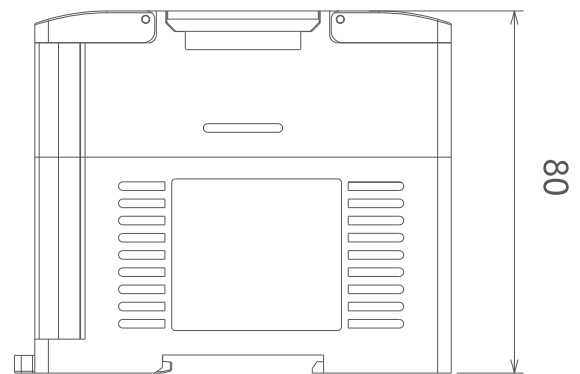
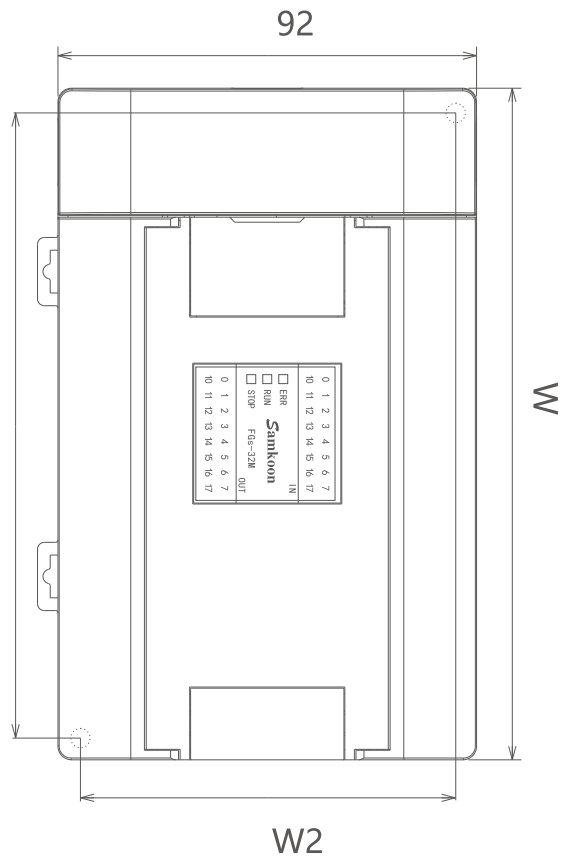
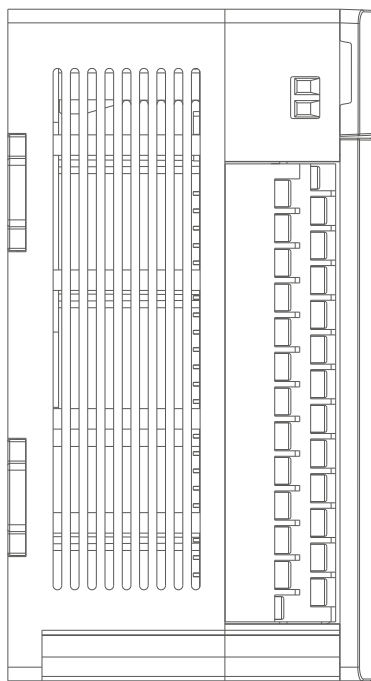


