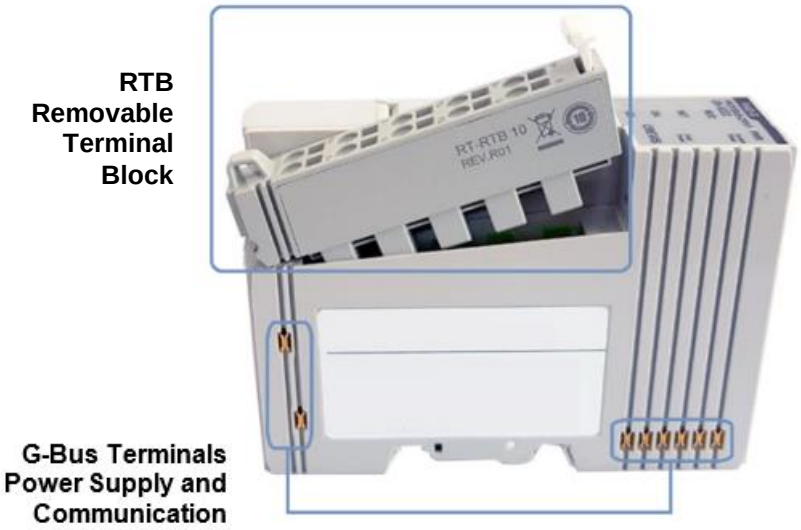
Series Description

The Altus G Series of distributed remote I/O systems was developed for industrial automation applications that require high performance, modularity, and flexibility. Designed for DIN rail mounting, it offers a comprehensive range of digital and analog input and output modules, specialty modules, and network heads supporting major industrial protocols such as PROFINET, EtherNet/IP, EtherCAT, MODBUS TCP, among others. With removable terminal block (RTB) connectors, power and status indicator LEDs, DIN rail locking clips, and a compact design (starting at 12 mm width), the G Series provides easy installation, efficient maintenance, and space savings. Its high-speed internal bus (1 ms) ensures optimal response times for critical applications. The slice technology enables assembly without the need for backplate, cabinets, or backplanes for power and communication between modules.

Its main features include:

- DIN rail mounting
- DIN rail locking mechanism
- Expandability of up to 63 modules per system
- Network interfaces (heads) for PROFINET, EtherNet/IP, MODBUS TCP, EtherCAT, among others
- Internal bus with 1 ms communication cycle
- RTB removable terminal blocks (facilitate maintenance)
- Power and status indicator LEDs
- Compact design: network heads starting at 22 mm (GL) or 54 mm (GN); I/O modules starting at 12 mm



Ordering Information

Included Items

The product package contains the following items:

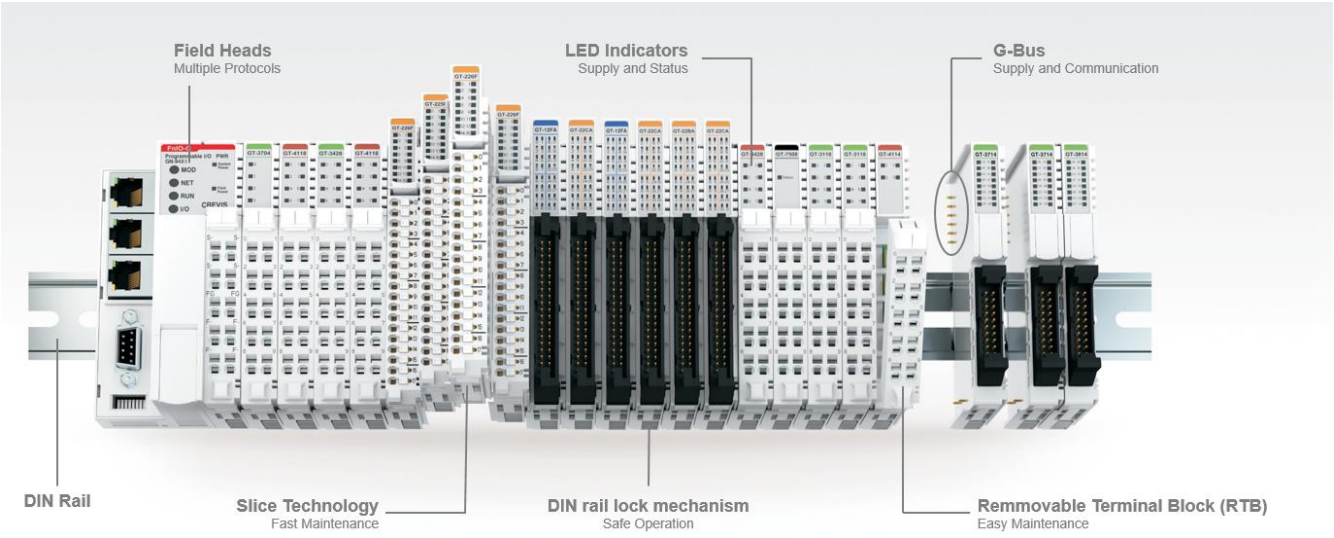
- One G Series I/O expansion Module.

Product Code

Code	Module Description
GT-12DF	16 DI 24V_{DC} (Sink / Source) Expansion module
GT-226F	16 DO 24V_{DC} / 0,3A (Source) Expansion module
GT-3118	8 AI, 0/4 a 20mA, 12 bits Expansion module
GT-3428	8 AI, 0 a 10V_{DC}, 0 a 5V_{DC}, 1 a 5V_{DC}, 12 bits Expansion module
GT-4214	4 AO, 4 a 20mA, 12 bits Expansion module
GT-4424	4 AO, 0 a 10V_{DC}, 12 bits Expansion module
GT-7511	Power supply module (Input 24V_{DC} / output 5V_{DC} / 1A)
GT-3102	2 Channel load cell measurement expansion module, -150 ~ 150mV, 24 bits
GT-3911	1 Channel Three-phase measurement expansion module, Lx-Ly 500V_{AC} / 5A
GT-5112	2 Channel Encoder expansion module
Consult our commercial team for more options of modules, temperature sensors, fast I/O, I/O link, HART, etc.	

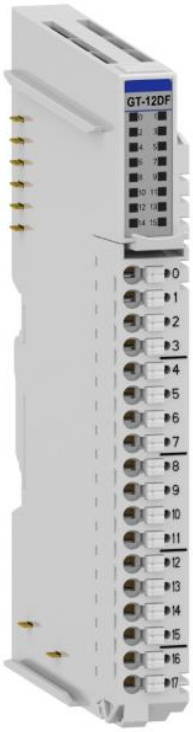
Advantages and Applications

- Modular flexibility for system expansion
- Compact design and panel space savings
- Simplified wiring and easy module replacement
- Fast and accurate communication between modules
- Ideal for manufacturing, process, energy, sanitation, infrastructure, and machinery industries.



Doc.Code: CE157912 Version: A

GT-12DF – Digital Input Expansion



GT-12DF – Description

The GT-12DF module is an expansion unit with 16 digital inputs, which can be configured for source or sink operation (all inputs set as source or all as sink). The module features a panel with 16 LEDs, one per input, indicating whether the input is energized or not. It is designed for direct DIN rail mounting, and the slice technology enables fast connection to the backplane bus, eliminating the need for power supply and communication wiring. The digital input connector is of the RTB (Removable Terminal Block) type, allowing module replacement without removing wires or cables. The device is certified to ensure resistance to electromagnetic interference, vibration, and reliable operation over a wide operating temperature range.

