

# RS-232C/422 Isolation Unit

## Installation Guide

Thank you for purchasing Pro-face's RS-232C/422 Isolation Unit (CA2-ISOALL232-01/CA2-ISOALL422-01). This unit is designed to utilize the GP/GLC unit's serial interface connector (Dsub25-pin), and electrically separates the serial interface signal from the GP/GLC unit's chassis.

## Essential Safety Precautions

### WARNINGS

- **To avoid an electric shock, prior to connecting this unit to the display's serial interface, confirm that the display's power supply is completely turned OFF, via a breaker, or similar unit.**
- **Do not modify this unit. Doing so may cause a fire or an electric shock.**
- **Do not use this unit in an environment where flammable gases are present, since operating this unit may cause an explosion.**

### ■ General Safety Precautions

- **Do not allow water, liquids, metal or charged particles to enter inside this unit, since they can cause either a unit malfunction or an electrical shock.**
- **Do not use or store this unit in direct sunlight, or in excessively dusty or dirty environments.**
- **Do not store or use this unit where strong jolting or excessive vibration can occur.**
- **Do not store or use this unit where chemicals (such as organic solvents, etc.) and acids can evaporate, or where chemicals and acids are present in the air.**

# Package Contents

Please check that the following items are included in your package.

■ **Isolation Unit**

**CA2-ISOALL232-01 (RS-232C Type) or CA2-ISOALL422-01 (RS-422 Type)**

■ **Installation Guide (this guide)**

■ **Attachment Ties (2)**

## CE Marking

The CA2-ISOALL232-01 and CA2-ISOALL422-01 are a CE marked, EMC compliant products.

These units conform to EN55011 Class A and EN61000-6-2 directives.

For detailed CE marking information, please contact your local distributor.

## Compatible Models

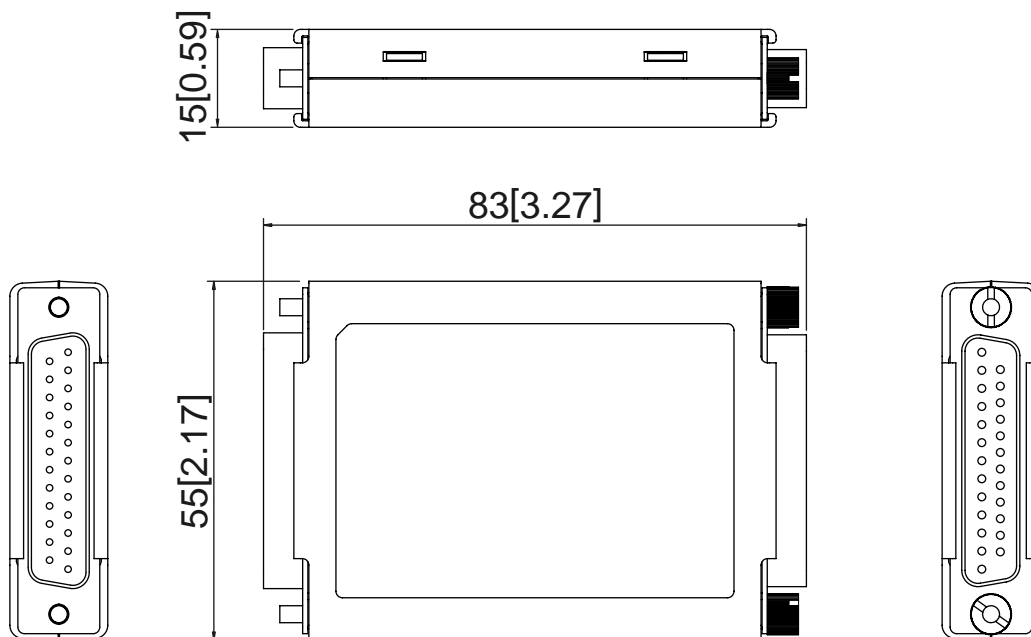
The following GP/GLC Series units are compatible with the Isolation Unit. (As of July, 2002)

