PFXGP4601TMA

http://www.axcontrol.com/automation/pro-face/gp-4000/PFXGP4601TMA

Pro-face Xycom GP4000

PFXGP4601TMA

Pro-face Xycom GP-460xT GP460xT
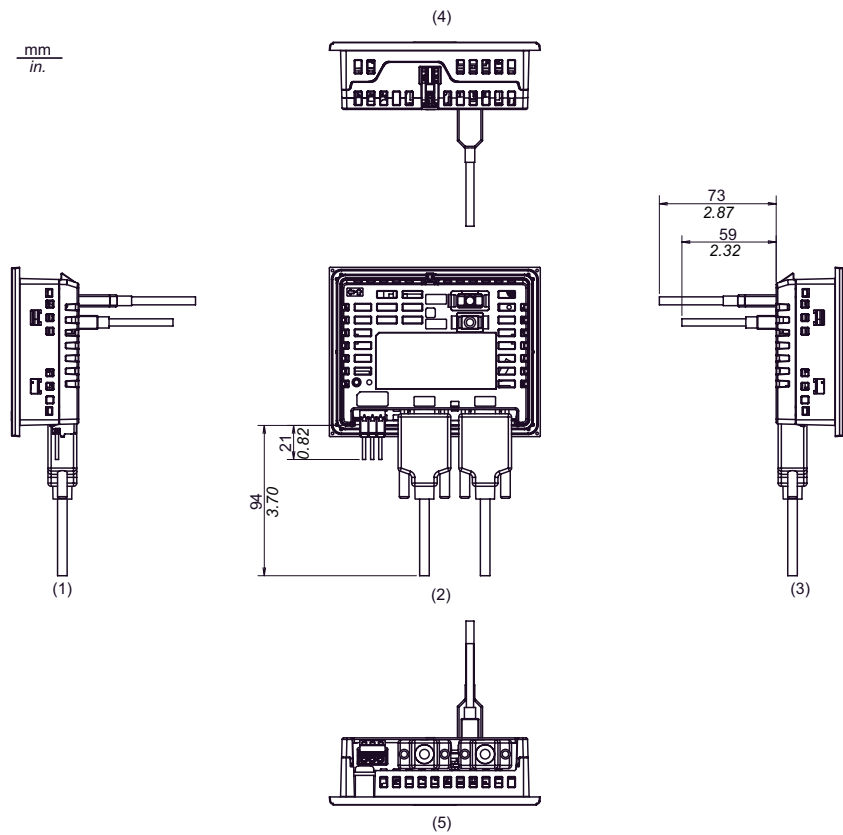Touch Screen Operator Interface 12.1 TFT Matrix Color LCD Display UL/CE. Call Now!

# 1-800-991-7026

sales@axcontrol.com

See Also:

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

Dimensions with Cables: GP-4201TW

(4)

mm
in.

73
2.87

59
2.32

21
0.82

94
3.70

(1)

(2)

(3)

(5)