# FGs Series

View



# Specification

Model	FGs-16MR-AC	FGs-16MT-AC
<b>Structure &amp; environment</b>		
Size	109.5×92×80mm	
Weight	465g	454g
Working environment temperature	0~55°C (no freeze)	
Working environment humidity	5~95%RH (no condensate)	
Shockproof degree	10~25Hz (XYZ direction, 2g acceleration, 30min)	
<b>Power supply</b>		
Power consumption	3.2W	2.6W
Power voltage	100~240V/AC	
<b>Input parameter</b>		
Digital input channels	8	8
Input wiring	Support SINK/SRCE (drain type and source type)	
Input voltage	24V±20%/DC	
High-speed input	2 channels 200kHz maxima	
<b>Output parameter</b>		
Digital output channels	8	8
Output type	Relay	transistor/NPN
Output voltage	<250V/AC, 30V/DC	6~30V/DC
High-speed output	None	2 channels 200kHz maxima
Inductive load maximum	80W	12W
Resistive load maximum	2A (output point), 4A (common port)	0.2A (ordinary point), 0.5A (high-speed point), 3A (common-port)
FCC compatibility	FCC class A	
High voltage test	1000V/AC, 1min	
CE certification	Meet requirements of CE55032 and CE55035	
Protection level	IP30	
<b>Interface</b>		
RS232	One RS232 serial port receptacle, support download, upload, monitor, and communication. Baud rate: 1200~115200Bps	
RS485	One RS485 serial port receptacle, support communication. Baud rate: 4800~115200Bps	
Ethernet	None	
USB	One B-type USB receptacle, support download, upload, monitor	
<b>Software</b>		
Upper Machine Software	SamSoar II	

Model	FGs-24MR-AC	FGs-24MT-AC
<b>Structure &amp; environment</b>		
Size	125.5×92×80mm	
Weight	525g	525g
Working environment temperature	0~55°C (no freeze)	
Working environment humidity	5~95%RH (no condensate)	
Shockproof degree	10~25Hz (XYZ direction, 2g acceleration, 30min)	
<b>Power supply</b>		
Power consumption	4W	2.8W
Power voltage	100~240V/AC	
<b>Input parameter</b>		
Digital input channels	12	12
Input wiring	Support SINK/SRCE (drain type and source type)	
Input voltage	24V±20%/DC	
High-speed input	2 channels 200kHz maxima	
<b>Output parameter</b>		
Digital output channels	12	12
Output type	Relay	transistor/NPN
Output voltage	<250V/AC, 30V/DC	6~30V/DC
High-speed output	None	2 channels 200kHz maxima
Inductive load maximum	80W	12W
Resistive load maximum	2A (output point), 4A (common port)	0.2A (ordinary point), 0.5A (high-speed point), 3A (common-port)
FCC compatibility	FCC class A	
High voltage test	1000V/AC, 1min	
CE certification	Meet requirements of CE55032 and CE55035	
Protection level	IP30	
<b>Interface</b>		
RS232	One RS232 serial port receptacle, support download, upload, monitor, and communication. Baud rate: 1200~115200Bps	
RS485	One RS485 serial port receptacle, support communication. Baud rate: 4800~115200Bps	
Ethernet	None	
USB	One B-type USB receptacle, support download, upload, monitor	
<b>Software</b>		
Upper Machine Software	SamSoar II	

