

BABCOCK

DISPLAY PRODUCTS DIVISION

MODEL: **VF-0140-XX**

XX - denotes dash numbers below

1 X 40 DOT MATRIX (5 X 7), VACUUM FLUORESCENT DISPLAY

The VF-0140-XX (XX = 13, 13R, 13R2, 24) is a vacuum fluorescent display with 5-mm high characters arranged in a 5 x 7 dot matrix format. Data may be written to or read from the module through a parallel TTL level 8-bit data bus, or serial interface.

The VF-0140-XX has the following function capability: Data Write, Data Read, Command and Control Functions, Parallel I/O Handshake Lines, Status Read, Interrupt-Driven Parallel Interface Using IBF & OBF, Input Data Rates, Serial Operation, Optional Circuit for RS-232 Serial Input, Self Test, Alternate Character Font.

FEATURES

Format: 1 line of 40 characters	VF-0140-13 (standard)
Character Height: 5.05 + cursor	VF-0140-13R (RS232 baud rate 1200)
Character Spacing: 4.75mm, C to C	VF-0140-13R2 (RS232 baud rate 2400)
Character Design: 5 x 7 dot matrix	VF-0140-24 (Special power cable with spade terminals)
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}	-	0.6	0.7	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

9200-0103 Rev. A

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

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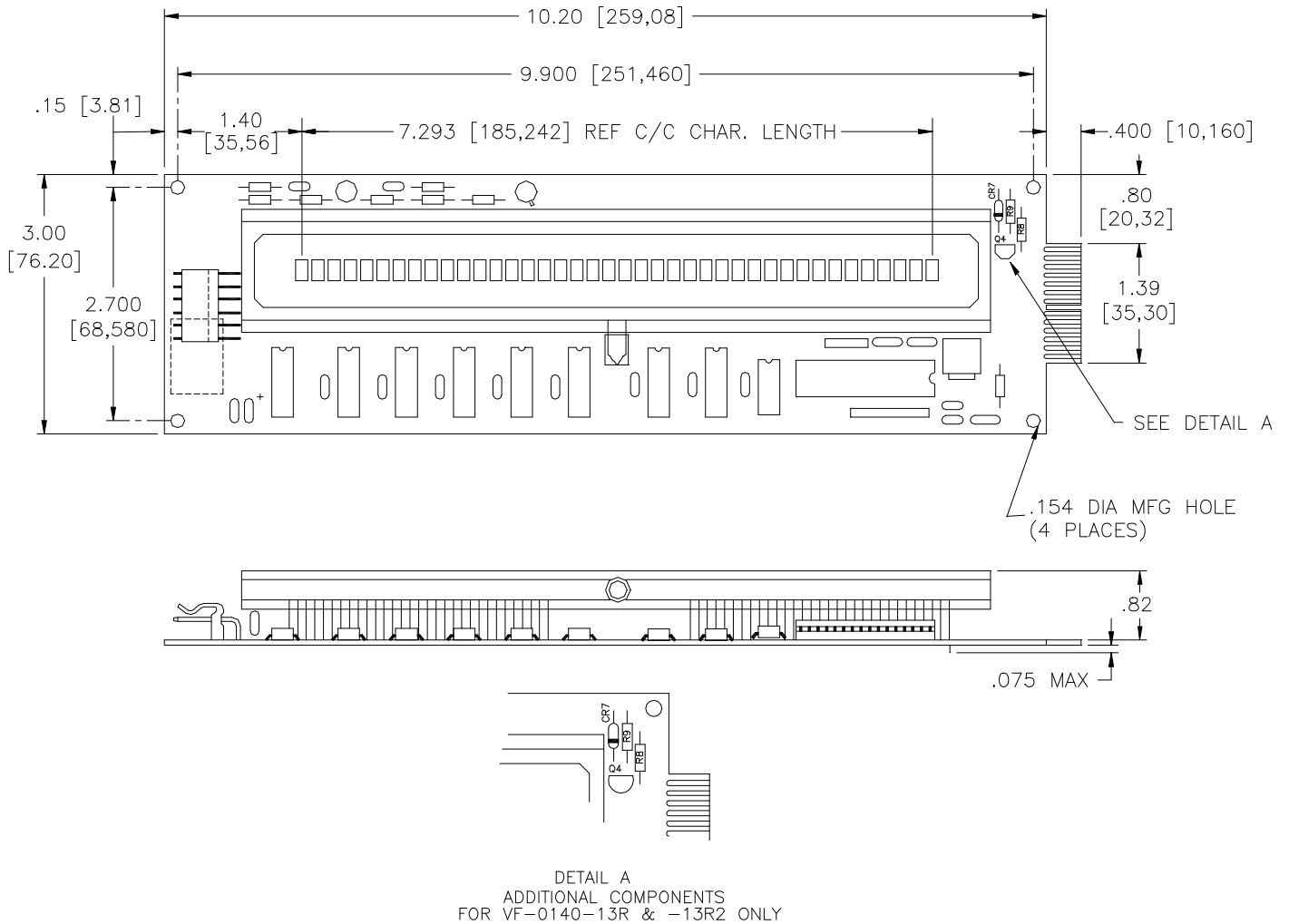
J1 - Power Connector

Pin Number	Function
1	+5 VDC
2	N/C
3	Dimming
4	Common
5	N/C
6	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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