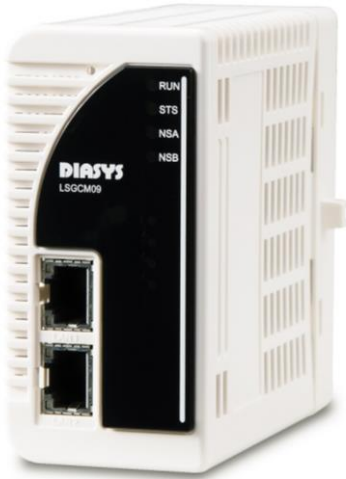


# LSGCM09 Ethernet/IP (CIP) Communication module

LS communication Ethernet / IP (CIP) communication : 1 ch

## ■ Summary



- \* Communication port : 1
- \* Module ambient temperature : -5 to 60°C

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## ■ Specifications

ITEM		SPECIFICATION	
Communication port	Number of channels	1 * <sup>1</sup>	
	Communication speed	100 Mbps / 10 Mbps	
	Communication size	IO device (Implicit) * <sup>2</sup>	Process input: Maximum 5712 byte Process output: Maximum 5760 byte
		PLC device (Explicit) * <sup>2</sup>	Transmission (request data): Maximum 1400 byte Reception (response data): Maximum 1400 byte
	Communication method	CSMA / CD method	
	Number of connections	IO device	Maximum 64 devices
		PLC device	Maximum 4 devices
	Communication port number	502	
	Communication mode	Supports client function and server function	
Action mode	Supports only Master mode		
Number of registered commands		For IO device: 64 command * <sup>3</sup> For PLC device: 100 command * <sup>3</sup>	
Duplication correspondence		Possible (Two units installed, Select data in CPU Application Logic) * <sup>4</sup>	
Dielectric voltage		DC 500 V	
Communication with IOA	Communication method	LVDS	
	Communication speed	100 Mbps	
Self-diagnostic functions		Power voltage check (24 V, 3.3 V, 1.2 V) Clock abnormal check (FPGA-MCU for diagnosis, MCU for diagnosis -FPGA) Heartbeat check (FPGA=>MCU for diagnosis, MCU for diagnosis=>FPGA, FPGA=>MCU for communication) CRC check (FPGA) Exception interrupt check (MCU for communication) Check communication setting file (MCU for communication) Connection check with host computer (DPS, MPS, etc.) (MCU for communication)	
Supported protocol		Ethernet / IP master	
Protection	(Power supply protection)	Overvoltage protection Overcurrent protection	
	Status indicator LED	4: RUN (Run)/STS (Status)/NSA (Network status A)/NSB (Network status B)	
Indicator	Communication status display LED	2 (LINK: 1, ACTIVE: 1)	
	Hot swap	Possible	
Power supply		DC 24 V ±20% (The voltage supplied from the backplane)	
Environmental conditions	Module ambient temperature	(Operating) -5 to 60°C (Storage) -40 to 85°C	
	Module ambient humidity	(Operating / Storage) 10 to 95% RH (No condensation)	
Vibration		3.5 mm @ 5 to 8.4 Hz 1 G @ 8.4 to 150 Hz	
Shock		15 G 11 ms	
Current consumption		Less than 150 mA	
Weight		0.164 kg	
Dimensions		97 mm (D) x 94 mm (H) x 46 mm (W) (Except projection)	
Standard/Directive		EN 61131-2:2007, RoHS	

### About compliant module type

For compliant modules of this product, please refer to "Compliant backplane list (CGS-S9901-E-XX)".

For compliant modules of this product, please refer to "Compliant accessory connector list (CGS-S9902-E-XX)".

\*<sup>1</sup> Although this communication port has 2 ports, it can be connected to either port.

However, please do not connect 2 ports except loop connection.

\*<sup>2</sup> "Implicit" is a communication that is made periodically after establishing a connection in advance.

"Explicit" is a communication that transmits a request command from the master side to the partner device and receives response data from the partner device in response to the request command.

Explicit communication supports only non-connection type communication.

\*<sup>3</sup> The number (value) written here does not guarantee the operation.

