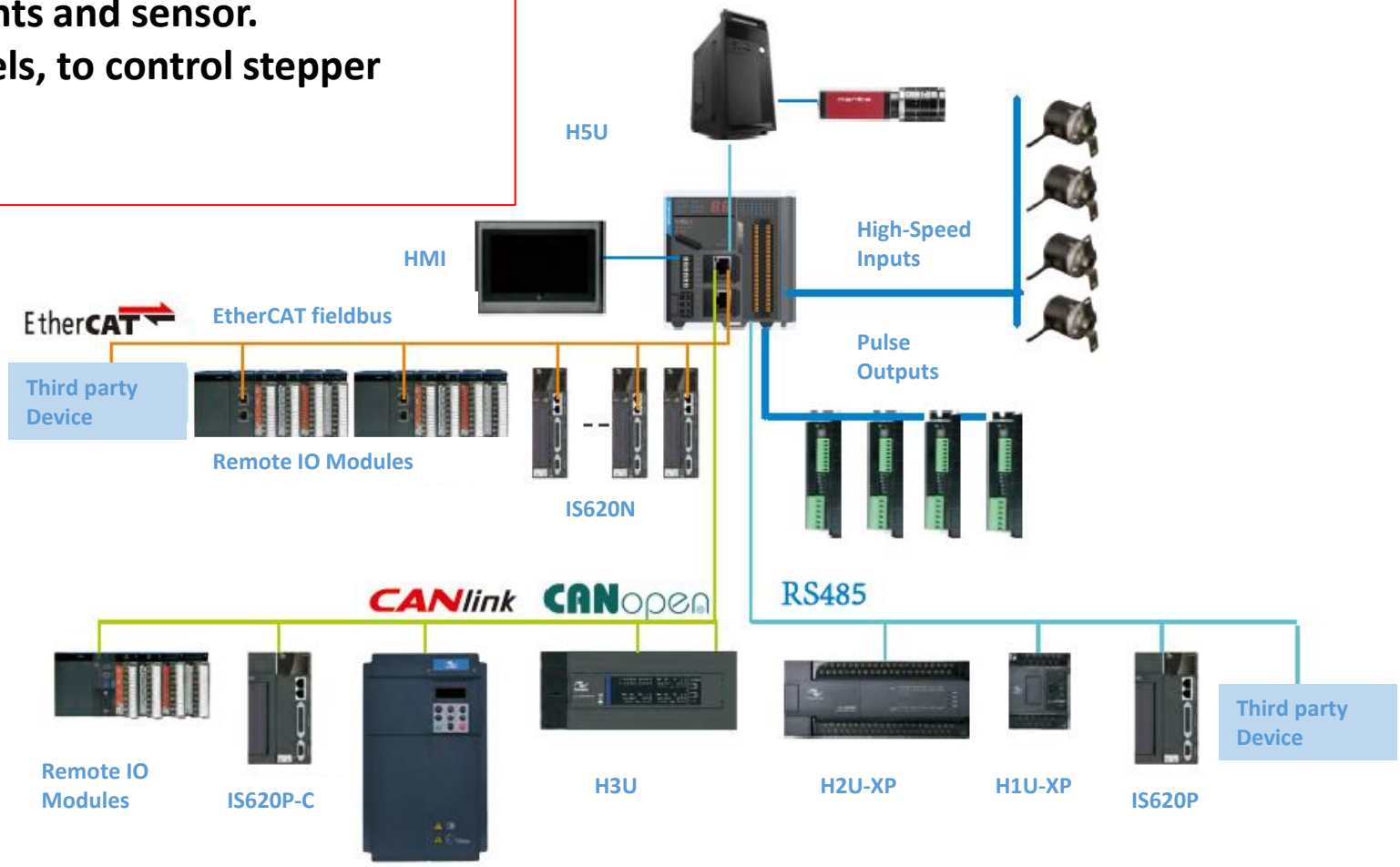
H5U Features

- ❑ EtherCAT: 32 axes PTP control, 72 slave stations, support interpolated motion and electrical CAM function
- ❑ Axis control function conforms to PLCopen specifications.
- ❑ The local pulse and the EtherCAT axis share same motion control commands.



