PFXGP4601TMD

http://www.axcontrol.com/automation/pro-face/gp-4000/PFXGP4601TMD

Pro-face Xycom GP4000

PFXGP4601TMD

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Touch Screen Operator Interface 12.1 TFT Analog Color LCD Display 2 x Serial. Call Now!

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See Also:

http://www.axcontrol.com/automation/pro-face/gp-4000

Memory, Clock, and Touch Panel

Memory

	GP-4201T / GP-4203T	GP-4201TW
Application Memory [*1]	FLASH EPROM 16 MB (including the logic program area)	FLASH EPROM 8 MB (including the logic program area)
Logic Program Area	FLASH EPROM 132 KB (Equivalent to 15,000 steps)[*2]	
Font Area	FLASH EPROM 8 MB (when limit exceeded, uses application memory)	
Data Backup	SRAM 320 KB (Rechargeable lithium battery for data backup)	SRAM 128 KB (Rechargeable lithium battery for data backup)
Variable Area	SRAM 64 KB (Rechargeable lithium battery for retentive variables)	None

[*1] Capacity available for user application.

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

NOTE:

- When the message "RAAA051 Low battery" is displayed, supply power to the GP unit and fully charge the battery. In 24 hours the battery charges to a level that allows backup operation. Completing a full charge requires about 120 hours (5 days).
- The lithium battery's lifetime is: 10 years when the battery's ambient temperature is 40 °C (104 °F) or less, 4.1 years when the battery's ambient temperature is 50 °C (122 °F) or less, and 1.5 years when the battery's ambient temperature is 60 °C (140 °F) or less.
  When used for backup:
  Approximately 100 days, with a fully charged battery.
  Approximately 6 days, with a half-charged battery.

Clock

± 65 seconds per month (deviation at room temperature and power is OFF). Variations in operating conditions and battery life can cause clock deviations from -380 to +90 seconds per month.

For systems where this level of precision is insufficient, the user should monitor and make adjustments when required.

NOTE:

- When the message "RAAA051 Low battery" is displayed, supply power to the GP unit and fully charge the battery. In 24 hours the battery charges to a level that allows backup operation. Completing a full charge requires about 120 hours (5 days).
- The lithium battery's lifetime is: 10 years when the battery's ambient temperature is 40 °C (104 °F) or less, 4.1 years when the battery's ambient temperature is 50 °C (122 °F) or less, and 1.5 years when the battery's ambient temperature is 60 °C (140 °F) or less.

When used for backup:
Approximately 100 days, with a fully charged battery.
Approximately 6 days, with a half-charged battery.

Touch Panel

Touch Panel Type	Resistive Film (analog)
Touch Panel Resolution	1,024 x 1,024
Touch Panel Service Life	1 million times or more

Interface Specifications

Serial Interface COM1

	GP-4201T	GP-4201TW	GP-4203T
Asynchronous Transmission	RS-232C / RS-422 / RS-485	RS-232C	RS-485 (isolation)
Data Length	7 or 8 bits		
Stop Bit	1 or 2 bits		
Parity	None, odd or even		
Data Transmission Speed	2,400...115,200 bps, 187,500 bps (MPI)	2,400...115,200 bps	2,400...115,200 bps, 187,500 bps (MPI)
Connector	D-Sub 9 pin (plug)		D-Sub 9 pin (socket)

Serial Interface COM2

	GP-4201TW
Asynchronous Transmission	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...115,200 bps, 187,500 bps (MPI)
Connector	D-Sub 9 pin (plug)

USB Interface

	USB (Type A) Interface	USB (mini-B) Interface
Connector	USB 2.0 (Type A) x 1	USB 2.0 (mini-B) x 1
Power Supply Voltage	5 Vdc ±5%	-
Maximum Current Supplied	500 mA	-
Maximum Transmission Distance	5 m (16.4 ft)	

Ethernet Interface

	GP-4201T / GP-4203T
Ethernet (LAN)	IEEE802.3i / IEEE802.3u, 10BASE-T/100BASE-TX
Connector	Modular jack (RJ45) x 1

NOTE: GP-4201TW does not have an Ethernet interface.

Specifications of Serial Interface COM1

Introduction

NOTE: For instructions on how to connect to other devices, always refer to the “GP-Pro EX Device/PLC Connection Manual”.

The COM1 ports of GP-4201T and GP-4201TW are not isolated. The SG (signal ground) and FG (frame ground) terminals are connected inside the GP unit.

