

## Plasma Panel Display Modules

### 240 Character Display with Drive Electronics Controller and Parallel Interface



#### FEATURES

- 240 (6 x 40) alphanumeric characters (5 x 7 dot matrix).
- Compatible with IEE 3402-08-240N.
- Only + 5 and + 11.5 to 30.0 VDC required.
- ASCII character set (optional character sets available).
- Efficient parallel interface.
- Wide viewing angle (150°).
- Rugged design/slim profile.
- Flicker free refresh.
- Editing functions.
- High brightness.

The APD-240M021 plasma display module consists of a multiplexed DC plasma display, drive circuitry and switching voltage converter mated with an intelligent, microprocessor-based controller board. The resulting assembly interfaces easily to microprocessor-based systems and requires only readily available low voltages for power. Vishay Dale's patented open construction display technology assures a stable flicker free screen.

Interfacing is a basic 8 bit parallel ASCII interface with some dedicated control lines and requires minimum handshaking. DEVICE SELECT (CS), ADDRESS (A<sub>0</sub>), WRITE and READ lines are enabled in accordance with the Function Summary Chart and allow the host system to write or read data from the display. Data bus signals are formatted in accordance with the standard ASCII which allow control functions to be included in the character code matrix table. Functions such as advancing the cursor position or selecting the end-of-line mode are implemented with a single 8 bit control word.

#### OPTICAL SPECIFICATIONS

**Viewing Area:** 7.52" [191.01mm] W x 2.15" [54.61mm] H.

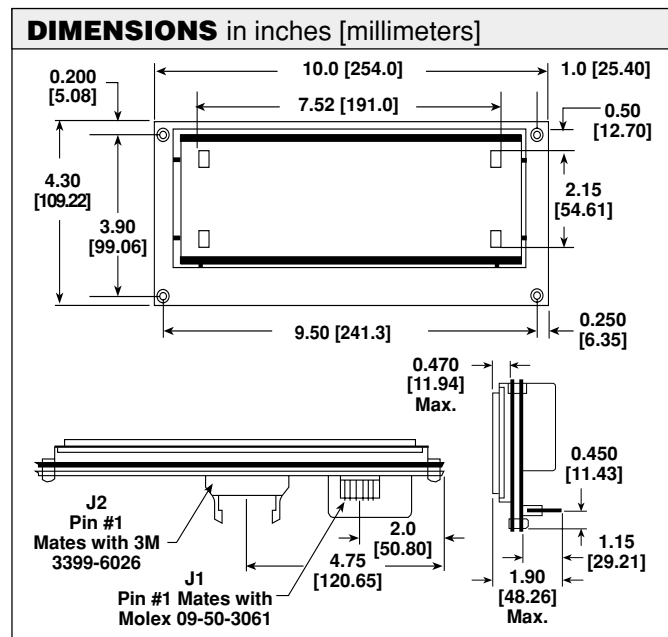
**Number of Characters:** 240.

**Character Size:** 0.15" [3.81mm] W x 0.21" [5.33mm] H.

**Luminance:** 100 foot lamberts.

STANDARD ELECTRICAL SPECIFICATIONS				
	MIN.	TYP.	MAX.	UNITS
Logic Supply Voltage	+ 4.75	+ 5.0	+ 5.25	V
Logic Supply Current	—	300.0	—	mA
Panel Supply Voltage	11.5	12.0	30.0	V
Panel Supply Current*	—	600.0	1000.0	mA
Logic One Voltage	2.4	—	—	V
Logic Zero Voltage	—	—	0.8	V
Logic Zero Input Current	—	—	- 0.4	mA

\*At 12 volt input.



#### ORDERING INFORMATION

DESCRIPTION	PART NUMBER
Display, Drive Electronics, Controller.....	APD-240M021
Parallel Data Connector Kit.....	280105-01
Power Connector Kit.....	280108-07
Non-Glare Filter (amber circular polarized) - other filters available - contact factory.....	280109-13



## Notice

Specifications of the products displayed herein are subject to change without notice. Vishay Intertechnology, Inc., or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Vishay's terms and conditions of sale for such products, Vishay assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of Vishay products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Vishay for any damages resulting from such improper use or sale.