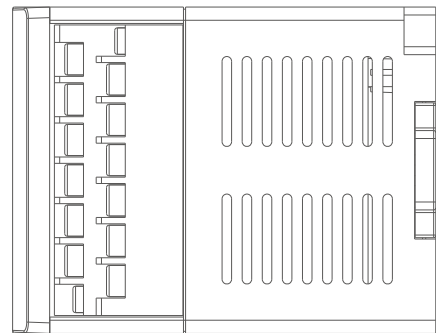
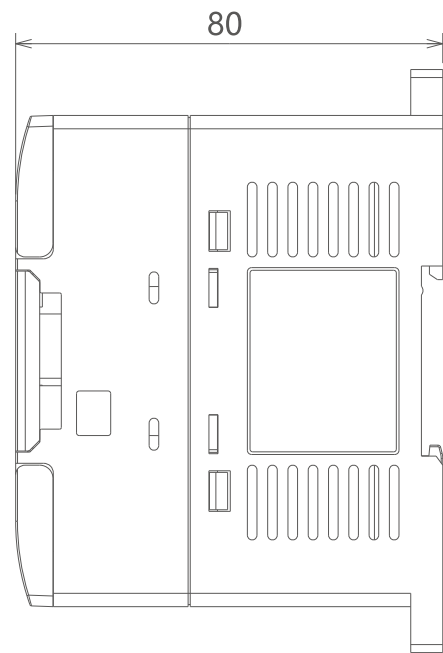
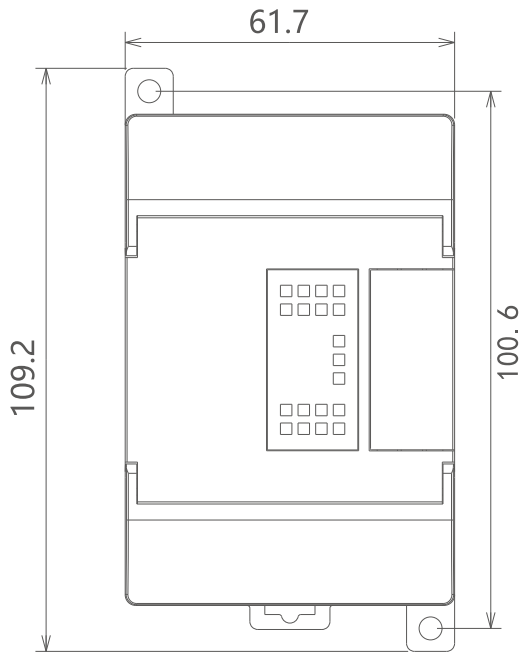
Model	FGs-32MR-AC	FGs-32MT-AC
<b>Structure &amp; environment</b>		
Size	147.6×92×80mm	
Weight	590g	563g
Working environment temperature	0~55°C (no freeze)	
Working environment humidity	5~95%RH (no condensate)	
Shockproof degree	10~25Hz (XYZ direction, 2g acceleration, 30min)	
<b>Power supply</b>		
Power consumption	5.2W	3W
Power voltage	100~240V/AC	
<b>Input parameter</b>		
Digital input channels	16	16
Input wiring	Support SINK/SRCE (drain type and source type)	
Input voltage	24V±20%/DC	
High-speed input	2 channels 200kHz maxima	
<b>Output parameter</b>		
Digital output channels	16	16
Output type	Relay	transistor/NPN
Output voltage	<250V/AC, 30V/DC	6~30V/DC
High-speed output	None	2 channels 200kHz maxima
Inductive load maximum	80W	12W
Resistive load maximum	2A (output point), 4A (common port)	0.2A (ordinary point), 0.5A (high-speed point), 3A (common-port)
FCC compatibility	FCC class A	
High voltage test	1000V/AC, 1min	
CE certification	Meet requirements of CE55032 and CE55035	
Protection level	IP30	
<b>Interface</b>		
RS232	One RS232 serial port receptacle, support download, upload, monitor, and communication. Baud rate: 1200~115200Bps	
RS485	One RS485 serial port receptacle, support communication. Baud rate: 4800~115200Bps	
Ethernet	None	
USB	One B-type USB receptacle, support download, upload, monitor	
<b>Software</b>		
Upper Machine Software	SamSoar II	

Model	FGs-48MR-AC	FGs-48MT-AC
<b>Structure &amp; environment</b>		
Size	185.7×92×80mm	
Weight	710g	710g
Working environment temperature	0~55°C (no freeze)	
Working environment humidity	5~95%RH (no condensate)	
Shockproof degree	10~25Hz (XYZ direction, 2g acceleration, 30min)	
<b>Power supply</b>		
Power consumption	6W	3.4W
Power voltage	100~240V/AC	
<b>Input parameter</b>		
Digital input channels	24	24
Input wiring	Support SINK/SRCE (drain type and source type)	
Input voltage	24V±20%/DC	
High-speed input	2 channels 200kHz maxima	
<b>Output parameter</b>		
Digital output channels	24	24
Output type	Relay	transistor/NPN
Output voltage	<250V/AC, 30V/DC	6~30V/DC
High-speed output	None	2 channels 200kHz maxima
Inductive load maximum	80W	12W
Resistive load maximum	2A (output point), 4A (common port)	0.2A (ordinary point), 0.5A (high-speed point), 3A (common-port)
FCC compatibility	FCC class A	
High voltage test	1000V/AC, 1min	
CE certification	Meet requirements of CE55032 and CE55035	
Protection level	IP30	
<b>Interface</b>		
RS232	One RS232 serial port receptacle, support download, upload, monitor, and communication. Baud rate: 1200~115200Bps	
RS485	One RS485 serial port receptacle, support communication. Baud rate: 4800~115200Bps	
Ethernet	None	
USB	One B-type USB receptacle, support download, upload, monitor	
<b>Software</b>		
Upper Machine Software	SamSoar II	

