

# DYNASERVO

*Reliable, Affordable and High Performance*

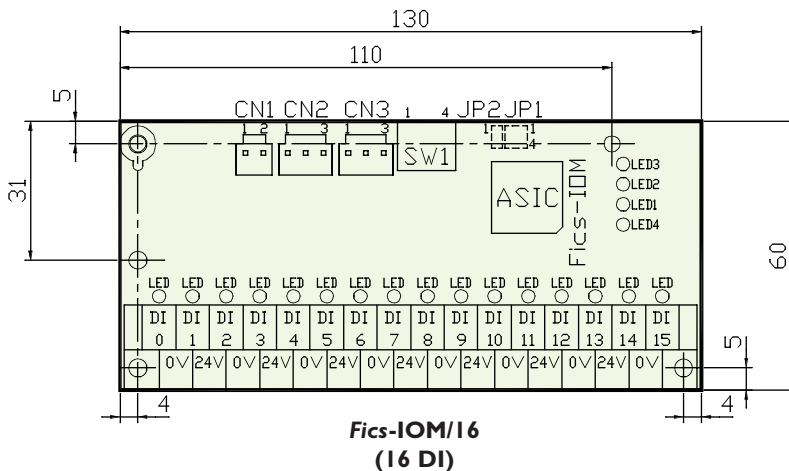
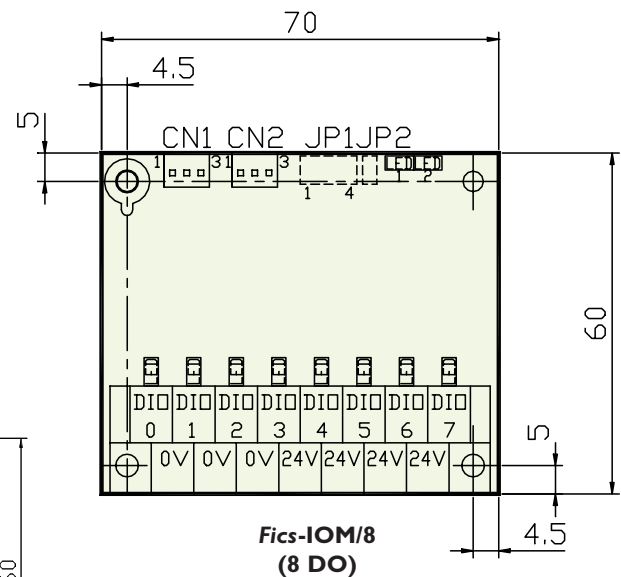


## **Fics-IOM/8,16** Serial Network I/O Modules

*Fics-IOM/8,16* are DI/DO modules with terminal block connectors for I/O expansion of *Fics* serial controllers. *Fics-IOM/8* has 8 DO and *Fics-IOM/16* has 16 DI. They communicate with *Fics* serial controllers via a serial link that transfers data via standard RS422 protocol at rates up to 1.25Mbps. With just a twisted pair of wires, costs can be greatly reduced and machine reliability increased.

### FEATURES

- RS422 communication with *Fics*-serial controllers at 1.25Mbps
- Minimal wiring and high reliability
- Max 16 modules can be connected in one link
- Opto-isolated DI and DO
- LED indicators
- 24V power supply



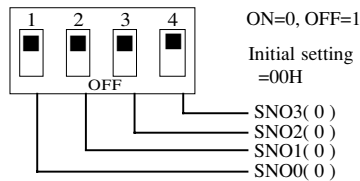
## Fics -IOM/16: 16 bits digital input module

### Specifications

- **Input signals**
  - Number of inputs:** 16  
(2-wire type sensors are applicable)
  - Input circuit:** photo-coupler isolated
  - Input voltage:** 0V~power voltage +0.5V
  - Max. input current:** -10mA/DI
  - Min. sensitive current:** -2mA/DI
  - Input indicator:** 16 LED, LED ON when signal is LOW
  - Input signal connector:** terminal block (DI0 - DI15)
- **Communication Spec. (RS422)**
  - Speed:** 1.25Mbps
  - Address setting:** 4 bits DIP switch (SW1)
  - Status indication:** green LEDx2: sending & receiving, red LED: error
  - Max cable length:** 40m  
(0.5mm<sup>2</sup> shielded twist-paired cable)
- **Power Supply**
  - Power voltage:** 24±10%
  - Current consumption:** 200mA
- **Working Environment:** 0°C~50°C/35~85%RH  
(non-condensing)

### Switches, Jumpers

SW1: Module number setting (0 ~ 15)  
 JP1: 4pin RS422/optical link switch (default setting:RS422)  
 <1-4>open <2-3>closed: RS422



<1-4>closed <2-3>open: optical link (option)  
 JP2: 2pin open, fixed.

### Power Supply

CN1: VHR-2N(JST)

Pin	Signal Name	IN/OUT
1	+24V	IN
2	0V	-

### RS422 Input

CN2: VHR-3N(JST)

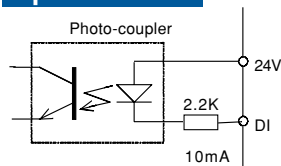
Pin	Signal Name	IN/OUT
1	RD+	IN
2	RD-	IN
3	GND	-

### RS422 Output

CN3: VHR-3N(JST)

Pin	Signal Name	IN/OUT
1	SD+	OUT
2	SD-	OUT
3	GND	-

### Input Interface



## Fics -IOM/8: 8 bits digital output module.

### Specifications

- **Output signals**
  - Number of outputs:** 8
  - Output circuit:** photo-coupler isolated open collector
  - Output voltage:** 0~power voltage
  - Rated Max. output:** 150mA/300V
  - Output saturation voltage:** less than 1V  
(when output current is less than 80mA)
  - Leak current at OFF:** less than 20μA
  - Output indicator:** 8 LED, LED ON when output is LOW.
  - Output signal connector:** terminal block (DO0 - DO7)
- **Communication Spec. (RS422)**
  - Speed:** 1.25Mbps
  - Address setting:** 4 bits jumper switch(JP1)
  - Status indication:** green LED: receiving, red LED: error
  - Max cable length:** 40m  
(0.5mm<sup>2</sup> shielded twist-paired cable)
- **Power Supply**
  - Power voltage:** 24V±10%
  - Current consumption:** 200mA  
(Note) Connect the power supply to 24V, 0V of the terminal block.
- **Working Environment:** 0°C~40°C/35~85%RH

### Jumpers

JP1: 8pin, module number setting (0 ~ 15).  
 closed:0 open:1. Initial setting = 00.  
 <1-8> 3<sup>rd</sup> bit of address  
 <2-7> 2<sup>nd</sup> bit of address  
 <3-6> 1<sup>st</sup> bit of address  
 <4-5> 0th bit of address  
 JP2: 2pin, open, fixed

### RS422 Input

CN1: H3P-SHF-AA(JST)

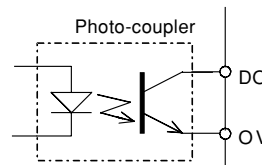
Pin	Signal Name	IN/OUT
1	RD+	IN
2	RD+	IN
3	GND	-

### RS422 Output

CN2: H3P-SHF-AA(JST)

Pin	Signal Name	IN/OUT
1	SD+	OUT
2	SD+	OUT
3	GND	-

### Output Interface



### Attachments

Connectors are attached