

LS
GDL-D22C
Programmable
Logic Controller



LS GDL-D22C Programmable Logic Controller Installation Guide

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LS GDL-D22C Programmable Logic Controller



Product Usage Instructions

- Do not contact the terminals while the power is applied.
- Be sure there are no foreign metallic matters.
- Do not manipulate the battery (charge, disassemble, hitting, short, soldering).
- Be sure to check the rated voltage and terminal arrangement before wiring.
- When wiring, tighten the screw of the terminal block with the specified torque range.
- Do not install flammable items in the surroundings. Do not use the PLC in an environment with direct vibration.
- Except for expert service staff, do not disassemble, fix, or modify the product.
- Use the PLC in an environment that meets the general specifications contained in this datasheet.
- Be sure that the external load does not exceed the rating of the output module.
- When disposing of PLC and battery, treat it as industrial waste. I/O signal or communication line shall be wired at least 100mm away from a high-voltage cable or power line.
- The PLC should be operated within a temperature range of -5°C to 70°C and a humidity range of 5%RH to 95%RH.
- Ensure that the PLC is placed in an environment free from direct vibrations and flammable materials.

FAQ

- **Q: Can I use the PLC in an environment with high humidity?**
 - **A:** The PLC can operate in humidity levels ranging from 5%RH to 95%RH. Ensure proper ventilation and protection from condensation.
- **Q: How should I dispose of the PLC and its battery?**
 - **A:** When disposing of the PLC and battery, treat them as industrial waste according to local regulations. Do not dispose of them in regular household waste.
- **Q: What is the recommended distance for wiring I/O signals or communication lines?**
 - **A:** Wire I/O signals or communication lines at least 100mm away from high-voltage cables or power lines to prevent interference or damage.

Programmable Logic Controller Installation Guide

- Smart IO Dnet GDL-D22C,D24C,DT4C/C1 GDL-TR2C/C1,TR4C/C1,RY2C

This installation guide provides simple function information or PLC control. Please read carefully this data sheet and manuals before using products. Especially read precautions then handle the products properly.

Safety Precautions

- Meaning of warning and caution label

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury
CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices

WARNING

- ① Do not contact the terminals while the power is applied.
- ② Be sure there are no foreign metallic matters.
- ③ Do not manipulate the battery(charge, disassemble, hitting, short, soldering).

CAUTION

- ① Be sure to check the rated voltage and terminal arrangement before wiring
- ② When wiring, tighten the screw of the terminal block with the specified torque range
- ③ Do not install flammable things in surroundings
- ④ Do not use the PLC in an environment of direct vibration
- ⑤ Except for expert service staff, do not disassemble fix, or modify the product
- ⑥ Use the PLC in an environment that meets the general specifications contained in this datasheet.
- ⑦ Be sure that the external load does not exceed the rating of the output module.
- ⑧ When disposing of PLC and battery, treat it as industrial waste.
- ⑨ I/O signal or communication line shall be wired at least 100mm away from a high-voltage cable or power line.

Operating Environment

- To install, observe the below conditions.

No	Item	Specification				Standard
1	Ambient temp.	0 ~ 55°C				—
2	Storage temp.	-25 ~ 70°C				—
3	Ambient humidity	5 ~ 95%RH, non-condensing				—
4	Storage humidity	5 ~ 95%RH, non-condensing				—
5	Vibration Resistance	Occasional vibration			—	—
		Frequency	Acceleration			
		5≤f<8.4	—		3.5mm	10 times in each direction for X, Y, Z
		8.4≤f≤150	9.8 (1g)		—	
		Continuous vibration				
		Frequency	Frequency	Frequency		
		5≤f<8.4	—	1.75mm		
		8.4≤f≤150	4.9 (0.5g)	—		

