

Accessories



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11.1. Signal Conditioning Modules (SG-3000 Series)

Introduction

SG-3000 series signal conditioning modules are used to accept wide range of input signals, such as voltage, current, temperature (thermocouple and RTD) and provide 0 ~ 10 Vdc , 0 ~ 20 mA, 4 ~ 20 mA output signals.

It gives following good features for industrial applications

- 3-way (power/input/output) isolation (1000 Vdc)
- Wide operating temperature (-25 ~ +75°C)
- DIN-Rail mounting
- Input and output connectors on the opposite side
- Signal range configurable by switch

Applications



Description

Analog Conditioning Modules					
Models	SG-3011	SG-3013	SG-3016	SG-3071	SG-3081
Pictures					
Analog Input					
Channel	1	1	1	1	1
Wiring	Differential	2/3/4 wires	Differential	Differential	Differential
Signal	Thermocouple	RTD	Strain Gauge	Voltage	Current
Type	Type J, K, T, E, R, S, B, N, C, L, M, L2	Pt100 $\alpha=0.00385$, Pt100 $\alpha=0.003916$, Ni 120, Pt1000 $\alpha=0.00385$	± 10 mV, ± 20 mV, ± 30 mV, ± 50 mV, ± 100 mV	± 5 V, ± 10 V	0 ~ 20 mA, 4 ~ 20 mA
Resolution	12-bit	12-bit	-	-	-
Accuracy	$\pm 0.2\%$ of FSR	$\pm 0.1\%$ of FSR	$\pm 0.1\%$ of FSR	$\pm 0.1\%$ of FSR	$\pm 0.1\%$ of FSR
Input Impedance	1.8 M Ω	-	-	1.6 M Ω	250 Ω
Excitation Voltage	-	-	0 ~ 10 V	-	-
Analog Output					
Channel	1	1	1	1	1
Current Output	0 ~ 20 mA	0 ~ 20 mA, 4 ~ 20 mA	0 ~ 20 mA	0 ~ 20 mA, 4 ~ 20 mA	0 ~ 20 mA, 4 ~ 20 mA
Voltage output	0 ~ 10 V	0 ~ 5 V, 0 ~ 10 V	± 5 V, ± 10 V, 0 ~ 5 V, 0 ~ 10 V	± 5 V, ± 10 V	0 ~ 5 V, 0 ~ 10 V
System					
3-way Isolation	1000 Vdc				
Power Input	10 ~ 30 Vdc				
Power Consumption	1.44 W	1.2 W	1.44 W	1.8 W	1.61 W
Operating Temperature	-25 ~ +75°C				
Dimensions (W x H x D)	25 mm x 114 mm x 71 mm				

Power Conditioning Modules				
Models	PW-3090-24S	PW-3090-12S	PW-3090-5S	PW-3090-4824S-12
Pictures				Available soon
Input	18 ~ 36 V (non-regulated)	18 ~ 36 V (non-regulated)	18 ~ 36 V (non-regulated)	48 V (non-regulated)
Output	24 V @ 0.4 A (Max.)	12 V @ 0.8 A (Max.)	5 V @ 2 A (Max.)	24V @ 0.5 A (Max.)
Isolation	1000 Vdc			
Efficiency	83% Typical			
Operating Temperature	-25 ~ +75°C			
Dimensions (W x H x D)	25 mm x 114 mm x 71 mm			

11.2. Surge Protection Module (SG-770)



Features

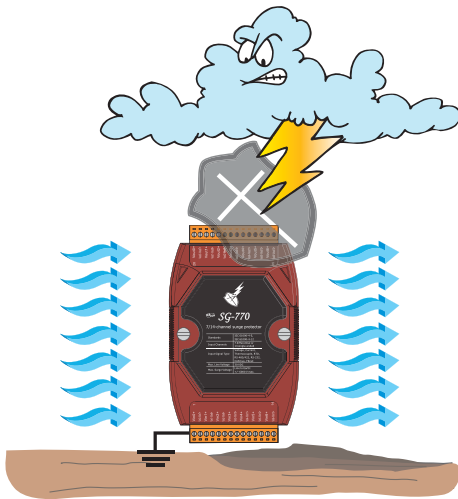
- IEC 61000-4-5, IEC 61000-4-12
- 6 kV Surge Protection
- RoHS Compliance
- A Wide Range of Operating Temperature: -25 ~ +75°C
- Easy Wiring