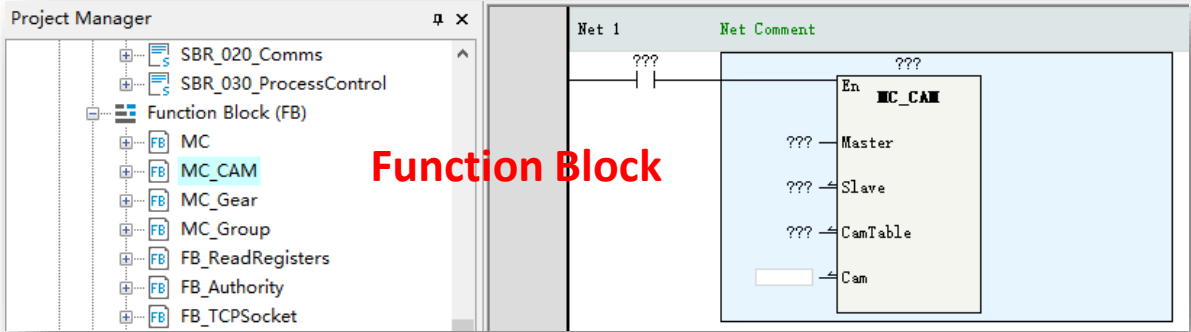
H5U Features

- ❑ Able to control servo drive via EtherCAT.
- ❑ Able to control servo or AC drive via CAN (CANopen, CANlink).
- ❑ RS485 able to connect to instruments and sensor.
- ❑ 4 x high speed pulse output channels, to control stepper motors.
- ❑ Ethernet interface.



H5U Features

- ❑ Supports FB/FC, can realize the process of encapsulating and reuse.
- ❑ Efficient and easy to use ladder diagram programming; graphic block programming can be inserted in the ladder diagram.
- ❑ Custom defined variable programming, programming input assistant.
- ❑ Non programming servo debugging, graphical online debugging interface (control axis without programming).



Function Block

NO.	Variable...	Data Type	Initial Value	Power Down Hold	Comment	Element Addr.
1	sTCP	Stru_TCPSocket	...	Non Retained		
30	aSenBuf_TCP	INT[50]	...	Non Retained		
81	aRecBuf_TCP	INT[50]	...	Non Retained		
132	xEnable_TCP	INT	OFF	Non Retained		
133	iSenSize_TCP	INT	50	Non Retained		
134	IRecSize_TCP	INT	50	Non Retained		
135	sUDP	Stru_UDPSocket	...	Non Retained		
152	aSendBuf_UDP	INT[50]	...	Non Retained		

