BABCOCK

DISPLAY PRODUCTS DIVISION

MODEL: **VF-0120-03 / 03R**

1 X 20 DOT MATRIX (5 X 7),VACUUM FLUORESCENT DISPLAY

The VF-0120-03 (Standard) and VF-0120-03R (RS-232) are vacuum fluorescent display with 15.0mm high characters arranged in a 5 x 7 dot matrix format. The Vacuum Fluorescent display module is equipped with drivers, refresh memory, character generator, microcomputer, scanning circuit, and interface to the host system. All the operations necessary for the display are conducted within the module, once data is inputted into the modules, thereby maintaining the display automatically. Also rewriting of the display data is easily available.

The VF-0120-03 / 03R microcomputer performs scanning of the grid of the Vacuum Fluorescent tube, while at the same time, picks up the character patterns to be displayed at in their respective character position.

The VF-0120-03 / 03R has the following function capability: Data Write, Data Read, Command and Control Functions, Status Read, Serial Operation, Self-Test, Alternate Character Font, Optional Circuit for RS-232 Serial Input.

FEATURES

Format: 1 line of 20 characters
Character Height: 15mm
Character Spacing: 12.7mm, C to C
Character Design: 5 x 7 dot matrix
Character Set: 96 Character ASCII

Font: English, General European
Color: Blue Green
Luminance: 100 fL min
Viewing Angle: 150°
Life: 100,000+ hours

SPECIFICATIONS

Absolute Maximum Ratings

PARAMETER	SYM	MIN	MAX	UNITS
Supply Voltage	V_{CC}	-	+5.25	Volts
High Level Input Voltage	V_{IH}	-	V_{CC}	Volts
Low Level Input Voltage	V_{IL}	-	0.8	Volts
Vibration (Sine) (10 –55 Hz)		-	2	G
Shock Non-Operating			20	G

Recommended Operating Conditions

PARAMETER	SYM	MIN	TYP	MAX	UNITS
Supply Voltage	V_{CC}	4.75	5.0	5.25	VDC
Supply Current	I_{CC}	-	1.0	1.2	A
High Level Output Current (V_{OH} = 2.4VDC)	I_{OH}	-	-	-400	µA
Low Level Output Current (V_{OL} = 0.45VDC)	I_{OL}	-	-	2	mA
High Level Input Voltage	V_{IH}	2.0	-	V_{CC}	VDC
Low Level Input Voltage	V_{IL}	-0.5	-	0.8	VDC
High Level Output Voltage	V_{OH}	2.4	-	-	VDC
Low Level Output Voltage	V_{OL}	-	-	0.45	VDC

Environmental Characteristics

Operating Temperature	0 to 55 °C
Storage Temperature	-40 to +85 °C
Operating Relative Humidity	0 to 95% non-condensing

SPECIFICATIONS ARE FOR REFERENCE ONLY

9200-0100 Rev. A

Phone: (714) 994-6500 **14930 East Alondra Blvd., La Mirada, CA 90638-5752** Fax: (714) 994-3013