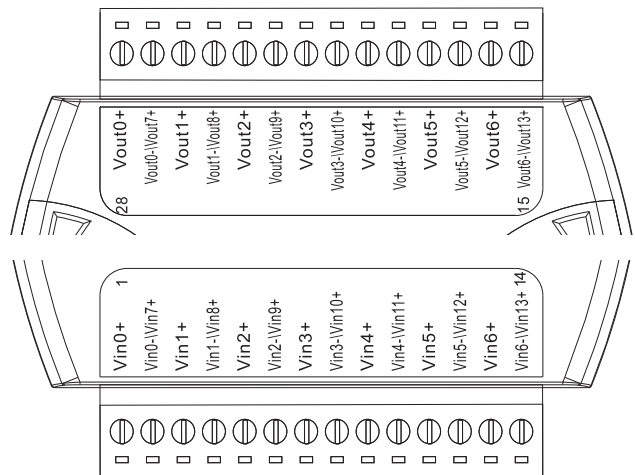
Introduction

SG-770 offers 7 differential or 14 single-ended for surge protection. SG-770 is approved with IEC 61000-4-5 and IEC 61000-4-12 standards. Each of channels supports 0 ~ ±30 Vdc signal and each of channels is protected for surge achieves 6 kV.

Application



Pin Assignments



Specifications

Models	SG-770
General	
Input Channels	7 differential or 14 single-ended
Input Signal Type	Voltage, Current, Thermocouple, RTD, RS-485/RS-422/RS-232, CAN
Max. Line Voltage	30 Vdc
Surge Protection Performance	
Standard	IEC 61000-4-5 IEC 61000-4-12
Max. Surge Voltage	Line to Earth: ±6000 Vdc Max.
Environment	
Operating Temperature	-25 ~ +75°C
Storage Temperature	-30 ~ +75°C
Humidity	5 ~ 95% RH, Non-condensing
Dimensions (W x H x D)	123 mm x 72 mm x 33 mm

Ordering Information

SG-770 CR	7 channel differential or 14 channel single-ended surge protector (RoHS)
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11.3. Relay Modules

Models	DN-PR4	RM-104, RM-108, RM-116	RM-204, RM-208, RM-216
Pictures			
Relay	VE-24H5-K	FINDER - 40.61.7.024.0000	FINDER - 44.52.7.024.0000
Type	Power Relay		
Channel	4	RM-104: 4 channels RM-108: 8 channels RM-116: 16 channels	RM-204: 4 channels RM-208: 8 channels RM-216: 16 channels
Contact	Form C	Form C (SPDT)	Form C (DPDT)
Operating Voltage Range	250 VAC / 30 Vdc	250 VAC	250 VAC
Max. Load Current	5 A	16 A	6 A
Operate Time	10 ms (Typical)	7 ms (Typical)	8 ms (Typical)
Release Time	5 ms (Typical)	3 ms (Typical)	5 ms (Typical)
LED Indicator	Yes (for Relay status)		
Mechanical			
Dimensions (W x L x D)	96 mm x 103 mm x 34 mm	RM-104: 79 mm x 87 mm x 63 mm RM-108: 135 mm x 87 mm x 63 mm RM-116: 270 mm x 87 mm x 63 mm	RM-204: 90 mm x 87 mm x 63 mm RM-208: 169 mm x 87 mm x 63 mm RM-216: 327 mm x 87 mm x 63 mm
Installation	DIN-Rail Mounting		

Models	DN-SSR4	DN-SSR4DC
Pictures		
Relay	A5P-204U	D3P-054
Type	Solid-State Relay	
Channel	4 channels	
Contact	Form A (SPST)	
Operating Voltage Range	250 VAC / 30 Vdc	50 Vdc
Max. Load Current	4 A	
Operate Time	1/2 Cycle + 1 ms and below	0.5 ms and below (Resistance load)
Release Time	1/2 Cycle + 1 ms and below	0.5 ms and below (Resistance load)
LED Indicator	Yes (for Relay status)	
Mechanical		
Dimensions (W x L x D)	101 mm x 77 mm x 66 mm	
Installation	DIN-Rail Mounting	

