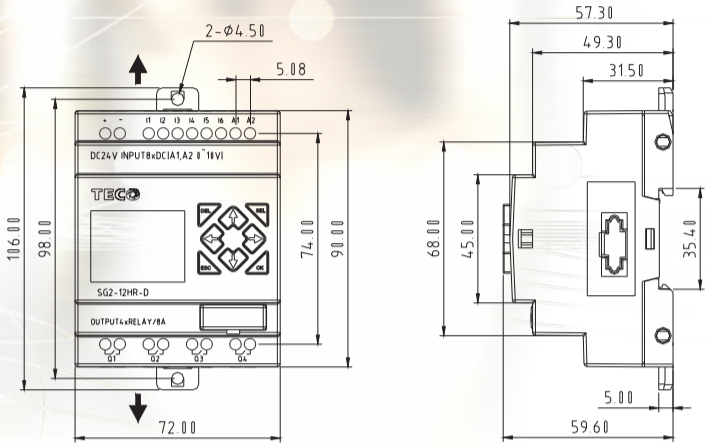


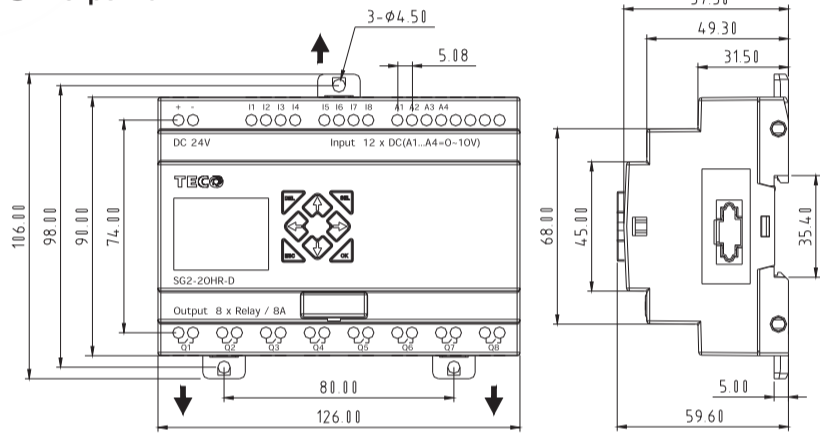


Dimension (unit:mm)

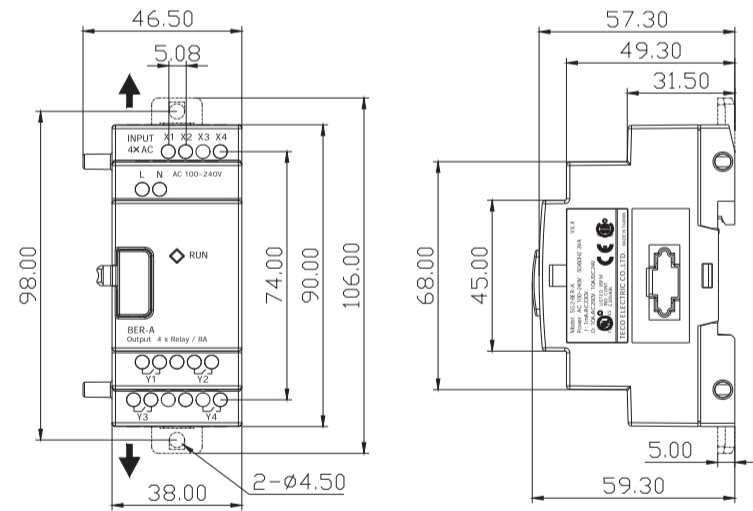
◎ 10/12 points



◎ 20 points



◎ Expansion Module (8 points)



TECO ELECTRIC & MACHINERY CO., LTD.

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GJ-36-00 2007-03-15

Programmable Logic Relays



SG2 Series



45	10	6.5	2.5	32	45	11	
50	12	8	3.0	34	50	13	
51	12	3.0	35	50	13		
51.5	12	3.0	35.5	51.5	13		
40	56	12	8	40	56	13	
45	61	12	8	3.0	45	61	13
47	63	12	8	3.0	47	63	13
50	66	12	8	3.0	50	66	13
53	69	12	8	3.0	53	69	13
55	71	12	8	3.0	55	71	13
56	72	12	8	3.0	56	72	13
60	76	12	8	3.0	60	76	13
63	79	12	8	3.0	63	79	13
64	80	12	8	3.0	64	80	13
70	90	15	10	3.0	70	90	16
71	91	15	10	3.0	71	91	16
75	95	15	10	3.0	75	95	16
80	100	15	10	3.0	80	100	16



System specification



Complete product lines : 10/12/20 points AC/DC basic module , analog input , relay or transistor outputs is optional.

