

# PFXGP4601TADC

http://www.axcontrol.com/automation/pro-face/gp-4000/PFXGP4601TADC

# **Pro-face Xycom GP4000**

# PFXGP4601TADC

Pro-face Xycom GP-460xT GP460xT uch Screen Operator Interface 12.1 TFT Analog Color LCD Display with Conformal Coating. Call No

1-800-991-7026

sales@axcontrol.com

## See Also:

http://www.axcontrol.com/automation/pro-face/gp-4000

# **Interface Specifications**

### **Serial Interface COM1**

| Asynchronous<br>Transmission | RS-232C            |
|------------------------------|--------------------|
| Data Length                  | 7 or 8 bits        |
| Stop Bit                     | 1 or 2 bits        |
| Parity                       | None, odd or even  |
| Data Transmission Speed      | 2,400115,200 bps   |
| Connector                    | D-Sub 9 pin (plug) |

### Serial Interface COM2

|                              | GP-4301T / GP-4301TW                  | GP-4303T           |
|------------------------------|---------------------------------------|--------------------|
| Asynchronous<br>Transmission | RS-422 / RS-485                       | RS-485 (isolation) |
| Data Length                  | 7 or 8 bits                           |                    |
| Stop Bit                     | 1 or 2 bits                           |                    |
| Parity                       | None, odd or even                     |                    |
| Data Transmission Speed      | 2,400115,200 bps, 187,500 bps (MPI)   |                    |
| Connector                    | D-Sub 9 pin (plug) D-Sub 9 pin (socke |                    |

# **USB** Interface

|                               | USB (Type A) Interface | USB (mini-B) Interface |
|-------------------------------|------------------------|------------------------|
| Connector                     | USB 2.0 (Type A) x 1   | USB 2.0 (mini-B) x 1   |
| Power Supply Voltage          | 5 Vdc ±5%              | -                      |
| Maximum Current<br>Supplied   | 500 mA                 | -                      |
| Maximum Transmission Distance | 5 m (16.4 ft)          |                        |

### **Ethernet Interface**

| Ethernet (LAN) | IEEE802.3i / IEEE802.3u,<br>10BASE-T/100BASE-TX |
|----------------|---|
| Connector      | Modular jack (RJ45) x 1                         |

### **SD Card Interface**

GP-4301T/GP-4303T: SD Card slot x 1 (maximum 32 GB SD/SDHC Card)

NOTE: GP-4301TW does not have an SD Card interface.

# **Specifications of Serial Interface COM1**

#### Introduction

**NOTE:** For instructions on how to connect to other devices, always refer to the "GP-Pro EX Device/PLC Connection Manual".

The serial port is not isolated. The SG (signal ground) and FG (frame ground) terminals are connected inside the GP unit.

# **A** A DANGER

#### **ELECTRIC SHOCK**

When using the SG terminal to connect an external device to the panel:

- Verify that a short-circuit loop is not created when you set up the system.
- Connect the #5 SG terminal to remote equipment when the host (PLC) unit is not isolated. Connect the #5 SG terminal to a known reliable ground connection to reduce the risk of damaging the circuit.

Failure to follow these instructions will result in death or serious injury.

#### Serial Interface COM1

**GP-4301T / GP-4301TW / GP-4303T**: D-Sub 9 pin plug connector via an RS-232C cable.

| Pin Connection |            | Pin   | RS-232C     |           |                               |
|----------------|------------|-------|-------------|-----------|-------------------------------|
|                |            |       | Signal Name | Direction | Meaning                       |
|                |            | 1     | CD          | Input     | Carrier Detect                |
|                |            | 2     | RD(RXD)     | Input     | Receive Data                  |
| 5              | 9          | 3     | SD(TXD)     | Output    | Send Data                     |
|                | 000        | 4     | ER(DTR)     | Output    | Data Terminal Ready           |
| 1              | 6          | 5     | SG          | -         | Signal Ground                 |
|                |            | 6     | DR(DSR)     | Input     | Data Set Ready                |
|                |            | 7     | RS(RTS)     | Output    | Request to Send               |
| (Gl            | unit side) | 8     | CS(CTS)     | Input     | Send possible                 |
|                |            |       | CI(RI)/VCC  | Input/–   | Called Status Display         |
|                |            |       |             |           | +5V±5% Output 0.25A*1         |
|                |            | Shell | FG          | _         | Frame Ground (Common with SG) |

NOTE: \*1 You can switch pin #9 between RI and VCC via software.

# **NOTICE**

### **EQUIPMENT DAMAGE**

Use only the rated current.

Failure to follow these instructions can result in equipment damage.

Interfit bracket is #4-40 (UNC).

#### Recommendations:

- Cable Connector: XM2D-0901 manufactured by OMRON Corporation.
- Cable Cover: XM2S-0913 manufactured by OMRON Corporation.
- Jack Screw (#4-40 UNC): XM2Z-0073 manufactured by OMRON Corporation.