Models	RM-20.22	RM-22.22	RM-38.61	RM-48.61	RM-48.62
Pictures					
Relay	Finder 20.22.9.024.4000	Finder 22.22.9.024.4000	Finder 34.51.7.024.0010	FINDER - 40.61.7.024.0000	FINDER - 44.62.7.024.0000
Type	Step Relay		Power Relay		
Channel	1				
Contact	Form A (DPST)	Form A (DPST)	Form C (SPDT)	Form C (SPDT)	Form C (SPDT)
Operating Voltage Range	230 VAC	230 VAC	250 VAC	250 VAC	250 VAC
Max. Load Current	16 A	20 A	6 A	16 A	10 A
Operate Time	15 ms	15 ms	5 ms	7 ms	7 ms
Release Time	8 ms	8 ms	3 ms	3 ms	3 ms
LED Indicator	-				
Mechanical					
Dimensions (W x L x D)	17.5 mm x 84 mm x 62.7 mm		76.5 mm x 6.5 mm x 89 mm	75 mm x 15.5 mm x 78.5 mm	
Installation	DIN-Rail Mounting				

Note1: RM-38.61: 5 pcs in one package

RM-48.61: 4 pcs in one package

RM-48.62: 4 pcs in one package

Note2: RM-38-093.20 is a 20-way jumper link for RM-38.61



11.4. Power Supplies



KA-52F
KA-52F-48

NEW

DIN-KA52F
DIN-KA52F-48

**KA-52F/DIN-KA52F
KA52F-48/DIN-KA52F-48**

CE FC RoHS

Specifications

Models	KA-52F	DIN-KA52F	KA-52F-48	DIN-KA52F-48
Input				
Range	100 ~ 250 VAC			
Frequency	50 ~ 60 Hz			
Output				
Power	24 Vdc/1.04 A Max., 25 W		48 Vdc/0.52 A Max., 25 W	
Mechanical				
Dimensions (W x H x D, Units: mm)	54 x 93 x 36	68 x 107 x 50	54 x 93 x 36	68 x 107 x 50
Installation	No-mounting	DIN-Rail Mounting	No-mounting	DIN-Rail Mounting
Environmental				
Operating Temperature	0 ~ +50°C			
Storage Temperature	-20 ~ +85°C			

Ordering Information

KA-52F CR	24 Vdc/1.04 A, 25 W Power Supply (RoHS)
DIN-KA52F CR	24 Vdc/1.04 A, 25 W Power Supply with DIN-Rail Mounting (RoHS)
KA-52F-48 CR	48 Vdc/0.52 A, 25 W Power Supply (RoHS)
DIN-KA52F-48 CR	48 Vdc/0.52 A, 25 W Power Supply with DIN-Rail Mounting (RoHS)



NEW

GPSU06U-6

GPSU06E-6 (2 pole EURO plug)

GPSU06U-6/GPSU06E-6

CE FC RoHS

Specifications

Models	GPSU06U-6	GPSU06E-6
Input		
Range	100 ~ 240 VAC or 127 ~ 370 Vdc	
Frequency	50 Hz ~ 60 Hz	
Output		
Power	24 Vdc/0.25 A Max., 6 W	
Mechanical		
Dimensions (W x H x D)	32 mm x 66 mm x 68 mm	
Installation	No-mounting	
Environmental		
Operating Temperature	0 ~ +40°C	
Storage Temperature	-20 ~ +85°C	

Ordering Information

GPSU06U-6 CR	24 Vdc/0.25 A, 6 W Power Supply (RoHS)
GPSU06E-6 CR	24 Vdc/0.25 A, 6 W Power Supply (RoHS)



