
FnIO G-Series:

GL-9132

GL-9132 (CC-Link Ver 2 Network Adapter Light)

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History

Rev	Pages	Remarks	Date	Editor
1.00			May 30, 2023	Junho, Park
1.01	4, 6	Document Number Added General Specification Edited Wiring Diagram Updated	Jun. 23, 2023	Seonghyeon, Park
1.02	8	DIW SW Node Address Edited	Dec. 13, 2023	Seonghyeon, Park
1.03	5	Added Max. number of stations per master station	Aprill. 17, 2024	Junho, Park

1. Environment Specification

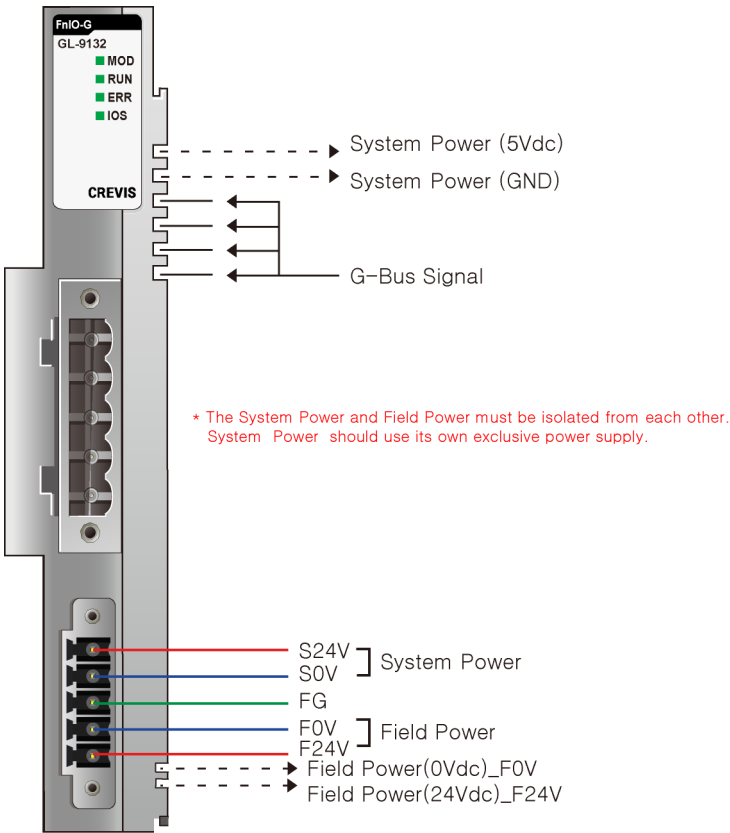
Environmental specification	
Operating Temperature	-40°C ~ 60°C : 1A full load is allowed.
UL Temperature	-20 °C ~ 60 °C
Storage Temperature	-40 °C ~ 85 °C
Relative Humidity	5% ~ 90% non-condensing
Mounting	DIN rail
General specification	
Shock Operating	IEC 60068-2-27
Vibration Resistance	IEC 60068-2-6, 4g
Industrial Emissions	EN 61000-6-4/A11 : 2011
Industrial Immunity	EN 61000-6-2 : 2019
Installation Position	Vertical and horizontal installation is available.
Product Certifications	CE, UKCA, UL

