

10.4" Standard HMI (Supporting Video Unit)



GP-4521TAA
GP-4521TAD

Part Numbers: PFXGP4521TAA,
PFXGP4521TAD



Powered by
Screen Editor
GP-Pro EX

Features:

- 65,536 color, LED backlit TFT color, LCD Display
- Video unit compatible HMI
- Programmed easily with GP-Pro EX
- Camera images display any portion of machine or assembly line
- Compatible with Pro-face Remote HMI and EZ Series
- Easily mounted on the back of unit

Functional Specifications		GP-4521TAA	GP-4521TAAC	GP-4521TAD	GP-4521TADC
Model Number		GP-4521TAA	GP-4521TAAC	GP-4521TAD	GP-4521TADC
Conformal Coating		No	Yes	No	Yes
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 (User nonreplaceable parts. When replacement is required, contact your local distributor.)			
Brightness Control		16 Levels (Adjusted with the touch panel or the software)			
Backlight Service Life		50,000 hrs. or more (continuous operation at 25°C [77 °F] before backlight brightness decreases to 50%)			
Language Fonts		Japanese: 6,962 (JIS Standards 1 & 2) (including 607 non-kanji characters) ANK:158 (Korean fonts, Simplified Chinese and Traditional Chinese fonts are downloadable.)			
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 *1		Standard font: Width can be expanded up to 8 times. Height can be expanded upto 8 times.			
Text	8 x 8 dots	80 char. x 60 rows			
	8 x 16 dots	80 char. x 30 rows			
	16 x 16 dots	40 char. x 30 rows			
	32 x 32 dots	20 char. x 15 rows			
Application Memory		FLASH EPROM 32 MB (including a logic program area)			
Logic Program Area *2		FLASH EPROM 132 KB (Equivalent to 15,000 steps)			
Font Area		FLASH EPROM 8 MB (Replaceable Lithium battery for backup memory)			
Data Backup		SRAM 320 KB (Replaceable Lithium battery for backup memory)			
Variable Area		SRAM 64 KB (Replaceable Lithium battery for backup memory)			
Clock Accuracy *3		±65 sec/month (deviation at room temperature and power is OFF)			
Touch Panel Type		Resistive Film (analog)			
Touch Panel Resolution		1,024 x 1,024			
Touch Panel Service Life		1,000,000 times or more			

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

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

*3: Depending on the operating temperature and age of unit, the clock can deviate from -380 to +90 sec/month. For systems where this level of deviation is a problem, the user should monitor and make adjustments when required.

General Specifications		
Model Number	GP-4521TAA GP-4521TAAC	GP-4521TAD GP-4521TADC
Rated Input Voltage	100 to 240 Vac	24 Vdc
Input Voltage Limits	85 to 264 Vac	19.2 to 28.8 Vdc
Allowable Voltage Drop	1 cycle or less (Voltage drop interval must be 1 second or more.)	
Power Consumption	100 Vac: 56 VA or less, 240 Vac: 77 VA or less	
In-Rush Current	30 A or less	
Voltage Endurance	1,500 Vac, 20 mA for 1 min (between charging and FG terminals)	
Insulation Resistance	500 Vdc, 10 MΩ or more (between charging and FG terminals)	
Surrounding Air Temperature *4	0 to 55 °C [32 to 131 °F]	
Storage Temperature	-20 to 60 °C [-4 to 140 °F]	
Ambient Humidity	10 to 90 % RH (Wet bulb temperature: 39 °C [102.2 °F] or less - no condensation.)	
Storage Humidity	10 to 90 % RH (Wet bulb temperature: 39 °C [102.2 °F] or less - no condensation.)	
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	
Atmosphere	Free of corrosive gases	
Air Pressure (altitude range)	800 to 1,114 hPa (2,000 m [6,561ft.] 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 150Hz Fixed acceleration: 9.8 m/s ² , X, Y, Z directions for 10 cycles (approx. 100 min)	
Concussion Resistance	IEC/EN61131-2 compliant 147 m/s ² , X, Y, Z directions for 3 times	
Noise Immunity	Noise Voltage: 1,500 Vp-p, Pulse Duration: 1 μs, Rise Time: 1 ns (via noisesimulator)	
Electrostatic Discharge Immunity	Contact Discharge Method: 6 kV (IEC/EN61000-4-2 Level 3)	
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)	
Structure *5	IP65f NEMA #250 TYPE 4X/13 (on the front panel when properly installed in an enclosure)	
Cooling Method	Natural air circulation	
Weight Approx.	2 kg [4.4 lb] or less (display unit only)	
External Dimensions	W272.5 x H214.5 x D57 mm [W10.73 x H8.44 x D2.24 in.]	
Panel Cut Dimensions *6	W259 x H201 mm [W10.2 x H7.91 in.], Panel thickness area: 1.6 to 5 mm [0.06 to 0.2 in.]	

*4: Surrounding Air Temperature of the Video Unit is 0 to 50 °C (32 to 122 °F) when attaching the Video Unit to GP-4521T.

*5: 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 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 GP's front face protection sheet becomes peeled off, these conditions can lead to the ingress of oil into the GP 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 GP unit, be sure to confirm the type of conditions that will be present in the GP'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.

*6: Regarding 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.