# **A** CAUTION

### LOSS OF COMMUNICATION

- All connections to the communication ports must not put excessive stress on the ports.
- Securely attach communication cables to the panel wall or cabinet.
- Use only D-Sub 9 pin cables with a locking tab in good condition.

Failure to follow these instructions can result in injury or equipment damage.

### **Specifications of Serial Interface COM2**

#### Introduction

**NOTE:** For instructions on how to connect to other devices, always refer to the "GP-Pro EX Device/PLC Connection Manual".

The COM2 ports of GP-4301T and GP-4301TW are not isolated. The SG (signal ground) and FG (frame ground) terminals are connected inside the GP unit.

# A A DANGER

#### **ELECTRIC SHOCK**

When using the SG terminal to connect an external device to the panel:

- Verify that a short-circuit loop is not created when you set up the system.
- Connect the #5 SG terminal to remote equipment when the host (PLC) unit is not isolated. Connect the #5 SG terminal to a known reliable ground connection to reduce the risk of damaging the circuit.

Failure to follow these instructions will result in death or serious injury.

#### Serial Interface COM2

GP-4301T / GP-4301TW: D-Sub 9 pin plug connector via an RS-422/485 cable.

| Pin Connection |                   | Pin RS-422/RS-485 |     |             |                               |                           |
|----------------|-------------------|-------------------|-----|-------------|-------------------------------|---------------------------|
|                |                   |                   | No. | Signal Name | Direction                     | Meaning                   |
|                |                   |                   | 1   | RDA         | Input                         | Receive Data A (+)        |
|                |                   |                   | 2   | RDB         | Input                         | Receive Data B (-)        |
| 5              | 5                 |                   | 3   | SDA         | Output                        | Send Data A (+)           |
|                |                   |                   | 4   | ERA         | Output                        | Data Terminal Ready A (+) |
|                |                   |                   | 5   | SG          | -                             | Signal Ground             |
| 1              | - \( \)     \( \) |                   | 6   | CSB         | Input                         | Send Possible B (-)       |
|                |                   |                   | 7   | SDB         | Output                        | Send Data B (-)           |
|                |                   | J                 | 8   | CSA         | Input                         | Send Possible A (+)       |
| (GP unit side) |                   |                   | 9   | ERB         | Output                        | Data Terminal Ready B (-) |
|                |                   | Shell             | FG  | _           | Frame Ground (Common with SG) |                           |

Interfit bracket is #4-40 (UNC).

#### Recommendations:

- Cable Connector: XM2D-0901 manufactured by OMRON Corporation.
- Cable Cover: XM2S-0913 manufactured by OMRON Corporation.
- Jack Screw (#4-40 UNC): XM2Z-0073 manufactured by OMRON Corporation.

# **A** CAUTION

#### LOSS OF COMMUNICATION

- All connections to the communication ports must not put excessive stress on the ports.
- Securely attach communication cables to the panel wall or cabinet.
- Use only D-Sub 9 pin cables with a locking tab in good condition.

Failure to follow these instructions can result in injury or equipment damage.

GP-4303T: D-Sub 9 pin socket connector via an RS-485, PROFIBUS, or MPI cable.

| Pin Connection |       | Pin   | Pin RS-485 (isolation) |             |  |                          |
|----------------|-------|-------|------------------------|-------------|--|--------------------------|
|                |       |       | No.                    | Signal Name | Direction  | Meaning                  |
|                |       |       | 1                      | NC          | -  | no connection            |
|                |       |       | 2                      | NC          | -  | no connection            |
| 1              |       |       | 3                      | Line A      | Input/Output                                       | Data A (+)               |
| 1              | 00000 | ]  6  | 4                      | RS(RTS)     | Output   | Request to Send          |
|                |       |       | 5                      | SG          | -  | Signal Ground            |
| 5              |       | 9     | 6                      | VCC         | -  | +5V±5% External Output*1 |
|                |       |       | 7                      | NC          | -  | no connection            |
|                |       |       | 8                      | Line B      | Input/Output                                       | Data B (-)               |
| '              |       | )     | 9                      | NC          | -  | no connection            |
| (GP unit side) |       | Shell | FG                     | -           | Frame Ground <sup>*2</sup> (Not connected with SG) |                          |

 ${\bf NOTE:}\ ^{*1}$  You can supply power to the Siemens PROFIBUS connector only. You cannot supply power to the device/PLC.

Interfit bracket is #4-40 (UNC).

#### Recommendations:

- Cable Connector: XM2A-0901 manufactured by OMRON Corporation.
- Cable Cover: XM2S-0913 manufactured by OMRON Corporation.
- Jack Screw (#4-40 UNC): XM2Z-0073 manufactured by OMRON Corporation.