Model	FGs-64MR-AC	FGs-64MT-AC
<b>Structure &amp; environment</b>		
Size	216×92×80mm	
Weight	831g	769g
Working environment temperature	0~55°C (no freeze)	
Working environment humidity	5~95%RH (no condensate)	
Shockproof degree	10~25Hz (XYZ direction, 2g acceleration, 30min)	
<b>Power supply</b>		
Power consumption	6.8W	3.6W
Power voltage	100~240V/AC	
<b>Input parameter</b>		
Digital input channels	32	32
Input wiring	Support SINK/SRCE (drain type and source type)	
Input voltage	24V±20%/DC	
High-speed input	4 channels 200kHz maxima	
<b>Output parameter</b>		
Digital output channels	32	32
Output type	Relay	transistor/NPN
Output voltage	<250V/AC, 30V/DC	6~30V/DC
High-speed output	None	4 channels 200kHz maxima
Inductive load maximum	80W	12W
Resistive load maximum	2A (output point), 4A (common port)	0.2A (ordinary point), 0.5A (high-speed point), 3A (common-port)
FCC compatibility	FCC class A	
High voltage test	1000V/AC, 1min	
CE certification	meet requirements of CE55032 and CE55035	
Protection level	IP30	
<b>Interface</b>		
RS232	One RS232 serial port receptacle, support download, upload, monitor, and communication. Baud rate: 1200~115200Bps	
RS485	One RS485 serial port receptacle, support communication. Baud rate: 4800~115200Bps	
Ethernet	None	
USB	One B-type USB receptacle, support download, upload, monitor	
<b>Software</b>		
Upper Machine Software	SamSoar II	

# FGs Extension Modules

View



# Specification

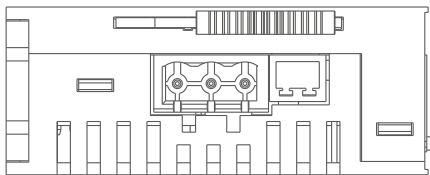
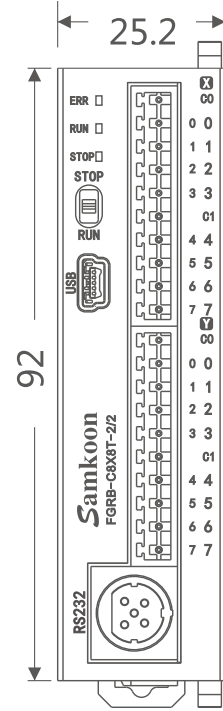
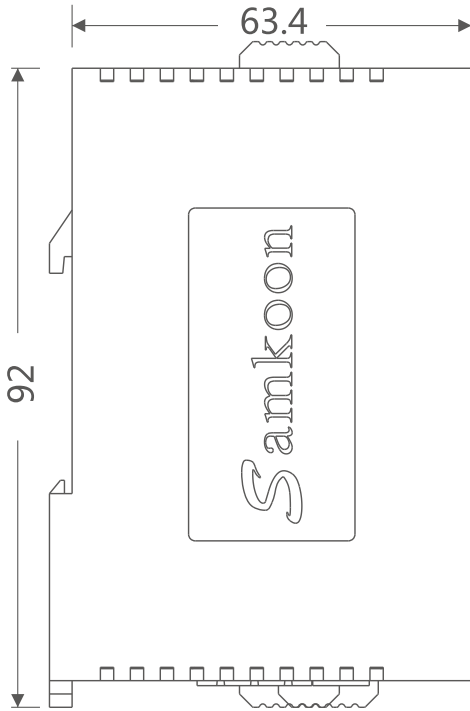
Model	FGs-E16R	FGs-E16T	FGs-E16X	FGs-E8X8R	FGs-E8X8T
<b>Structure &amp; environment</b>					
Size	109.2×61.7×80mm				
Weight	250g				
Working environment temperature	0~55°C (no freeze)				
Working environment humidity	5~95%RH (no condensate)				
Shockproof degree	10~25Hz (XYZ direction, 2g acceleration, 30min)				
<b>Power supply</b>					
Power consumption	1.5W				
<b>Input parameter</b>					
Digital input channels	-	-	16	8	8
Input wiring	-	-	Support SINK/SRCE (drain type and source type)		
Input voltage	-	-	24V±20%/DC		
<b>Output parameter</b>					
Digital output channels	16	16	-	8	8
Output type	Relay	transistor /NPN	-	Relay	transistor /NPN
Output voltage	<250V/AC, 30V/DC	6~30V/DC	-	<250V/AC, 30V/DC	6~30V/DC
Inductive load maximum	80W	12W	-	12W	80W
Resistive load maximum	2A (output-point), 4A (common-port)	0.3A	-	2A (output-point), 4A (common-port)	0.3A
FCC compatibility	FCC class A				
High voltage test	1000V/AC, 1min				
CE certification	Meet requirements of CE55032 and CE55035				
Protection level	IP30				
<b>Software</b>					
Upper Machine Software	SamSoar II				



