GP4000M Series ▼

PFXGM4201TAD

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Standard product information

Family	HMI
Series	GP4000M Series
Size	3"
Model	PFXGM4201TAD
Global Code	PFXGM4201TAD
Product Features	Modular 3" DC Analog
Repair Status	- (Maintenance service is not available. Replace with a new unit under warranty.)

Display specifications

Display type	TFT Color LCD
Display size	3.5"
Resolution	320 x 240 pixels (QVGA)
Effective display area	W70.56 x H52.92 mm [W2.78 x H2.08 in.]
Display colors	65,536 colors
Backlight	White LED (Not user replaceable. When replacement is required, contact your local distributor.)
Backlight service life	50,000 hrs. or more (each in continuous operation at 25 °C [77 °F] before backlight brightness decreases to 50%)
Brightness control	16 Levels (Adjusted with touch panel or software)
Touch panel type	Resistive Film (analog)
Touch panel lifetime	1,000,000 times or more
Language fonts	Japanese: 6,962 (JIS Standards 1 & 2) (including 607 non-kanji characters), ANK: 158 (Korean, Traditional Chinese, Simplified Chinese, Thai and Cyrillic can be added from the font setting of the screen editor.)
Character sizes	Standard font: 8 x 8, 8 x 16, 16 x 16 and 32 x 32 pixel fonts, Stroke font: 6 to 127 pixel fonts, Image font: 8 to 72 pixel fonts
Font sizes	Standard font: Width can be expanded up to 8 times. Height can be expanded up to 8 times.[*1]
8 x 8 dots	40 char. x 30 rows

8 x 16 dots	40 char. x 15 rows
16 x 16 dots	20 char. x 15 rows
32 x 32 dots	10 char. x 7 rows

*1 Other font sizes can be set up with the Editor software.

Electrical specifications

Rated input voltage	24 Vdc
Input voltage limits	20.4 to 28.8 Vdc
Allowable voltage drop	10 ms or less
Power consumption	6.5 W or less
In-rush current	30 A or less
Noise immunity	IEC61000-4-4, 2kV Power port, 1kV Signal ports
Voltage endurance	1,000 Vac, 20 mA for 1 minute (between power terminal and FG terminals)
Insulation resistance	500 Vdc, 10 MΩ or more (between power terminal and FG terminals)

Environmental specifications

International safety standards	
Surrounding air temperature	0 to 50 °C [32 to 122 °F][*2]
Storage temperature	-20 to +60 °C [-4 to 140 °F]
Ambient humidity	85 % RH (Wet bulb temperature: 39 °C [102.2 °F] max. - no condensation)
Storage humidity	10% to 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
Air pressure (altitude range)	800 to 1,114 hPa (2,000 m [6,561 ft.] above sea level or less)
Vibration resistance	IEC/EN 61131-2 compliant, 5 to 9 Hz single amplitude 3.5 mm [0.14 in.]
Electrostatic discharge immunity	IEC61000-4-2, 6 kV direct contact, 8 kV air contact
Drop resistance	IEC/EN 61131-2 compliant, 147 m/s^2, x,y,z 3 directions

*2 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

Application memory	**When using GP-Pro EX:** - Media: FLASH EPROM - Screen Area: 8MB *Use the screen area when the user font area's capacity is exceeded - for example, when an image font or a picture font is used. - User Font Area: None - Logic Program Area: 132KB (Equivalent to 15,000 steps) *Up to 60,000 steps can be converted in software. However, this reduces application memory capacity (for screen data) by 1 MB. - Free Space: None **Removable System:** No[3]
Backup memory	**When using GP-Pro EX:** - Screen Area: nvSRAM 128KB - Variable Area: None **Battery:** None[4]
Clock accuracy	Uses the clock of an external device[5]

[3] Use the screen area when the user font area's capacity is exceeded - for example, when an image font or a picture font is used.
Up to 60,000 steps can be converted in software. However, this reduces application memory capacity (for screen data) by 1 MB.

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

[5] 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.
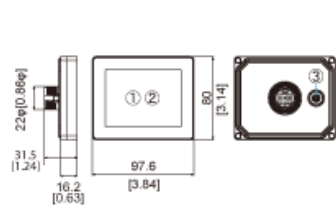
Interface specifications

Serial (COM1)	Asynchronous Transmission: RS-232C / 422 / 485, 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 (plug)
USB (Type A)	Conforms to USB 2.0 (Type A) x 1 Power supply voltage: 5 Vdc ±5 % Communication distance: 3 m [9.84 ft.] or less
USB (mini-B)	Conforms to USB 2.0 (mini-B) x 1, Communication Distance: 5 m [16.4 ft] or less
Ethernet	IEEE802.3i / IEEE802.3u, 10BASE-T / 100BASE-TX, Connector: Modular jack (RJ-45) x 1

Structural specifications

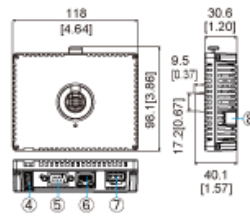| Grounding	Functional grounding: Grounding resistance of 100 Ω, 2 mm^2 (AWG 14) or thicker wire, or your country's applicable standard (same for FG and SG terminals).
Cooling method	Natural air circulation
Structure	NEMA#250 TYPE 4X (indoor, installed in an enclosure) Display module: IP65F Rear module: IP20
Weight	0.36 kg [0.80 lb] or less

Dimensions

External dimensions	External Dimensions / Interfaces / Panel Cut-out

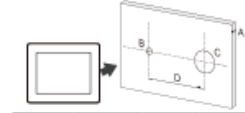<External Dimensions & Parts Names>   Unit:mm [in.]

Display Module GP-4201TM   Rear Module (for all GP units)   Panel Cut-out (for all GP units)

A	B	C	D
1.5 to 6 [0.06 to 0.23]	+0 4.00[0.16] -0.20[0.008]	+0 22.5[0.89] -0.30[0.012]	+0 30.00[1.18] -0.20[0.008]

*If rotating torque acted on a display module is 2.5 N·m (22.12 in-lb) or more, use an anti-rotation tee which is supplied with a GP unit. The anti-rotation tee supports up to 6 N·m (53.10 in-lb).

Parts Names ①Display ②Touch panel ③Anti-rotation tee ④USB (Type A) interface connector ⑤Serial I/F (host I/F) ⑥Ethernet Interface (LAN) ⑦Power Plug Connector ⑧USB (mini B) interface connector

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