

# GP4107W1D

- Standard product information
- Electrical specifications
- Memory
- Structural specifications
- Display specifications
- Environmental specifications
- Interface specifications
- Dimensions

## Standard product information

<b>Family</b>	HMI
<b>Series</b>	GP4100 Series
<b>Size</b>	3"
<b>Model</b>	GP4107W1D
<b>Global Code</b>	PFXGP4107W1D
<b>Product Features</b>	Compact 3" DC RS-485 (Isolated Type) Monochrome (White / Red / Pink)
<b>End of sales date</b>	2019/12/27 <sup>*1</sup>
<b>End of repair date</b>	2026/03/31 <sup>*2</sup>
<b>Repair Status</b>	- (Maintenance service is not available. Replace with a new unit under warranty while the units are in stock. Please consider to replace with recommended substitute.)

\*1 Due to the limited availability of the products in stock, shipping will end when the stock is out.

\*2 It might not be able to repair our products when replacement parts become unavailable, regardless of the maintenance period.

## Display specifications

<b>Display type</b>	STN Monochrome LCD
<b>Display size</b>	3.4"
<b>Resolution</b>	200 x 80 pixels
<b>Dot pitch</b>	W0.4 x H0.4 mm [W0.02 x H0.02 in.]
<b>Effective display area</b>	W79.985 x H31.985 mm [W3.15 x H1.26 in.]
<b>Display colors</b>	Monochrome White/Red/Pink (16 Levels)
<b>Backlight</b>	White/Red LED (Not user replaceable. When replacement is required, contact your local distributor.) <sup>*3</sup>
<b>Backlight service life</b>	White: 50,000 hrs. or more, Red 10,000 hrs. or more (each in continuous operation at 25°C [77 °F] before backlight brightness decreases to 50%)
<b>Brightness control</b>	16 Levels (Adjusted with touch panel)
<b>Contrast adjustment</b>	8 Levels (Adjusted with touch panel)

<b>Touch panel type</b>	Resistive Film (analog)
<b>Touch panel resolution</b>	1,024 x 1,024
<b>Touch panel lifetime</b>	1,000,000 times or more
<b>Language fonts</b>	Japanese, ASCII, Chinese (Simplified), Chinese (Traditional), Korean, Cyrillic, Thai <sup>*4</sup>
<b>Character sizes</b>	Standard font: 8 x 8, 8 x 16, 16 x 16 and 32 x 32 pixel fonts, Stroke font: 6 to 80 pixel fonts, Image font: 8 to 72 pixel fonts
<b>Font sizes</b>	Standard font: Width can be expanded up to 8 times. Height can be expanded up to 8 times. <sup>*5</sup>
<b>8 x 16 dots</b>	25 char. x 5 rows
<b>16 x 16 dots</b>	12 char. x 5 rows
<b>32 x 32 dots</b>	6 char. x 2 rows

<sup>\*3</sup> The backlight burnout detection function is not supported.










<sup>\*4</sup> Please refer to the GP-Pro EX reference manual for details on font types and character codes.

<sup>\*5</sup> Other font sizes can be set up with the Editor software.

## Electrical specifications

<b>Rated input voltage</b>	24 Vdc
<b>Input voltage limits</b>	19.2 to 28.8 Vdc
<b>Allowable voltage drop</b>	3 ms or less
<b>Power consumption</b>	8.2W
<b>In-rush current</b>	30 A or less
<b>Noise immunity</b>	Noise Voltage : 1,000 Vp-p Pulse Duration : 1 μs Rise Time : 1 ns (via noise simulator)
<b>Voltage endurance</b>	1,000 Vac, 20 mA for 1 minute (between power terminal and FG terminals)
<b>Insulation resistance</b>	500 Vdc, 10 MΩ or more (between power terminal and FG terminals)

## Environmental specifications

<b>International safety standards</b>	        
<b>Surrounding air temperature</b>	0 to 50 °C [32 to 122 °F] <sup>*6</sup>
<b>Storage temperature</b>	-20 to +60 °C [-4 to 140 °F]
<b>Ambient humidity</b>	10 to 90 % RH (Wet bulb temperature: 39 °C [102.2 °F] max. - no condensation)
<b>Storage humidity</b>	10 to 90 % RH (Wet bulb temperature: 39 °C [102.2 °F] max. - no condensation)
<b>Dust</b>	0.1 mg/m <sup>3</sup> (10 <sup>-7</sup> oz/ft <sup>3</sup> ) or less (non-conductive levels)
<b>Pollution degree</b>	For use in Pollution Degree 2 environment
<b>Corrosive gases</b>	Free of corrosive gases