Model	FGs-E4AI2AO-C	FGs-E4TC-C	FGs-E8AI-C
<b>Structure &amp; environment</b>			
Size	109.2×61.7×80mm		
Weight	250g		
Working environment temperature	0~55°C (no freeze)		
Working environment humidity	5~95%RH (no condensate)		
Shockproof degree	10~25Hz (XYZ direction, 2g acceleration, 30min)		
<b>Power supply</b>			
Power consumption	2W	0.5W	0.5W
<b>Input parameter</b>			
Analog input channels	4	4	8
Input mode	Voltage/Current	3-wire RTD, Thermocouple	Voltage/Current
Measurement range	0~5V, 0~10V, 4~20mA	-200~850°C	0~5V, 0~10V, 4~20mA
Input maximum	12V, 30mA	12V, 30mA	12V, 30mA
Input resolution	0~5V: 1.25mV 0~10V: 2.5mV 4~20mA: 5uA	0.1°C	0~5V: 1.25mV 0~10V: 2.5mV 4~20mA: 5uA
Conversion accuracy	12 bits	16 bits	12 bits
Measurement accuracy	±5‰	±1°C	±5‰
<b>Output parameter</b>			
Digital output channels	2	-	-
Output mode	Voltage/Current	-	-
Output range	0~5V, 0~10V, 4~20mA	-	-
Output resolution	0~5V: 0.1mV 0~10V: 0.2mV 4~20mA: 0.4uA	-	-
Output accuracy	±5‰	-	-
Output load impedance	5V: ≥1kΩ 10V: ≥500Ω 20mA: ≥500Ω	-	-
High voltage test	FCC class A		
CE certification	1000V/AC, 1min		
Protection level	meet requirements of CE55032 and CE55035		
	IP30		
<b>Software</b>			
Upper Machine Software	SamSoar II		