NEW

MDR-20-24

MDR-60-24/MDR-60-48

**MDR-20-24
MDR-60-24
MDR-60-48**

CE FC RoHS

Specifications

Models	MDR-20-24	MDR-60-24	MDR-60-48
Input			
Range	100 ~ 250 VAC		
Frequency	50 ~ 60 Hz		
Output			
Power	24 Vdc/1 A Max., 24 W	24 Vdc/2.5 A Max., 60 W	48 Vdc/1.25 A Max., 60 W
Mechanical			
Dimensions (W x H x D)	22.5 mm x 90 mm x 100 mm	40 mm x 90 mm x 100 mm	40 mm x 90 mm x 100 mm
Installation	DIN-Rail Mounting		
Environmental			
Operating Temperature	-20 ~ +70°C		
Storage Temperature	-20 ~ +85°C		

Ordering Information

MDR-20-24 CR	24 Vdc/1 A, 24 W Power Supply with DIN-Rail Mounting (RoHS)
MDR-60-24 CR	24 Vdc/2.5 A, 60 W Power Supply with DIN-Rail Mounting (RoHS)
MDR-60-48 CR	48 Vdc/1.25 A, 60 W Power Supply with DIN-Rail Mounting (RoHS)

11.5. Enclosures and Mounting Kit



I-950-ENC

I-951-ENC

I-950-ENC/I-951-ENC



Specifications

Models	I-950-ENC	I-951-ENC
Includes	Case Accessory 2 x Polyamide cable glands 4 x captive lid screws 1 x DIN-Rail (20 cm)	
Mechanical	Plastic	
Casing	Plastic	
Dimensions (W x H x D)	254 mm x 180 mm x 90 mm	254 mm x 180 mm x 111 mm
Environmental	0 ~ +50°C for Protection rating IP66	
Temperature	0 ~ +50°C for Protection rating IP66	

Ordering Information

I-950-ENC CR	Industrial Enclosure (254 mm x 180 mm x 90 mm) (RoHS)
I-951-ENC CR	Industrial Enclosure (254 mm x 180 mm x 111 mm) (RoHS)



I-3625-ENC



Specifications

Models	I-3625-ENC
Includes	Case Accessory 2 x Polyamide cable glands 6 x captive lid screws 1 x DIN-Rail (35.8 cm)
Mechanical	Plastic
Casing	Plastic
Dimensions (W x H x D)	360 mm x 254 mm x 165 mm
Environmental	0 ~ +50°C for Protection rating IP66
Temperature	0 ~ +50°C for Protection rating IP66

Ordering Information

I-3625-ENC CR	Industrial Enclosure (RoHS)
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RK-3UD-R

19" Rack Mounting Kit, 3U



Specifications

Models	RK-3UD-R
Mechanical	
Dimensions (W x H x D)	481 mm x 132 mm x 125 mm

Ordering Information

RK-3UD-R	19" Rack Mounting Kit, 3U
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11.6. Touch Panel Monitor



Features

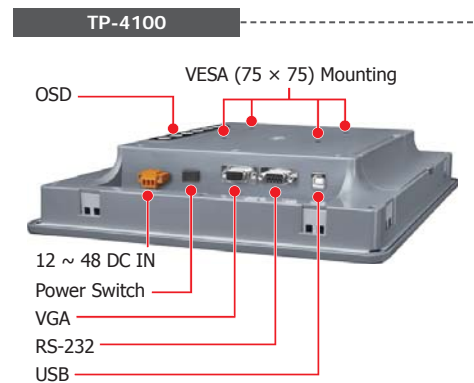
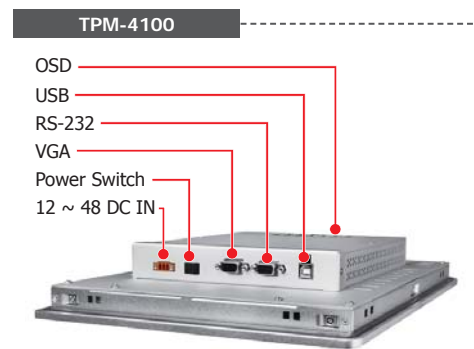
- 10.4" LCD supports 800 x 600 resolution
- Resistive Touch Panel
- Full-function OSD control
- Driver Support: Windows 2k/XP/Vista/7/WES WinCE 5.0/6.0
- LED backlight technology
- Aluminum Casing for TPM-4100
- IP65 Compliant Front Panel
- Wide operating temperature: -25 ~ +75°C