Variable definition

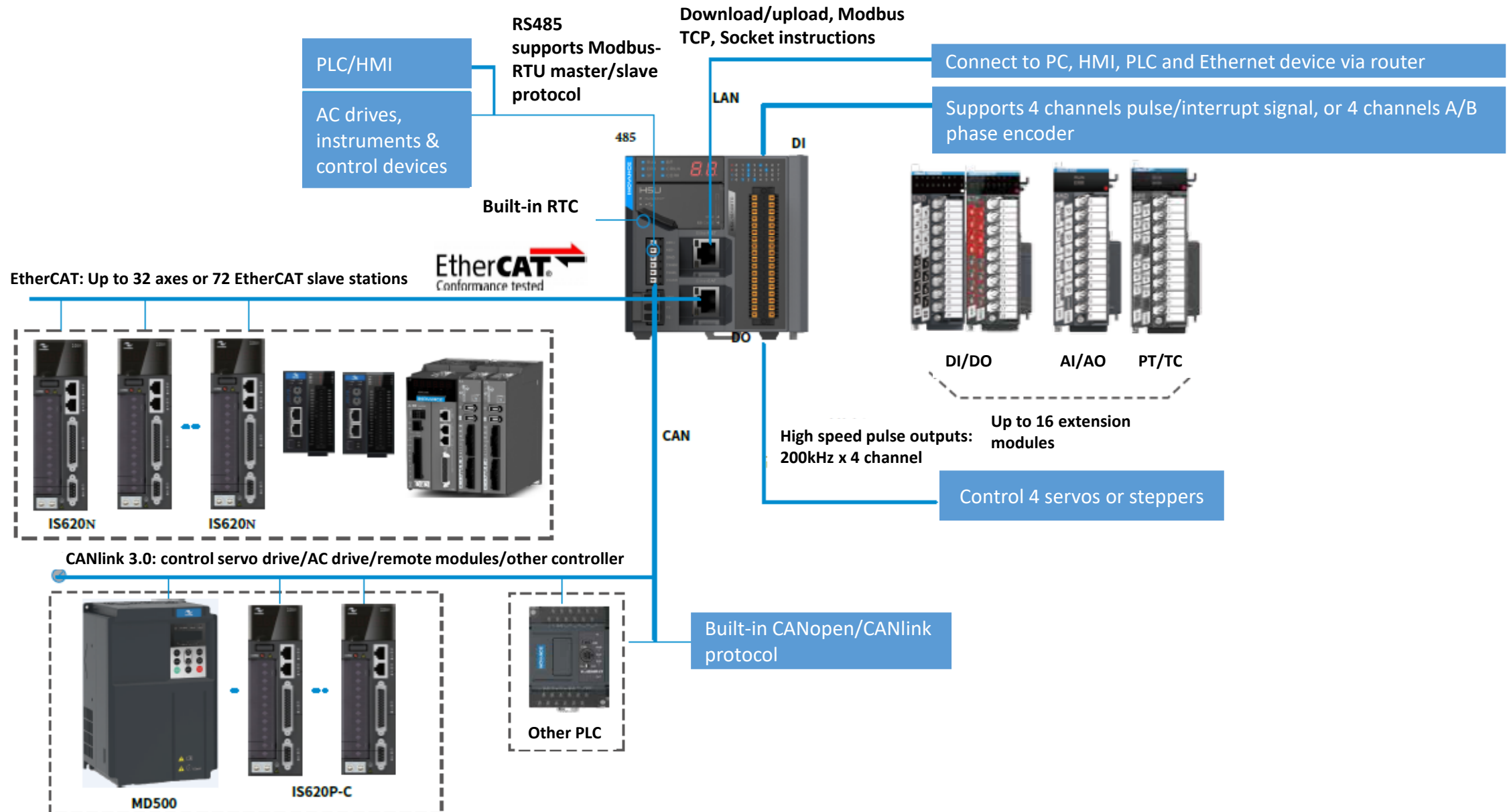
The image shows a dialog box with a search field containing 'ldd'. Below the search field is a list of instructions: 'LDD& 32-bit LD AND instruction', 'LDD< 32-bit LD contact comparison LT instruction', and 'LDD<= 32-bit LD contact comparison LE instruction'. The first option is selected. Buttons for 'OK' and 'Cancel' are visible.

Input assistant

The image shows the 'Online Debug' interface. On the left, there are tabs for 'Basic Settings', 'Unit Conversion Settings', 'Mode/Parameter Settings', 'Home Return Settings', and 'Online Debug' (selected). The main area contains a table for 'Online Debug' with columns for 'Variable', 'Set Value', and 'Actual Value'. The table lists 'Location', 'Speed', 'Acceleration', and 'Torque force', all with '0' in both columns. To the right, there are status indicators for 'Status', 'Communications', 'Axis error', and 'Server error', each with a yellow bar. Below this, there are control buttons for 'Sports', 'Hardware positive limit switch', 'Hardware negative limit switch', 'Home switch', and 'Software'. At the bottom, there are input fields for 'Preset location', 'Home offset', 'Positive point move', and 'Negative point move', along with 'Settings', 'Home Regress', 'Jog +', and 'Jog -' buttons. A 'Control Mode' dropdown is set to 'Absolute position'. At the very bottom, there are 'Target Location' and 'Target Speed' input fields, and 'Start' and 'Stop' buttons.