2. GL-9132 (CC-Link NETWORK ADAPTER, Light)

2.1. GL-9132 Specification

Items	Specification
Communication Specification	
Adapter Type	Slave node (CC-Link Version 2 only)
Sub-Protocol	Ethernet(USB Type) for Webserver (refer to Section 4. 'Webserver')
Max. Expantsion Module	32slots
I/O Data size	According to CC-Link version 2 specification
Maximum number of stations per master station	Max. 42 stations
The number of device station	1 ~ 64
Baud Rate	156/625/2500/5000/10000Kbps
Interface Connector	5 Pin open connector
Indicator	4 LED 1 Green/Red, Module Status (MOD) 1 Green/Red, Current Running Status (RUN) 1 Red, Error Status (ERR) 1 Green/Red Expansion I/O Module Status (IOS)
Module Location	Starter module left side of G-bus system
Station class	Remote Device station
General specification	
UL System Power	Supply voltage : 24Vdc nominal, Class 2
System Power	Supply voltage : 24Vdc nominal Supply voltage range : 15~28.8Vdc Reverse polarity protection
Power Dissipation	70mA typical @ 24Vdc
Current for I/O Module	1.0A @ 5Vdc
Isolation	System power to internal logic : Non-isolation System power I/O driver : Isolation
UL Field Power	Supply voltage : 24Vdc nominal, Class 2
Field Power	Supply voltage : 24Vdc nominal(Max. 28.8Vdc) * Field Power Range is different depending on IO Module series. Refer to IO Module's Specification.
Max. Current Field Power Contact	DC 8A Max
Wiring	I/O Cable Max. 2.0mm ² (AWG 14)
Weight	70g
Module Size	22mm x 109mm x 70mm
Environment Condition	Refer to '1. Environment Specification'

2.2. GL-9132 Wire Diagram



Pin No.	Signal Description
1	System Power, 24V
2	System Power, Ground
3	F.G
4	Field Power, Ground
5	Field Power, 24V

2.3. GL-9132 LED Indicator

2.3.1. LED Indicator



LED No.	LED Function / Description	LED Color
MOD	Module Status	Green/Red
RUN	Current Communication status	Green/Red
ERR	Error Status	Red
IOS	Extension module Status	Green/Red

2.3.2. MOD (Module Status LED)

Status	LED is	To indicate
Not Powered	OFF	Not power is supplied to the unit.
Normal, Operational	Green	The unit is operating in normal condition.
Device in Standby	RED	The EEPROM parameter is not initialized yet.

2.3.3. RUN (Current Communication Status LED)

Status	LED is	To indicate
Init / No Communication	OFF	No Communication / Communication Disconnection
Communication	Green	Normal Communication
Communication PLC STOP	Flashing Green	Executes STOP operating in PLC.
Communication Error	Red	Communication Time out Error
Communication CRC Error	Flashing Red	CC-Link CRC Error

2.3.4. ERR (Error Status LED)

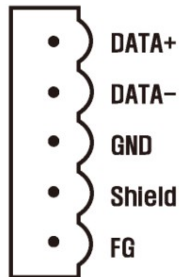
Status	LED is	To indicate
No Error	OFF	Normal State
Invalid Configuration	Red	Exceeded number range of device station
	Flashing Red	Wrong CC-Link Version setting
		Wrong Station Setting
		Wrong Extended cyclic setting
		CC-Link cable not connection

2.3.5. IOS LED (Extension module Status LED)

Status	LED is	To indicate
Not Powered	OFF	Device has no expansion module or may not be powered.
No Expansion Module	Flashing Red	Adapter has no expansion module
Internal Bus Connection, Run Exchanging I/O	Green	Exchanging I/O data.
Expansion Configuration Failed	Red	One or more expansion module occurred in fault state. <ul style="list-style-type: none"> - Detected invalid expansion module ID. - Too many expansion module - Initialization failure - Overflowed Input/Output Size - Communication failure. - Changed expansion module configuration. - Mismatch vendor code between adapter and expansion module.

