



Important Product Information

Analog output Modules

GFK-2766A
Aug 2012

Before using the units

To use the units safely and effectively, please read this document and refer to GFK-2745 & network adapter user manuals for further details.

Warnings and Cautions

Warning! Warning notices are used in this publication to emphasize that hazardous voltages, currents, temperatures, or other conditions that could cause personal injury exist in this equipment or may be associated with its use. In situations where inattention could cause either personal injury or damage to equipment, a Warning notice is used.

- Installing or removing modules or wiring with power applied to the system or field wiring can cause an electrical arc. This can result in unexpected and potentially dangerous action by field devices. Arcing is an explosion risk in hazardous locations. Be sure that the area is non-hazardous or remove power appropriately before installing or removing modules or wiring.
- Potentially dangerous voltages are present on a module's terminals, even when system power is turned off. Field power must be turned off when installing or removing a Terminal Block assembly.
- Personnel who install, operate and maintain automation systems that contain these products must be trained and qualified to perform those functions.
- Overloading power modules or Network adapter can result into electric arc & damage to modules.

Caution! Caution notices are used where equipment might be damaged if care is not taken.

- Check the rated voltage and terminal array before wiring.
- Ensure that specified environmental conditions are not exceeded. Avoid placing the module in direct sunlight.
- Review module specifications carefully, and ensure that input and output connections are made in accordance with the specifications.
- Use specified cables for wiring.
- Field Power Isolators must be used according to the requirements of the 5VDC/24VDC/48VDC or AC Voltage modules used in the system.
- If system power consumption exceeds the power limits, use system power expansion modules.
- System power and field power must be supplied from separate sources.

1. Output Module Specifications*

Model	ST-4112	ST-4212	ST-4114	ST-4214	ST-4274	ST-4474	ST-4491
Output Ch. No.	2 Channels		4 Channels			1 Channel	
Analog Output	0~20mA	4~20mA	0~20mA	4~20mA	4~20mA	0~10V	
connector	Terminal block				Sensor Connector		Terminal block
Resolution	12bit						
Accuracy	±0.1% Full Scale @25°C						
Output Impedance	Max. 500Ω					Min. 2KΩ	
Update Time	2ms / All Channel		4ms / All Channel		1.2ms / All Channel		
Module current consumption	60mA/5Vdc				40mA/5Vdc	60mA/5Vdc	
Common	2Channels / 2COM (Single common)		4Common, Field Power 0V is Common (AGND)		No common terminal in the module, Field Power 0V is Common (AGND)		2Common /Module
Isolation	Photo coupler Isolation						
Surrounding Air Temp./ Ambient Temp.	0°C to 55°C for UL applications ; 0°C to 60°C for non-UL applications ; Storage -40°C to 85°C						0°C to 55°C for UL applications ; -20°C to 60°C for non-UL applications ; Storage -40°C to 85°C
Relative Humidity	5% ~ 90%, without condensation						

* Specifications and designs could be changed without advance notice

1. Output Module Specifications*

Model	ST-4422	ST-4522	ST-4622	ST-4424	ST-4911
Output Ch. No.	2 Channels			4 Channels	1 Channel
Analog Output	0~10V	-10~10V	0~5V	0~10V	0~1A
Resolution	12bit				
Accuracy	±0.1% Full Scale @25°C				
Output Impedance	Min. 5KΩ				13Ω, ±5%
Update Time	2ms / All Channel			4ms / All Channel	1ms / All Channel
Module current consumption	155mA/5Vdc			60mA/5Vdc	
Common	2Channels / 2COM (Single common)			4Common, Field Power 0V is Common (AGND)	1Channel/ 2Common(Field Power 0V)
Isolation	Photo coupler Isolation				
Surrounding Air Temp./ Ambient Temp.	0°C to 55°C for UL applications ; 0°C to 60°C for non-UL applications ; Storage -40°C to 85°C				
Relative Humidity	5% ~ 90%, without condensation				

2. Release Information

Part Number	ST-4112-AA	ST-4212-AA	ST-4114-AA	ST-4214-AA	ST-4274-AA	ST-4474-AA	ST-4491-AA
HW Version	20.00	20.00	20.00	20.00	Under Development	Under Development	20.00
Firmware Revision	20.000	20.000	20.000	20.000			20.000