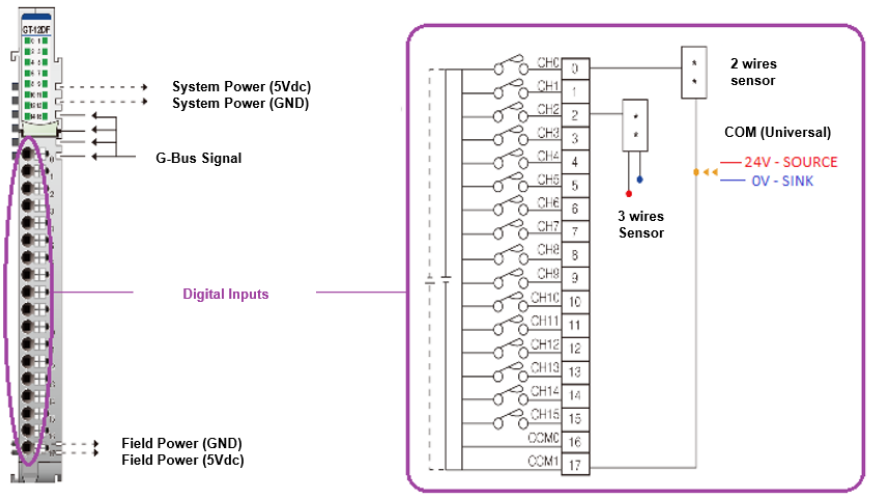
GT-12DF – General Features

Inputs	
I/O Type	Universal Digital Input
I/O number	16 Digital Inputs (source/sink)
Indicators	16 green LEDs
ON-state voltage	24Vdc nominal 15 ~ 26.4Vdc @ 60°C
ON-state current	4mA @ 24Vdc 5mA @ 30Vdc
OFF-state voltage	12.5Vdc @ 25°C
Delay (OFF → ON / ON → OFF)	0.3ms max.
Input filter	Adjustable up to 10ms
Nominal input impedance	5.6kohm

Common Type	16 points / 2 COM (Universal)
General	
Power dissipation	50mA @ 5Vdc
Field power	Supply: 24Vdc (nominal) Range: 15 ~ 30Vdc Power dissipation: 0mA @ 24 Vdc
Isolation	Photocoupler
Installations / Environment	
Weight	63g
Dimensions	12mm x 109mm x 70mm (W x H x D)
Mounting	DIN rail mounting
Position	Vertical and horizontal installation available
I/O wiring	Max. 0.75mm² (AWG 18)
Operating temperature	-40°C ~ 60°C
Storage temperature	-40°C ~ 85°C
Relative Humidity	5% ~ 90% (non-condensing)
Certifications	
Shock Operating	IEC 60068-2-27
Vibration resistance	Based on IEC 60068-2-6 DNVGL-CD-0039 : Vibration Class B, 4g
Industrial Emissions	EN 61000-6-4:2007/A1:2011
Industrial Immunity	EN 61000-6-2:2005
Product Certifications	CE, FCC, RoHS, UL

GT-12DF – Frontal view and pin connections

The following image illustrates the equipment frontal panel, its components and pin connections.

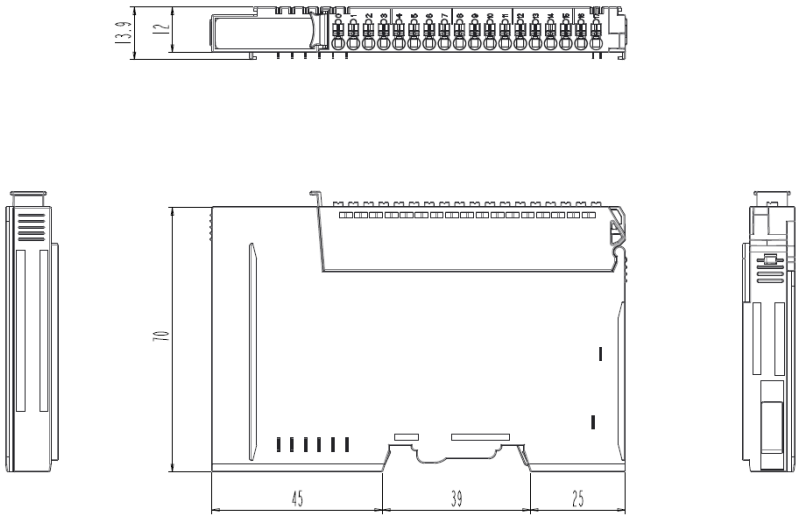


GT-12DF – LED Indicator

LED Description	LED Status	Description
0 - 15 / DI0 - DI15	OFF	OFF-state channel.
	Green	ON-state channel.

GT-12DF – Dimensions

12mm x 109mm x 70mm (W x H x D)



Doc.Code: CE157912 Version: A

GT-226F – Digital Output Expansion

GT-226F – Description

The GT-226F module is an expansion unit with 16 digital outputs. The module features a panel with 16 LEDs, one per output, indicating whether the output is energized or not. It is designed for direct DIN rail mounting, and the slice technology enables fast connection to the backplane bus, eliminating the need for power supply and communication wiring. The digital output connector is of the RTB (Removable Terminal Block) type, allowing module replacement without removing wires or cables. The device is certified to ensure resistance to electromagnetic interference, vibration, and reliable operation over a wide operating temperature range.

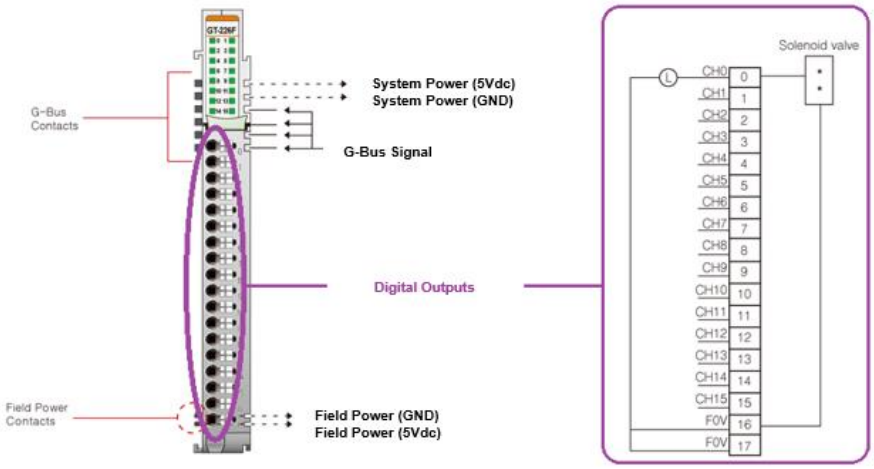
GT-226F – General Features

Outputs	
I/O Type	Universal Digital Output
I/O number	16 Digital Outputs (Source)
Indicators	16 green LEDs
Output voltage range	24Vdc nominal Min. 15Vdc ~ Max. 32Vdc
ON-state voltage drop	0.3Vdc @ 25°C 0.5Vdc @ 70°C
ON-state min. current	Min. 1mA
Delay (OFF → ON / ON → OFF)	0.3ms max.
Output current rating	Max. 0.3A per channel / Max. 4.8A per unit
Protection (ITS716G)	Over current limit: Min. 6.5A @ 25°C per each channel Thermal Shutdown: Min. 4A @ 25°C per each channel Short circuit protection

Common Type	16 points / 2 COM (Universal)
General	
Power dissipation	50mA @ 5Vdc
Field power	Supply: 24Vdc (nominal) Range: 15 ~ 30Vdc Power dissipation: 40mA @ 24 Vdc
Isolation	Photocoupler
Installation / Environment	
Weight	63g
Dimensions	12mm x 109mm x 70mm (W x H x D)
Mounting	DIN rail mounting
Position	Vertical and horizontal installation available
I/O wiring	Max. 0.75mm² (AWG 18)
Operating temperature	-40°C ~ 70°C
Storage temperature	-40°C ~ 85°C
Relative Humidity	5% ~ 95% (non-condensing)
Certifications	
Shock Operating	IEC 60068-2-27
Vibration resistance	Based on IEC 60068-2-6 DNVGL-CD-0039 : Vibration Class B, 4g
Industrial Emissions	EN 61000-6-4:2007/A1:2011
Industrial Immunity	EN 61000-6-2:2005
Product Certifications	CE, FCC, RoHS, UL

GT-226F – Frontal view and pin connections

The following image illustrates the equipment frontal panel, its components and pin connections.