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-4203T
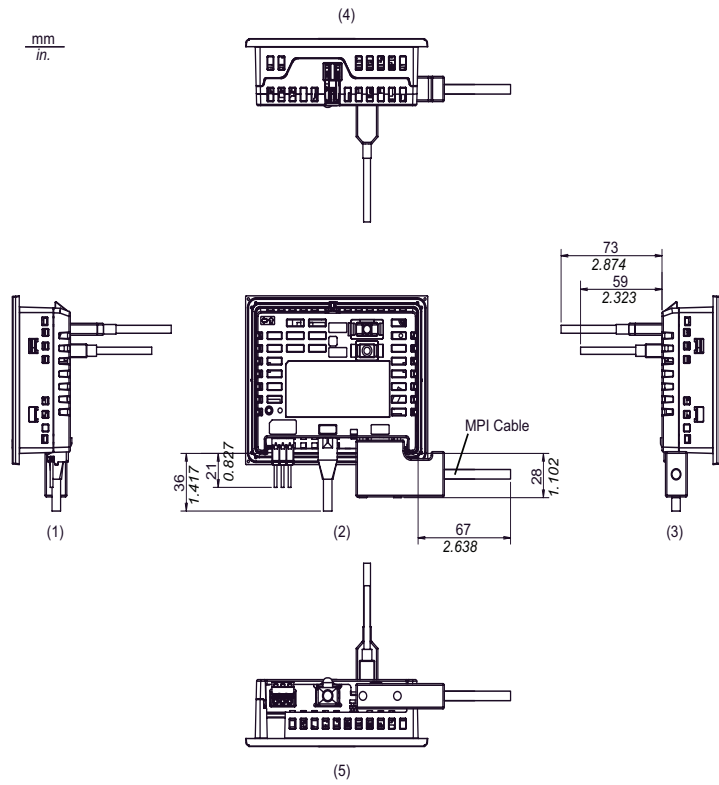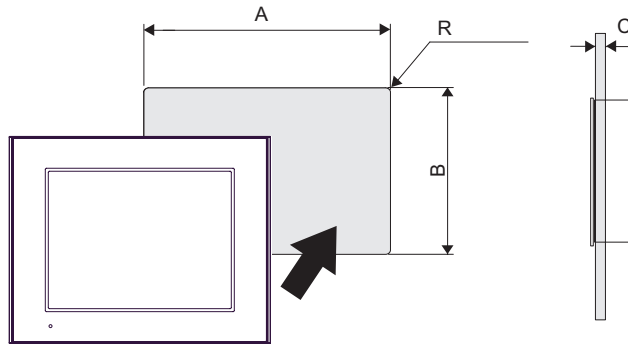

1 Left Side
2 Rear
3 Right Side
4 Top
5 Bottom

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.

A	B	C	R
118.5 mm (+1, -0 mm) (4.67 in [+0.04, -0 in.])	92.5 mm (+1, -0 mm) (3.64 in. [+0.04, -0 in.])	1.6...5 mm (0.06...0.2 in)	3 mm (0.12 in.) maximum

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

Installation Fastener Dimensions
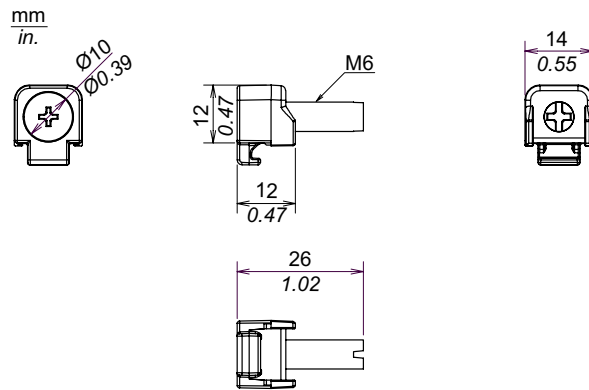
4.2 GP-4300 Series

What Is in This Section?

This section contains the following topics:

Electrical Specifications

<table>
<tr><td rowspan="7">Power Supply</td><td colspan="2">Rated Input Voltage</td><td>24 Vdc</td></tr>
<tr><td colspan="2">Input Voltage Limits</td><td>19.2...28.8 Vdc</td></tr>
<tr><td colspan="2">Voltage Drop</td><td>5 ms or less</td></tr>
<tr><td colspan="2">Power Consumption</td><td>10.5 W or less</td></tr>
<tr><td></td><td>When power is not supplied to external devices</td><td>6.5 W or less</td></tr>
<tr><td></td><td>Backlight OFF (Standby Mode)</td><td>4.5 W or less</td></tr>
<tr><td></td><td>Backlight Dimmed (Brightness: 20%)</td><td>5 W or less</td></tr>
<tr><td></td><td colspan="2">In-Rush Current</td><td>30 A or less</td></tr>
<tr><td colspan="3">Voltage Endurance</td><td>1,000 Vac, 20 mA for 1 minute (between charging and FG terminals)</td></tr>
<tr><td colspan="3">Insulation Resistance</td><td>500 Vdc, 10 MΩ or more (between charging and FG terminals)</td></tr>
</table>