Part Number	ST-4422-AA	ST-4522-AA	ST-4622-AA	ST-4424-AA	ST-4911-AA
HW Version	20.00	20.00	20.00	20.00	20.00
Firmware Revision	20.000	20.000	20.000	20.000	20.000

3. Electronic Documentation

Manuals:

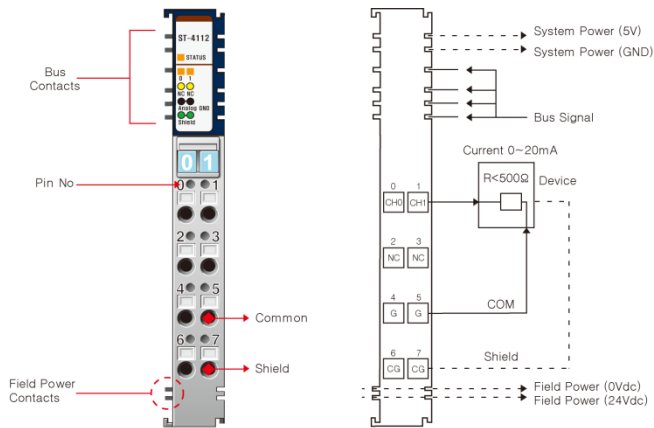
PACSystems RSTi I/O User Manual, GFK-2745

PACSystems RSTi Network Adapter User Manuals

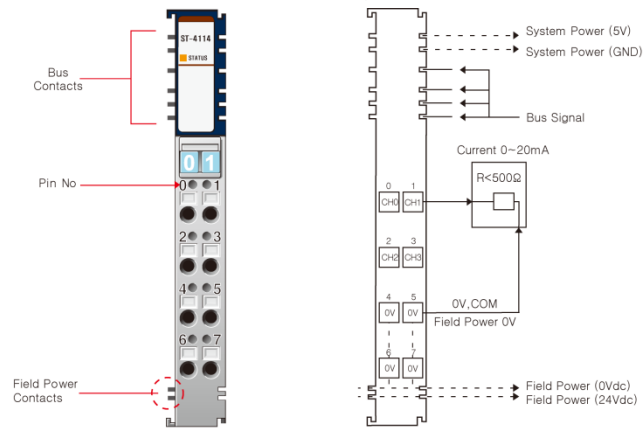
The most recent user documents are available on the Support website: <http://www.ge-ip.com/support>

4. Output wiring Diagrams

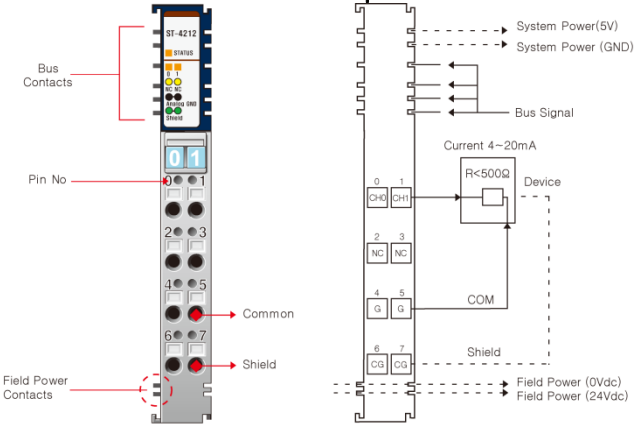
ST-4112 : 2 channels Current Output 0~20mA 12bit