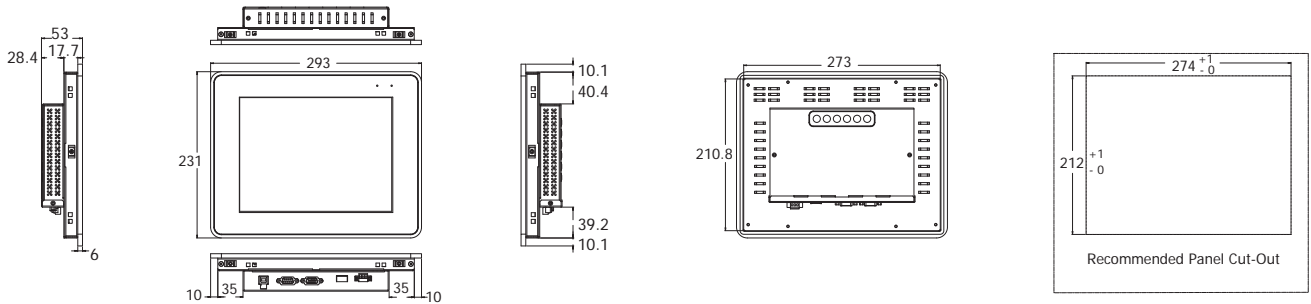
Specifications

Models	TPM-4100	TP-4100
Display		
Size	10.4"	
Resolution	800 x 600	
Max. Color	16.7 M	
Brightness (cd/m2)	320	
Contrast Ratio	500 : 1	
Viewing Angle (H/V)	140/130	
Backlight Life (hrs)	50,000	
Touch Panel	4-wire	5-wire
	analog resistive, RS-232 or USB1.1 (Type B) interface	
Input Signal	VGA (Analog RGB)	
MMI (Man Machine Interface)		
OSD Control	Functions: Brightness, Contrast, Phase, Horizontal Position, Vertical Position and Sharpness	
Power Switch	Yes	
LED Indicators	Power, Display signal is detected	
Power		
Input Range	+12 ~ 48 Vdc	
Power Consumption	8.5 W	
Mechanical		
Material	Aluminum	Plastic
Dimensions (W x L x H)	293 mm x 231 mm x 53 mm	290 mm x 228 mm x 53 mm
Installation	Panel Mounting	Panel Mounting, VESA (75 x 75) Mounting
Ingress Protection	Front panel: IP65	
Environmental		
Operating Temperature	-25 ~ +75°C	
Storage Temperature	-30 ~ +80°C	
Ambient Relative Humidity	10 ~ 90% RH (non-condensing)	

Appearance



TPM-4100 Dimensions (Units: mm)



Ordering Information

TP-4100	10.4" (800 x 600) resistive touch panel monitor with RS-232 or USB interface Accessories: Power supply, VGA cable, RS-232 cable, USB cable, Mounting clamps and screws
TPM-4100	TP-4100 with Aluminum Casing