- ◆ Max expansion 44 I/O points, including 3 sets of 8 points (4 inputs/ 4 outputs) expansion modules, 1 set analog input module and 1 set communication module.
- ◆ Analog input can expand to 8 points in which 4 points are 12 bits.
- ◆ Several communication expansion modules are available: Profibus-DP , Devicenet , modbus RTU.
- ◆ Built-in 12x4 LCD display and seven languages: English, French , Spanish , Italian, German, Portuguese, and Simplified Chinese are selectable.
- ◆ Max 200 steps ladder diagram instruction or 99 steps of Function Block Diagram(FBD).
- ◆ High speed counter input (1KHz) and pulse output are available.
- ◆ Built-in 15 multi-function timers, 15 sets of counters, 15 RTC comparators and 15 auxiliary points.
- ◆ Lower price variant models without LCD/Keypad and without top cover are available if order amounts reach TECO minimum production requirement.
- ◆ Basic module built-in Modbus port(RTU) communication port.
- ◆ Built-in RTC can keep working 240 hours after power off.
- ◆ Relay output: max 8A output/point, max 0.5A output/point for transistor output.

Item	Specification	
Method of input program	By means of Ladder/Function Block	
Operating Environment	Operating temperature	-20-55°C
	Storage temperature	-40-70°C
	Operating humidity	5-90% RH no frost
	Environment gas	No corrosive gas environment
Mail Structure	Vibration resistance	IEC60068-2-6 Standard 0.075mm amplitude/1.0g acceleration
	Impact resistance	IEC60068-2-27 Standard 15g peak, 11ms duration
	ESD	Contact ±4KV, air discharge ±8KV
Noise proofing	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

Model	Power supply			Input	Output point	Analog input	LCD Key	Expansion	High speed input	PWM Output	I/O LINK
	AC 100-240V	DC 24V	DC 12V								
Expansion Variant											
10HR-A	◎			6	4	Relay		◎	◎		
12HR-D		◎		8*	4	Relay	2	◎	◎		
12HT-D		◎		8*	4	Transistor	2	◎	◎	◎	
12HR-12D			◎	8*	4	Relay	2	◎	◎		
Expansion Variant without control panel											
10KR-A	◎			6	4	Relay		◎			
12KR-D		◎		8*	4	Relay	2	◎	◎		
12KT-D		◎		8*	4	Transistor	2	◎	◎	◎	
12KR-12D			◎	8*	4	Relay	2	◎	◎		
Standard Variant without top cover											
10CR-A	◎			6	4	Relay					
12CR-D		◎		8*	4	Relay	2			◎	
12CT-D		◎		8*	4	Transistor	2			◎	◎
Expansion Variant											
20HR-A	◎			12	8	Relay		◎	◎		
20HR-D		◎		12*	8	Relay	4	◎	◎	◎	
20HT-D		◎		12*	8	Transistor	4	◎	◎	◎	◎
20HR-12D			◎	12*	8	Relay	4	◎	◎	◎	
Expansion Variant without control panel											
20KR-A	◎			12	8	Relay		◎			
20KR-D		◎		12*	8	Relay	4	◎	◎		
20KT-D		◎		12*	8	Transistor	4	◎	◎	◎	
Standard Variant without top cover											
20CR-A	◎			12	8	Relay					
20CR-D		◎		12*	8	Relay	4			◎	
20CT-D		◎		12*	8	Transistor	4			◎	◎
High speed communication Variant											
20VR-D		◎		12*	8	Relay	4	◎	◎	◎	◎
Expansion											
8ER-A	◎			4	4	Relay					
8ER-D		◎		4	4	Relay					
8ET-D		◎		4	4	Transistor					

* 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:DC12V 1.9A
Power supply	10PS-24	Input:AC100-240V/Output:DC24V 1.3A
Communication	SG2-MBUS	Modbus communication Model(DC24V)
Communication	SG2-PBUS	Profibus communication Model(DC24V)
Communication	SG2-DNET	Devicenet communication Model(DC24V)
Memorypack	PM05	Download/Upload program
PC-Link cable	PL01	PC-Link cable
PDA connector	JNSWPDA	PDA-Link cable

Notes : SG2 PDA software can be used by WIN CE interface and link HP hx2190 PDA by PDA cable(JNSWPDA)

