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Pro-face Xycom GP4000

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Pro-face Xycom GP-460xT GP460xT

Touch Screen Operator Interface 12.1 TFT Analog Color LCD Display UL/CE. Call Now!

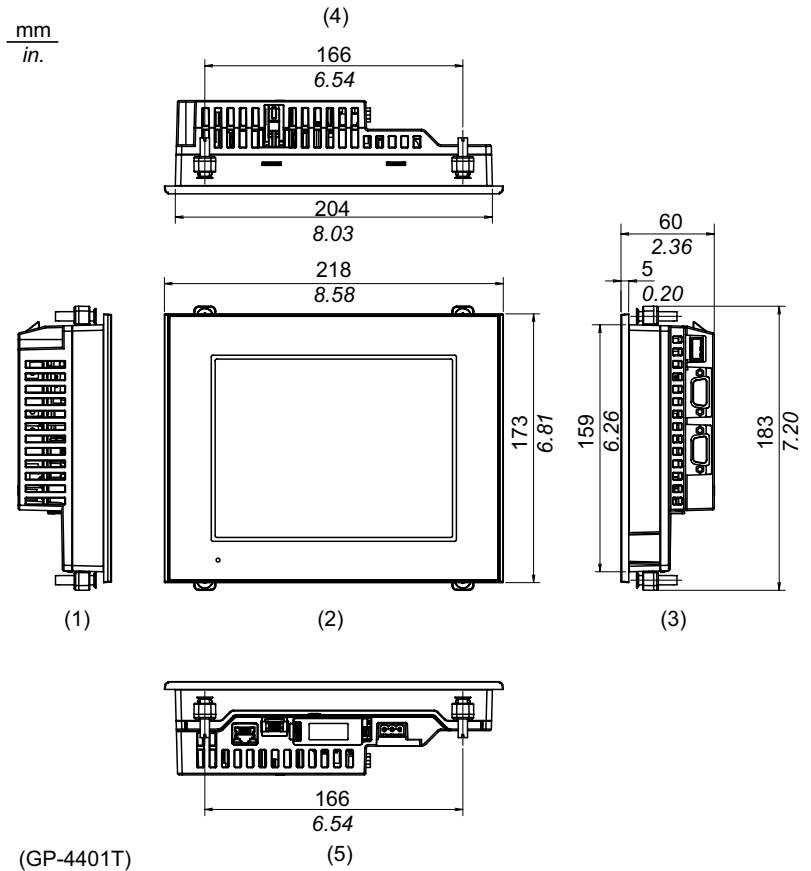
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See Also:

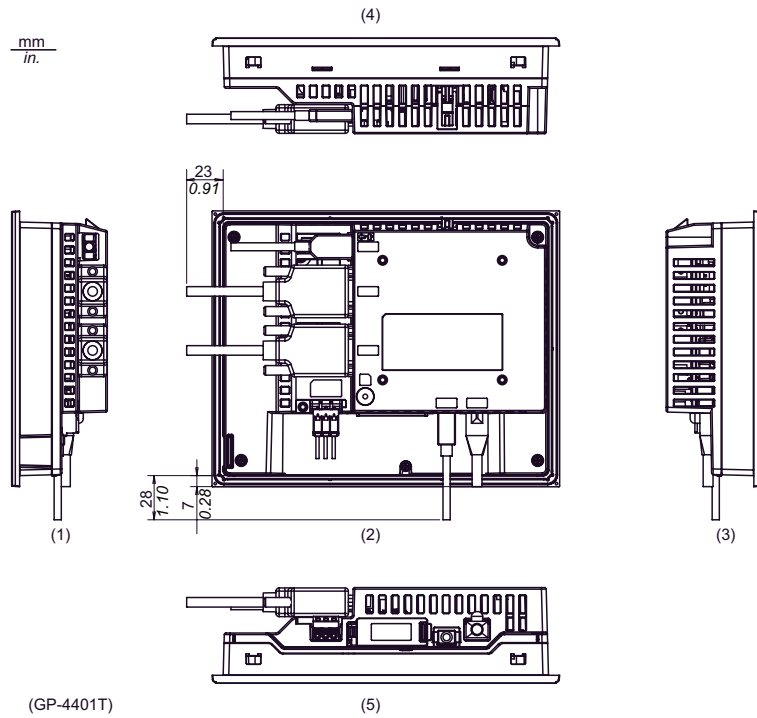
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Installation with Installation Fasteners



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

Dimensions with Cables

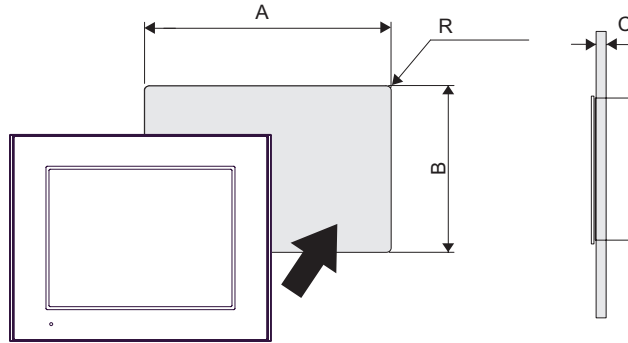


- 1 Left Side
- 2 Rear
- 3 Right Side
- 4 Top
- 5 Bottom

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

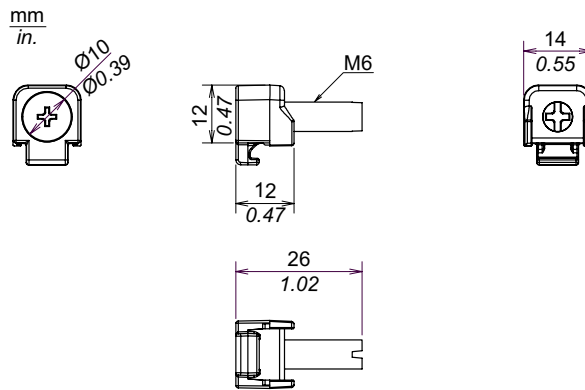
Create a panel cut and insert the GP unit into the opening from the front.



