Programmable Logic Relays

TECO

SG2 Series

Advanced



ISO 14001 BSMI

TÜV CERT ISO 9001

UL c UL

CE

RoHS COMPLIANCE



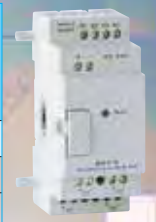
Complete product line:10/12/20 points basic module , analog input / output , temperature input , relay or transistor outputs is optional.

- Max expansion 44 digital I/O points, including 3 sets of 8 points(4 inputs / 4 outputs) expansion modules. 1 set analog input module, 1 set temperature input module, 2 set analog output module (2 channel current or voltage output) and 1 set communication module.
- Analog input can expand to 8 points in which 4 points are 12 bits voltage/current input(0-10V / 4-20mA), temperature input can expand to 4 points(PT-100).
- Several communication expansion modules are available:Profibus-DP, Devicenet, Modbus RTU, Ethernet(TCP/IP).
- Built-in 16x4 LCD display and seven languages:English, French, Spanish, Italian, German, Portuguese and Simplified Chinese are selectable.
- Ladder format, max 300 lines, 4 instructions per line. FBD format, max 260 blocks.
- High speed counter input(1KHz) and pulse output are available.
- Built-in 31 multi-function timers, 31 sets of counter, 31 RTC comparators and 126 auxiliary, 31 analog compare.
- Lower price variant models without LCD Keypad and without top cover are available if order amounts reach TECO minimum production requirement.
- Basic module(V type) built-in Modbus port(RTU), 8 channel I/O link and Remote I/O communication port.
- Built-in RTC(setting summer / winter time change) will be operational up to 240 hours after power off.
- Relay output contact rating max 8A / Transistor output rating max 0.5A.
- Two possible levels(A, B) can set 16 bits password protection function.
- 2 PWM outputs are available. One can be used as PLSY(pulse output) at 1KHZ.

Item		Specification
Method of input program		By means of Ladder/Function Block
Operating Environment	Operating temperature	-20~55℃
	Storage temperature	-40~70℃
	Operating humidity	5~90% RH no frost
	Environment gas	No corrosive gas environment
Main Structure	Vibration resistance	IEC60068-2-6 Standard
		0.075mm amplitude/1.0g acceleration
	Impact resistance	IEC60068-2-27 Standard
		15g peak, 11ms duration
Noise proofing	ESD	Contact ±4KV, air discharge ±8KV
	EFT	Power AC: ±2KV DC: ±1KV
	CS	0.15~80MHz 10V/m
	RS	80~1000MHz 10V/m
	EMI	EN55011 class B
Installation	Enclosure Protection	IP20
	Fixing Method	Direct or Din rail(35mm)installation
	Direction	Please refer to installation manual
Size of cable		AWG 12/ ϕ 3.5mm2
Dimension		72×90×59.6mm 10 points basic module
		126×90×59.6mm 20 points basic module
		38×90×59.6mm expansion module

System specification

		Model	Power supply			Input	Output point		Analog input	LCD Key	Expansion ability	High speed input	PWM Output	I/O LINK
			AC 100~240V	DC 24V	DC 12V									
10 point Variant	Expandable Type (★: project requested)													
		10HR-A	◎			6	4	Relay		◎	◎			
		12HR-D		◎		8*	4	Relay	2	◎	◎	◎		
		12HT-D		◎		8*	4	Transistor	2	◎	◎	◎	◎	
		12HR-12D			◎	8*	4	Relay	2	◎	◎	◎		
	Expandable & without control panel(★: project requested)													
	★	10KR-A	◎			6	4	Relay			◎			
	★	12KR-D		◎		8*	4	Relay	2		◎	◎		
	★	12KT-D		◎		8*	4	Transistor	2		◎	◎	◎	
	★	12KR-12D			◎	8*	4	Relay	2		◎	◎		
	Standard & without upper-cover (Economical Type) (★: project requested)													
	★	10CR-A	◎			6	4	Relay						
	★	12CR-D		◎		8*	4	Relay	2			◎		
	★	12CT-D		◎		8*	4	Transistor	2			◎	◎	
20 point model	Expandable Type													
		20HR-A	◎			12	8	Relay		◎	◎			
		20HR-D		◎		12*	8	Relay	4	◎	◎	◎		
		20HT-D		◎		12*	8	Transistor	4	◎	◎	◎	◎	
		20HR-12D			◎	12*	8	Relay	4	◎	◎	◎		
	Expandable & without control panel (Blind Type) (★: project requested)													
	★	20KR-A	◎			12	8	Relay			◎			
	★	20KR-D		◎		12*	8	Relay	4		◎	◎		
	★	20KT-D		◎		12*	8	Transistor	4		◎	◎	◎	
	★	20KR-12D			◎	12*	8	Relay	4		◎	◎		
	Standard & without upper-cover (Economical Type)													
	★	20CR-A	◎			12	8	Relay						
	★	20CR-D		◎		12*	8	Relay	4			◎		
	★	20CT-D		◎		12*	8	Transistor	4			◎	◎	
	High speed communication Type													
		20VR-D		◎		12*	8	Relay	4	◎	◎	◎		◎
		20VT-D		◎		12*	8	Transistor	4	◎	◎	◎	◎	◎
Expansion		8ER-A	◎			4	4	Relay						
		8ER-D		◎		4	4	Relay						
		8ET-D		◎		4	4	Transistor						



SG2-8ET-D



SG2-DNET



SG2-MBUS



SG2-PBUS

* The input points consist of the ones having analog input function.