# FGR Series

View

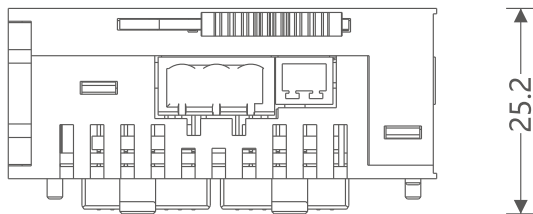
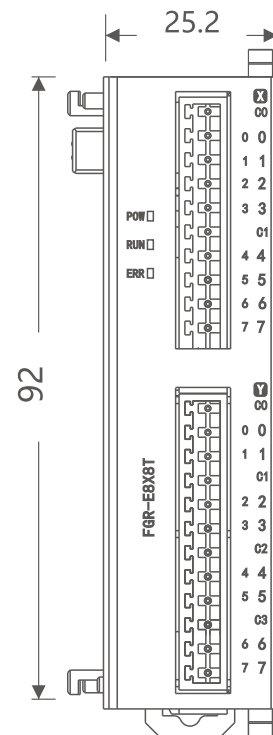
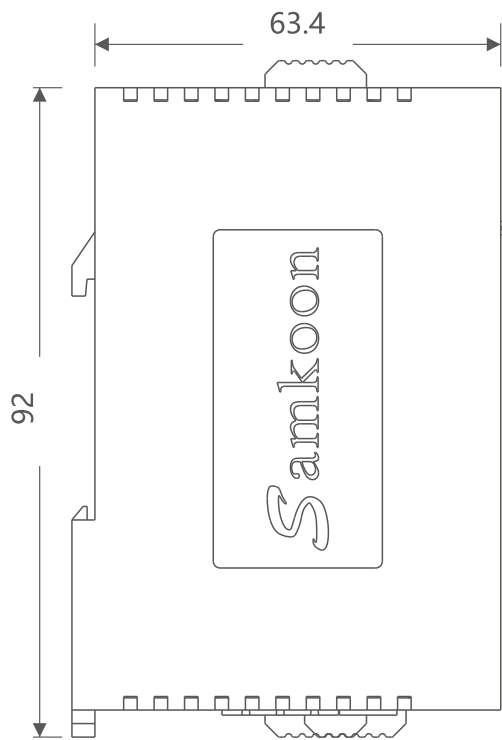


# Specification

Model	FGRB-C8X8T-2/2	FGRS-C8X8T-4/4	FGRB-C8X6R
<b>Structure &amp; environment</b>			
Size	25.2×92×63.4mm		
Weight	102g		
Working environment temperature	0~55°C (no freeze)		
Working environment humidity	5~95%RH (no condensate)		
Shockproof degree	10~25Hz (XYZ direction, 2g acceleration, 30min)		
<b>Power supply</b>			
Power consumption	1.5W		
Power voltage	24V±20%/DC		
<b>Input parameter</b>			
Digital input channels	8		
Input wiring	Support SINK/SRCE (drain type and source type)		
Input voltage	24V±20%/DC		
High-speed input	2 channels 200kHz maxima	4 channels 200kHz maxima	None
<b>Output parameter</b>			
Digital output channels	8	8	8
Output type	transistor/NPN	transistor/NPN	Relay
Output voltage	6~30V/DC	6~30V/DC	<250V/AC, 30V/DC
High-speed output	2 channels 200kHz maxima	4 channels 200kHz maxima	None
Inductive load maximum	12W	12W	80W
Resistive load maximum	0.3A	0.3A	2A (output-point), 4A (common-port)
FCC compatibility	FCC class A		
High voltage test	1000V/AC, 1min		
CE certification	meet requirements of CE55032 and CE55035		
Protection level	IP30		
<b>Interface</b>			
RS232	Support download, upload, monitor, and communication. Baud rate: 1200~115200Bps		
RS485	Support communication. Baud rate: 4800~115200Bps		
Ethernet	None		
USB	Support download, upload, and monitor		
<b>Software</b>			
Upper Machine Software	SamSoar II		

