

GC-1000R

Main controller Relay output type

*Please note that accessories depicted in the image are for illustrative purposes only and may not be included with the product.

Specifications

Model		GC-1000R
Input/output points	Safety inputs	14
	Safety outputs	4
	Safety relay output	1 (3a)
	AUX outputs	4
	Test outputs	
Maximum number of connectable expansion units		-
Maximum number of connectable remote I/O modules		
GC-Link ports		2 ports
Safety input specifications	Input device	Contact output device or PNP output device
	Input type	Type3
	ON level (voltage/current)	Min. 11 V/2 mA
	OFF level (voltage/current)	Max. 5 V/1.5 mA
	Short-circuit current	Si 0 to 3: Approx. 5 mA Si 4 to 13: Approx. 3 mA
	Protection circuit	Surge protection circuit, wrong wiring protection circuit
	Maximum cable length	Max. 100 m 328.1'
Safety output specifications	Output type	PNP transistor output (DC-13, Type 0.5, Protected outputs)*1
	Maximum load current	500 mA
	Residual voltage (during ON)	Max. 2.0 V
	Leakage current (during OFF)	Max. 0.5mA
	Maximum capacitive load	0.5 µF
	Load wiring resistance	Max. 2.5Ω
	Protection circuit	Overcurrent protection circuit, reverse connection protection circuit
	Maximum cable length	Max. 30 m 98.4'
Safety relay output specifications	Output type	Relay (3a) (Externally-protected outputs)*2
	Rated load (resistance load)	250 VAC 6A / 30 VDC 6A*3
	Rated load (inductive load)	240 VAC 2A (AC-15) / 24 VDC 1A (DC-13)
	Relay output mechanical life	Resistance load (250 VAC 6A/30 VDC 6A): Min. 100,000 times Resistance load (250 VAC 1A/30 VDC 1 A): Min. 500,000 times Inductive load (AC-15: 240 VAC 2 A): Min. 100,000 times (cosø = 0.3) Inductive load (DC-13: 24 VDC 1 A): Min. 100,000 times (L/R = 48 ms)
	Maximum cable length	Max. 100 m 328.1'
	B10d	With rated load: 400,000 times With low load: 2,000,000 times
Test output specifications	Output type	PNP transistor output*4
	Maximum load current	100 mA

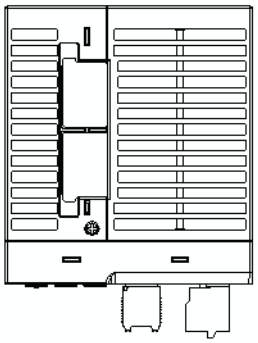
	Protection circuit	Overcurrent protection circuit, reverse connection protection circuit
	Maximum cable length	Max. 100 m 328.1'*5
AUX output specifications	Output type	Transistor output (PNP/NPN selectable by wiring) PNP output (DC-13, Type 0.1, Protected outputs)*1*4
	Maximum load current	PNP: 100 mA, NPN: 20 mA
	Residual voltage (during ON)	Max. 2.0 V
	Leakage current (during OFF)	Max. 0.5 mA
	Protection circuit	Overcurrent protection circuit, reverse connection protection circuit
	Maximum cable length	Max. 30 m 98.4'
Communication interface	USB	USB2.0
	Ethernet	-
Network functionality		
Others	LCD display	1.77-inch color LCD
	Display buttons	4 points (3 operation keys + 1 BACK key)
Applicable standards	EMC	EMS: IEC 61131-2/-6, EN61131-2/-6 EMI: IEC 61131-2, FCC Part15B Class A, ICES-003, Class A
	Safety	IEC 61508, EN 61508 SIL3 IEC62061 SIL CL3 ISO/EN13849-1:2015 Cat. 4, PL e, UL1998
Dimensions		85×95×90 mm 3.35"×3.74"×3.54" (W×D×H)
Power supply	Power voltage	24 VDC (-20 to +20%) Class 2
	Power consumption	Max. 200 mA
Environmental resistance	Ambient temperature	−10 to +55 °C 14 to 131 °F (No freezing)
	Relative humidity	5 to 85% (No condensation)
	Storage temperature	−25 to +70 °C -13 to 158 °F (No freezing)
	Operating altitude	Max. 2000 m 6561.7'
	Overvoltage category	II III (relay output part of GC-1000R and GC-S1R)
	Pollution degree	2
	Vibration resistance	Frequency: 5 to 9 Hz, Half amplitude: 3.5 mm 0.14" Frequency: 9 to 150 Hz, Acceleration: 10 m/s² 10 times each in X, Y, Z directions
	Shock resistance	Acceleration: 150 m/s², Operating time: 11 ms, 3 times each in X, Y, Z directions
Material		Polycarbonate
Weight		Approx. 360 g

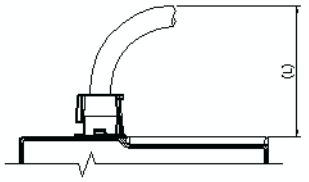
*1 Paragraph 6.4.6 Temporary overload of IEC 61131-2 supports up to 1.2 times the maximum load current.
*2 To comply with the requirements of IEC61131-2, connect 10 A fast blow fuse (IEC 60217) in series to each contact.
*3 Check the derating characteristics described later.
*4 AUX outputs (NPN output) and test outputs do not comply with paragraph 6.4.6 of IEC 61131-2.
*5 When the test output is branched and connected to multiple safety input devices, the total branched cable length must not exceed 400 m 1312.3'.

Dimensions

* Download CAD file or product manual for larger image/text and more detail.

GC-1000R





When using GC-Link port

Model	L(mm)
GL-RCG03S	45
GL-SCG03S	45
SZ-VCG03	45
SZ-VCG03M	60
GS-P5CG03	70