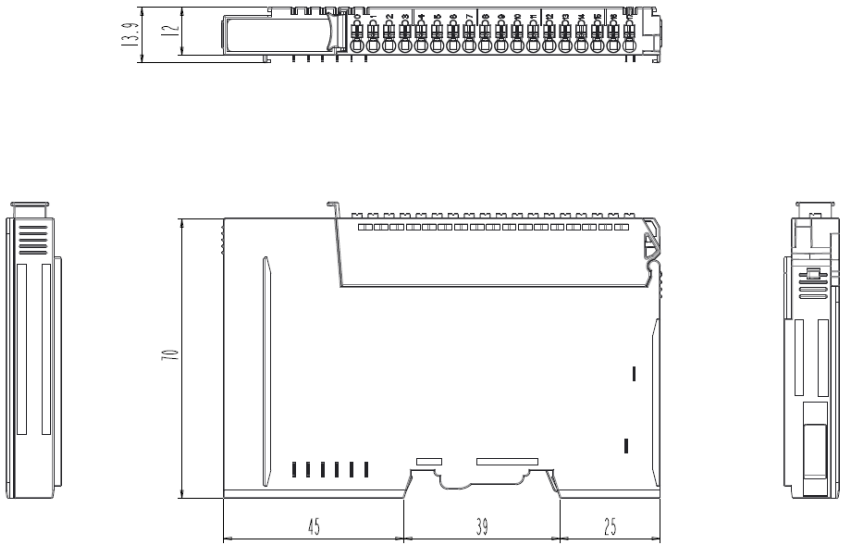


GT-226F – LED Indicator

LED Description	LED Status	Description
0 - 15 / DO0 - DO15	OFF	OFF-state channel.
	Green	ON-state channel.

GT-226F – Dimensions

12mm x 109mm x 70mm (W x H x D)



Doc.Code: CE157912 Version: A

GT-3118 – Analog Current Input Expansion

GT-3118 - Description

The GT-3118 module is an expansion unit with 8 analog inputs, which can be independently configured via register for 0–20 mA or 4–20 mA operation on each input. The module features a panel with 8 LEDs, one per input, indicating the input status. It is designed for direct DIN rail mounting, and the slice technology enables fast connection to the backplane bus, eliminating the need for power supply and communication wiring. The analog input connector is of the RTB (Removable Terminal Block) type, allowing module replacement without removing wires or cables. The device is certified to ensure resistance to electromagnetic interference, vibration, and reliable operation over a wide operating temperature range.

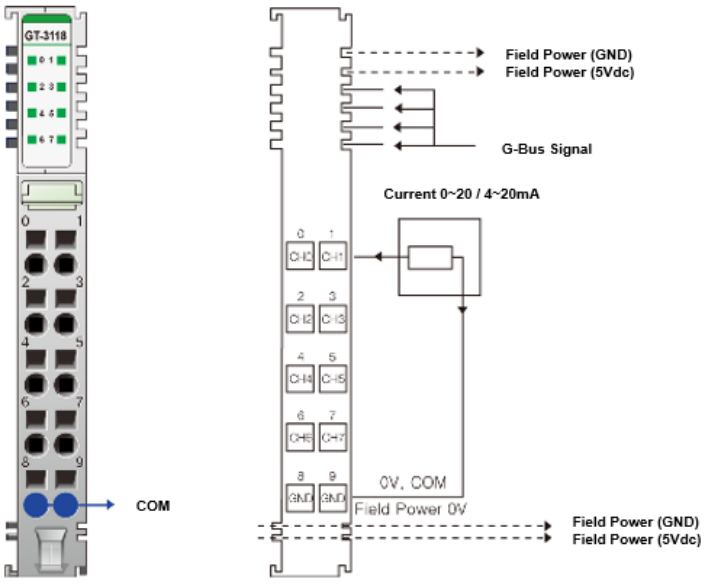
GT-3118 – General Features

Inputs	
I/O Type	Current analog input
I/O number	8 Non isolated inputs
Indicators	8 green LEDs
Range	0~20mA, 4~20mA
Resolution	12 Bits 4.88uA/Bit (0~20mA) 3.91uA/Bit (4~20mA)
Conversion time	1.5ms
Field adjust	Not necessary
Common Points	0V (GND) common for all inputs
General	
Power dissipation	30mA @ 5Vdc

Field Power	Input: 24Vdc (nominal) Range: 18 ~ 30Vdc Power dissipation: 30mA @ 24 Vdc
Isolation	Input to internal logic: Non Isolated IO modules supply: Isolated
Installation / Environment	
Weight	58g
Dimensions	12mm x 99mm x 70mm (W x H x D)
Mounting	DIN rail mounting
Position	Vertical and horizontal installation available
I/O wiring	Max. 2.0mm² (AWG 14)
Operating temperature	-40°C ~ 70°C
Storage temperature	-40°C ~ 85°C
Relative Humidity	5% ~ 90% (non-condensing)
Certifications	
Shock Operating	IEC 60068-2-27
Vibration resistance	Based on IEC 60068-2-6 DNVGL-CD-0039 : Vibration Class B, 4g
Industrial Emissions	EN 61000-6-4:2007/A1:2011
Industrial Immunity	EN 61000-6-2:2005
Product Certifications	CE, FCC, RoHS, UL

GT-3118 – Frontal view and pin connections

The following image illustrates the equipment frontal panel, its components and pin connections.

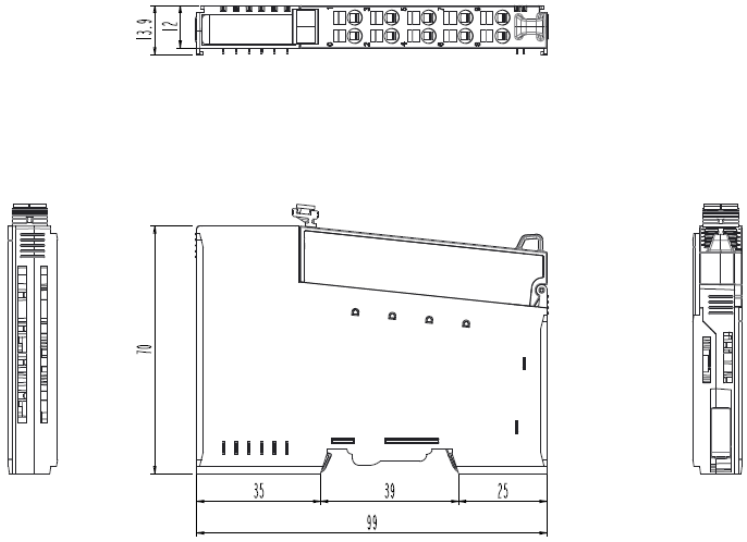


GT-3118 – LED Indicator

LED Description	LED Status	Description
0 - 7 / AI0 - AI7	OFF	Under range: Input < 3mA Over range: Input > 21mA Input < 0.5% of range.
	Green	Input > 0.5% of range.
	Flashing Green (All LEDs)	Disconnected I/O Supply

