PFXGP4311HTAD***

☑ Standard product information   ☑ Dimensions

Standard product information

Family	HMI
Series	GP4000H Series
Size	5" Handy
Model	PFXGP4311HTAD***
Global Code	PFXGP4311HTAD***
Product Features	TFT Color LCD (65,536 colors) VGA
Repair Status	✔ (Maintenance service is available, able to be maintained.)

Functional Specifications

	GP-4311HT
Display Type	TFT Color LCD
Display Size	5.7"
Resolution	640 x 480 Pixels (VGA)
Dot Pitch	W0.18 x H0.18mm [W0.01 X H0.01in.]
Effective Display Area	115.2 x 86.4mm (4.54 x 3.4in)
Display Colors	65,536 Colors (No blink) / 16,384 Colors (Blink)
Backlight	White LED (Not user replaceable. When replacement is required, contact your local distributor.)
Brightness Control	16 Levels (Adjusted with touch panel)
Contrast Control	Not Applicable
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
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	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		**When usin GP-Pro EX:** Media: FLASH EPROM Screen Area [*2]: 32MB [*3] User Font Area: 8MB Logic Program Area: 132KB (Equivalent to 15,000 steps) Free Space: None **Removable System:** No
Backup Memory		**When using GP-Pro EX:** Screen Area: SRAM 320KB [*3] Variable Area: SRAM 64KB **Battery:** Rechargeable battery / Primary battery for clock data backup
Clock Accuracy		±65 sec./month (deviation at room temperature and power is OFF) [*4]
Touch Panel Type		Resistive Film (Analog)
Touch Panel Resolution		1,024 x 1,024
Touch Panel Service Life		1 million times or more
Interface	**Serial (COM1)**	Asynchronous Transmission:RS-232C/RS-422/RS-485, Data Length: 7 or 8 bits Stop Bit: 1 or 2 bits Parity: None, odd, or even, Data transmission speed: 2,400 to 115,200bps, 187,500bps (MPI) Maximum Communication Distance [*5]: When using RS-232C: 15m (49.2ft) When using RS-422 at 115,200bps : 1,200m (3937ft)
	Ethernet (LAN)	IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX Connector: Modular Jack (RJ-45) x 1 Maximum Communication Distance [*5]: 100m (328.1ft)
	USB (Type-A)	Conforms to USB2.0 (TYPE-A) x 1, Power Supply Voltage: DC 5 V ±5 %, Output Current: 500mA or less, Communication Distance: 5m [16.4ft.] or less
	USB (Type mini-B)	Conforms to USB2.0 (mini-B) x 1, Communication Distance: 5m [16.4ft.] or less
	CF Card	-
	SD Card	SD Card Slot x 1
	Function Switch	12 Switches (Right: 6 Switches, Left: 6 Switches) (DOUT: 2 Open Collector Output [F1, F2], Operation Switch: 1 Open Collector Output [O.P])
	Emergency Switch Output	Push-lock Switch, 3 Contacts (A-contact: 1 Contact, B-contact: 2 Contacts), Rated Voltage: DC 30V, Maximum Rated Current: 1A, (Minimum Allowable Load: DC 5V, 1mA), Applicable Standards [*6]: IEC/EN60947-5-1, IEC/EN60947-5-5, UL508, CSA C22.2 No.14
	3-Position Enable Switch Output	GP Rear Panel Switch, 2 Contacts (A-contact), Rated Voltage: DC 30V, Maximum Rated Current: 700mA (Minimum Allowable Load: DC 3V, 5mA), Applicable Standards [*6]: IEC/EN60947-5-8, 60204-1, UL508, CSA C22.2 No.14, ISO12100/EN12100-1,2, ISO11161/prEN11161, ISO10218/EN775, ANSI/RIA R15.06, ANSI B11.19
	Key Switch Output	1c-Contact, Rated Voltage: DC 24V, Maximum Rated Current: 300mA
	External [*7] — **Operation Output**	Open Collector Output: 1 Point, Rated Voltage: DC 24V, Maximum Rated Current: 300mA
	External [*7] — **External Buzzer Output**	Open Collector Output 1 Point, Rated Voltage: DC 24V, Maximum Rated Current: 300mA
	External [*7] — **DOUT Output**	Open Collector Output: 2 Points [F1, F2], Rated Voltage: DC 24V, Maximum Rated Current: 300mA/point

