

## Plasma Panel Display Modules

240 x 120 Graphics Display  
with Drive Electronics and Controller



### FEATURES

- 240 x 120 full field dot matrix.
- Text or graphics modes (12 rows of 40 characters in text mode).
- Only + 5 and +12 VDC required.
- Flicker free refresh.
- Parallel or RS-232/422 serial interface.
- Editing functions.
- VT-100 compatible.
- Powerful software commands.
- International character sets.
- Wide viewing angle (150°).
- ISA graphics line drawing character set.
- High brightness.

The APD-240G120 consists of a graphics DC plasma display panel, controller and DC/DC converter. Vishay Dale patented open construction display technology assures a stable flicker free screen.

Interface is through either a parallel or RS-232/422 serial interface. The parallel interface allows for efficient handshaking and data protocol for bi-directional data interface. The serial interface is very flexible allowing for many selectable baud rates (150 to 19,200) and data formats. A second serial port allows for communication with the optional IR touch panel and software is available that allows for simple integration. An EPROM based character generator is easily configured for any character set, but comes standard with three variations of international fonts (Standard International, International plus Kata-kana and International plus Russian) and the standard ISA 96 character graphics line drawing character set. Alternate character sets can be factory or user programmed. The pixel pattern in text mode is 5 x 7 pixels in a 6 x 10 block. The characters are adjusted for one pixel space above, one space to the right and 2 spaces on the bottom of each character. Various editing functions are available such as scrolling, inserting and deleting characters.

A FIFO buffer is used to capture incoming serial data in the event the display's microprocessor is busy with a lengthy command. Handshaking is suggested when operating in the graphics mode. The data format is programmable.

The touch panel version (APD-240G120-5) includes a Vishay Dale TIP-3216 infrared touch panel that consists of IR LEDs and detectors arranged to provide a grid of infrared light beams across the face of the display. When a pair of intersecting beams are blocked by a finger or stylus, the module will report the coordinates to the host computer. Various reporting modes are supported such as ENTER, EXIT, TRACKING and CONTINUOUS. All of the touch panel functions are controlled through the display controller so the user doesn't have to provide an additional serial port. The touch panel includes an attractive sealed bezel and contrast enhancement filter, providing an elegant solution for menu driven applications.

### OPTICAL SPECIFICATIONS

**Viewing Area:** 7.550" [191.77mm] W x 3.740" [95.00mm] H.

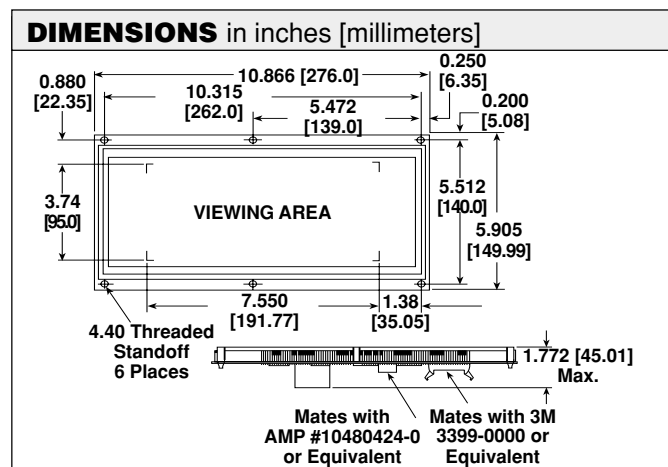
**Pixel Size:** 0.020 [0.508mm] diameter.

**Pixel Pitch:** 0.031 [0.787mm].

**Luminance:** 60 foot lamberts.

STANDARD ELECTRICAL SPECIFICATIONS				
	MIN.	TYP.	MAX.	UNITS
Logic Supply Voltage	4.75	5.0	5.25	V
Logic Supply Current	—	0.4	—	A
Panel Supply Voltage	9.5	12.0	28.5	V
Panel Supply Current*	—	0.8	3.0	A

\*At 12.0 volt input.



### ORDERING INFORMATION

DESCRIPTION	PART NUMBER
Display, Drive Electronics and Controller .....	APD-240G120
Parallel Connector Kit .....	280105-01
Power Connector Kit .....	280108-05
Non-Glare Filter (amber circular polarized) - other filters available, contact factory .....	280109-11
Touch Panel Version .....	APD-240G120-5