GT-3118 – Dimensions

12mm x 99mm x 70mm (W x H x D)



Doc.Code: CE157912 Version: A

GT-3428 – Analog Voltage Input Expansion

GT-3428 – Description

The GT-3428 module is an expansion unit with 8 analog inputs, which can be independently configured via register for 0–10 V, 0–5 V, or 1–5 V operation on each input. The module features a panel with 8 LEDs, one per input, indicating the input status. It is designed for direct DIN rail mounting, and the slice technology enables fast connection to the backplane bus, eliminating the need for power supply and communication wiring. The analog input connector is of the RTB (Removable Terminal Block) type, allowing module replacement without removing wires or cables. The device is certified to ensure resistance to electromagnetic interference, vibration, and reliable operation over a wide operating temperature range.

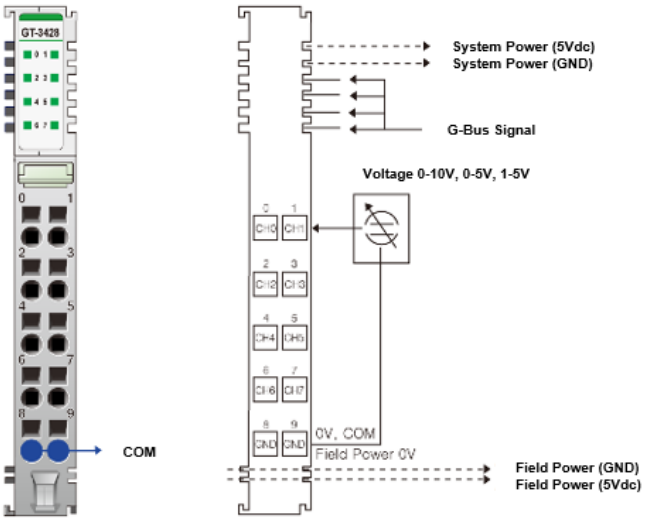
GT-3428 – General Features

Inputs	
I/O Type	Voltage analog input
I/O number	8 Non isolated inputs
Indicators	8 green LEDs
Range	0~10V, 0~5V, 1~5V
Resolution	12 Bits 2.44mV/Bit (0~10V) 1.22mV/Bit (0~5V) 0.98mV/Bit (1~5V)
Conversion time	0.5ms

Field adjust	Not necessary
Common Points	0V (GND) common for all inputs
General	
Power dissipation	30mA @ 5Vdc
Field Power	Input: 24Vdc (nominal) Range: 18 ~ 30Vdc Power dissipation: 30mA @ 24 Vdc
Isolation	Input to internal logic: Non Isolated IO modules supply: Isolated
Installation / Environment	
Weight	58g
Dimensions	12mm x 99mm x 70mm (W x H x D)
Mounting	DIN rail mounting
Position	Vertical and horizontal installation available
I/O wiring	Max. 2.0mm² (AWG 14)
Operating temperature	-40°C ~ 70°C
Storage temperature	-40°C ~ 85°C
Relative Humidity	5% ~ 90% (non-condensing)
Certifications	
Shock Operating	IEC 60068-2-27
Vibration resistance	Based on IEC 60068-2-6 DNVGL-CD-0039 : Vibration Class B, 4g
Industrial Emissions	EN 61000-6-4:2007/A1:2011
Industrial Immunity	EN 61000-6-2:2005
Product Certifications	CE, FCC, RoHS, UL

GT-3428 – Frontal view and pin connections

The following image illustrates the equipment frontal panel, its components and pin connections.

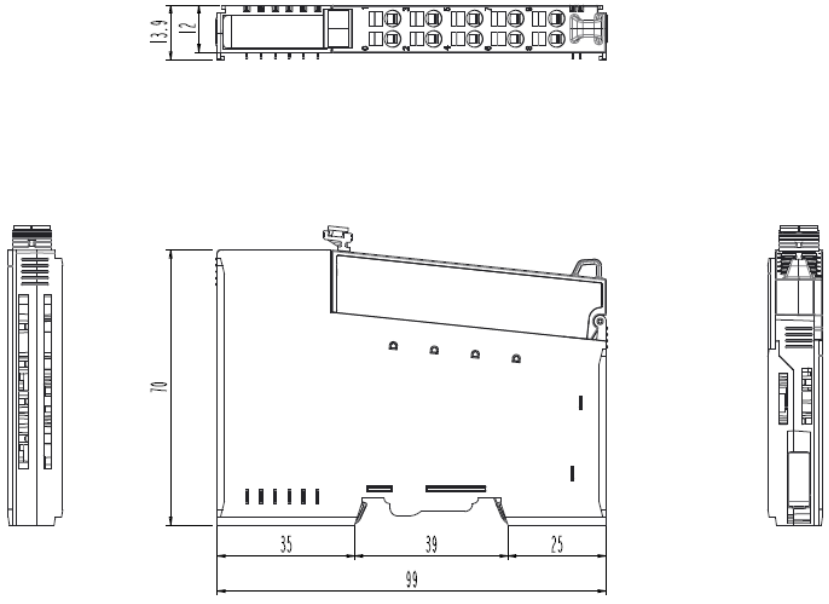


GT-3428 – LED Indicator

LED Description	LED Status	Description
0 - 7 / AI0 - AI7	OFF	Input < 0.5% of range.
	Green	Input > 0.5% of range.
	Flashing Green (All LEDs)	Disconnected I/O Supply.

GT-3428 – Dimensions

12mm x 99mm x 70mm (W x H x D)



Doc.Code: CE157912 Version: A

GT-4214 – Current Analog Output Expansion

GT-4214 – Description

The GT-4214 module is an expansion unit with 4 analog current outputs (4–20 mA). The module features a panel with 4 LEDs, one per output, indicating the output status. It is designed for direct DIN rail mounting, and the slice technology enables fast connection to the backplane bus, eliminating the need for power supply and communication wiring. The analog output connector is of the RTB (Removable Terminal Block) type, allowing module replacement without removing wires or cables. The device is certified to ensure resistance to electromagnetic interference, vibration, and reliable operation over a wide operating temperature range.