General Specification

	GP-4311HT
International Safety Standards	UKCA UL LISTED UL61010 cUL LISTED CE KC EHC (RCM)
Rated Input Voltage	24Vdc

Input Voltage Limits	DC 19.2 to 28.8Vdc
Allowable Voltage Drop	10ms or less
Power Consumption	12W or less (When power is not supplied to external devices: 8W or less)
In-Rush Current	35A or less
Voltage Endurance	500Vac, 20mA for 1 minute (between charging and FG terminals)
Insulation Resistance	500Vdc, 10MΩ or more (between charging and FG terminals)
Surrounding Air Temperature	0 to 40°C (32 to 104°F)
Storage Temperature	-20 to 60°C (-4 to 140°F)
Ambient Humidity	10% to 90% RH (Non Condensing, Wet Bulb Temperature 39°C [102.2°F] or less)
Storage Humidity	10 to 90% RH (Wet Bulb Temperature: 39°C max. - 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 1,114hPa (2,000m [6,561ft] or lower)
Vibration Resistance	IEC/EN 61131-2 compliant 5 to 9Hz Single amplitude 3.5mm (0.14 in.) 9 to 150Hz Fixed acceleration: 9.8m/s^2 X, Y, Z directions for 10 cycles (Approximately 100 Minutes)
Shock Resistance	IEC/EN 61131-2 compliant 147m/s^2, X, Y, Z directions for 3 times
Noise Immunity	Noise Voltage: 1,000Vp-p Pulse Duration: 1ms, Rise Time: 1ns (via noise simulator)
Electrostatic Discharge Immunity	Contact Discharge Method: 6kV (IEC/EN 61000-4-2 Level 3)
Drop Resistance	IEC 61131-2 Compliant 1.0m [3.3ft] Drop - 2 Times
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 [8]	IP65F
Weight Approx.	910g (2.01lb) or less: without a key switch, unit only 960g (2.12lb) or less: with a key switch, unit only

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

*2   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.

*3   Amount of memory you can use differs depending on your screen editing software.

*4   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.

*5   When using the Conversion Adapter (model number: AGP3000H-ADPCOM-01), the distance includes the cable length between this product and the Conversion Adapter.

*6   Overall system may not meet these standards if implemented outside these parameters. Follow these standards when designing the system.

*7   The conversion adapter is required to use the external output interface (DOUT) and build a system.adapter.
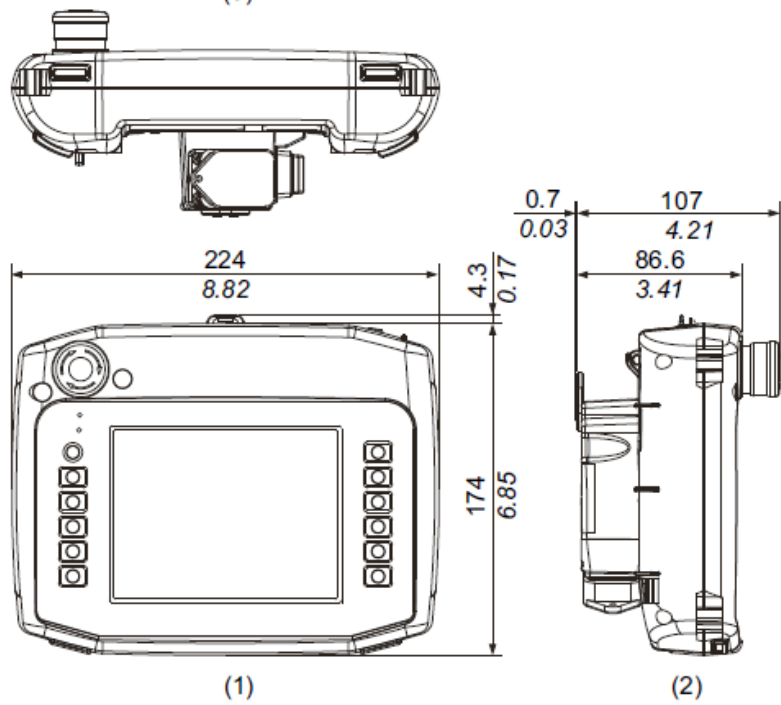
*8   This product has been tested using conditions equivalent to the standards shown in the specification.