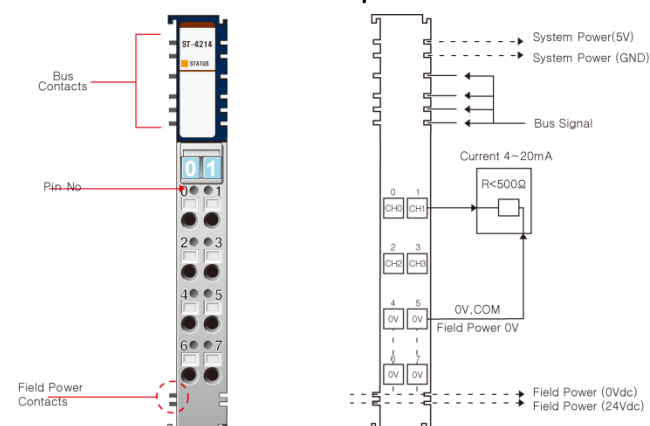
ST-4114 : 4 channels Current Output 0~20mA 12bit



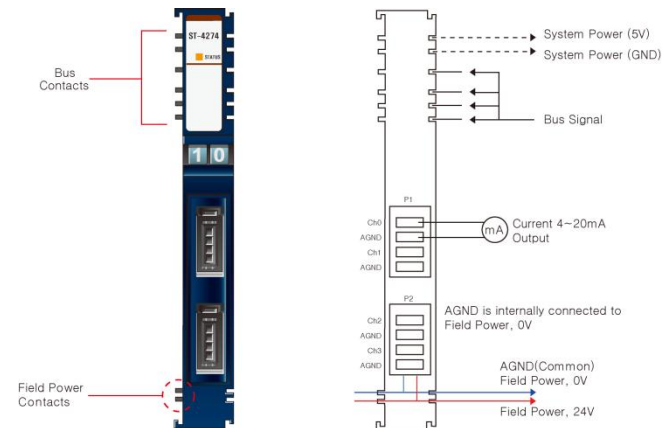
ST-4212 : 2 channels Current Output 4~20mA 12bit



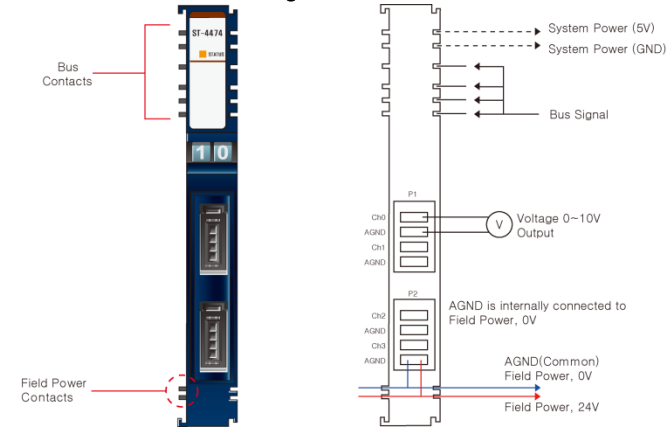
ST-4214 : 4 channels Current Output 4~20mA 12bit