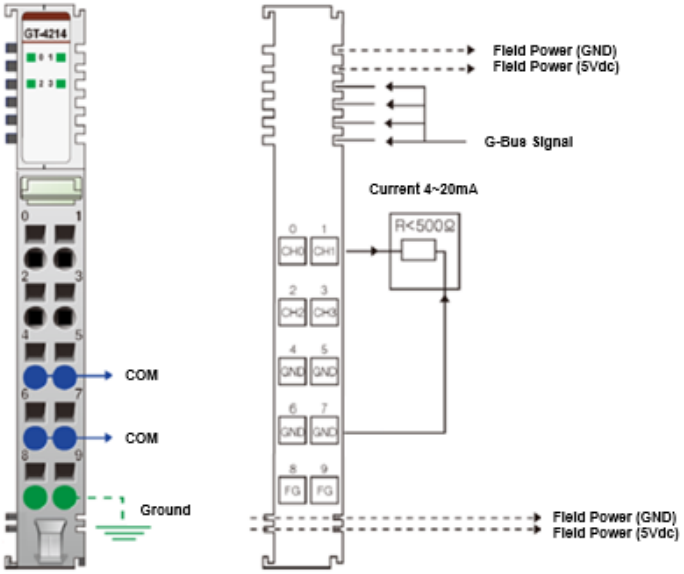
GT-4214 – General Features

Outputs	
I/O Type	Current analog output
I/O number	4 Non isolated outputs
Indicators	4 Green LEDs
Range	4~20mA
Resolution	12 Bits – 3.91uA/Bit
Conversion time	0.15ms
Field adjust	Not necessary
Common Points	0V (GND) common for all outputs
General	
Power dissipation	30mA @ 5Vdc
Field Power	Input: 24Vdc (nominal) Range: 18 ~ 30Vdc

	Power dissipation: 30mA @ 24 Vdc
Isolation	Input to internal logic: Non Isolated IO modules supply: Isolated
Installation / Environment	
Weight	58g
Dimensions	12mm x 99mm x 70mm (W x H x D)
Mounting	DIN rail mounting
Position	Vertical and horizontal installation available
I/O wiring	Max. 2.0mm² (AWG 14)
Operating temperature	-40°C ~ 70°C
Storage temperature	-40°C ~ 85°C
Relative Humidity	5% ~ 90% (non condensing)
Certifications	
Shock Operating	IEC 60068-2-27
Vibration resistance	Based on IEC 60068-2-6 DNVGL-CD-0039 : Vibration Class B, 4g
Industrial Emissions	EN 61000-6-4:2007/A1:2011
Industrial Immunity	EN 61000-6-2:2005
Product Certifications	CE, FCC, RoHS, UL

GT-4214 – Frontal view and pin connections

The following image illustrates the equipment frontal panel, its components and pin connections.

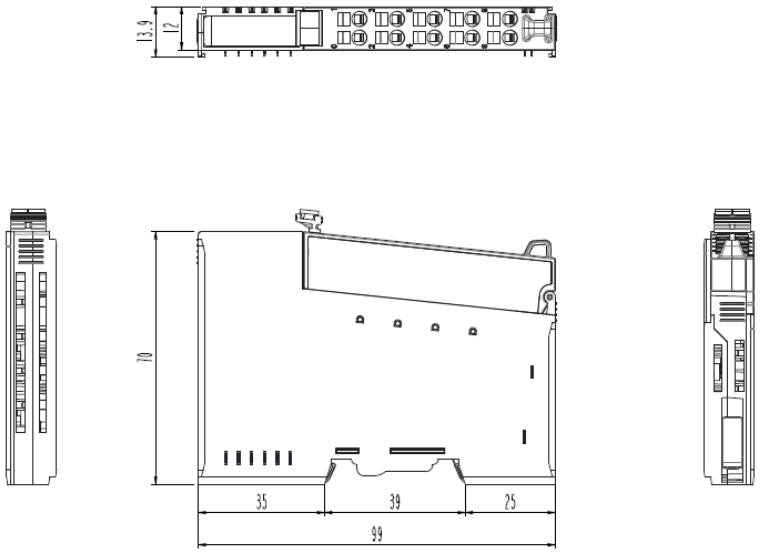


GT-4214 – LED Indicator

LED Description	LED Status	Description
0 - 3	OFF	OFF-state channel.
	Green	ON-state channel.
	Flashing Green (All LEDs)	Disconnected I/O Supply.

GT-4214 – Dimensions

12mm x 99mm x 70mm (W x H x D)



GT-4424 – Voltage Analog Output Expansion

GT-4424 – Description

The GT-4424 module is an expansion unit with 4 analog voltage outputs (0–10 V). The module features a panel with 4 LEDs, one per output, indicating the output status. It is designed for direct DIN rail mounting, and the slice technology enables fast connection to the backplane bus, eliminating the need for power supply and communication wiring. The analog output connector is of the RTB (Removable Terminal Block) type, allowing module replacement without removing wires or cables. The device is certified to ensure resistance to electromagnetic interference, vibration, and reliable operation over a wide operating temperature range.

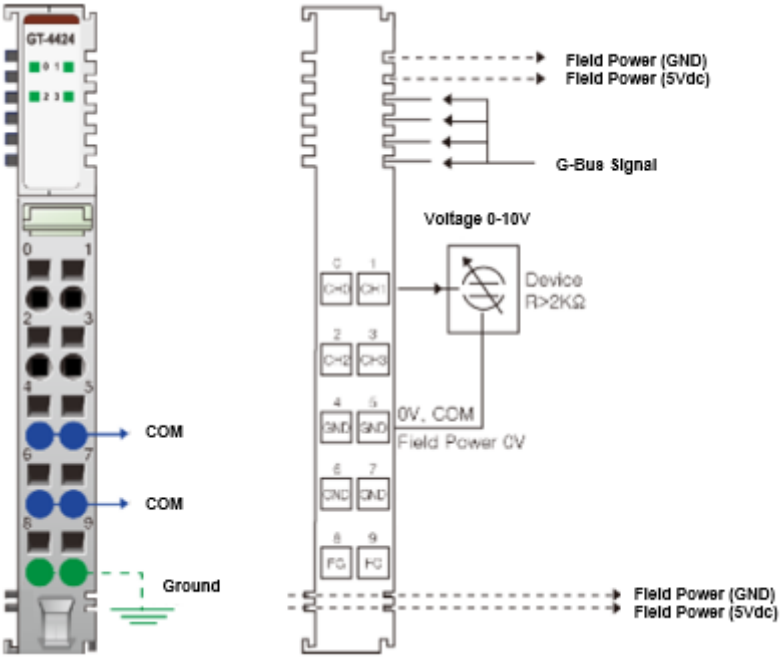
GT-4424 – General Features

Outputs	
I/O Type	Voltage analog output
I/O number	4 Non isolated outputs
Indicators	4 Green LEDs
Range	0~10V
Resolution	12 Bits – 2.44mV/Bit
Conversion time	0.15ms
Field adjust	Not necessary
Common Points	0V (GND) common for all outputs
General	
Power dissipation	30mA @ 5Vdc
Field Power	Input: 24Vdc (nominal) Range: 18 ~ 30Vdc Power dissipation: 35mA @ 24 Vdc

Isolation	Input to internal logic: Non Isolated IO modules supply: Isolated
Installation / Environment	
Weight	58g
Dimensions	12mm x 99mm x 70mm (W x H x D)
Mounting	DIN rail mounting
Position	Vertical and horizontal installation available
I/O wiring	Max. 2.0mm² (AWG 14)
Operating temperature	-40°C ~ 70°C
Storage temperature	-40°C ~ 85°C
Relative Humidity	5% ~ 90% (non condensing)
Certifications	
Shock Operating	IEC 60068-2-27
Vibration resistance	Based on IEC 60068-2-6 DNVGL-CD-0039 : Vibration Class B, 4g
Industrial Emissions	EN 61000-6-4:2007/A1:2011
Industrial Immunity	EN 61000-6-2:2005
Product Certifications	CE, FCC, RoHS, UL

GT-4424 – Frontal view and pin connections

The following image illustrates the equipment frontal panel, its components and pin connections.