<b>Air pressure (altitude range)</b>	800 to 1,114 hPa (2,000 m [6,561 ft.] above sea level or less)
<b>Vibration resistance</b>	IEC/EN 61131-2 compliant 5 to 9 Hz single amplitude 3.5 mm [0.14 in.] 9 to 150 Hz fixed acceleration: 9.8 m/s <sup>2</sup> X, Y, Z directions for 10 cycles (approx. 100 min.)
<b>Concussion resistance</b>	IEC/EN 61131-2 compliant 147 m/s <sup>2</sup> , X, Y, Z directions for 3 times
<b>Electrical fast transient/burst</b>	Power Line: 2 kV (IEC/EN61000-4-4) COM Port: 1 kV (IEC/EN61000-4-4)
<b>Electrostatic discharge immunity</b>	Contact Discharge Method: 6 kV Air Discharge Method: 8 kV (IEC/EN61000-4-2 Level 3)

\*6 When using in an environment where the temperature becomes or exceeds 40 °C for an extended period of time, the screen contrast level may decrease from its original level of brightness.

Memory	
<b>Application memory</b>	FLASH EPROM 2.2 MB (includes screen editing program and extended logic program) <sup>*7</sup>
<b>Backup memory</b>	128 KB <sup>*8</sup>
<b>Clock accuracy</b>	Uses the clock of an external device <sup>*9</sup>

\*7 Capacity available for user application.

\*8 Application memory can provide 128KB for Data Backup. For further information, please refer to the GP-Pro EX reference manual.

\*9 Set up the "Clock Updates" feature with the Editor software. Please refer to the GP-Pro EX reference manual "Common" - "Clock Update Settings" for details.

Interface specifications	
<b>Serial (COM1)</b>	Asynchronous Transmission: RS-485 (isolation), Data Length: 7 or 8 bits, Stop Bit: 1 or 2 bits, Parity: None, Even or Odd, Data Transmission Speed: 2,400 to 115,200 bps, 187,500 bps (MPI), Connector: D-Sub 9 pin (socket)
<b>USB (Type A)</b>	Conforms to USB 2.0 (Type A) x 1 Power supply voltage: 5 Vdc ±5 % Communication distance: 5 m [16.4 ft.] or less <sup>*10</sup>
<b>USB (mini-B)</b>	Conforms to USB 2.0 (mini-B) x 1, Communication Distance: 5 m [16.4 ft] or less

\*10 If connecting a bar code reader to the GP, be sure to supply power from an external source (such as a self-powered hub).  
If you supply power from the GP, the GP may reset itself because the GP cannot supply enough power.

Structural specifications	
<b>Grounding</b>	Functional grounding: Grounding resistance of 100 Ω, 2 mm <sup>2</sup> (AWG 14) or thicker wire, or your country's applicable standard (same for FG and SG terminals).
<b>Cooling method</b>	Natural air circulation
<b>Structure</b>	IP65f NEMA #250 TYPE 4X/13 (on the front panel when properly installed in an enclosure) <sup>*11</sup>
<b>Installation method</b>	Panel mounting
<b>External dimensions</b>	W116.5 x H77.5 x D28 mm [W4.59 x H3.06 x D1.11 in.]
<b>Panel cut-out dimensions</b>	W105 x H66 mm [W4.13 x H2.60 in.] Panel thickness area: 1 to 5 mm [0.04 to 0.2 in.] <sup>*12</sup>