ST-4274 : 4 channels Current Sensor Connector 4~20mA, 12bit

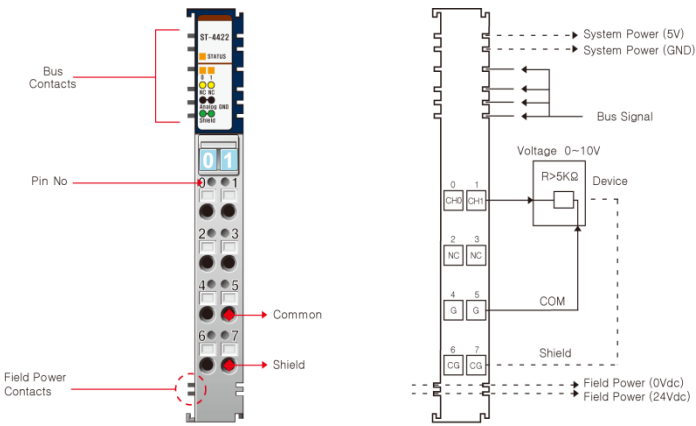


ST-4474 : 4 channels Voltage Sensor Connector 0~10V, 12bit

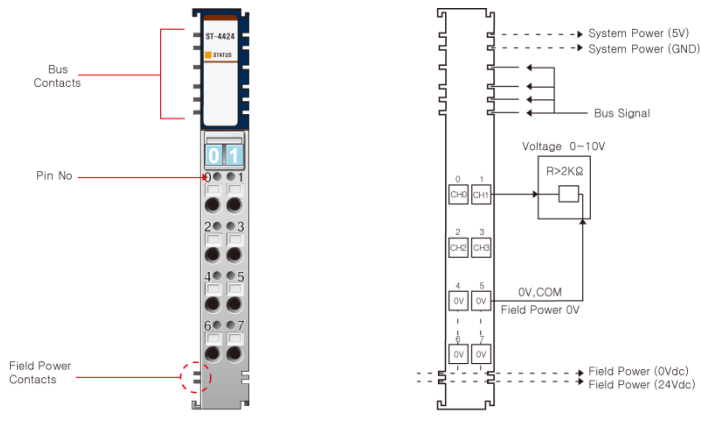


4. Output wiring Diagrams

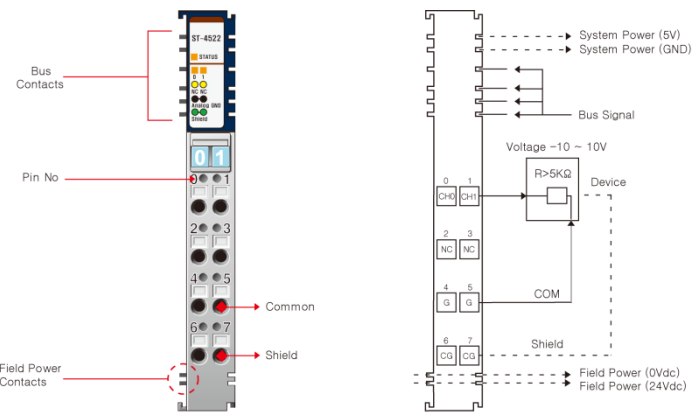
ST-4422 : 2 channels Voltage Output 0~10V, 12bit



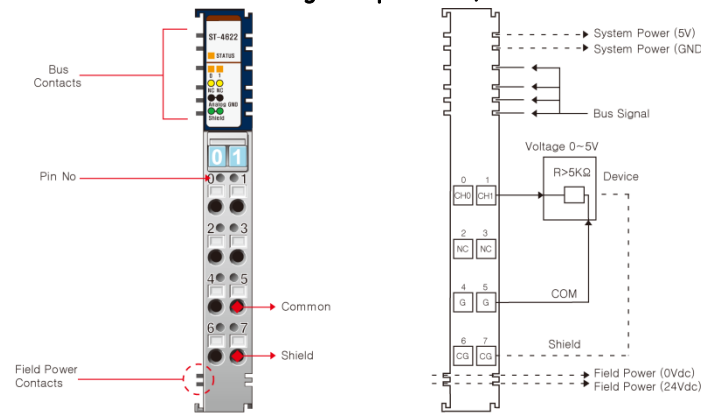
ST-4424 : 4 channels Voltage Output 0~10V, 12bit



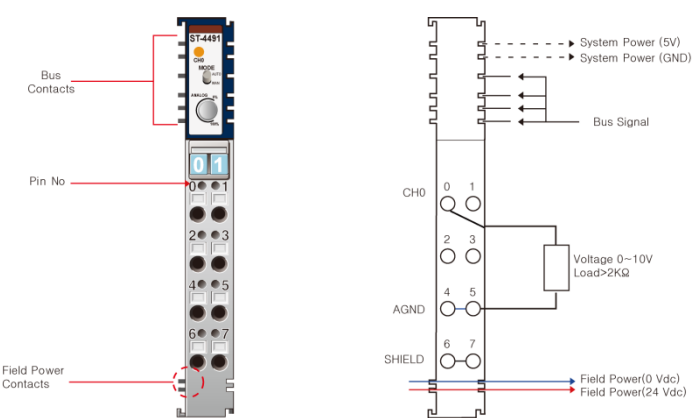
ST-4522 : 2 channels Voltage Output -10~10V , 12bit



ST-4622 : 2 channels Voltage Output 0~5V, 12bit



ST-4491: 1 channel Voltage Output 0~10V, 12bit



ST-4911 : 1 Channel, 0~1A, 12Bit, RTB