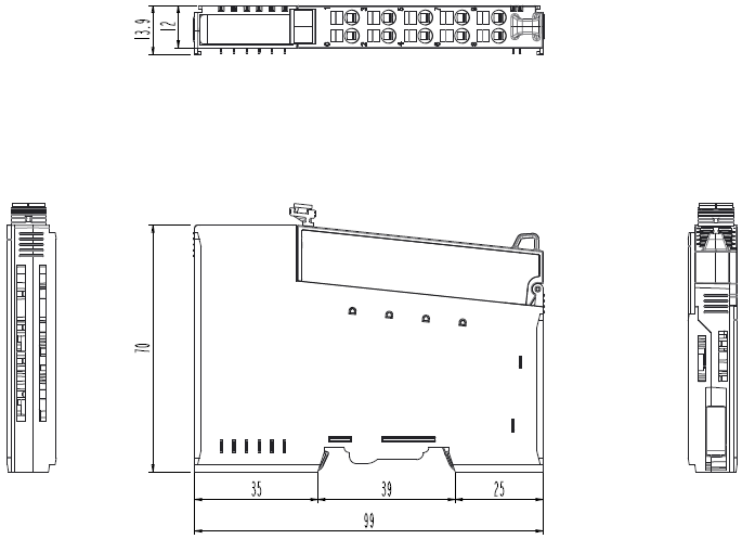


GT-4424 – LED Indicator

LED Description	LED Status	Description
0 - 3	OFF	OFF-state channel.
	Green	ON-state channel.
	Flashing Green (All LEDs)	Disconnected I/O Supply.

GT-4424 – Dimensions

12mm x 99mm x 70mm (W x H x D)



Doc.Code: CE157912 Version: A

GT-7511 – Bus Power Supply Expansion

GT-7511 – Description

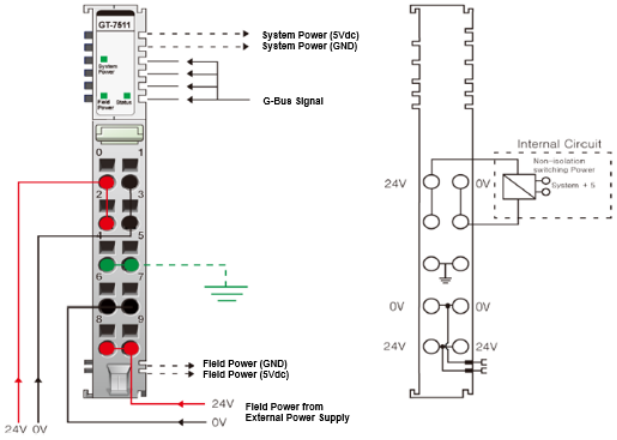
The GT-7511 module is a power supply unit, ideal for supplying power to the system and to field devices (I/Os). It is designed for direct DIN rail mounting, and the slice technology enables fast connection to the backplane bus, eliminating the need for power supply and communication wiring. The connector is of the RTB (Removable Terminal Block) type, allowing module replacement without removing wires or cables. The device is certified to ensure resistance to electromagnetic interference, vibration, and reliable operation over a wide operating temperature range.

GT-7511 – General Features

General	
Power Supply	Input: 24Vdc (nominal) Range: 15 ~ 30Vdc
Power dissipation	20mA @ 24Vdc
Indicators	3 Green LEDs – System Power, Field Power, Bus Status
Max Current for I/O modules	10.0A Max.
System Supply Output	5Vdc / 1A
Installation / Environment	
Weight	59g
Dimensions	12mm x 99mm x 70mm (W x H x D)
Mounting	DIN rail mounting
Position	Vertical and horizontal installation available
I/O wiring	Max. 2.0mm² (AWG 14)
Operating temperature	-40°C ~ 60°C
Storage temperature	-40°C ~ 85°C
Relative Humidity	5% ~ 90% (non condensing)

GT-7511 – Frontal view and pin connections

The following image illustrates the equipment frontal panel, its components and pin connections.

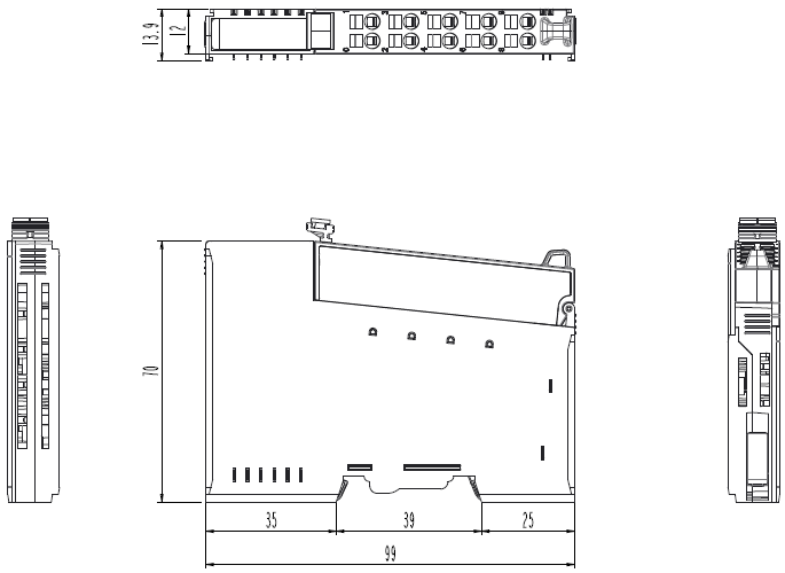


GT-7511 – LED Indicator

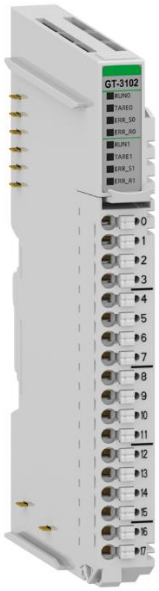
LED Description	LED Status	Description
System Power	OFF	Not Supplied 5Vdc System power.
	Green	Normal Operation.
Field Power	OFF	Not Supplied 24Vdc Field power.
	Green	Normal Operation.
Status	Green	Normal Operation.
	Flashing Green	Although this module is connected normally, there are not input/output data for communication.
	OFF	Network adapter is not connected to this module.

GT-7511 – Dimensions

12mm x 99mm x 70mm (W x H x D)



GT-3102 – Load Cell Measurement Expansion



GT-3102 – Description

The GT-3102 module is an expansion unit with 2 load cell measurement channels (resistive strain gauge sensor or resistive bridge). The module features a panel with 8 LEDs, with 4 LEDs per input, indicating the respective channel status. It includes functions for open load detection, tare, and resistive bridge excitation supply. The module is designed for direct DIN rail mounting, and the slice technology enables fast connection to the backplane bus, eliminating the need for power supply and communication wiring. The connector is of the RTB (Removable Terminal Block) type, allowing module replacement without removing wires or cables. The device is certified to ensure resistance to electromagnetic interference, vibration, and reliable operation over a wide operating temperature range.