GP70 Series	GP77R Series / GP2000 Series	GLC Series / Others
GPH70-LG41-24VP <sup>*1</sup>	GP377R-TC11-24V	GLC100-LG41-24V
GPH70-SC41-24VP <sup>*1</sup>	GP377R-TC41-24V	GLC100-SC41-24V
GP370-LG21-24VP	GP577R-SC41-24VP	GLC150-BG41-RSFL-24V
GP370-LG41-24VP	GP577R-TC41-24VP	GLC300-TC41-24V
GP370-SC21-24VP	GP2301H-LG41-24V <sup>*1</sup>	GLC2300-LG41-24V
GP370-SC41-24VP	GP2301H-SC41-24V <sup>*1</sup>	GLC2300-TC41-24V
GP37W2-BG41-24V	GP2401H-TC41-24V <sup>*1</sup>	GLC2400-TC41-24V
GP570-BG11-24V	GP2300-LG41-24V	GLC2600-TC41-24V
GP570-LG21-24V	GP2300-TC41-24V	FGW-SE41-24V
GP570-SC21-24VP	GP2301-LG41-24V	GPH70-AP232-O
GP570-TC21-24VP	GP2301-SC41-24V	GP2000H-AP232
GP675-SC11	GP2400-TC41-24V	
GP675-TC41-24VP	GP2500-LG41-24V	
GP377-LG11-24V	GP2500-TC11	
GP377-LG41-24V	GP2500-TC41-24V	
GP377-SC11-24V	GP2501-SC11	
GP377-SC41-24V	GP2501-TC11	
	GP2600-TC11	
	GP2600-TC41-24V	

\*1 The Isolation unit cannot be attached directly to these GP models. To attach the Isolation unit, either create your own cable, or use Digital's separately sold Conversion Adaptor(GPH70-AP232-O/GP2000H-AP232).

# 1 External Drawings and Dimensions

Unit mm:[in.]



## 2 Specifications

### 2.1 General

Item	Description
Input Voltage	5V (supplied from display)
Power Consumption	1.25W or less
Voltage Endurance	AC1,000V 20mA for 1minute (When attached to display)
Insulation Resistance	10MΩ or higher at DC500V (When attached to display) Isolation resistance between display and Device/PLC is 1MΩ

### 2.2 Structural

Item	Description
Cooling Method	Natural air circulation
Weight	65g[0.14lb] or less
External Dimensions	W83mm[3.27in]×H55mm[2.17in]×D15mm[0.59in]

## 3 Serial Interface Specifications

### 3.1 RS-232C Type

The RS-232C type (CA2-ISOALL232-01) Dsub 25-pin connector's pin assignments are as follows.

Pin #	Signal Name	Condition	Signal Direction
1	FG	Frame ground	-
2	SD	Send data	Output
3	RD	Receive data	Input
4	RS	Request send	Output
5	CS	Clear send	Input
6	DR	Data Set Ready	Input
7	SG	Signal ground	-
8	CD	Carrier detect	Input
9-13	NC	No connection	-
14	VCC	+5V±5% output 0.15A	Output
15-16	NC	No connection	-
17	RI	Ring Indicate	Input
18-19	NC	No connection	-
20	ER	Enable receive	Output
21-25	NC	No connection	-

Recommended Connector : Dsub25pin plug XM2A-2501 <made by OMRON>

Recommended Cover : Dsub25pin cover XM2S-2511 <made by OMRON>  
Jack Screws XM2Z-0071 <made by OMRON>

Recommended Cable : CO-MA-VV-SB5PX 28AWG  
<made by HITACHI Cable Ltd.>



Use rough metric type M2.6 x 0.45 p threads used to secure the cable's set screws.

## 3.2 RS-422 Type

The RS-422 type (CA2-ISOALL422-01) Dsub 25-pin connector's pin assignments are as follows.

Pin #	Signal Name	Condition	Signal Direction
1	FG	Frame ground	-
2-6	NC	No connection	-
7	SG	Signal ground	-
8	NC	No connection	-
9	TRMX	Termination	-
10	RDA	Receive data A	Input
11	SDA	Send data A	Output
12-13	NC	No connection	-
14	VCC	+5V±5% output 0.15A	Output
15	SDB	Send data B	Output
16	RDB	Receive data B	Input
17	NC	No connection	-
18	CSB	Clear send B	Input
19	ERB	Enable receive B	Output
20	NC	No connection	-
21	CSA	Clear send A	Input
22	ERA	Enable receive A	Output
23-25	NC	No connection	-

Recommended Connector : Dsub25pin plug XM2A-2501 <made by OMRON>

Recommended Cover : Dsub25pin cover XM2S-2511 <made by OMRON>

Jack Screws XM2Z-0071 <made by OMRON>

Recommended Cable : CO-MA-VV-SB5PX 28AWG

<made by HITACHI Cable Ltd.>



**Note:**

Use rough metric type M2.6 x 0.45 p threads used to secure the cable's set screws.

## 4 Isolation Unit Connection Precaution

Since attaching the isolation unit can cause cabling problems, or put stress on the interface connector, Pro-face recommends the purchase of the optional interface cable (CA1-EXCBL/D25-01). When this cable is used, please attach the Attachment Ties provided in the Isolation Unit's package.

**Note**

Please be aware that Digital Electronics Corporation shall not be held liable by the user for any damages, losses, or third party claims arising from the uses of this product.

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