Environmental Specifications

		GP-4301T / GP-4303T	GP-4301TW
Physical Environment	Surrounding Air Temperature	0...55 °C (32 °F...131 °F)	0...50 °C (32...122 °F)
	Storage Temperature	-20...60 °C (-4...140 °F)	
	Surrounding Air and Storage Humidity	10...90% RH (Non condensing, wet bulb temperature 39 °C [102.2 °F] or less)	
	Dust	0.1 mg/m^3 (10^{-7} oz/ft^3) or less (non-conductive levels)	
	Pollution Degree	For use in Pollution Degree 2 environment	
	Corrosive Gases	Free of corrosive gases	
	Atmospheric Pressure (Operating Altitude)	800...1,114 hPa (2,000 m [6,561 ft] or lower)	
Mechanical Environment	Vibration Resistance	IEC/EN 61131-2 compliant 5...9 Hz Single amplitude 3.5 mm (0.14 in.) 9...150 Hz Fixed acceleration: 9.8 m/s^2 X, Y, Z directions for 10 cycles (approx. 100 min)	
	Concussion Resistance	IEC/EN 61131-2 compliant 147 m/s^2, X, Y, Z directions for 3 times	
Electrical Environment	Noise Immunity	Noise Voltage: 1,000 Vp-p Pulse Width: 1 μs Rise Time: 1 ns	
	Electrostatic Discharge Immunity	Contact Discharge Method: 6 kV (IEC/EN 61000-4-2 Level 3)	

Air quality requirements

Do not operate or store the panel where chemicals evaporate, or where chemicals are present in the air:

- Corrosive chemicals: Acids, alkalines, liquids containing salt.
- Flammable chemicals: Organic solvents.

⚠ CAUTION

INOPERATIVE EQUIPMENT

Do not allow water, liquids, metal, and wiring fragments to enter the panel case.

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

Structural Specifications

NOTE:
- If you are using the rear mount model, refer to Structural Specifications *(see page 182).*

Grounding	Functional grounding: Grounding resistance of 100 Ω, 2 mm^2 (AWG 14) or thicker wire, or your country's applicable standard. (Same for FG and SG terminals)
Cooling Method	Natural air circulation
Structure[1]	IP65F NEMA #250 TYPE 4X/13 (on the front panel when properly installed in an enclosure)
External Dimensions	W169.5 x H137 x D59.5 mm (W6.67 x H5.39 x D2.34 in.)
Panel Cut Dimensions	W156 x H123.5 mm (W6.14 x H4.86 in.) [2] Panel thickness area: 1.6...5 mm (0.06...0.2 in.) [3]
Weight	0.8 kg (1.8 lb) or less (main unit only)

NOTE: [1] The front face of the GP unit, installed in a solid panel, has been tested using conditions equivalent to the standards shown in the specification. Even though the GP unit's level of resistance is equivalent to these standards, oils that should have no effect on the GP unit can possibly harm the panel. This can occur in areas where either vaporized oils are present, or where low viscosity cutting oils are allowed to adhere to the panel for long periods of time. If the GP unit's front face protection sheet peels off, these conditions can lead to the ingress of oil into the GP unit and separate protection measures are suggested.

Also, if non-approved oils are present, they may cause deformation or corrosion of the front panel's plastic cover. Therefore, prior to installing the GP unit, be sure to confirm the type of conditions that will be present in the GP unit's operating environment. If the installation gasket is used for a long period of time, or if the GP unit and its gasket are removed from the panel, the original level of protection cannot be kept. To maintain the original protection level, be sure to replace the installation gasket regularly.

[2] For dimensional tolerance, everything +1/-0 mm (+0.04/-0 in.) and R in angle are below R3 (R0.12 in.)

[3] Even if the installation wall thickness is within the recommended range for the "Panel Cut Dimensions", depending on wall's material, size, and installation location of the GP unit and other devices, the installation wall could warp. To prevent warping, the installation surface may need to be strengthened.

⚠ CAUTION

EQUIPMENT DAMAGE

Ensure that the panel is not in permanent and direct contact with oils.

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

NOTICE

STORAGE AND OPERATION OUTSIDE OF SPECIFICATIONS

- Store the panel in areas where temperatures are within the panel's specifications.
- Do not restrict or block the panel's rear-face ventilation slots.

Failure to follow these instructions can result in equipment damage.

NOTICE

GASKET AGING

- Inspect the gasket periodically as required by your operating environment to keep the initial IP level.
- Change the gasket at least once a year, or as soon as scratches or dirt become visible.