2.4. GL-9132 Electrical Interface

2.4.1. 5 Pin open connector



RJ-45	Signal Name	Description
1	DATA+	Transceiver Data High
2	DATA-	Transceiver Data Low
3	GND	Signal Common
4	Shield	Shield
5	FG	Frame Ground Internally shorted with shield

2.4.2. Dip Switch



DIP Pole#	Description	
1	Node Address Setting	Node address set-up is Dip switch. Max node Address is 64.(*)
2		
3		
4		
5		
6		
7		
8	Baud rate #1	156Kbps : 8 OFF, 9 OFF, 10 OFF 625Kbps : 8 ON, 9 OFF, 10 OFF
9	Baud rate #2	2.5Mbps : 8 OFF, 9 ON, 10 OFF 5Mbps : 8 ON, 9 ON, 10 OFF
10	Baud rate #3	10Mbps : 8 OFF, 9 OFF, 10 ON Default Baud rate 156Kbps

* Node address setting example

Item Description	DIP Switch Pole #									
	#1(1)	#2(2)	#3(4)	#4(8)	#5(10)	#6(20)	#7(40)	#8	#9	#10
Ex) ID = 0 *	OFF	OFF	OFF	OFF	OFF	OFF	OFF			
Ex) ID = 1	ON	OFF	OFF	OFF	OFF	OFF	OFF			
Ex) ID = 10	OFF	OFF	OFF	OFF	ON	OFF	OFF			
Ex) ID = 40	OFF	OFF	OFF	OFF	OFF	OFF	ON			
Ex) ID = 42	OFF	ON	OFF	OFF	OFF	OFF	ON			
Ex) ID = 64	OFF	OFF	ON	OFF	OFF	ON	ON			

* The setting range of node address is 1 ~ 64

If the node address is out of the setting range, it is an error(ERR LED Red on)



DIP Pole#	Description	
1	Station Setting	SW2 / SW1
		OFF / OFF : 1 Station
		OFF / ON : 2 Station
2		ON / OFF : 3 Station
		ON / ON : 4 Station
3	Extended cyclic setting	SW4 / SW3
		OFF / OFF : Single
		OFF / ON : Double
4		ON / OFF : Quadruple
		ON / ON : Octuple



DIP Pole#	Description	
1	Terminator	1 ON, 2 ON : Terminator Resistor Set
2	Resistor	Other : Terminator Resistor Non-set

3. Process image

3.1. Remote input area

Maximum number of link points(RX)		Number of occupied stations			
		1 station occupied	2 station occupied	3 station occupied	4 station occupied
Extended cyclic setting	Single	32 bits	64 bits	96 bits	128 bits
	Double	32 bits	96 bits	160 bits	224 bits
	Quadruple	64 bits	192 bits	320 bits	448 bits
	Octuple	128 bits	384 bits	640 bits	896 bits

* When “Single” is set in CC-Link Ver.2, the extended cyclic header information will not be added and the frame and data volume will be the same as those in CC-Link Ver.1.

3.2. Remote output area

Maximum number of link points(RY)		Number of occupied stations			
		1 station occupied	2 station occupied	3 station occupied	4 station occupied
Extended cyclic setting	Single	32 bits	64 bits	96 bits	128 bits
	Double	32 bits	96 bits	160 bits	224 bits
	Quadruple	64 bits	192 bits	320 bits	448 bits
	Octuple	128 bits	384 bits	640 bits	896 bits

* When “Single” is set in CC-Link Ver.2, the extended cyclic header information will not be added and the frame and data volume will be the same as those in CC-Link Ver.1.

3.3. RWr/RWw area

Maximum number of link points(RWn)		Number of occupied stations			
		1 station occupied	2 station occupied	3 station occupied	4 station occupied
Extended cyclic setting	Single	4 words	8 words	12 words	16 words
	Double	8 words	16 words	24 words	32 words
	Quadruple	16 words	32 words	48 words	64 words
	Octuple	32 words	64 words	96 words	128 words