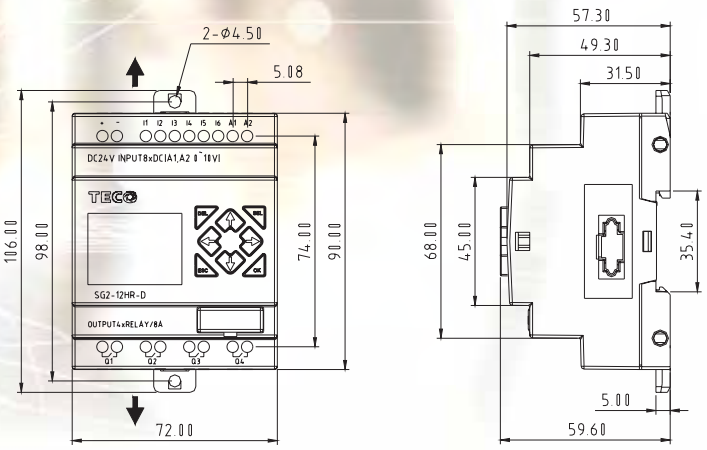
Expansion and option model

	Model	Part No.	Instruction
	Power supply	10PS-12	Input:AC100~240V / Output:12V 1.9A
	Power supply	10PS-24	Input:AC100~240V / Output:24V 1.3A
	Analog input	SG2-4AI	Analog Input Module(12bit / 4 analog input channel)
*1	Analog output	SG2-2AO	2 channel Output Module(voltage / current:0-10V / 4-20mA)
*1	Temperature input	SG2-4PT	Temperature Input Module(4 channel PT-100 input)
	Communication	SG2-MBUS	Modbus Communication Module(DC24V)
	Communication	SG2-PBUS	Profibus Communication Module(DC24V)
	Communication	SG2-DNET	Devicenet Communication Module(DC24V)
	Communication	EN01	Ethernet(TCP/IP)Communication Module(DC24V)
	Mempack	PM06	Download / Upload program
	PC interface cable	PL01	PC-Link cable
	PDA connector	JNSWPDA	PDA-Link interface

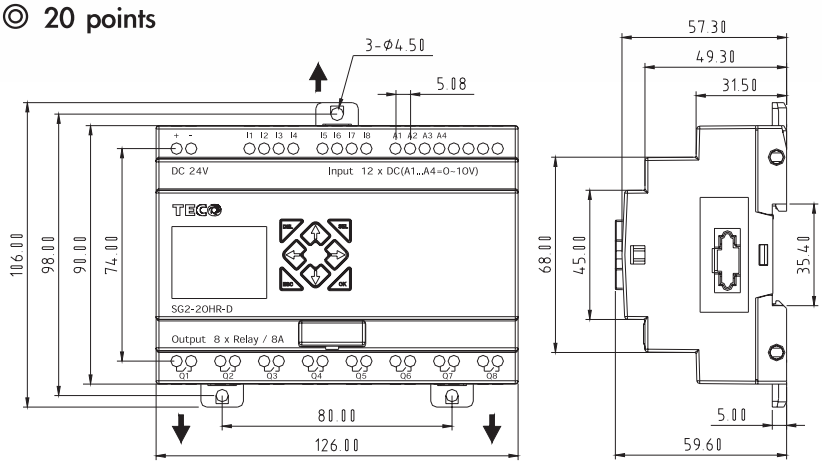
Notes : SG2 PDA software can be used by WIN CE interface and link HP hx2190 PDA by PDA cable(JNSWPDA)
*1:It cannot be used for SG2 firmware V3.0 and below

Dimension (unit:mm)

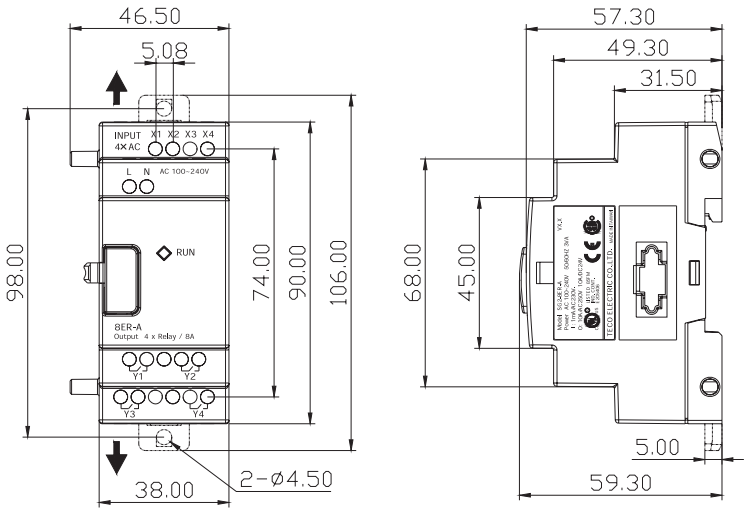
◎ 10/12 points



◎ 20 points



◎ Expansion Module (8 points)



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