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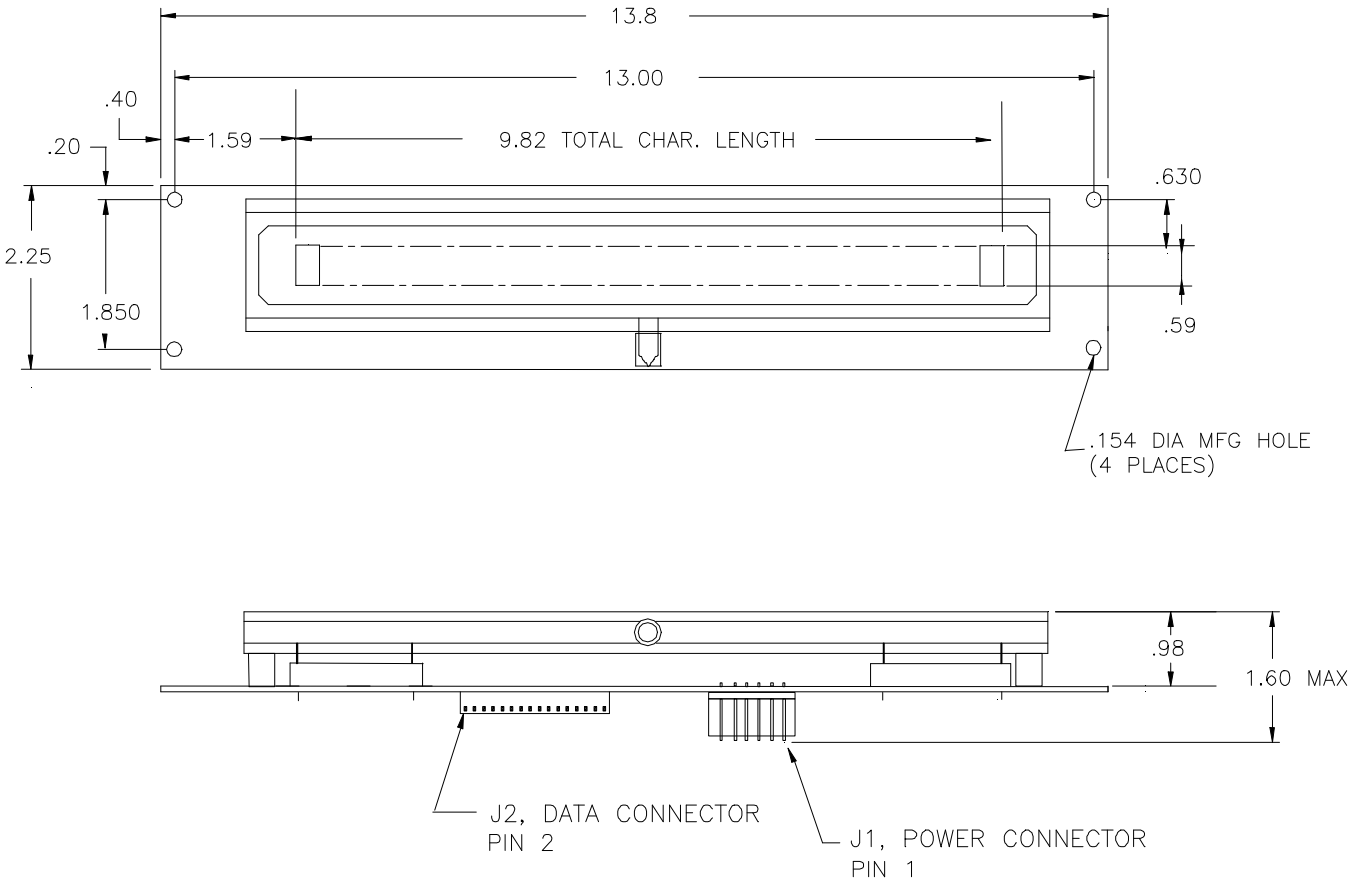
J1- Power Connector

Pin Number	Function
1	+5 VDC
2	N/C
3	Dimming
4	Common
5	N/C
6	$\overline{\text{RESET}}$

J2 - Data Connector

Pin Number	Function	Pin Number	Function	Pin Number	Function
1	Serial In/Self Test	10	Common	19	Data 2 ^{4}
2	Common	11	Data 2 ^{0} (LBS)	20	Common
3	Device Select	12	Common	21	Data 2 ^{5}
4	Common	13	Data 2 ^{1}	22	Common
5	Read	14	Common	23	Data 2 ^{6}
6	Common	15	Data 2 ^{2}	24	Common
7	Address Zero Bit	16	Common	25	Data 2 ^{7} (MSB)
8	Common	17	Data 2 ^{3}	26	Common
9	Write	18	Common		

Outline and Mounting Drawing:



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