⚠ DANGER

ELECTRIC SHOCK

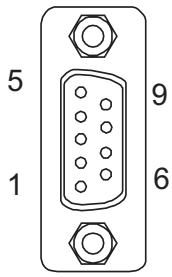
When using the SG terminal to connect an external device to the panel:

- Verify that a short-circuit loop is not created when you set up the system.
- Connect the #5 SG terminal to remote equipment when the host (PLC) unit is not isolated. Connect the #5 SG terminal to a known reliable ground connection to reduce the risk of damaging the circuit.

Failure to follow these instructions will result in death or serious injury.

Serial Interface COM1

GP-4201T: D-Sub 9 pin plug connector via an RS-232C or RS-422/RS-485 cable.

Pin Connection	Pin No.	RS-232C		
		Signal Name	Direction	Meaning
 (GP unit side)	1	CD	Input	Carrier Detect
	2	RD(RXD)	Input	Receive Data
	3	SD(TXD)	Output	Send Data
	4	ER(DTR)	Output	Data Terminal Ready
	5	SG	-	Signal Ground
	6	DR(DSR)	Input	Data Set Ready
	7	RS(RTS)	Output	Request to Send
	8	CS(CTS)	Input	Send possible
	9	CI(RI)/VCC	Input/–	Called Status Display +5V±5% Output 0.25A[*1]
	Shell	FG	–	Frame Ground (Common with SG)

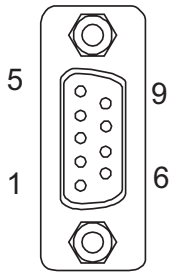
NOTE: [*1] You can switch pin #9 between RI and VCC via software.

NOTICE

EQUIPMENT DAMAGE

Use only the rated current.

Failure to follow these instructions can result in equipment damage.

Pin Connection	Pin No.	RS-422/RS-485		
		Signal Name	Direction	Meaning
 (GP unit side)	1	RDA	Input	Receive Data A (+)
	2	RDB	Input	Receive Data B (-)
	3	SDA	Output	Send Data A (+)
	4	ERA	Output	Data Terminal Ready A (+)
	5	SG	-	Signal Ground
	6	CSB	Input	Send Possible B (-)
	7	SDB	Output	Send Data B (-)
	8	CSA	Input	Send Possible A (+)
	9	ERB	Output	Data Terminal Ready B (-)
	Shell	FG	–	Frame Ground (Common with SG)

Interfit bracket is #4-40 (UNC).

Recommendations:
- Cable Connector: XM2D-0901 manufactured by OMRON Corporation.
- Cable Cover: XM2S-0913 manufactured by OMRON Corporation.
- Jack Screw (#4-40 UNC): XM2Z-0073 manufactured by OMRON Corporation.

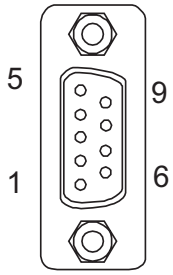
⚠ CAUTION

LOSS OF COMMUNICATION

- All connections to the communication ports must not put excessive stress on the ports.
- Securely attach communication cables to the panel wall or cabinet.
- Use only D-Sub 9 pin cables with a locking tab in good condition.

Failure to follow these instructions can result in injury or equipment damage.

GP-4201TW: D-Sub 9 pin plug connector via an RS-232C cable.

Pin Connection	Pin No.	RS-232C		
		Signal Name	Direction	Meaning
 (GP unit side)	1	CD	Input	Carrier Detect
	2	RD(RXD)	Input	Receive Data
	3	SD(TXD)	Output	Send Data
	4	ER(DTR)	Output	Data Terminal Ready
	5	SG	-	Signal Ground
	6	DR(DSR)	Input	Data Set Ready
	7	RS(RTS)	Output	Request to Send
	8	CS(CTS)	Input	Send possible
	9	CI(RI)/VCC	Input/–	Called Status Display +5V±5% Output 0.25A[*1]
	Shell	FG	–	Frame Ground (Common with SG)

NOTE: [*1] You can switch pin #9 between RI and VCC via software.

NOTICE

EQUIPMENT DAMAGE

Use only the rated current.

Failure to follow these instructions can result in equipment damage.

Interfit bracket is #4-40 (UNC).

Recommendations:
- Cable Connector: XM2D-0901 manufactured by OMRON Corporation.
- Cable Cover: XM2S-0913 manufactured by OMRON Corporation.
- Jack Screw (#4-40 UNC): XM2Z-0073 manufactured by OMRON Corporation.

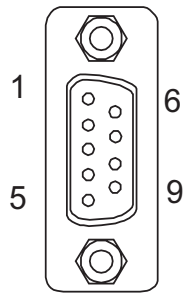
⚠ CAUTION

LOSS OF COMMUNICATION

- All connections to the communication ports must not put excessive stress on the ports.
- Securely attach communication cables to the panel wall or cabinet.
- Use only D-Sub 9 pin cables with a locking tab in good condition.