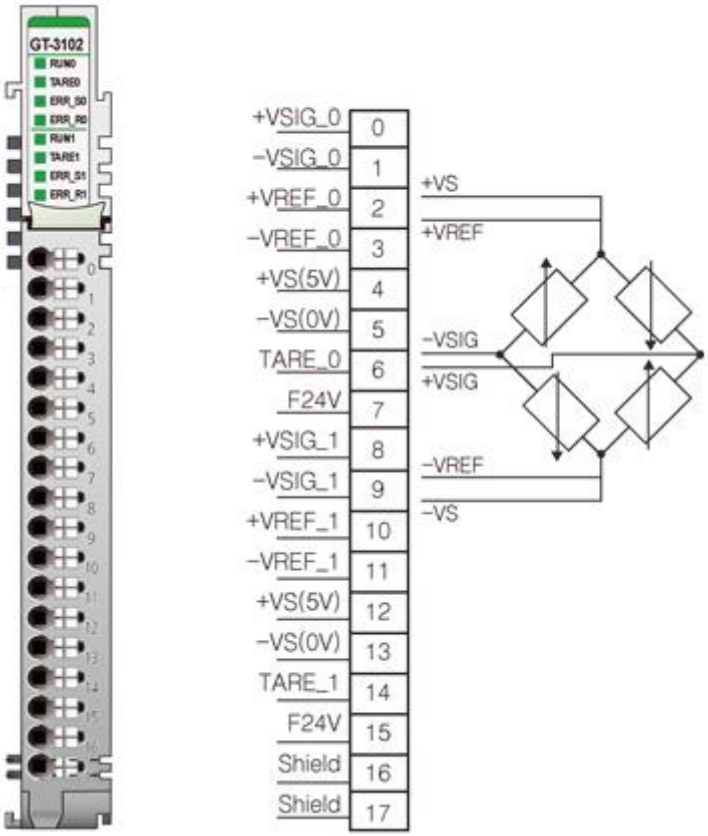
GT-3102 – General Features

Inputs	
I/O Type	Load Cell Measurement Input
I/O Number	2 measurement channels
Indicators	8 Green LEDs
Range VSIG	-150 ~ 150mV
Range VREF	0 ~ 10V
Measurement error	VSIG: < ± 0,1% full scale @ 25°C < ± 0,3% full scale @ -40 ~ 60°C VREF: < ± 0,05% full scale @ 25°C < ± 0,3% full scale @ -40 ~ 60°C Weight Values: < ± 0,1% full scale @ 25°C < ± 0,3% full scale @ -40 ~ 60°C
A/D conversion resolution	24 bit

Resolution	0.1 g/kg/ton, 32-bit
Conversion time	Max. 700µs
General	
Power Dissipation	25mA @ 5Vdc
Field Power	Input: 24Vdc (nominal) Range: 18 ~ 30Vdc Power dissipation: 25mA @ 24 Vdc
Installation / Environment	
Weight	63g
Dimensions	12mm x 109mm x 70mm (W x H x D)
Mounting	DIN rail mounting
Position	Vertical and horizontal installation available
I/O wiring	Max. 0.75mm² (AWG 18)
Operating temperature	-20°C ~ 60°C
Storage temperature	-40°C ~ 85°C
Relative Humidity	5% ~ 90% (non condensing)
Certifications	
Shock Operating	IEC 60068-2-27
Vibration resistance	Based on IEC 60068-2-6 DNVGL-CD-0039 : Vibration Class B, 4g
Industrial Emissions	EN 61000-6-4:2007/A1:2011
Industrial Immunity	EN 61000-6-2:2005
Product Certifications	CE, FCC, RoHS, UL

GT-3102 – Frontal view and pin connections

The following image illustrates the equipment frontal panel, its components and pin connections.

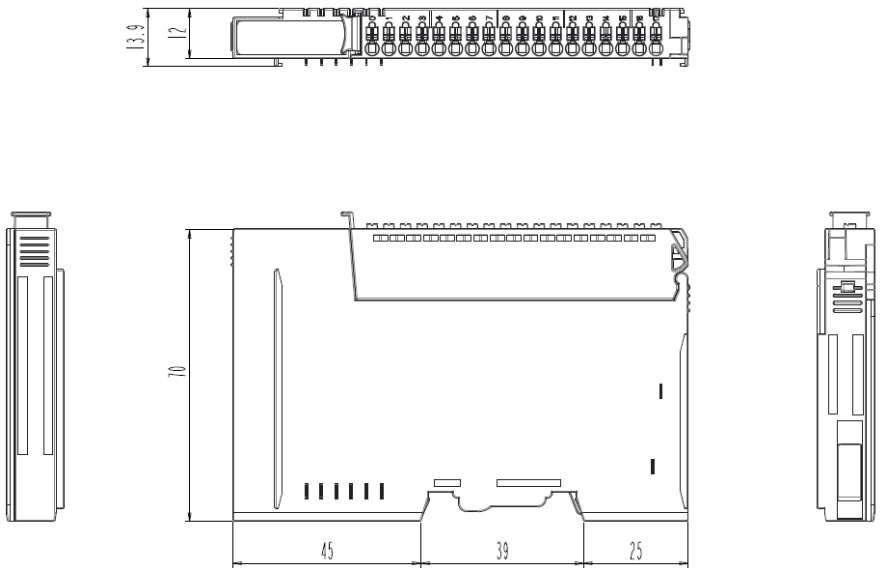


GT-3102 – LED Indicator

LED Description	LED Status	Description
RUN0 RUN1	OFF	Bus / Power Supply Fault
	Green	Normal Operation.
TARE0 TARE1	OFF	Calibration / Tare adjust NOT in progress.
	Green	Calibration / Tare adjust in progress.
ERR_S0 ERR_S1	OFF	Normal Operation.
	Green	VSIG Signal out of range / Open loop.
ERR_R0 ERR_R1	OFF	Normal Operation.
	Green	VREF Signal out of range.

GT-3102 – Dimensions

12mm x 109mm x 70mm (W x H x D)



GT-3911 – Three Phase Measurement Expansion

GT-3911 – Description

The GT-3911 module is an expansion unit with 3 phase voltage measurement channels and 3 phase current measurement channels. The module features a panel with 7 LEDs, including 1 module status LED and 1 status LED for each input, indicating the respective status. It is designed for direct DIN rail mounting, and the slice technology enables fast connection to the backplane bus, eliminating the need for power supply and communication wiring. The connector is of the fixed type. Unlike other modules, it does not use an RTB connector for safety reasons, as the inputs handle higher voltage and current levels. The device is certified to ensure resistance to electromagnetic interference, vibration, and reliable operation over a wide operating temperature range.

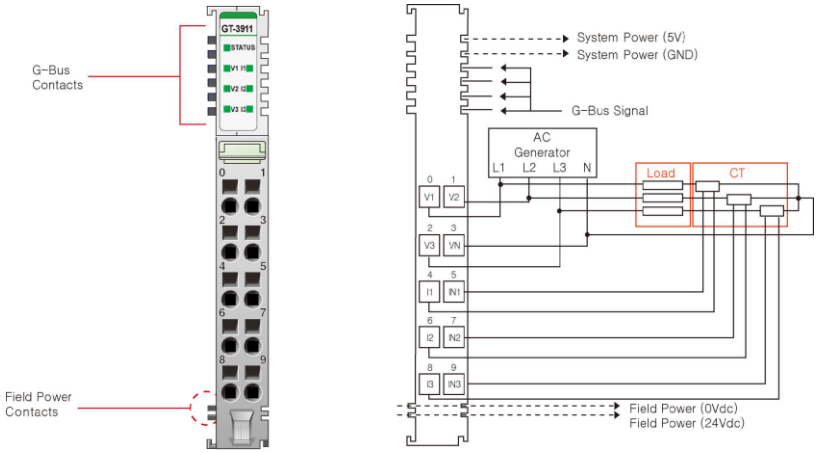
GT-3911 – General Features

Entradas	
I/O Type	Three phase measurement input
I/O number	3 phase voltage inputs and 3 phase current inputs
Indicators	7 Green LEDs (status and inputs)
Max. Voltage Input	VLN = 288Vac VLL = 500Vac
Max. Current Input	5A CT 1: 4000
Measurement	Phase angle, voltage, current, power, energy, frequency, power factors
Measurement error	Voltage and Current: 0.3 % @ 25 ℃ Voltage and Current: 0.5 % @ -20 - 40 ℃ Voltage and Current: 1 % @ -20 - 50 ℃ Voltage and Current: 1.5 % @ -40 - 60 ℃ Frequency: ±0.1 Hz Phase angle: ±0.6 º