Dimensions

External dimensions	# Models with an Emergency Stop Switch or Stop Switch

mm / in

(3)

224
8.82

0.7
0.03

107
4.21

86.6
3.41

4.3
0.17

174
6.85

(1)

(2)

1. Front
2. Left
3. Bottom

Models without any Stop Switch

mm / in

(3)

224
8.82

0.7
0.03

87.1
3.43

86.6
3.41

4.3
0.17

174
6.85

(1)

(2)
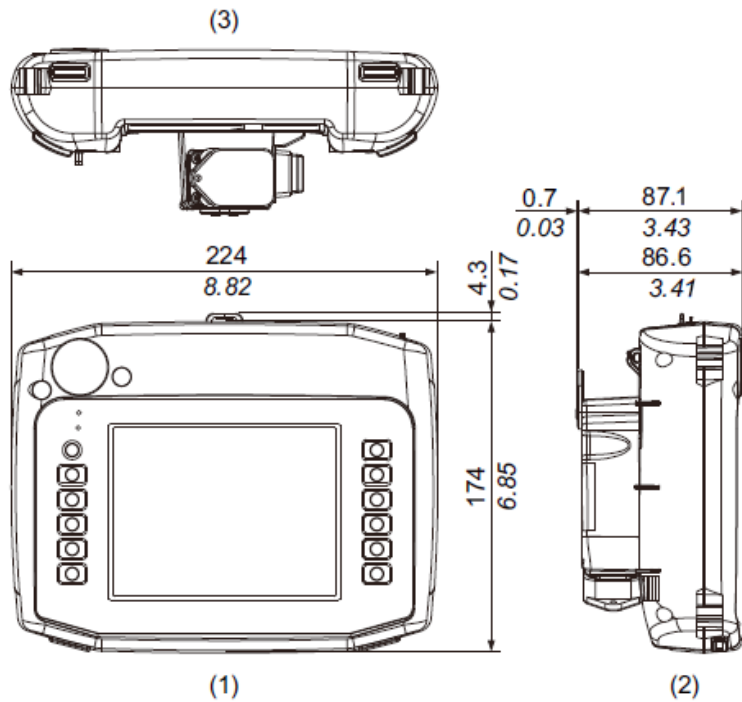
1. Front
2. Left
3. Bottom

Dimensions with a Stop Switch Guard

mm / in

(3)

| 2 / 0.08 | 224 / 8.82 | 4.3 / 0.17 | 0.7 / 0.03 | 111.1 / 4.37 |

174 / 6.85

(1)