Available soon

TP-3070
7" Touch Panel Monitor

Features

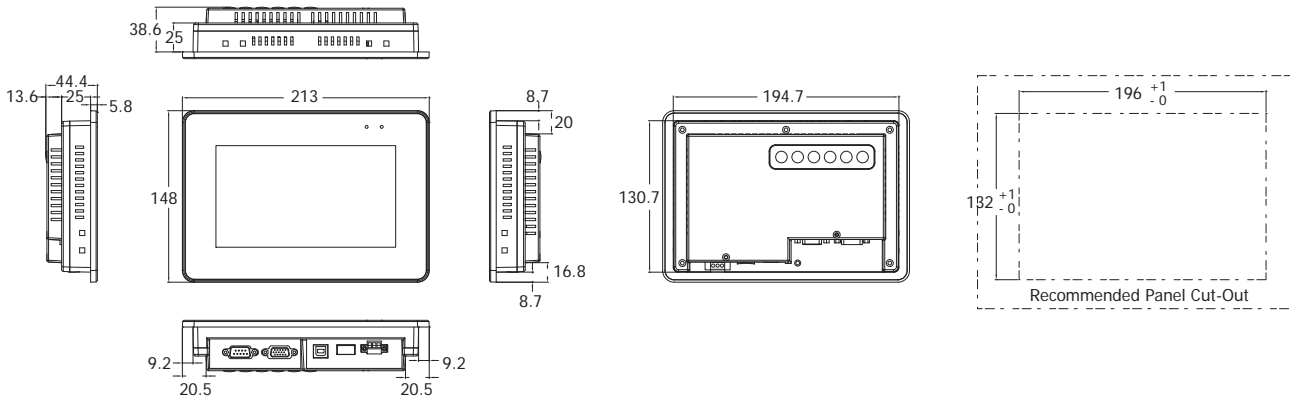
- 7" LCD supports 800 x 480 resolution
- Resistive Touch Panel
- Full-function OSD control
- Driver Support: Windows 2k/XP/Vista/7/WES WinCE 5.0/6/0
- LED backlight technology
- IP65 Compliant Front Panel
- Wide operating temperature: -20 ~ +70°C



Specifications

Models	TP-3070
Display	
Size	7"
Resolution	800 x 480
Brightness (cd/m2)	320
Contrast Ratio	500 : 1
Viewing Angle (H/V)	140/120
Backlight Life (hrs)	20,000
Touch Panel	4-wire, analog resistive, RS-232 or USB1.1 (TypeB) interface
Input Signal	VGA (Analog RGB)
MMI (Man Machine Interface)	
OSD Control	Functions: Brightness, Contrast, Clock, Phase, Horizontal Position, Vertical Position and Sharpness
Power Switch	Yes
LED Indicators	Power, Display signal is detected
Power	
Input Range	+12 ~ 48 Vdc
Power Consumption	5 W
Mechanical	
Dimensions (W x L x H)	213 mm x 148 mm x 44 mm
Casing	Plastic
Ingress Protection	Front panel: IP65
Environmental	
Operating Temperature	-20 ~ +70°C
Storage Temperature	-30 ~ +80°C
Ambient Relative Humidity	10 ~ 90% RH (non-condensing)

Dimensions (Units: mm)



Ordering Information

TP-3070	7" (800 x 480) resistive touch panel monitor with RS-232 or USB interface Accessories: Power supply, VGA cable, RS-232 cable, USB cable, Mounting clamps and screws
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WiFi I/O Module

The WF-2000 series I/O modules have WLAN connection complied with the IEEE802.11b/g standards. With the popularity of 802.11 network infrastructure, the WF-2000 series I/O modules make an easy way to incorporate wireless connectivity into monitoring and control systems. They also support standard Modbus/TCP and UDP protocol and the network encryption configuration, which makes perfect integration to SCADA software and offer easy and safe access for users from anytime and anywhere.



Ethernet

WF-2571
Ethernet to Wi-Fi Bridge

Key Features

- Compatible with IEEE 802.11b/g standards
- Support infrastructure and ad hoc modes for wireless networks
- Support WEP, WPA and WPA2 wireless encryption
- Support Modbus/TCP and UDP protocols
- Support pair connection communication mode
- Support AO/DO power on value & safe value Mechanism
- Built-in Watchdog

Isolated 8 DI and 8 DO Module

- WF-2055**
- DO Type: Sink
 - DI Type: Sink / Source
 - DO Output voltage: +3.5 ~ +50 Vdc
 - DO Output current: 700 mA (per channel)
 - Counters Max. Input Frequency: 10K Hz
 - 4 kV Contact ESD protection for any terminal
 - Wide range of power input (+10 ~ +30 Vdc) and operating temperature (-25 ~ +75°C)



Isolated 6 DI and 6 Relay Output Module

- WF-2060**
- Relay Type: Form A
 - DI Type: Sink / Source
 - Relay Contact Rating: 5A 250 VAC / 5A 30 VAC
 - Counters Max. Input Frequency: 10K Hz
 - 4 kV Contact ESD protection for any terminal
 - Wide range of power input (+10 ~ +30 Vdc) and operating temperature (-25 ~ +75°C)