Accessories and Cable Specifications

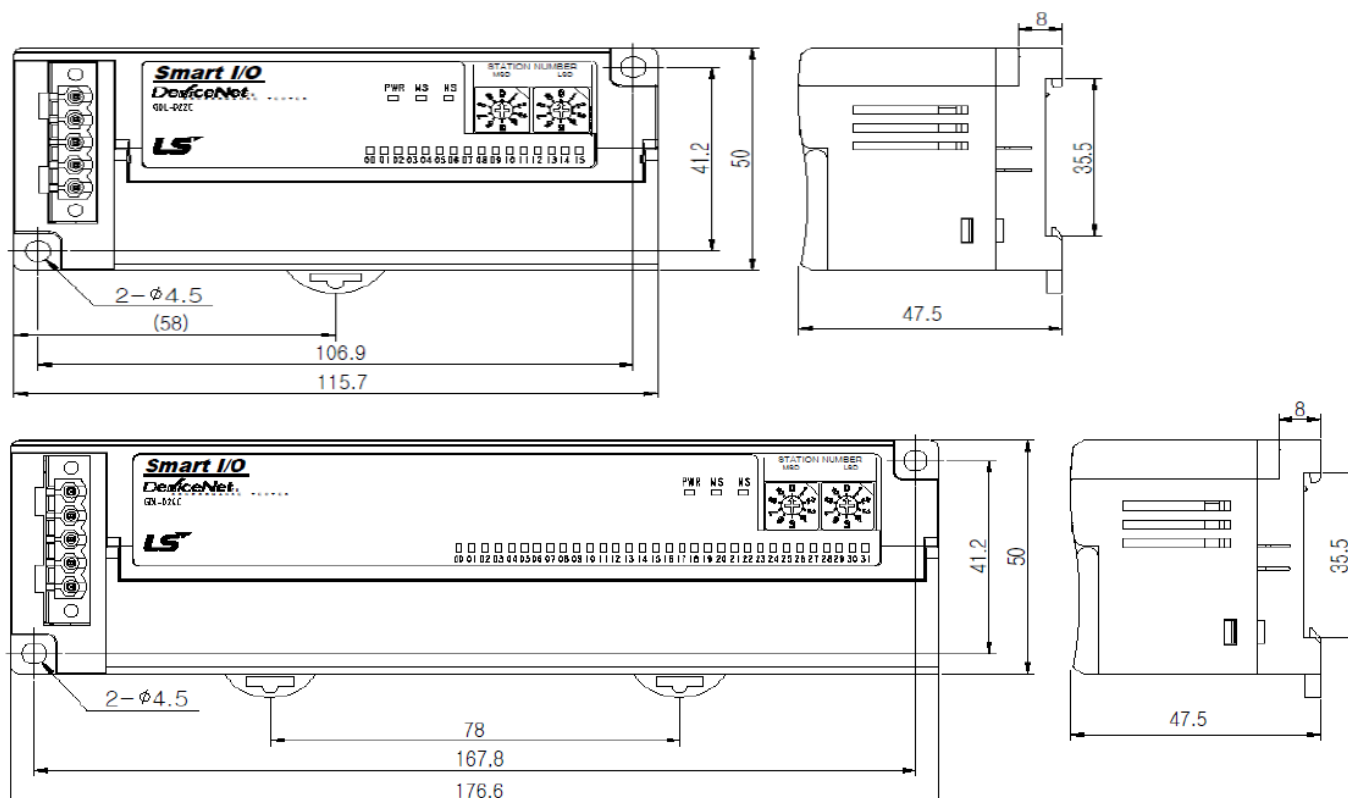
- Check the DeviceNet Connector attached to the module
- When using the DeviceNet communication channel, the DeviceNet cable shall be used with consideration of communication distance and speed.

Classification	Thick(class1)	Thick(class2)	Thin(class2)	Remark
Type	7897A	3082A	3084A	Maker: Belden
Cable Type	Round			Trunk and Drop lines are used concurrently
Impedance(Ω)	120			
Temperature range(°C)	-20~75			
Max. allowable current(A)	8		2.4	
Min. radius of curvature(inch)	4.4	4.6	2.75	
Core wire number	5wires			

Dimension

Dimension (mm)

- This is the front part of the product. Refer to each name when operating the system. For more information, refer to the user's manual.



LED Details

Name	Description
PWR	Displays the status of power
MS	Displays the interface status of the communication module
NS	Displays the network status of the communication module