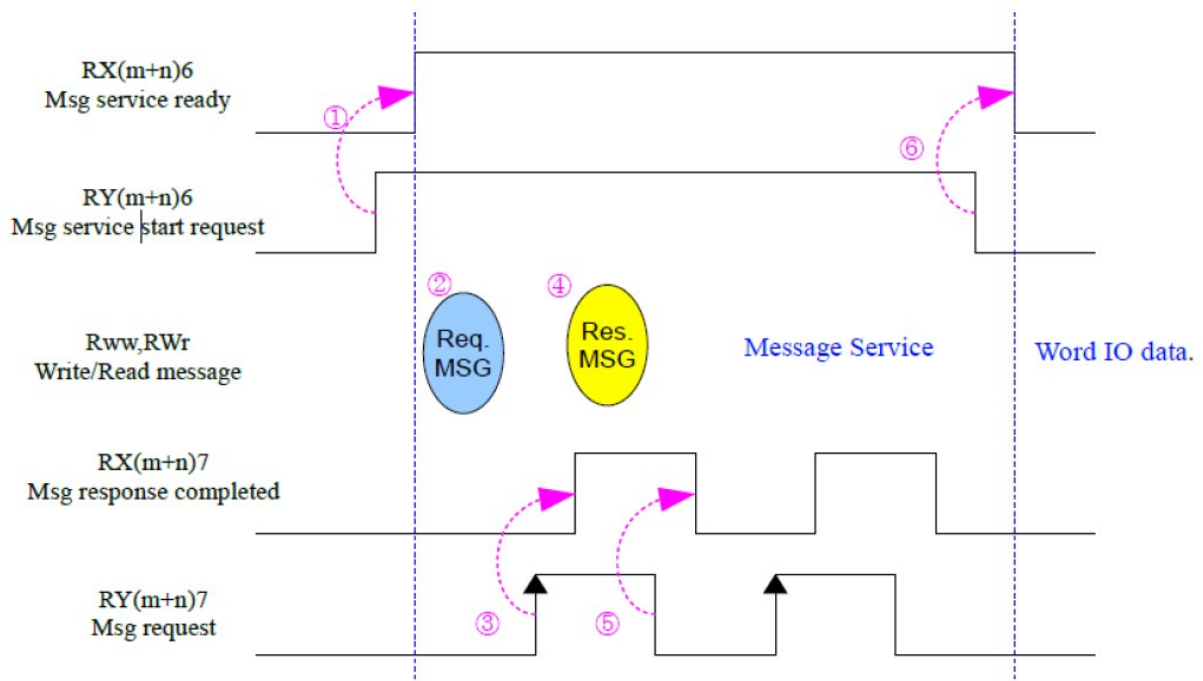
3.4. System area

Input	Description	Output	Description
RX0	Reaction on network error	RY0	Reaction on network error
RX1	Reaction on network error	RY1	Reaction on network error
RX2	Reserved	RY2	Reserved
RX3	Reserved	RY3	Reserved
RX4	Reserved	RY4	Reserved
RX5	Reserved	RY5	Reserved
RX6	Msg service ready	RY6	Msg service start request
RX7	Msg response completed	RY7	Msg request
RX8	Reserved	RY8	Reserved
RX9	Reserved	RY9	Reserved
RXA	Error status flag	RYA	Reserved
RXB	Remote station ready	RYB	Reserved
RXC	Reserved	RYC	Reserved
RXD	Reserved	RYD	Reserved
RXE	Reserved	RYE	Reserved
RXF	Reserved	RYF	Reserved

3.4.1. Reaction on network error

RY1	RY0	Description
0	0	Hold Last value
0	1	Clear output to zero
1	0	Stop Bus
1	1	Not used(internally switched to 10)

3.4.2. Service Message



3.4.3. Service Message request

Address	High byte	Low byte	station
RWw[0]	Slot number	Service code - Read Parameter : 2 - Write Parameter : 3	1
RWw[1]	offset		
RWw[2]	User data length		
RWw[3]	User data 1	User data 0	
RWw[4]	User data 3	User data 2	2
RWw[5]	User data 5	User data 4	
RWw[6]	User data 7	User data 6	
RWw[7]	User data 9	User data 8	
RWw[8]	User data 11	User data 10	3
RWw[9]	User data 13	User data 12	
RWw[10]	User data 15	User data 14	
RWw[11]	User data 17	User data 16	
RWw[12]	User data 19	User data 18	4
RWw[13]	User data 21	User data 20	
RWw[14]	User data 23	User data 22	
RWw[15]	User data 25	User data 24	