# FGR Extension Modules

View



# Specification

Model	FGR-E12R	FGR-E16T	FGR-E16X	FGR-E8X8R	FGR-E8X8T
<b>Structure &amp; environment</b>					
Size	25.2×92×63.4mm				
Weight	102g				
Working environment temperature	0~55°C (no freeze)				
Working environment humidity	5~95%RH (no condensate)				
Shockproof degree	10~25Hz (XYZ direction, 2g acceleration, 30min)				
<b>Power supply</b>					
Power consumption	1.5W				
<b>Input parameter</b>					
Digital input channels	-	-	16	8	8
Input wiring	-	-	Support SINK/SRCE (drain type and source type)		
Input voltage	-	-	24V±20%/DC		
<b>Output parameter</b>					
Digital output channels	12	16	-	8	8
Output type	Relay	transistor /NPN	-	Relay	transistor /NPN
Output voltage	<250V/AC, 30V/DC	6~30V/DC	-	<250V/AC, 30V/DC	6~30V/DC
Inductive load maximum	80W	12W	-	12W	80W
Resistive load maximum	2A (output-point), 4A (common-port)	0.3A	-	2A (output-point), 4A (common-port)	0.3A
FCC compatibility	FCC class A				
High voltage test	1000V/AC, 1min				
CE certification	meet requirements of CE55032 and CE55035				
Protection level	IP30				
<b>Software</b>					
Upper Machine Software	SamSoar II				

Model	FGR-E4AI	FGR-E8AI	FGR-E4AI2AO	FGR-E2AO	FGR-E4TC
<b>Structure &amp; environment</b>					
Size	25.2×92×63.4mm				
Weight	102g				
Working environment temperature	0~55°C (no freeze)				
Working environment humidity	5~95%RH (no condensate)				
Shockproof degree	10~25Hz (XYZ direction, 2g acceleration, 30min)				
<b>Power supply</b>					
Power consumption	1.5W	1.5W	2W	1.5W	0.5W
<b>Input parameter</b>					
Analog input channels	4	8	4	4	8
Input mode	Voltage/Current			-	3-wire RTD, Thermocouple
Measurement range	0~5V, 0~10V, 4~20mA			-	-200~850°C
Input maximum	12V, 30mA			-	12V, 30mA
Input resolution	0~5V: 1.25mV 0~10V: 2.5mV 4~20mA: 5uA			-	0.1°C
Conversion accuracy	12 bits			-	16 bits
Measurement accuracy	±5‰			-	±1°C
<b>Output parameter</b>					
Digital output channels	-	2		-	
Output mode	-	Voltage/Current			-
Output range	-	0~5V, 0~10V, 4~20mA			-
Output resolution	-	0~5V: 0.1mV 0~10V: 0.2mV 4~20mA: 0.4uA			-
Output accuracy	-	±5‰			-
Output load impedance	-	5V: ≥1kΩ 10V: ≥500Ω 20mA: ≥500Ω			-
FCC compatibility	FCC class A				
High voltage test	1000V/AC, 1min				
CE certification	Meet requirements of CE55032 and CE55035				
<b>Software</b>					
Upper Machine Software	SamSoar II				



# Specification

<b>Model</b>	<b>FGm-64MT-AC</b>
<b>Structure &amp; environment</b>	
Size	216×92×80mm
Weight	769g
Working environment temperature	0~55°C (no freeze)
Working environment humidity	5~95%RH (no condensate)
Shockproof degree	10~25Hz (XYZ direction, 2g acceleration, 30min)
<b>Power supply</b>	
Power consumption	3.6W
Power voltage	100~240V/AC
<b>Input parameter</b>	
Digital input channels	32
Input wiring	Support SINK/SRCE (drain type and source type)
Input voltage	24V±20%/DC
High-speed input	12 channels 500kHz maxima
<b>Output parameter</b>	
Digital output channels	32
Output type	transistor/NPN
Output voltage	6~30V/DC
High-speed output	12 channels 500kHz maxima
Inductive load maximum	12W
Resistive load maximum	0.2A (ordinary point), 0.5A (high-speed point), 3A (common-port)
FCC compatibility	FCC class A
High voltage test	1000V/AC, 1min
CE certification	Meet requirements of CE55032 and CE55035
Protection level	IP30
<b>Interface</b>	
RS232	One RS232 serial port receptacle, support download, upload, monitor, and communication. Baud rate: 1200~115200Bps
RS485	One RS485 serial port receptacle, support communication. Baud rate: 4800~115200Bps
Ethernet	None
USB	One B-type USB receptacle, support download, upload, monitor
<b>Software</b>	
Upper Machine Software	SamSoar II



# Wiring diagram