AD resolution	24 bits
Frequency range	45 – 65Hz
General	
Power dissipation	125mA @ 5Vdc
Field Power	Input: 24Vdc (nominal) Range: 18 ~ 26,4Vdc Power dissipation: 0mA @ 24 Vdc
Installation / Environment	
Weight	63g
Dimensions	12mm x 99mm x 70mm (W x H x D)
Mounting	DIN rail mounting
Position	Vertical and horizontal installation available
I/O wiring	Max. 2.00mm² (AWG 14)
Operating temperature	-20°C ~ 60°C
Storage temperature	-40°C ~ 85°C
Relative Humidity	5% ~ 90% (non condensing)
Certifications	
Shock Operating	IEC 60068-2-27
Vibration resistance	Based on IEC 60068-2-6 DNVGL-CD-0039 : Vibration Class B, 4g
Industrial Emissions	EN 61000-6-4:2007/A1:2011
Industrial Immunity	EN 61000-6-2:2005
Product Certifications	CE, FCC, RoHS, UL

GT-3911 – Frontal view and pin connections

The following image illustrates the equipment frontal panel, its components and pin connections.

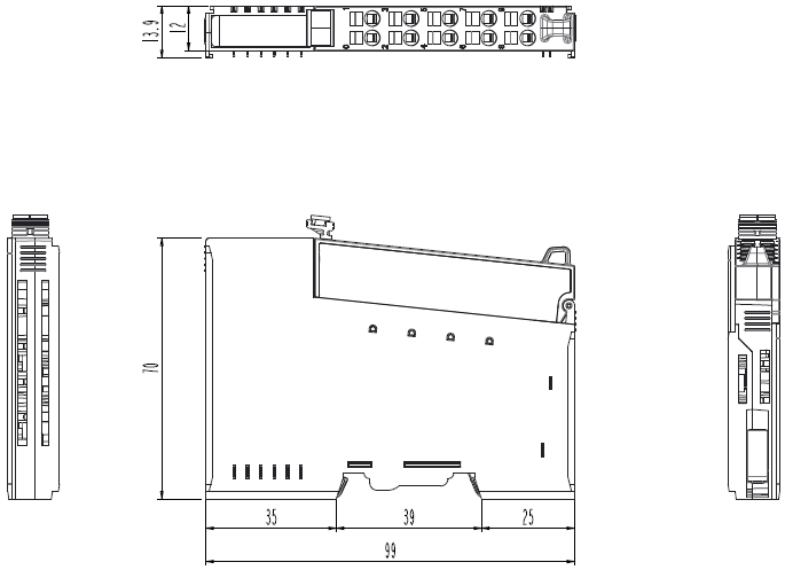


GT-3911 – LED Indicator

LED Description	LED Status	Description
Status	OFF	Bus / Power Supply Fault
	Green	Normal Operation.
V1 – Voltage Input 1 V2 – Voltage Input 2 V3 – Voltage Input 3	OFF	No input signal / over voltage / under voltage
	Green	Normal Operation.
I1 – Current Input 1 I2 – Current Input 2 I3 – Current Input 3	OFF	No input signal / over current / under current
	Green	Normal Operation.

GT-3911 – Dimensions

12mm x 99mm x 70mm (W x H x D)



GT-5112 – Encoder Expansion

GT-5112 – Description

The GT-5112 module is an expansion unit with 2 pulse measurement channels (encoder, high-speed counter, frequency, pulse width, and period). The module features a panel with 4 input status LEDs. It is designed for direct DIN rail mounting, and the slice technology enables fast connection to the backplane bus, eliminating the need for power supply and communication wiring. The device is certified to ensure resistance to electromagnetic interference, vibration, and reliable operation over a wide operating temperature range.

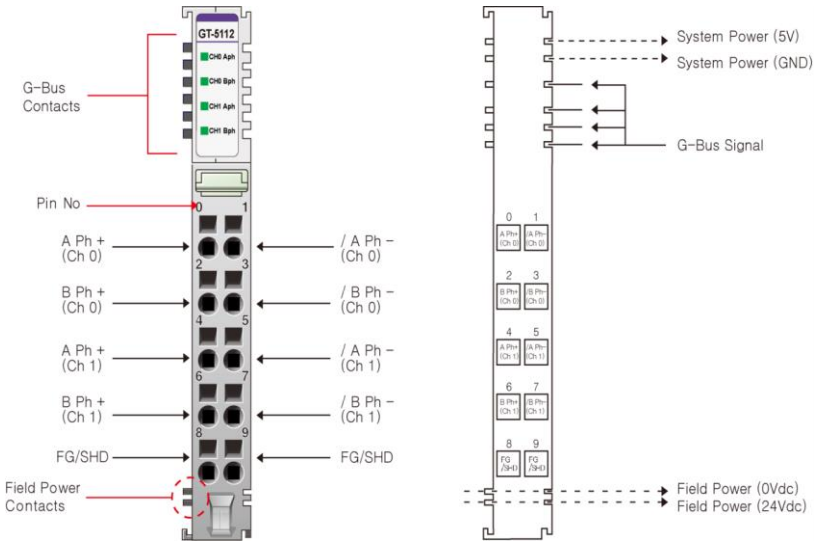
GT-5112 – General Features

Inputs	
I/O Type	Pulse input (Encoder, high speed pulse counter, frequency, pulse width, period)
I/O number	2 inputs
Indicators	4 Green LEDs
Voltage input	24Vdc nominal (Max. 28.85Vdc) On-state min. >= 2.1Vdc
Current input	3mA @ 24Vdc
Frequency input	0~750kHz Encoder mode 0~300kHz Counter mode
Count mode	1 input mode: Up, Down 2 input mode: Encoder 4x, Encoder 2x, Up/Inhibit, Up/Reset, Down/Inhibit, Down/Reset, UP/Down, Clock/Direction, Frequency, pulse width, period.
Counter size	32 bits
General	

Power dissipation	65mA @ 5Vdc
Field Power	Not used. By-pass to next module.
Installation / Environment	
Weight	60g
Dimensions	12mm x 99mm x 70mm (W x H x D)
Mounting	DIN rail mounting
Position	Vertical and horizontal installation available
I/O wiring	Max. 2.00mm² (AWG 14)
Operating temperature	-20°C ~ 70°C
Storage temperature	-40°C ~ 85°C
Relative Humidity	5% ~ 90% (non condensing)
Certifications	
Shock Operating	IEC 60068-2-27
Vibration resistance	Based on IEC 60068-2-6 DNVGL-CD-0039 : Vibration Class B, 4g
Industrial Emissions	EN 61000-6-4:2007/A1:2011
Industrial Immunity	EN 61000-6-2:2005
Product Certifications	CE, FCC, RoHS, UL

GT-5112 – Frontal view and pin connections

The following image illustrates the equipment frontal panel, its components and pin connections.



GT-5112 – LED Indicator

LED Description	LED Status	Description
CH0 Aph CH0 Bph CH1 Aph CH1 Bph	OFF	No Signal / Normal Operation
	Green	Normal Operation

GT-5112 – Dimensions

12mm x 99mm x 70mm (W x H x D)