Online Debug

H5U Control Topology



H5U Extension Modules

GL modules

POWER SUPPLY UNIT

GL10-PS2-INT

INPUT IO MODULES

GL10-1600END-INT

GL10-3200END-INT

OUTPUT IO MODULES

GL10-0016ER-INT

GL10-0016ETN-INT

GL10-0016ETP-INT

GL10-0032ETN-INT

ANALOG MODULES

GL10-4DA-INT

GL10-4AD-INT

THERMISTOR MODULES

GL10-4PT-INT

GL10-4TC-INT

GL10-8TC-INT

ETHERCAT COUPLER

GL10-RTU-ECTA-INT

GR modules

REMOTE MODULES(ETHERCAT SLAVE)

GR10-2HCE-INT

GR10-0808ETNE-INT

GR10-1616ETNE-INT

GR10-2PHE-INT

GR10-4ADE-INT

GR10-4DAE-INT

GR10-4PME-INT

GR10-8TCE-INT

H5U CPU



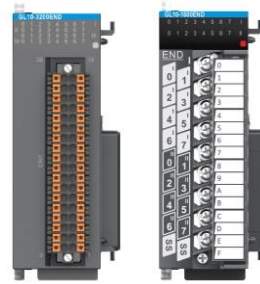
Power Supply Module
GL10-PS2



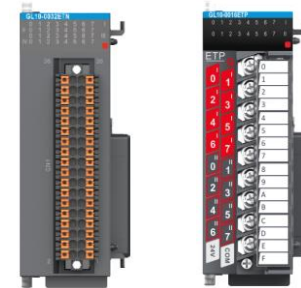
EtherCAT Coupler
GL10-RTU-ECTA



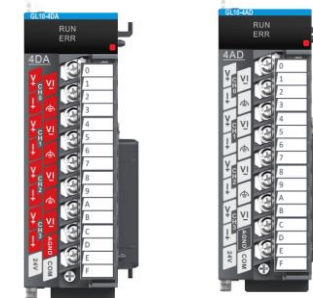
GL modules
Local Extension Modules



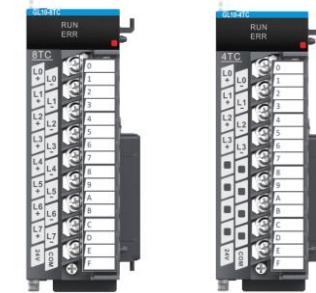
IO Modules



Analog Modules



Temperature Detection Modules



GR Modules
EtherCAT Remote Modules



Remote IO Modules



Remote Analog Modules



Remote Temperature Detection
Modules



Current Status

- **Available models.** Check below list.

Model	Part No.	Description	CE
H5U-1614MTD	01440087	Programmable Logic Controller-H5U-1614MTD-H5U Series 16 Input 14 Output Programmable Logic Controller	Yes
H5U-1614MTD-A16	01440235	Programmable Logic Controller-H5U-1614MTD-A16-H5U Series 16 Input 14 Output Programmable Logic Controller(16 axis)	Yes
H5U-1614MTD-A8	01440236	Programmable Logic Controller-H5U-1614MTD-A8-H5U Series 16 Input 14 Output Programmable Logic Controller(8 axis)	Yes
H5U-1614MTD-A8S	01440315	Programmable Logic Controller-H5U-1614MTD-A8S-H5U Series 16 Input 14 Output Programmable Logic Controller(8 axis without CAN and CAM function)	Yes

INOVANCE

Forward Always Progressing