A	B	C	R
204.5 mm (+1, -0 mm) (8.05 in. [+0.04, -0 in.])	159.5 mm (+1, -0 mm) (6.28 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



4.4 GP-4500 Series

What Is in This Section?

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Electrical Specifications

		DC Model	AC Model
Power Supply	Rated Input Voltage	24 Vdc	100...240 Vac
	Input Voltage Limits	19.2...28.8 Vdc	85...264 Vac
	Rated Frequency	-	50/60 Hz
	Rated Frequency Range	-	47...63 Hz
	Voltage Drop	10 ms or less	1 cycle or less (Voltage drop interval must be 1 second or more)
	Power Consumption	17 W or less	100 Vac: 44 VA or less 240 Vac: 58 VA or less
	When power is not supplied to external devices	12 W or less	100 Vac: 30 VA or less 240 Vac: 44 VA or less
	Backlight OFF (Standby Mode)	7 W or less	100 Vac: 18 VA or less 240 Vac: 29 VA or less
	Backlight Dimmed (Brightness: 20%)	8 W or less	100 Vac: 22 VA or less 240 Vac: 31 VA or less
	In-Rush Current	30 A or less	
Voltage Endurance	1,000 Vac, 20 mA for 1 minute (between charging and FG terminals)	1,500 Vac, 20 mA for 1 minute (between charging and FG terminals)	
Insulation Resistance	500 Vdc, 10 M Ω or more (between charging and FG terminals)		

Environmental Specifications

		DC Model		AC Model
		GP-4501T / GP-4503T	GP-4501TW	
Physical Environment	Surrounding Air Temperature	0...55 °C (32...131 °F)	0...50 °C (32...122 °F)	0...55 °C (32...131 °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		Noise Voltage: 1,500 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 GP unit 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).

	GP-4501T / GP-4503T	GP-4501TW
Grounding	Functional grounding: Grounding resistance of 100Ω, 2mm 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	W272.5 x H214.5 x D57 mm (W10.73 x H8.44 x D2.24 in.)	W315 x H241 x D56 mm (W12.4 x H9.49 x D2.2 in.)
Panel Cut Dimensions	W259 x H201 mm (W10.2 x H7.91 in.) ^{*2} Panel thickness area: 1.6...5 mm (0.06...0.2 in.) ^{*3}	W301.5 x H227.5 mm (W11.87 x H8.96 in.) ^{*2} Panel thickness area: 1.6...5 mm (0.06...0.2 in.) ^{*3}
Weight	2.0 kg (4.4 lb) or less (main unit only)	2.5 kg (5.5 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 GP unit 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 GP unit'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' 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-4501T / GP-4503T	GP-4501TW
Display Type	TFT Color LCD	
Display Size	10.4"	
Resolution	640 x 480 pixels (VGA)	
Effective Display Area	W211.2 x H158.4 mm (W8.31 x H6.24 in.)	
Display Colors	65,536 colors (No blink) / 16,384 colors (Blink)	
Backlight	White LED (Not user replaceable. When replacement is required, contract your local distributor.)	
Backlight Service Life	50,000 hours or more (continuous operation at 25 °C [77 °F] before backlight brightness 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	80 characters per row x 60 rows
	8 x 16 pixels	80 characters per row x 30 rows
	16 x 16 pixels	40 characters per row x 30 rows
	32 x 32 pixels	20 characters per row x 15 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-4501T / GP-4503T	GP-4501TW
Application Memory ^{*1}	FLASH EPROM 32 MB (including the logic program area)	FLASH EPROM 16 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 limit exceeded, uses application memory)	
Data Backup	SRAM 320 KB (Replaceable lithium battery for data backup)	SRAM 128 KB (Replaceable 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.

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.

Touch Panel

	GP-4501T (Analog Touch Panel) / GP-4501TW / GP-4503T	GP-4501T (Matrix Touch Panel)
Touch Panel Type	Resistive Film (analog)	Resistive Film (matrix)
Touch Panel Resolution	1,024 x 1,024	32 x 24 keys/screen
Service Life	1 million times or more	

Interface Specifications

Serial Interface COM1

Asynchronous Transmission	RS-232C
Data Length	7 or 8 bits
Stop Bit	1 or 2 bits
Parity	None, odd or even
Data Transmission Speed	2,400...115,200 bps
Connector	D-Sub 9 pin (plug)

Serial Interface COM2

	GP-4501T / GP-4501TW	GP-4503T
Asynchronous 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	2,400...115,200 bps, 187,500 bps (MPI)	
Connector	D-Sub 9 pin (plug)	D-Sub 9 pin (socket)

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 \pm 5%	-
Maximum Current Supplied	500 mA	-
Maximum Transmission Distance	5 m (16.4 ft)	

Ethernet Interface

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

SD Card Interface

SD Card slot x 1 (maximum 32 GB SD/SDHC Card)