

## GP-4105G (Model No.: PFXGP4105G1D)

Functional Specification		
Display Type	STN Monochrome LCD	
Display Size	3.4"	
Resolution	200 x 80 pixels	
Effective Display Area	79.985 x 31.985 mm	
Display Colors	Monochrome Green/Red/Orange (16 Levels)	
Backlight *1	Green/Red LED (User nonreplaceable parts. Factory replacement required.)	
Brightness Control	16 Levels (Adjusted with the touch panel)	
Backlight Service Life	Green: 50,000 hrs. or more, Red 10,000 hrs. or more (each in continuous operation at 25°C before backlight brightness decreases to 50%)	
Language Fonts *2	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 to 80 pixel fonts, Image font: 8 to 72 pixel fonts	
Font Sizes *3	Standard font: Width can be expanded up to 8 times. Height can be expanded up to 8 times.	
Text	8 x 16 dots	25 char. x 5 rows
	16 x 16 dots	12 char. x 5 rows
	32 x 32 dots	6 char. x 2 rows
Application Memory *4	FLASH EPROM 2.2 MB	
Data Backup *5	128KB	
Clock Accuracy *6	Uses the clock of an external device	
Touch Panel Type	Resistive Film (analog)	
Touch Panel Resolution	1,024 x 1,024	
Touch Panel Service Life	1,000,000 times or more	
Interface	Serial (COM1)	RS-232C, Asynchronous Transmission, Data Length: 7 or 8 bit, Parity: none, Odd or Even, Stop Bit: 1 or 2 bit, Data Transmission Speed: 2,400 bps to 115.2 kbps, Connector: 2-piece terminal block 9 pin
	USB (Type-A) *7	Conforms to USB2.0 (Type-A) x 1, Power Supply Voltage: DC 5 V ±5 %, Communication Distance: 5 m or less
	USB (Type mini-B)	Conforms to USB2.0 (mini-B) x 1, Communication Distance: 5 m or less

\*1: The backlight burnout detection function is not supported.

\*2: Please refer to the GP-Pro EX reference manual for details on font types and character codes.

\*3: Other font sizes can be set up with the Editor software.

\*4: Capacity available for user application.

\*5: Application memory can provide 128KB for Data Backup. For further information, please refer to the GP-Pro EX reference manual.


\*6: 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.

\*7: If connecting a bar code reader to the GP, be sure to supply power from an external source (such as a self-powered hub).

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### General Specification

International Safety Standards	
Rated Input Voltage	DC 24 V
Input Voltage Limits	DC 19.2 to 28.8 V
Allowable Voltage Drop	3 ms or less
In-Rush Current	30 A or less
Voltage Endurance	AC 1,000 V, 20 mA for 1 min (between charging and FG terminals)
Insulation Resistance	DC 500 V, 10 MΩ or more (between charging and FG terminals)
Surrounding Air Temperature *1	0 to 50 °C
Storage Temperature	-20 to +60 °C
Ambient Humidity	10 to 90 % RH (Wet bulb temperature: 39 °C or less - no condensation.)
Storage Humidity	
Dust	0.1 mg/m <sup>3</sup> or less (non-conductive levels)
Pollution Degree	For use in Pollution Degree 2 environment
Atmosphere	Free of corrosive gases
Air Pressure (altitude range)	800 to 1,114 hPa (2,000 m above sea level or less)
Vibration Resistance	IEC/EN61131-2 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 (100 min)
Concussion Resistance	IEC/EN61131-2 compliant, 147 m/s <sup>2</sup> , X, Y, Z directions for 3 times
Noise Immunity	Noise Voltage: 1,000 Vp-p, Pulse Duration: 1 μs, Rise Time: 1 ns, (via noise simulator)
Noise Immunity (Fast Transient Burst Noise)	Power Line: 2 kV (IEC/EN61000-4-4), COM Port: 1 kV (IEC/EN61000-4-4)
Electrostatic Discharge Immunity	Contact Discharge Method: 6 kV/Air Discharge Method: 8 kV (IEC/EN61000-4-2 Level 3)
Grounding	Functional grounding: Grounding resistance of 100Ω, 2mm <sup>2</sup> or thicker wire, or your country's applicable standard. (Same for FG and SG terminals)
Structure *2	IP65f NEMA #250 TYPE 4X/13 (on the front panel when properly installed in an enclosure)
Cooling Method	Natural air circulation
Weight Approx.	0.2 kg [0.4 lb] or less (display unit only)
External Dimensions	W116.5 x H77.5 x D28 mm [W4.59 x H3.05 x D1.1 in.]
Panel Cut Dimensions *3	W105 x H66 mm [W6.14 x H4.86 in.], Panel thickness area: 1 to 5 mm [0.04 to 0.2 in.]

\*1: 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.

\*2: 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.

\*3: Regarding dimensional tolerance, everything +1/-0 mm [+0.04/-0 in.] and R in angle are below R3 [R0.12 in.].

Even if panel thickness is within recommend range for "Panel Cut Dimensions", the panel could warp, depending on panel's material, size.

Pro-face's GP4100 Series website <http://www.pro-face.com/product/hmi/gp4100.html>