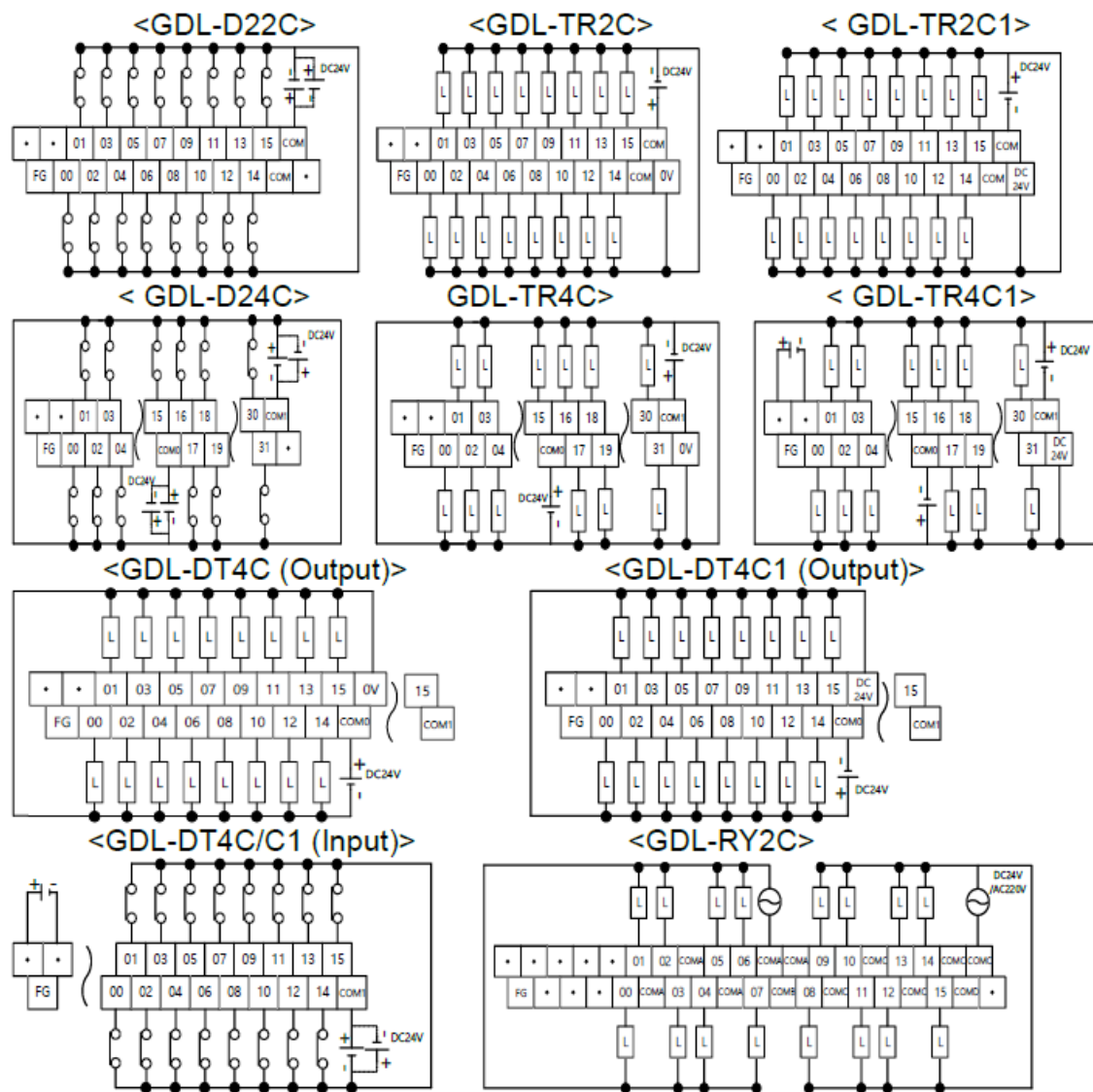
Performance Specifications

- This is the performance specifications of the product. Refer to each name when driving the system. For more information, refer to the user manual.

Item	GDL-D2xC	GDL-DT4C/C1	GDL-TRC/C1	GDL-RY2C
Rated Input Current	5mA		—	—
Rated load voltage	—	DC24V		DC24V/AC220V, 2A/Point, 5A/COM
Max load	—	0.5A/Point, 3A/COM		DC 110V, AC 250V 1,200times/hour
ON Voltage	DC 19V or above			Minimum load voltage/current DC 5V/1mA
OFF Voltage	DC 6V or less			

Terminal Block Layout for I/O Wiring

- This is the terminal block layout for I/O wiring.
- Refer to each name when driving the system.
- For more information, refer to the user manual.



Wiring

Wiring for Communication

1. 5-pin connector (for external connection)

Signal	I	Color	Service	5 pin connector
DC 24V	(+)	Red	Vcc	
CAN_	H	White	Signal	
Drain	Bare		Shield	
CAN_	L	Blue	Signal	
DC 24V	(-)	Black	GND	

2. For more wiring information, refer to the user manual.

Warranty

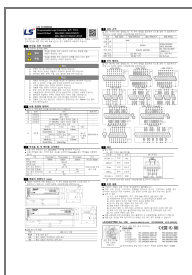
- The warranty period is 36 months from the date of manufacture.
- The initial diagnosis of faults should be conducted by the user. However, upon request, LS ELECTRIC or its representative(s) can undertake this task for a fee. If the cause of the fault is found to be the responsibility of LS ELECTRIC, this service will be free of charge.
- Exclusions from warranty
 - 1) Replacement of consumable and life-limited parts (e.g. relays, fuses, capacitors, batteries, LCDs, etc.)
 - 2) Failures or damages caused by improper conditions or handling outside those specified in the user manual
 - 3) Failures caused by external factors unrelated to the product
 - 4) Failures caused by modifications without LS ELECTRIC's consent
 - 5) Use of the product in unintended ways
 - 6) Failures that cannot be predicted/solved by current scientific technology at the time of manufacture
 - 7) Failures due to external factors such as fire, abnormal voltage, or natural disasters
 - 8) Other cases for which LS ELECTRIC is not responsible
- For detailed warranty information, please refer to the user's manual.
- The content of the installation guide is subject to change without notice for product performance improvement.

CONTACT

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- LS ELECTRIC Europe B.V. (Hoofddorf, Netherlands) Tel: 31-20-654-1424
- LS ELECTRIC Japan Co., Ltd. (Tokyo, Japan) Tel: 81-3-6268-8241
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Documents / Resources



[LS GDL-D22C Programmable Logic Controller](#) [pdf] Installation Guide
 D24C, DT4C-C1, GDL-TR2C-C1, TR4C-C1, RY2C, GDL-D22C Programmable Logic Controller,
 GDL-D22C, Programmable Logic Controller, Logic Controller, Controller

References

-  [Electric | The Largest Consumer Energy & Renewables Platform](#)
-  [LS ELECTRIC Co., Ltd.](#)
- [User Manual](#)

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