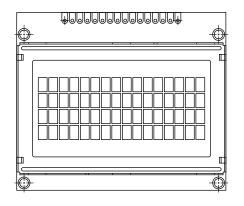
LCD-016N004B



Vishay

16 x 4 Character LCD



MECHANICAL DATA						
ITEM	STANDARD VALUE	UNIT				
Module Dimension	70.6 x 60.0					
Viewing Area	60.0 x 32.6					
Dot Size	0.55 x 0.55					
Dot Pitch	0.60 x 0.60	– mm				
Mounting Hole	65.6 x 50.0					
Character Size	2.95 x 4.75					

FEATURES

- Type: Character
- Display format: 16 x 4 characters
- Built-in controller: ST 7066 (or equivalent)
- Duty cycle: 1/16
- 5 x 8 dots includes cursor
- + 5 V power supply (also available for + 3 V)
- B/L to be driven by pin 1, pin 2, pin 15, pin 16 or A and K
- N.V. optional for + 3 V power supply
- Material categorization: For definitions of compliance please see <u>www.vishay.com/doc?99912</u>

ABSOLUTE MAXIMUM RATINGS								
ІТЕМ	SYMBOL	STAN	UNIT					
	STINDUL	MIN.	TYP.	MAX.				
Power Supply	V_{DD} to V_{SS}	- 0.3	-	7.0	V			
Input Voltage	VI	- 0.3	-	V_{DD}	v			

Note

• $V_{SS} = 0 V, V_{DD} = 5.0 V$

ELECTRICAL CHARACTERISTICS									
ITEM	SYMBOL		ST						
	STMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT			
Input Voltage	V	V _{DD} = + 5 V	4.7	5.0	5.3	v			
	V _{DD}	$V_{DD} = + 3 V$	2.7	3.0	5.3	v			
Supply Current	I _{DD}	$V_{DD} = +5 V$	-	1.65	-	mA			
		- 20 °C	5.0	5.1	5.7				
Recommended LC Driving	V_{DD} to V_0	0 °C	4.6	4.8	5.2				
Voltage for Normal Temperature		25 °C	4.1	4.5	4.7	V			
Version Module		50 °C	3.9	4.2	4.5				
		70 °C	3.7	3.9	4.3				
EL Power Supply Current	I _{EL}	V _{EL} = 110 V _{AC} , 400 Hz	-	-	5.0	mA			

OPTION	OPTIONS									
		PROCES	S COLOR	BACKLIGHT						
TN	STN Gray	STN Yellow	STN Blue	FSTN B&W	STN Color	None	LED	EL	CCFL	
х	х	х	х	х		х	х	х		

For detailed information, please see the "Product Numbering System" document.

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COMPLIANT

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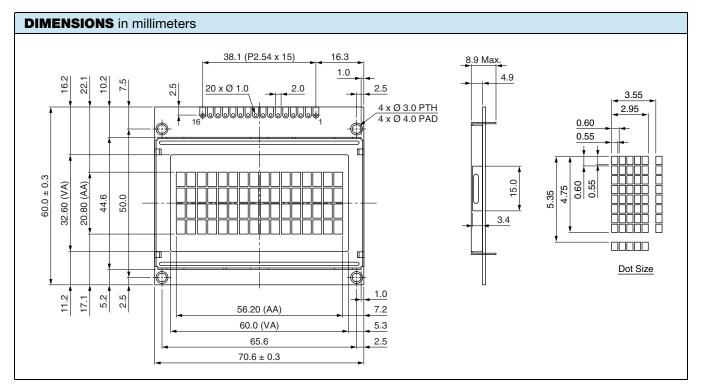
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DISPLAY CHARACTER ADDRESS CODE

Display Position																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
DD RAM Address	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
DD RAM Address	40	41	42	43	44	45	46	47	48	49	4A	4B	4C	4D	4E	4F
DD RAM Address	10	11	12	13	14	15	16	17	18	19	1A	1B	1C	1D	1E	1F
DD RAM Address	50	51	52	53	54	55	56	57	58	59	5A	5B	5C	5D	5E	5F

INTERFACE PIN FUNCTION							
PIN NO.	SYMBOL	FUNCTION					
1	V _{SS}	Ground					
2	V _{DD}	+ 3 V or + 5 V					
3	V ₀	Contrast adjustment					
4	RS	H/L register select signal					
5	R/W	H/L read/write signal					
6	E	$H \rightarrow L$ enable signal					
7	DB0	H/L data bus line					
8	DB1	H/L data bus line					
9	DB2	H/L data bus line					
10	DB3	H/L data bus line					
11	DB4	H/L data bus line					
12	DB5	H/L data bus line					
13	DB6	H/L data bus line					
14	DB7	H/L data bus line					
15	A/V _{EE}	+ 4.2 V for LED ($R_A = 0 \Omega$)/negative voltage output					
16	K	Power supply for B/L (0 V)					



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