



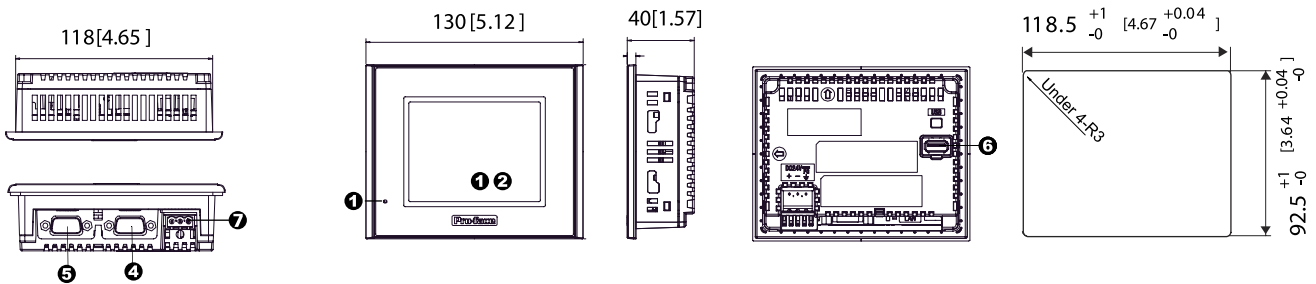
AST3201-A1-D24  
AST3211-A1-D24



# AST3200 Advanced HMI

## 3.8" Operator Interface Touch Screen with Serial Communications

- 3.8-inch Monochrome Amber/Red LCD Display
- Ultra Fast Screen Refresh and Data Sampling
- No Grid Analog Touch Panel for Improved Visibility and Precise Part Placement
- Supports Up to Two Protocol Drivers Simultaneously
- High Speed Application Transfer, 10 Times Faster than Conventional Operator Interfaces



**1 Display**

**2 Touch Panel**

**3 Status LED**

**4 Serial Interface (COM1)**

RS232C serial interface. D-sub 9-pin plug type connector.

**5 Serial Interface (COM2)**

AST3201-A1-D24: RS422 serial interface. D-sub 9-pin plug type connector.  
AST3211-A1-D24: RS485 serial interface. D-sub 9-pin plug type connector.

**6 USB Interface (Host)**

Conforms to USB 1.1. (TYPE-A conn.) for data transfer cable, USB-compatible printer, or barcode reader, etc. The maximum communication distance is 5m.

**7 Power Plug Connector**

**Serial Interface (COM 1): User Configurable**

When configured as RS-232C serial interface

Pin Arrangement	Pin No.	RS232C		
		Signal Name	Direction	Meaning
 (ST 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
Shell	FG	-	Frame Ground (Common with SG)	

**Serial Interface (COM 2): User Configurable**

AST3201-A1-D24: 4RS-422/ AST3211-A1-D2:RS-485 serial interface

Pin Arrangement	Pin No.	AST3201 RS422		AST3211 RS485 (MPI)	
		Signal Name	Direction	Signal Name	Direction
 (ST unit side)	1	RDA	Input	NC	-
	2	RDB	Input	NC	-
	3	SDA	Output	LINE(+)	Input/Output
	4	ERA	Output	RS(RTS)	Output
	5	SG	-	SG	-
	6	CSB	Input	5V	-
	7	SDB	Output	NC	-
	8	CSA	Input	LINE(-)	Input/Output
	9	ERB	Output	NC	-
Shell	FG	-	FG	-	



**FUNCTIONAL SPECIFICATIONS**

Model		<b>AST3201-A1-D24</b>	<b>AST3211-A1-D24</b>
Display	Type	Monochrome Amber/Red LCD	
	Shade Levels	8 Shades	
	Backlight	Maintenance free LED back lit	
	Resolution	320x240 pixels, QVGA	
	Backlight	Maintenance free LED back lit	
	Resolution	320x240 pixels, QVGA	
	Brightness Control	16 levels of adjustment available via touch panel	
	Touch Panel	Resistive Film (analog) 1024 x 1024 resolution	
	Effective Display Area (mm)	W78.8mm[3.10in] X H59.6mm[2.35in]	
	Contrast Control	8 levels of adjustment available via touch panel	
Memory	Character Sizes	8x8, 8x16, 16x16, 32x32 dot fonts, Windows based image fonts: 6 to 127 dot fonts	
	Font Sizes	Width can be expanded up to 8 times. Height can be expanded up to 8 times*1	
Memory	Memory - Application	FLASH EPROM 6MB	
	Memory - Data Backup	Lithium battery backup	
Interfaces	Serial (COM1) Interface	RS232C Asynchronous Transmission: Data Length: 7 bit/8 bitParity: none, Odd or EvenStop Bit: transmission Speed:2400 bps to 115.2KbpsConnector: DSUB-9pin plug	
	Serial (COM2) Interface	RS422 configurable, 9-pin D-sub, Data Transmission Speed: 2400 to 115.2 kbps,	RS485 configurable, 9-pin D-sub, Data Transmission Speed: 2400 to 115.2 kbps,
	115.2 kbps,	MPI Direct: 187.5Kbps	MPI Direct: 187.5Kbps

**GENERAL SPECIFICATIONS**

Electri-	Rated Voltage	24V DC	
	Rated Voltage Range	19.2V DC to 28.8V DC	
	Power Consumption	13W (max.)	
Environmen-	Ambient Operating Temp.	0 to +50°C <sup>1</sup>	
	Storage Temperature	-20 to +60°C	
	Humidity	10 to 90% RH (Wet bulb temperature: 39°C max. - no condensation)	
	Altitude Operation	800 to 1114hPa (2,000 meters above sea-level and below)	
	Vibration & Shock Resistance	IEC61131-2 compliant5 to 9Hz single-amplitude 3.5mm9 to 150Hz constant-accelerated velocity 9.8m/s2 X,Y,Z directions for 10 cycle (100 minute)	
S t r u c -	Ratings	CE, CSA, UL, cUL Listed, ROHS compliant	
	Certifications	Equivalent to IP65f, Nema #250 Type 4x/13 (Equivalent to NEMA 12 with the addition of "Oil or Coolant Spraying and Splashing")	
	External Dimensions	W130.0mm [5.12in] X H104.0mm [4.09in] X D40.0mm [1.57in]	
	Weight	0.4kg (0.9lb) max. (unit only)	

**16 Years of Cut-Out Compatibility**



Old model



Panel cutout dimensions

Series	Size (mm)	118.5 x 92.5 mm
ST40x Series	ST400/ST401/ST402/ST403 Series	
AGP3000 Series	AST32xx Series	



AST32xx model "Drop-in"



**POWERED BY:**



**HMI Development**

**2.0 or higher**

**Investment Protection**

**ORDER NUMBER**

AST3201-A1-D24                      3.8" Mono Amber/Red LCD, RS-232, RS-422 Serial, 24V  
 AST3211-A1-D24                      3.8" Mono Amber/Red LCD, RS-232, RS485 Siemens MPI, 24V

**OPTIONAL ACCESSORIES**

CA3-USBCB-01                      USB download cable, PC USB port to AGP USB port  
 CA6-DFS4-01                      Overlay Screen Protection Sheets (5 sheets/pack)  
 CA3-ATFALL-01                      Installation mounting fasteners (included with this unit)  
 PLC Cables & Accessories See AGP3000 Connectivity Document

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