Failure to follow these instructions can result in injury or equipment damage.

GP-4203T: D-Sub 9 pin socket connector via a RS-485, PROFIBUS, or MPI cable.

Pin Connection	Pin No.	RS-485 (isolation)		
		Signal Name	Direction	Meaning
 (GP unit side)	1	NC	–	no connection
	2	NC	–	no connection
	3	Line A	Input/Output	Data A (+)
	4	RS(RTS)	Output	Request to Send
	5	SG	–	Signal Ground
	6	VCC	–	+5V±5% External Output*1
	7	NC	–	no connection
	8	Line B	Input/Output	Data B (-)
	9	NC	–	no connection
	Shell	FG	–	Frame Ground*2 (Not connected with SG)

NOTE: *1 You can supply power to the Siemens PROFIBUS connector only. You cannot supply power to the device/PLC.

*2 The SG and FG terminals are isolated.

Interfit bracket is #4-40 (UNC).

Recommendations:
- Cable Connector: XM2A-0901 manufactured by OMRON Corporation.
- Cable Cover: XM2S-0913 manufactured by OMRON Corporation.
- Jack Screw (#4-40 UNC): XM2Z-0073 manufactured by OMRON Corporation.

⚠ CAUTION

LOSS OF COMMUNICATION

- All connections to the communication ports must not put excessive stress on the ports.
- Securely attach communication cables to the panel wall or cabinet.
- Use only D-Sub 9 pin cables with a locking tab in good condition.

Failure to follow these instructions can result in injury or equipment damage.

Specifications of Serial Interface COM2

Introduction

NOTE: For instructions on how to connect to other devices, always refer to the "GP-Pro EX Device/PLC Connection Manual".

The serial port is not isolated. The SG (signal ground) and FG (frame ground) terminals are connected inside the GP unit.

⚠⚠ DANGER

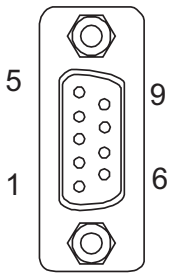
ELECTRIC SHOCK

When using the SG terminal to connect an external device to the panel:
- Verify that a short-circuit loop is not created when you set up the system.
- Connect the #5 SG terminal to remote equipment when the host (PLC) unit is not isolated. Connect the #5 SG terminal to a known reliable ground connection to reduce the risk of damaging the circuit.

Failure to follow these instructions will result in death or serious injury.

Serial Interface COM2

GP-4201TW: D-Sub 9 pin plug connector via an RS-422/485 cable.

Pin Connection	Pin No.	RS-422/RS-485		
		Signal Name	Direction	Meaning
 (GP unit side)	1	RDA	Input	Receive Data A (+)
	2	RDB	Input	Receive Data B (-)
	3	SDA	Output	Send Data A (+)
	4	ERA	Output	Data Terminal Ready A (+)
	5	SG	-	Signal Ground
	6	CSB	Input	Send Possible B (-)
	7	SDB	Output	Send Data B (-)
	8	CSA	Input	Send Possible A (+)
	9	ERB	Output	Data Terminal Ready B (-)
	Shell	FG	–	Frame Ground (Common with SG)

Interfit bracket is #4-40 (UNC).

Recommendations:
- Cable Connector: XM2D-0901 manufactured by OMRON Corporation.
- Cable Cover: XM2S-0913 manufactured by OMRON Corporation.
- Jack Screw (#4-40 UNC): XM2Z-0073 manufactured by OMRON Corporation.

⚠ CAUTION

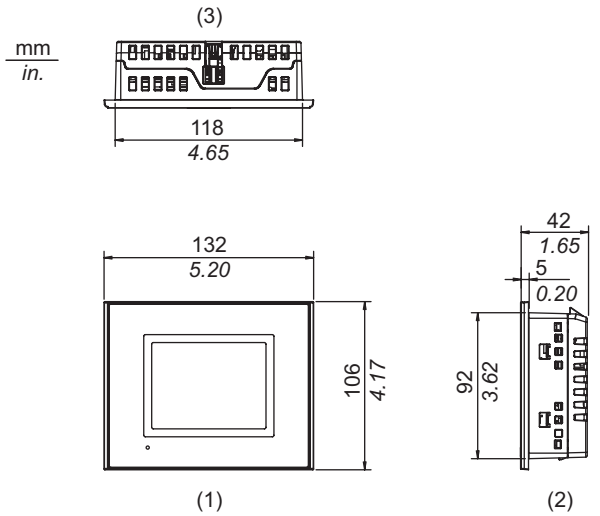
LOSS OF COMMUNICATION

- All connections to the communication ports must not put excessive stress on the ports.
- Securely attach communication cables to the panel wall or cabinet.
- Use only D-Sub 9 pin cables with a locking tab in good condition.

