

XINJE

EtherCAT | CANopen | Ethernet | CODESYS



## Programmable Controller XD / XL / XG / XS

Super product lineup • Provide all-round control solutions



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# CODESYS High Performance Type

## XSLH Series

The small PLC developed based on Codesys platform can significantly improve the programming efficiency and support the PLCopen programming specification. Many standard function libraries can be referenced to develop proprietary function blocks and instruction libraries.

- ① EtherCAT motion control
- ② Support EtherCAT remote IO
- ③ 32 channels electronic CAM
- ④ Ethernet communication
- ⑤ Online download



## Performance specification

|                        |  |  |
|------------------------|--|--|
| Product series XSLH-   | 30A32                                  |  |
| PLC body I/O           | Total points                           | 30   |
|                        | Input points                           | 14   |
|                        | Output points                          | 16   |
| Max I/O points         | 542                                    |  |
| High speed positioning | General pulse output                   | 4 axes (not supported right now)   |
|                        | Differential pulse output              | -  |
| High speed input       | Single/AB phase mode                   | 4 channels   |
|                        | Input mode                             | 2 channels differential signal + 2 channels OC   |
| Expansion ability      | Right expansion module                 | 16   |
|                        | Left expansion module                  | 1  |
|                        | BD board                               | -  |
| External interrupt     | 10                                     |  |
| Communication function | Communication port                     | 1 RS232 port, 1 RS485 port, 2 RJ45 ports   |
|                        | Communication protocol                 | Standard Modbus ASCII/RTU communication, Ethernet IP, TCP / IP, UDP, OPC UA, free format protocol, CAN communication |
| Bus function           | EtherCAT bus control (max 32 nodes)    |  |
| Programming method     | ST, SFC, FBD, CFC, LD and IL           |  |
| Main processor         | Cortex-A8, dominant frequency 1GHz     |  |
| User program capacity  | 32MB                                   |  |
| Data capacity          | 32MB (including power off holding 6MB) |  |

# Basic Unit Specification

## General specification

| Item                | Specification   |
|---------------------|---|
| Insulation voltage  | Above DC500V 2MΩ  |
| Anti-noise          | Noise voltage 1000Vp-p 1us pulse 1 minute                                     |
| Air                 | No corrosive and combustible gas  |
| Ambient temperature | 0°C~55°C  |
| Ambient humidity    | 5%RH~95%RH (no condensation)  |
| Installation        | Directly mounted on the guide rail  |
| Grounding           | The third kind of grounding (not common grounding with strong current system) |

## Power supply specification

### DC power supply

| Item                                   | Specification                                      |
|--|--|
| Rated voltage                          | DC24V  |
| Allowable voltage range                | DC21.6V~26.4V                                      |
| Rated power                            | 120mA DC24V  |
| Allowable instantaneous power off time | 10ms DC24V   |
| Impact current                         | 10A DC26.4V  |
| Max power consumption                  | 15W (16 points) / 30W (24 points and up)           |
| Power supply for sensor                | 24VDC±10% 16 points max 200mA, 32 points max 400mA |

## Input specification

### NPN mode

| Item                 | Specification                                  |
|----------------------|--|
| Input signal voltage | DC24V±10%                                      |
| Input signal current | 7mA/DC24V                                      |
| Input ON current     | Above 4.5mA                                    |
| Input OFF current    | Below 1.5mA                                    |
| Input response time  | About 10ms                                     |
| Input signal format  | Contact input or NPN open collector transistor |
| Circuit insulation   | Photoelectric coupling insulation              |
| Input action display | LED lights when input is ON                    |

### PNP mode

| Item                 | Specification                                  |
|----------------------|--|
| Input signal voltage | DC24V±10%                                      |
| Input signal current | 7mA/DC24V                                      |
| Input ON current     | Above 4.5mA                                    |
| Input OFF current    | Below 1.5mA                                    |
| Input response time  | About 10ms                                     |
| Input signal format  | Contact input or PNP open collector transistor |
| Circuit insulation   | Photoelectric coupling insulation              |
| Input action display | LED lights when input is ON                    |

### Differential mode

| Item                 | Specification                     |
|----------------------|-----------------------------------|
| Input signal         | 5V differential signal            |
| Input max frequency  | 1MHz                              |
| Circuit insulation   | Photoelectric coupling insulation |
| Input action display | LED lights when input is ON       |

\*Note: XL5/XL5E/XLME series 64 points models don't have input ON/OFF current. Their input ON voltage is below 9V, and input OFF voltage is above 19V.

## Output specification

### Relay output

|                       |                       |      |
|-----------------------|-----------------------|------|
| External power supply | Below AC250V, DC30V   |      |
| Circuit insulation    | Mechanical insulation |      |
| Action indicator      | LED light             |      |
| Max load              | Resistive load        | 3A   |
|                       | Inductive load        | 80VA |
|                       | Lamp load             | 100W |
| Min load              | DC5V 10mA             |      |
| Response time         | OFF→ON                | 10ms |
|                       | ON→OFF                | 10ms |

### Transistor output

|                              |                        |             |
|------------------------------|------------------------|-------------|
| External power supply        | DC5~30V                |             |
| Circuit insulation           | Optocoupler insulation |             |
| Action indicator             | LED light              |             |
| Max load                     | Resistive load         | 0.3A        |
|                              | Inductive load         | 7.2W/DC24V  |
|                              | Lamp load              | 1.5W/DC24V  |
| Min load                     | DC5V 2mA               |             |
| Open circuit leakage current | Below 0.1mA            |             |
| Response time                | OFF→ON                 | Below 0.2ms |
|                              | ON→OFF                 | Below 0.2ms |

### High speed pulse output

| Model                            | T             | T4    | T6    | T10    |
|----------------------------------|---------------|-------|-------|--------|
| High speed pulse output terminal | Y0-Y1         | Y0-Y3 | Y0-Y5 | Y0-Y11 |
| External power supply            | Below DC5~30V |       |       |        |
| Action indicator                 | LED light     |       |       |        |
| Max current                      | 50mA          |       |       |        |
| Pulse max output frequency       | 100KHz        |       |       |        |

## Serial port (RS232/RS485) communication parameter specification

| Item                 | Parameter   |
|----------------------|---|
| Communication mode   | Half duplex   |
| Baud rate            | 4800bps, 9600bps, 19200bps (default), 38400bps, 57600bps, 115200bps                                     |
| Data type            | Data bit: 5, 6, 7, 8 (default), 9. Stop bit: 1 (default), 1.5, 2. Parity bit: none, odd, even (default) |
| Mode                 | RTU (default), ASCII, free format   |
| Station no.          | 1~255 (default 1)   |
| Delay before sending | 1~100ms (default 3ms)   |
| Reply timeout        | 1~1000ms (default 300ms)  |
| Retry count          | 1~20 times (default 3 times)  |