3.4.4. Service Message response

Address	High byte	Low byte	station
RWr[0]	Slot number	Service code - Read Parameter : 2 - Write Parameter : 3	1
RWr[1]	offset		
RWr[2]	User data length		
RWr[3]	User data 1	User data 0	
RWr[4]	User data 3	User data 2	2
RWr[5]	User data 5	User data 4	
RWr[6]	User data 7	User data 6	
RWr[7]	User data 9	User data 8	
RWr[8]	User data 11	User data 10	3
RWr[9]	User data 13	User data 12	
RWr[10]	User data 15	User data 14	
RWr[11]	User data 17	User data 16	
RWr[12]	User data 19	User data 18	4
RWr[13]	User data 21	User data 20	
RWr[14]	User data 23	User data 22	
RWr[15]	User data 25	User data 24	

4. Webserver

4.1. How to access the webserver

1) IP Address usage

The screenshot shows the CREVIS Web Server interface for the GL-9132 device. The browser address bar is set to 192.168.7.1. The interface includes a login section with fields for ID and PW, and a sidebar menu with options like Network Adapter, General Information, Parameter Data, Process Image Data, Input/Output Data, Expansion Module, and Module List. The main content area displays the following information:

CC-Link V2	
CC-Link State:	CONFIGURATION FAILURE
CC-Link NodeID/Extended Cyclic/Baudrate Value:	StationNum: 10 / Station: 4 / Extended Cyclic: 8 / Baudrate: 10Mbps
Gbus State:	RUN
RXY Size:	RX:6 byte(s), RY:6 byte(s) / Max. 110 bytes
RWn Size:	RW:8 Word(s), RWw:8 Word(s) / Max. 128 Words

CONNECTIONS	
HTTP(Web Server) Connections:	Available
CC-Link Connections:	Available

USB IP ADDRESS	
IP Address:	192.168.7.1
Subnet Mask:	255.255.255.0
Gateway:	0.0.0.0
MAC Address:	00:14:F7:F6:66:06

General Information	
Firmware Revision:	1.000(07/13/2023)
Expansion Modules:	8 module(s) / Max. 32 modules

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- Default IP Address is “192.168.7.1”
- IP address can be changeable by setting the parameter data of the network adapter (refer to Section 4.3.1).

2) Domain Name usage

The screenshot shows the CREVIS Web Server interface for the GL-9132 device. The browser address bar displays 'gl9132.com', which is highlighted with a red box. The interface includes a sidebar with navigation links and a main content area with the following sections:

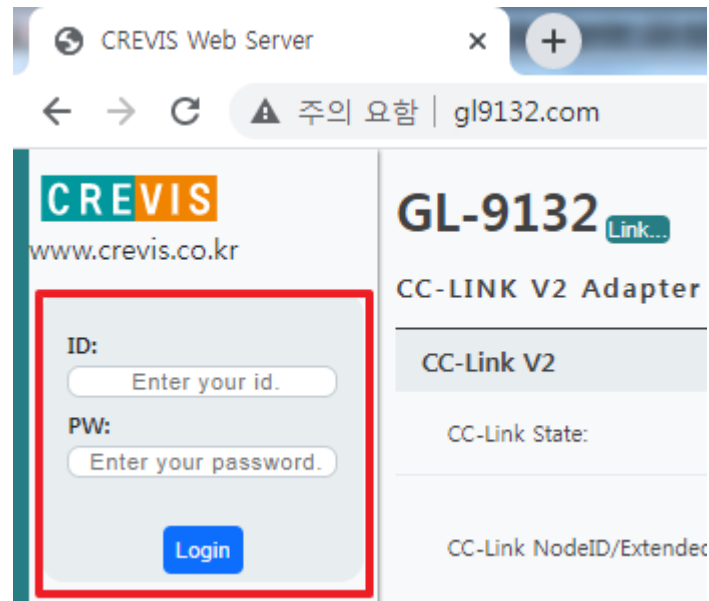
- CC-LINK V2**
 - CC-Link State: CONFIGURATION FAILURE
 - CC-Link NodeID/Extended Cyclic/Baudrate Value: StationNum: 10 / Station: 4 / Extended Cyclic: 8 / Baudrate: 10Mbps
 - Gbus State: RUN
 - RXY Size: RX:6 byte(s), RY:6 byte(s) / Max. 110 bytes
 - RWn Size: RWr:8 Word(s), RWw:8 Word(s) / Max. 128 Words
- CONNECTIONS**
 - HTTP(Web Server) Connections: Available
 - CC-Link Connections: Available
- USB IP ADDRESS**
 - IP Address: 192.168.7.1
 - Subnet Mask: 255.255.255.0
 - Gateway: 0.0.0.0
 - MAC Address: 00:14:F7:F6:66:06
- General Information**
 - Firmware Revision: 1.000(07/13/2023)
 - Expansion Modules: 8 module(s) / Max. 32 modules

At the bottom of the interface, a footer states: 2022 by CREVIS CO., LTD. ALL RIGHT RESERVED

- Default Domain Name is “gl9132.com”
- Domain Name can be changeable by setting the parameter data of the network adapter (refer to Section 4.3.1).

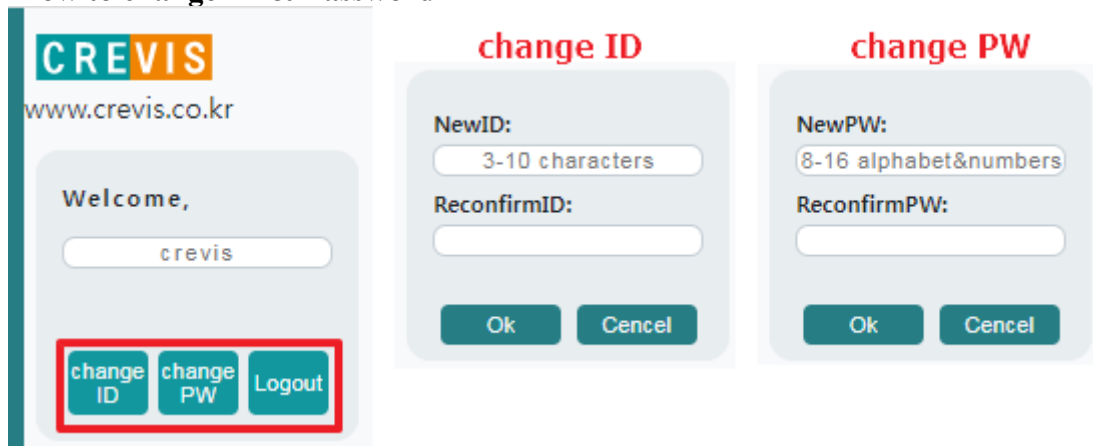
4.2. Log-in information

4.2.1. Log-in



- Default ID is “crevis”
- Default Password is “crevis”
- Log-in should be done first in order to write the output data and parameter data.

4.2.2. How to change ID & Password



- ID and password can be changeable after the log-in.
- The ID characters' limitation is from 3 to 10 letters.
- The PW characters' limitation is from 8 to 16 letters (alphabet & numbers).
- The PW must consist of numbers and alphabets.
- ID and PW cannot contain special characters (ex - #@\$/? and etc).

4.3. Other information

4.3.1. Network Adapter

1) General Information

'General Information' contains the basic information of Network Adapter.