(2)
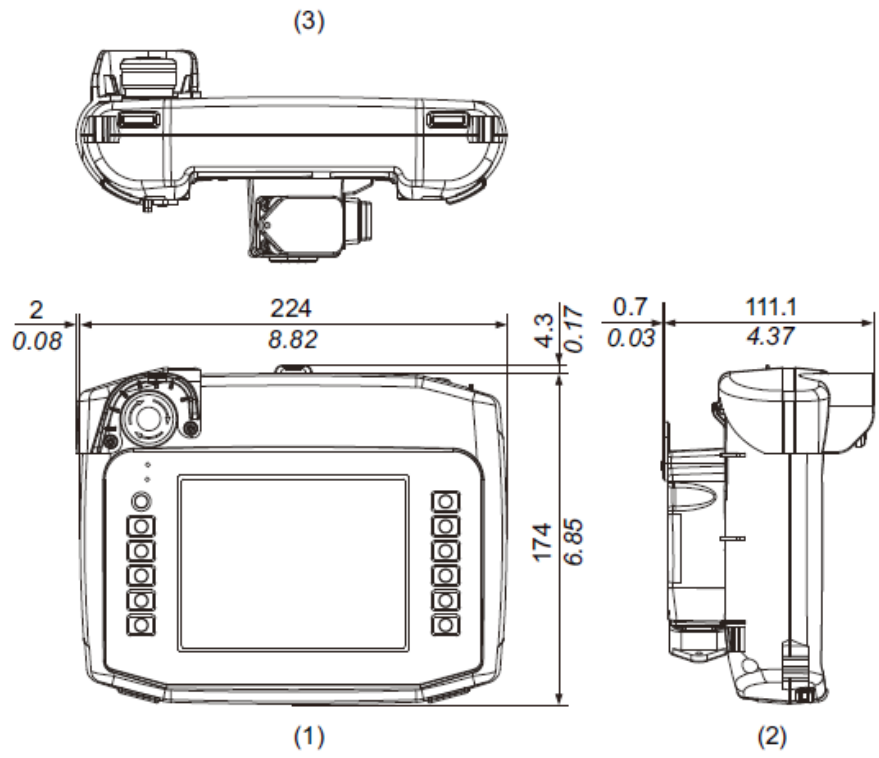
1. Front
2. Left
3. Bottom

Conversion Adapter

mm / in

113 / 4.45

144 / 5.67

44 / 1.73   56 / 2.20

90 / 3.54

41 / 1.61
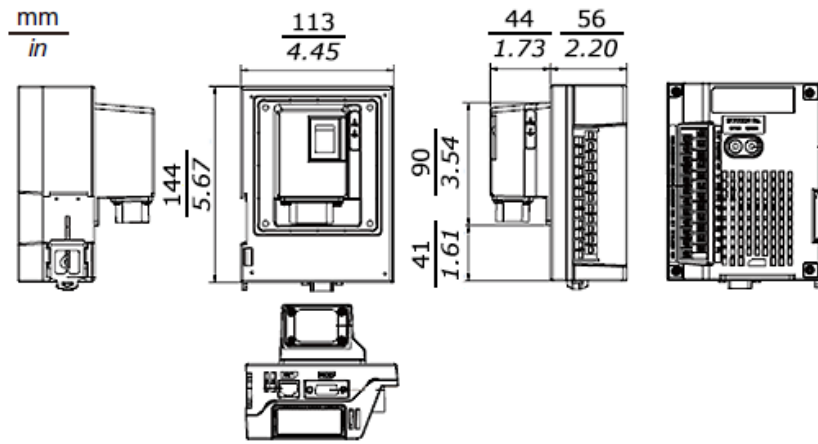
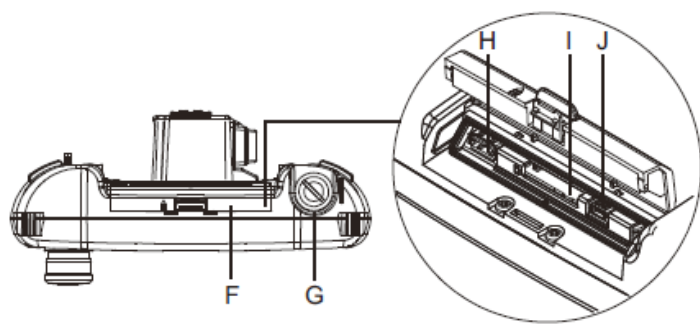# Parts Identification
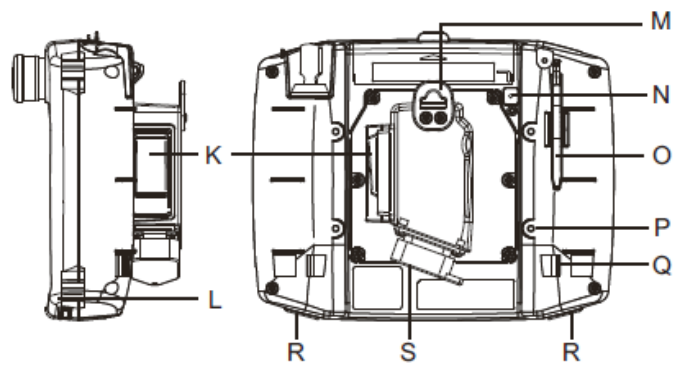
GP4000H unit

[Front]

A
B
C
D
E   E

(A) Emergency stop switch / Stop switch (B) Status LED (POWER) (C) Operation LED (O.P.) (D) Operation switch (E) Function switches

[Top]

(F) Maintenance cover (G) Key switch (H) USB (Type A) interface (I) SD card slot (J) USB (mini-B) interface
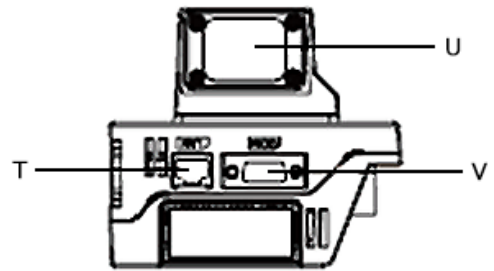
[Right and Rear]

(K) 3-position enable switch (L) Neck strap attachment slot (M) Hanger (N) SD card access LED (O) Touch pen (P) Wall hanging adapter attachment slots (Q) Hand strap attachment slots (R) Insertion hole (with cover) for function switch sheet (S) Interface for direct-connect cable (with connector cover)

Conversion Adapter

[Bottom]

(T) Ethernet Interface (U) Connector Cover (V) Serial Interface