# **A** CAUTION

### LOSS OF COMMUNICATION

- All connections to the communication ports must not put excessive stress on the ports.
- Securely attach communication cables to the panel wall or cabinet.
- Use only D-Sub 9 pin cables with a locking tab in good condition.

Failure to follow these instructions can result in injury or equipment damage.

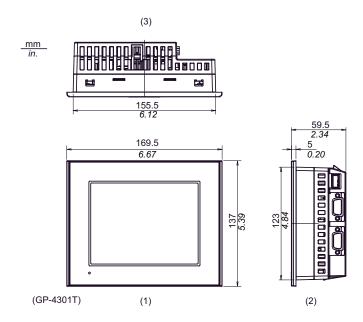
<sup>\*2</sup> The SG and FG terminals are isolated.

# **Dimensions**

### NOTE:

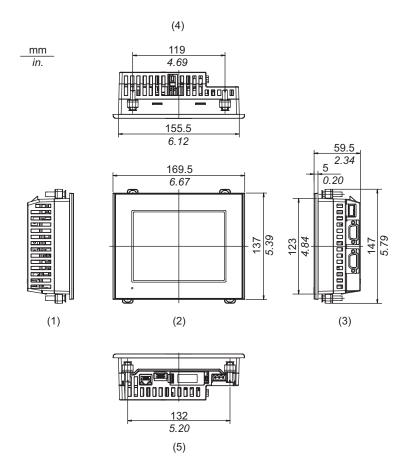
• If you are using the rear mount model, refer to Dimensions (see page 184).

### **External Dimensions**



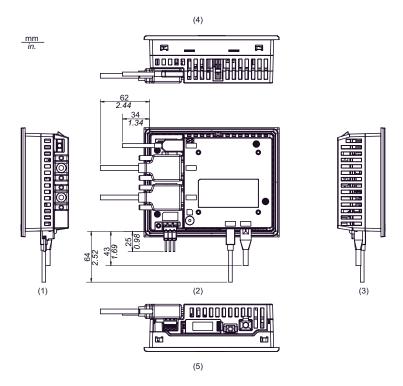
- 1 Front
- 2 Right Side
- 3 Top

### **Installation with Installation Fasteners**



- 1 Left Side
- 2 Front
- 3 Right Side
- **4** Top
- 5 Bottom

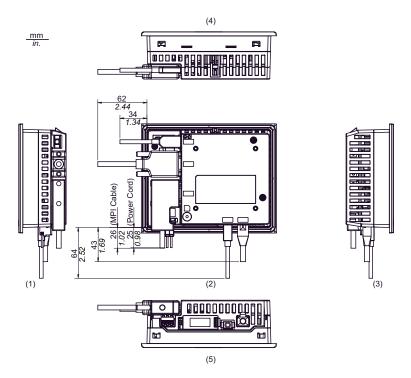
### Dimensions with Cables: GP-4301T/GP-4301TW



- 1 Left Side
- 2 Rear
- 3 Right Side
- 4 Top
- 5 Bottom

**NOTE:** All the above values are designed with cable bending in mind. The dimensions given here are representative values depending on the type of connection cable in use. Therefore, these values are intended for reference only.

### **Dimensions with Cables: GP-4303T**

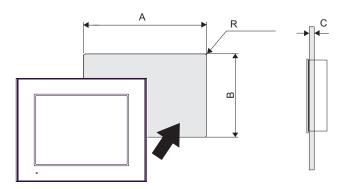


- 1 Left Side
- 2 Rear
- 3 Right Side
- 4 Top
- 5 Bottom

**NOTE:** All the above values are designed with cable bending in mind. The dimensions given here are representative values depending on the type of connection cable in use. Therefore, these values are intended for reference only.

### **Panel Cut Dimensions**

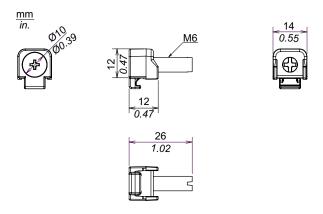
Create a panel cut and insert the GP unit into the opening from the front.



| Α   | В   | С | R                          |
|-----|---|---|----------------------------|
| , , | 123.5 mm (+1, -0 mm)<br>(4.86 in [+0.04, -0 in.]) |   | 3 mm (0.12 in.)<br>maximum |

NOTE: Before designing the panel cut, refer to Installation (see page 136).

## **Installation Fastener Dimensions**



# 4.3 **GP-4400 Series**

## What Is in This Section?

This section contains the following topics:

| Торіс                                   | Page |
|---|------|
| Electrical Specifications               | 83   |
| Environmental Specifications            | 84   |
| Structural Specifications               | 85   |
| Display Specifications                  | 87   |
| Memory, Clock, and Touch Panel          | 88   |
| Interface Specifications                | 89   |
| Specifications of Serial Interface COM1 | 90   |
| Specifications of Serial Interface COM2 | 92   |
| Dimensions                              | 93   |