The screenshot shows the CREVIS Web Server interface for the GL-9132 CC-LINK V2 Adapter. The left sidebar contains navigation links: Network Adapter, General Information <, Parameter Data, Process Image Data, Input/Output Data, and Expansion Module. The main content area is titled 'GL-9132 Link' and 'CC-LINK V2 Adapter Light,GBUS'. It displays the following information:

CC-Link V2	
CC-Link State:	CONFIGURATION FAILURE
CC-Link NodeID/Extended Cyclic/Baudrate Value:	StationNum: 10 / Station: 4 / Extended Cyclic: 8 / Baudrate: 10Mbps
Gbus State:	RUN
RXY Size:	RX:6 byte(s), RY:6 byte(s) / Max. 110 bytes
RWn Size:	RWr:8 Word(s), RWw:8 Word(s) / Max. 128 Words

CONNECTIONS	
HTTP(Web Server) Connections:	Available
CC-Link Connections:	Available

USB IP ADDRESS	
IP Address:	192.168.7.1
Subnet Mask:	255.255.255.0
Gateway:	0.0.0.0
MAC Address:	00:14:F7:F6:66:06

General Information	
Firmware Revision:	1.000(07/13/2023)
Expansion Modules:	8 module(s) / Max. 32 modules

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2) Parameter Data

Change the Domain name and IP, subnet, gateway setting in 'Parameter Data'.

When you change the Domain name, IP, subnet or gateway, you must turn the power OFF and ON.

The screenshot shows the CREVIS Web Server interface for the GL-9132 CC-LINK V2 Adapter, specifically the 'USB IP ADDRESS SETTING' page. The left sidebar is the same as the previous screenshot. The main content area is titled 'GL-9132 Link' and 'CC-LINK V2 Adapter Light,GBUS'. It displays the following settings:

USB IP ADDRESS SETTING	
IP Address:	192.168.7.1
Subnet Mask:	255.255.255.0
Gateway:	0.0.0.0
Domain Name:	gl9132.com

After the system is reset, you can access the changed values.

4.3.2. Process Image Data

1) Input/Output Data

'Input/Output Data' shows the input/Output value connected to GL-9132.

If the input/output data size is large, it is divided into pages and displayed.

The screenshot displays the CREVIS Web Server interface for the GL-9132 device. The browser address bar shows the URL `gl9132.com/#/inoutdata/`. The interface is divided into a sidebar and a main content area.

Sidebar:

- CREVIS logo and `www.crevis.co.kr`
- Login fields: ID (Enter your id.), PW (Enter your password.), and a Login button.
- Navigation menu:
 - Network Adapter
 - General Information
 - Parameter Data
 - Process Image Data (selected)
 - Input/Output Data <
 - Expansion Module
 - Module List
- Module List:
 - #1 GT-4114
 - #2 GT-3114
 - #3 GT-226F
 - #4 GT-12DF
 - #5 GT-12DF
 - #6 GT-226F
 - #7 GT-12DF
 - #8 GT-226F

Main Content Area:

GL-9132 Link
CC-LINK V2 Adapter Light, GBUS

IO Input Data (Byte-Hex) (Read button)

Input Byte #	Value
Input Byte #0:	01
Input Byte #1:	00
Input Byte #2:	01
Input Byte #3:	00
Input Byte #4:	01
Input Byte #5:	00
Input Byte #6:	01
Input Byte #7:	00
Input Byte #8:	00
Input Byte #9:	00

Navigation: < 1 2 >

IO Output Data (Byte-Hex) (Write button)

Output Byte #	Value
Output Byte #0:	00
Output Byte #1:	00
Output Byte #2:	00
Output Byte #3:	00
Output Byte #4:	00
Output Byte #5:	00
Output Byte #6:	00
Output Byte #7:	00
Output Byte #8:	00
Output Byte #9:	00

Navigation: < 1 2 >

Footer: 2022 by CREVIS CO., LTD. ALL RIGHT RESERVED

4.3.3. Expansion Module

1) Module List

'Module List' shows the expansion module connected to GL-9132.

