

LSGCM08 ModbusTCP Communication module

LS communication Modbus/TCP (Ethernet) : 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 * ¹
	Communication speed	100 Mbps / 10 Mbps * ²
	Communication size	Input from all equipment: Maximum 5760 byte Output to all devices: Maximum 5760 byte
	Communication method	CSMA / CD method
	Number of connections	Maximum 16 devices
	Communication port number	502
	Communication mode	Client function, Supports server function * ³
	Action mode	Supports both master mode and slave mode (Can not be used together)
	Function code	Supports the following function codes 1:Coil Reading DO 2:Input status Reading DI 3:Holding register Reading AO 4:Input register Reading AI 5:Coil Write 1 point to DO 6:Holding register Write 1 point to AO 15:Multiple coils Batch writing to DO 16:Multiple holding register Batch writing to AO
	Number of registered commands	100 command * ⁴
Duplication correspondence	Possible (Two units installed, Data selection in CPU Application Logic) * ⁵	
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, 1.5 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) MODBUS communication check (MCU for communication)	
Supported protocol	Modbus/TCP	
Protection	(Power supply protection) Overvoltage protection Overcurrent protection	
Indicator	Status indicator LED	4: RUN (Run) / STS (Status) / NSA (Network status A) / NSB (Network status B)
	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 Hz to 8.4 Hz 1 G @ 8.4 Hz to 150 Hz	
Shock	15 G 11 ms	
Current consumption	Less than 150 mA	
Weight	0.165 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)".

*¹ Although this communication port has 2 ports, it can be connected to either port.

While shipping the product, one port of the Ethernet connector is plugged with a plug (cap), but please do not remove it.

If it is removed and connected to both ports, operation may become unstable.

*² The communication speed is automatically recognized.

*³ Specify one of them in the communication setting file. Both functions can not be used in the same module.

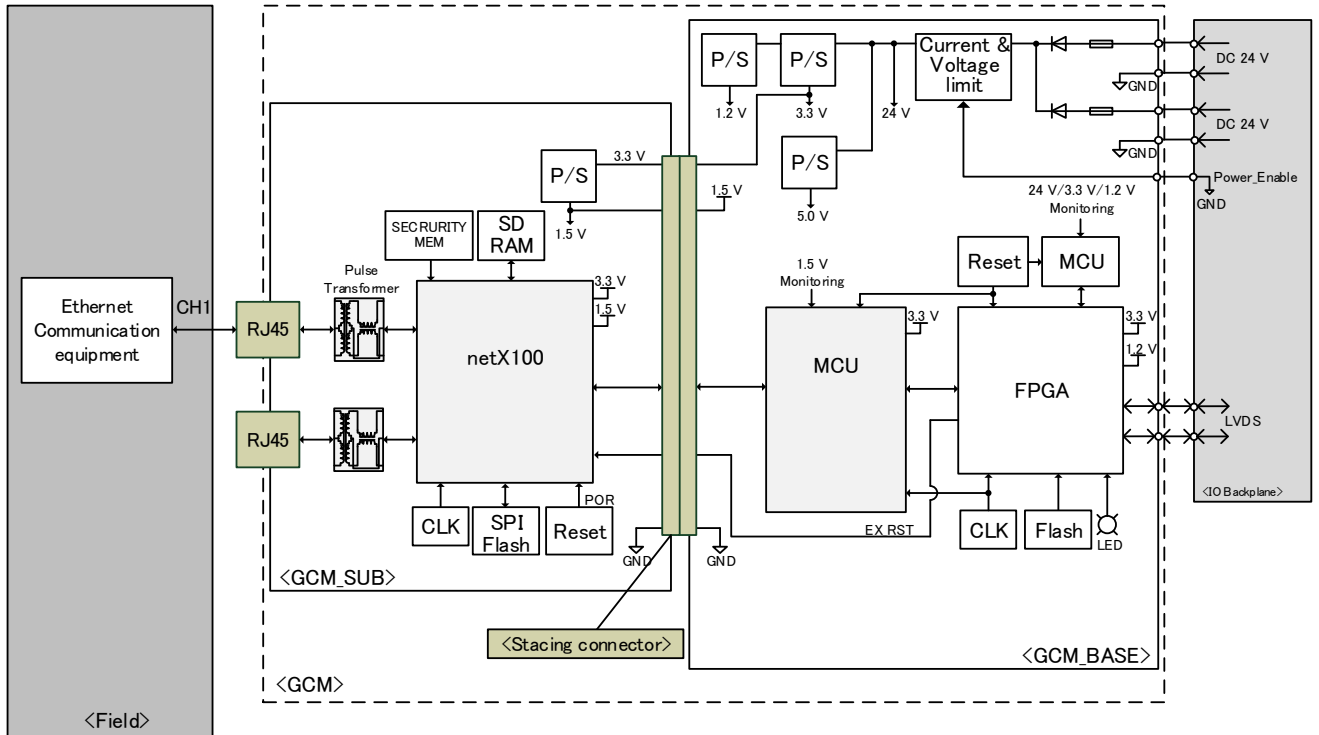
*⁴ Depending on the system environment, adjustment such as slowing down the communication cycle is required.



*⁵ 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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