Failure to follow these instructions can result in equipment damage.

Display Specifications

	GP-4301T / GP-4303T	GP-4301TW
Display Type	TFT Color LCD	
Display Size	5.7"	
Resolution	320 x 240 pixels (QVGA)	
Effective Display Area	W115.2 x H86.4 mm (W4.54 x H3.40 in.)	
Display Colors	65,536 colors (No blink) / 16,384 colors (Blink)	
Backlight	White LED (Not user replaceable. When replacement is required, contact your local distributor.)	
Backlight Service Life	50,000 hours or more (continuous operation at 25 °C [77 °F] before backlight decreases to 50%.)	
Brightness Control	16 levels (Adjusted with touch panel or software)	8 levels (Adjusted with touch panel or software)
Language Fonts[1]	Japanese, ASCII, Chinese (Simplified), Chinese (Traditional), Korean, Cyrillic, Thai	
Character Sizes	Standard font: 8 x 8, 8 x 16, 16 x 16 and 32 x 32 pixel fonts Stroke font: 6...127 pixel fonts Image font: 8...72 pixel fonts	
Font Sizes	Standard font: You can expand the width up to 8 times, and expand the height up to 8 times.[2]	
Text	8 x 8 pixels	40 characters per row x 30 rows	
	8 x 16 pixels	40 characters per row x 15 rows	
	16 x 16 pixels	20 characters per row x 15 rows	
	32 x 32 pixels	10 characters per row x 7 rows	

[1] Please refer to the GP-Pro EX Reference Manual for details on font types and character codes.

[2] You can set up other font sizes using the software.

Memory, Clock, and Touch Panel

Memory

	GP-4301T / GP-4303T	**GP-4301TW**
Application Memory [1]	FLASH EPROM 16 MB (including the logic program area)	FLASH EPROM 8 MB (including the logic program area)
Logic Program Area	FLASH EPROM 132 KB (Equivalent to 15,000 steps[2])	
Font Area	FLASH EPROM 8 MB (when this limit exceeded, uses application memory)	
Data Backup	SRAM 320 KB (Replaceable lithium battery for data backup)	SRAM 128 KB (Rechargeable lithium battery for data backup)
Variable Area	SRAM 64 KB (Replaceable Lithium battery for retentive variables)	None

[1] Capacity available for user application (internal memory).

[2] Up to 60,000 steps can be converted in software. However, this reduces application memory capacity for screen data by 1 MB.

NOTE:

- When the message "RAAA051 Low battery" is displayed on the GP-4301TW, supply power to the GP unit and fully charge the battery. In 24 hours the battery charges to a level that allows backup operation. Completing a full charge requires about 120 hours (5 days).
- The lithium battery's lifetime is: 10 years when the battery's ambient temperature is 40 °C (104 °F) or less, 4.1 years when the battery's ambient temperature is 50 °C (122 °F) or less, and 1.5 years when the battery's ambient temperature is 60 °C (140 °F) or less.
  When used for backup:
  Approximately 100 days, with a fully charged battery.
  Approximately 6 days, with a half-charged battery.

Clock

± 65 seconds per month (deviation at room temperature and power is OFF). Variations in operating conditions and battery life can cause clock deviations from -380 to +90 seconds per month.

For systems where this level of precision is insufficient, the user should monitor and make adjustments when required.

NOTE:

- When the message "RAAA051 Low battery" is displayed on the GP-4301TW, supply power to the GP unit and fully charge the battery. In 24 hours the battery charges to a level that allows backup operation. Completing a full charge requires about 120 hours (5 days).
- The lithium battery's lifetime is: 10 years when the battery's ambient temperature is 40 °C (104 °F) or less, 4.1 years when the battery's ambient temperature is 50 °C (122 °F) or less, and 1.5 years when the battery's ambient temperature is 60 °C (140 °F) or less.
  When used for backup:
  Approximately 100 days, with a fully charged battery.
  Approximately 6 days, with a half-charged battery.

Touch Panel

Touch Panel Type	Resistive Film (analog)
Touch Panel Resolution	1,024 x 1,024
Touch Panel Service Life	1 million times or more