Clicking on each slot shows the parameter and input/output information of each module.

CREVIS Web Server

www.crevis.co.kr

ID:
PW:
[Login](#)

Network Adapter
General Information
Parameter Data
Process Image Data
Input/Output Data
Expansion Module
[Module List <](#)

GL-9132 [Link...](#)
CC-LINK V2 Adapter Light,GBUS

Module	Descriptions	Input Reg. Map	Output Reg. Map
#1 GT-4114	4AO 0~20mA, 128bits	-	0x0800/0
#2 GT-3114	4AI 0~20mA/4~20mA, 128bits	0x0000/0	-
#3 GT-226F	16DO, 24Vdc, Source 18RTB	-	0x0804/0
#4 GT-12DF	16DI, 24Vdc, Universal 18RTB	0x0004/0	-
#5 GT-12DF	16DI, 24Vdc, Universal 18RTB	0x0005/0	-
#6 GT-226F	16DO, 24Vdc, Source 18RTB	-	0x0805/0
#7 GT-12DF	16DI, 24Vdc, Universal 18RTB	0x0006/0	-
#8 GT-226F	16DO, 24Vdc, Source 18RTB	-	0x0806/0

#1 GT-4114
#2 GT-3114
#3 GT-226F
#4 GT-12DF
#5 GT-12DF
#6 GT-226F
#7 GT-12DF
#8 GT-226F

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2) Input Module

Pressing the “Read” button continuously updates the Input data.

After entering the parameter data, click the “Write” button in order to change the parameter value.

However, must log-in first to activate the “Write” button.

When the parameter data is successfully written, a sun-shaped symbol is displayed.

If “Read” fail, a cloud symbol is displayed.

If “Write” fail, a caution symbol is displayed.

When CC-Link communication is in normal operation, writing cannot be performed.

CREVIS Web Server

www.crevis.co.kr

Welcome, crevis

change ID change PW Logout

Network Adapter

General Information

Parameter Data

Process Image Data

Input/Output Data

Expansion Module

Module List

#1 GT-4114

#2 GT-3114 <

#3 GT-226F

#4 GT-12DF

#5 GT-12DF

#6 GT-226F

#7 GT-12DF

#8 GT-226F

GL-9132 Link

CC-LINK V2 Adapter Light,GBUS

#1 GT-4114 Slot#2 GT-3114 4AI 0~20mA/4~20mA, 12Bits #3 GT-226F

IO Input Data (Byte-Hex)

Read

Input Byte #0:	00
Input Byte #1:	00
Input Byte #2:	02
Input Byte #3:	00
Input Byte #4:	00
Input Byte #5:	00
Input Byte #6:	01
Input Byte #7:	00

Parameter Data (Byte-Hex)

Write

Parameter Byte #0:	00
Parameter Byte #1:	00
Parameter Byte #2:	00
Parameter Byte #3:	00
Parameter Byte #4:	00
Parameter Byte #5:	73

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3) Output Module

After entering the output data, click the “Write” button in order to change the output value.

After entering the parameter data, click the “Write” button in order to change the parameter value.

Write operation is unavailable when CC-Link communication is in normal operation or when login is not performed.

When the output data or parameter data is successfully written, a sun-shaped symbol is displayed.

If “Write” fail, a caution symbol is displayed.

CREVIS Web Server

주요 요약 | gl9132.com/#/slot/3

GL-9132 Link

CC-LINK V2 Adapter Light.GBUS

#2 GT-3114 Slot#3 GT-226F 16DO, 24Vdc, Source 18RTB #4 GT-12DF

IO Output Data (Byte-Hex) Write

Output Byte #0: 00

Output Byte #1: 00

< 1 >

Parameter Data (Byte-Hex) Write

Parameter Byte #0: 00

Parameter Byte #1: 00

Parameter Byte #2: FF

Parameter Byte #3: FF

< 1 >

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