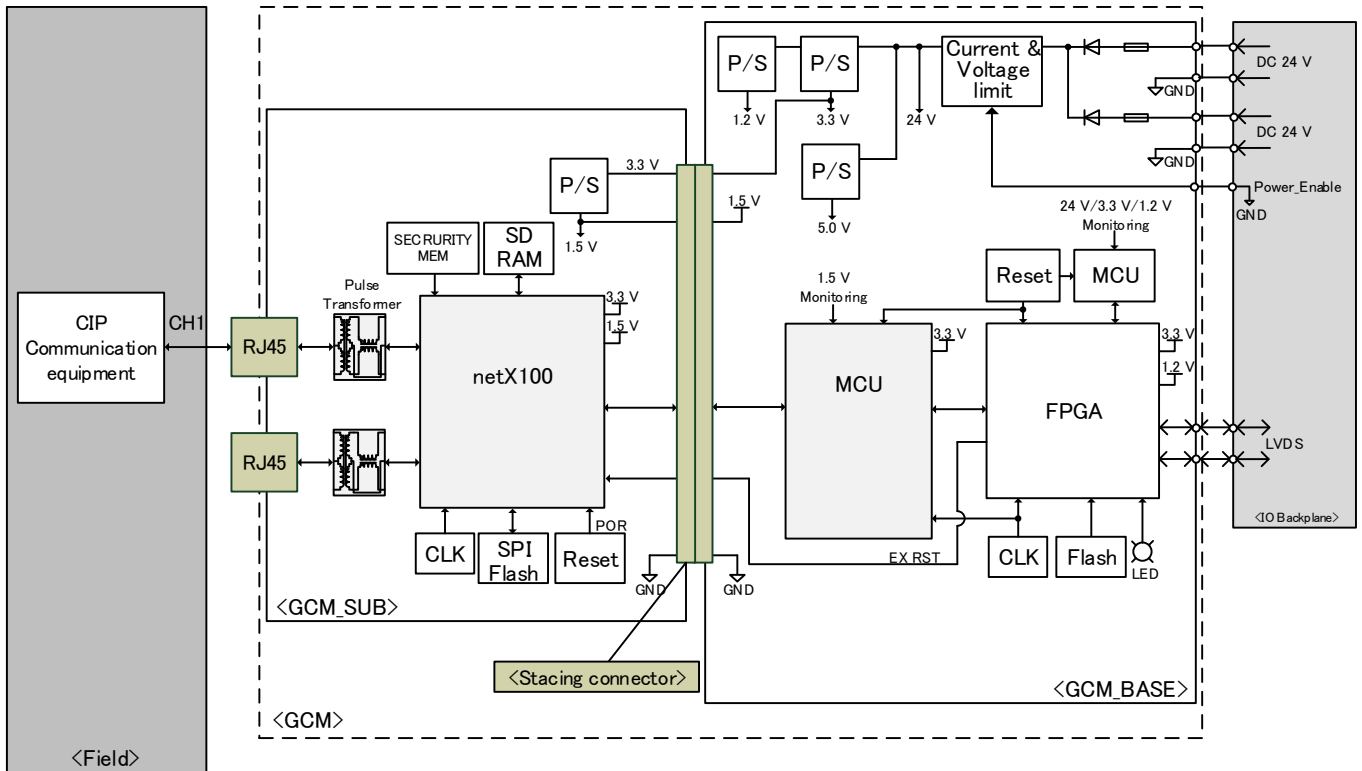
Depending on the system environment, adjustment such as slowing down the communication cycle is required.



\*<sup>4</sup> It can be used as a redundant by installing two of this module, establishing two independent communication lines, and then selecting the data in the upper application logic.

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## ■ Block diagram



P/S	:	Power supply
CLK	:	Clock
FPGA	:	Field programmable gate array
LED	:	Light emitting diode
MCU	:	Micro control unit
GND	:	Ground
Serial GNDx	:	Isolation ground
LVDS	:	Low Voltage Differential Signaling
BP	:	BackPlane
	:	fuse
	:	diode

When using, please read the instruction manual attached to the product carefully and use it properly.

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