Weight

0.2 kg [0.45 lb] or less

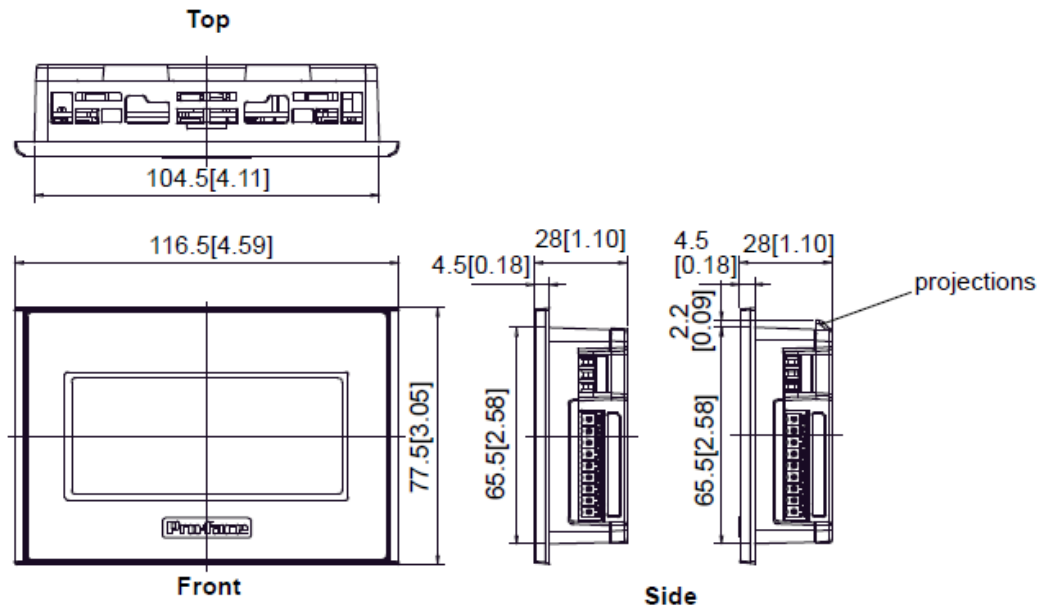
\*11 The front face of the unit, installed in a solid panel, has been tested using conditions equivalent to the standards shown in the specification. Even though the unit's level of resistance is equivalent to these standards, oils that should have no effect on the unit can possibly harm the unit. This can occur in areas where either vaporized oils are present, or where low viscosity cutting oils are allowed to adhere to the unit for long periods of time. If the unit's front face protection sheet becomes peeled off, these conditions can lead to the ingress of oil into the unit and separate protection measures are suggested. Also, if non-approved oils are present, it may cause deformation or corrosion of the front panel's plastic cover. Therefore, prior to installing the unit, be sure to confirm the type of conditions that will be present in the unit's operating environment. If the installation gasket is used for a long period of time, or if the unit and its gasket are removed from the panel, the original level of the protection cannot be guaranteed. To maintain the original protection level, be sure to replace the installation gasket regularly.

\*12 For dimensional tolerance, everything  $+1/-0$  mm [ $+0.04/-0$  in.] and R in angle are below R3 [R0.12 in.]. 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 GP unit and other devices, the installation wall could warp. To prevent warping, the installation surface may need to be strengthened.

## Dimensions

### External dimensions

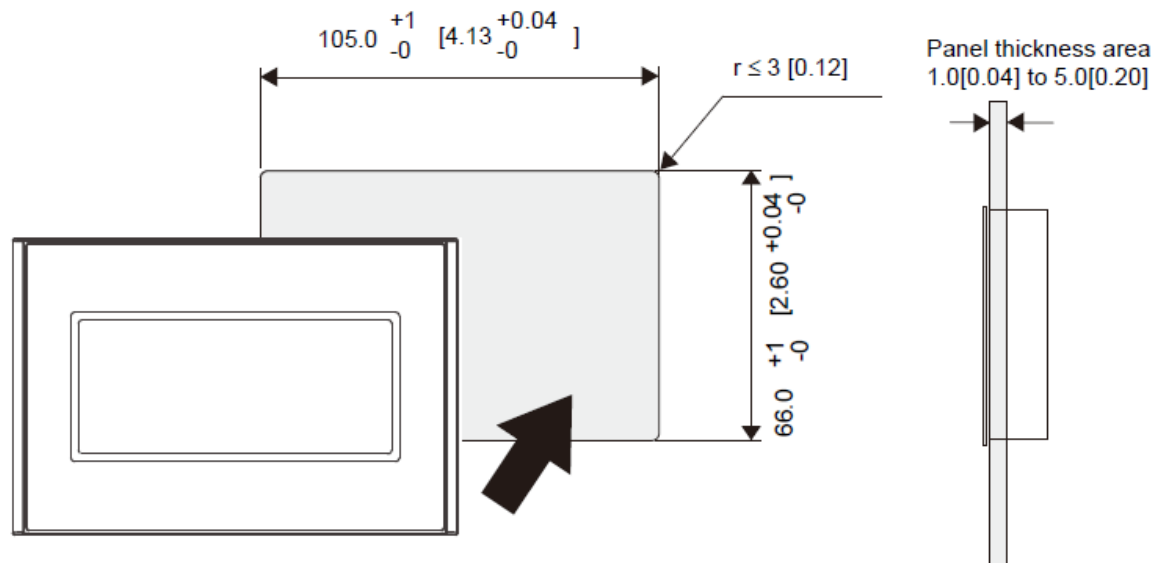
Unit: mm[in.]



(RS-422/485 Type)

### Panel cut-out dimensions

Unit: mm[in.]



**External dimensions  
with cable**

Unit: mm[in.]