Failure to follow these instructions can result in injury or equipment damage.

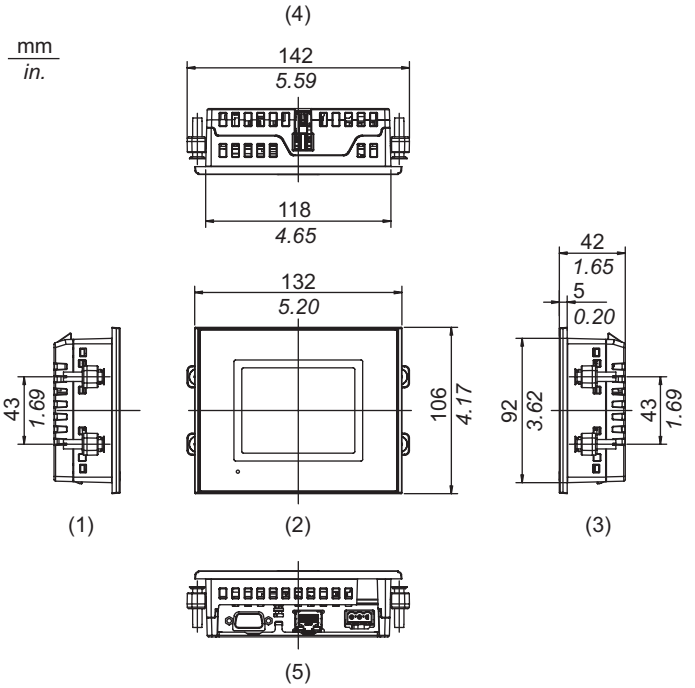
Dimensions

External Dimensions



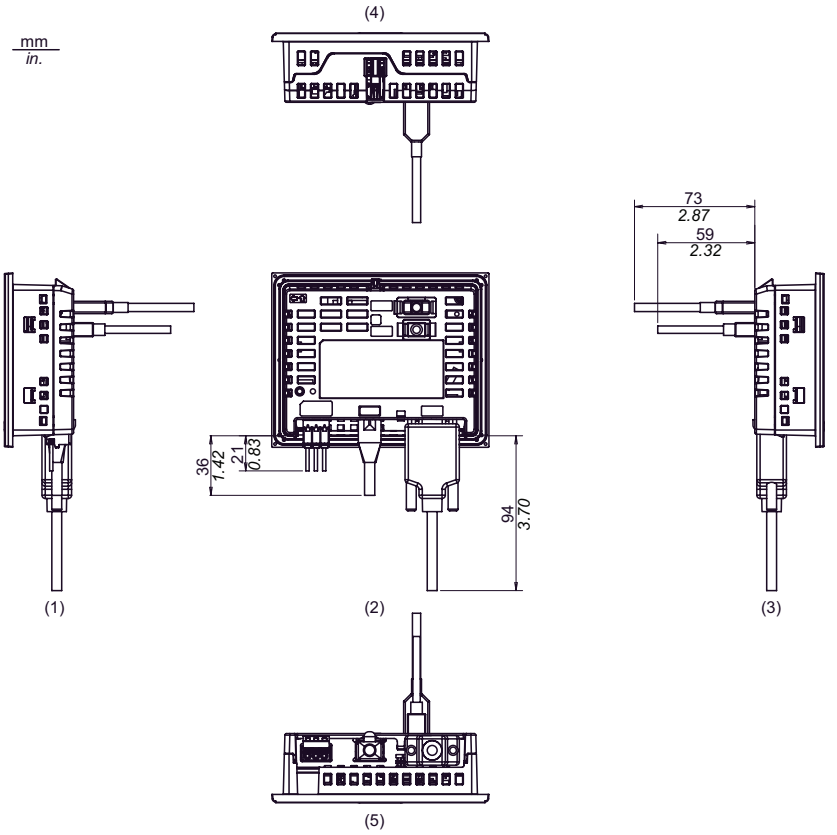
1 Front
2 Right Side
3 Top

Installation with Installation Fasteners



1 Left Side
2 Front
3 Right Side
4 Top
5 Bottom

Dimensions with Cables: GP-4201T



1 Left Side
2 Rear
3 Right Side
4 Top
5 Bottom

NOTE: All the above values are designed with cable bending in mind. The dimensions given here are representative values depending on the type of connection cable in use. Therefore, these values are intended for reference only.