## LCD-016N002P



Vishay

### 16 x 2 Character LCD

- 010 0 010 -

### **FEATURES**

- Type: Character
- Display format: 16 x 2 characters
- Built-in controller: ST 7066 (or equivalent)
- Duty cycle: 1/16
- 5 x 8 dots includes cursor
- + 5 V power supply
- Optional: Smaller character size (2.95 mm x 4.35 mm)
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

MECHANICAL DATA							
ITEM	STANDARD VALUE	UNIT					
Module Dimension	85.0 x 25.2						
Viewing Area	66.0 x 16.0						
Dot Size	0.55 x 0.65						
Dot Pitch	0.60 x 0.70	mm					
Mounting Hole	80.5 x 22.0						
Character Size	2.95 x 5.55						

ABSOLUTE MAXIMUM RATINGS								
ІТЕМ	SYMBOL	STAN	UNIT					
	STINDUL	MIN.	TYP.	TYP. MAX.				
Power Supply	$V_{\text{DD}}$ to $V_{\text{SS}}$	- 0.3	-	7.0	V			
Input Voltage	VI	- 0.3	-	$V_{DD}$	v			
	٧I	- 0.3	-	<b>v</b> DD				

Note

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V<sub>SS</sub> = 0 V, V<sub>DD</sub> = 5.0 V
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ELECTRICAL CHARACTERISTICS								
ITEM	SYMBOL		ST					
	STMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT		
Input Voltage	V <sub>DD</sub>	V <sub>DD</sub> = + 5 V	4.7	5.0	5.3	V		
Supply Current	I <sub>DD</sub>	V <sub>DD</sub> = + 5 V	-	1.2	1.5	mA		
Recommended LC Driving		- 20 °C	-	-	5.2			
	$V_{DD}$ to $V_0$	0 °C	-	-	4.2			
Voltage for Normal Temperature		25 °C	-	3.8	-	V		
Version Module		50 °C	3.5	-	-			
		70 °C	3.2					
LED Forward Voltage	V <sub>F</sub>	25 °C	-	4.2	4.6	V		
LED Forward Current - Array		05.00	-	100	-			
LED Forward Current - Edge	IF IF	25 °C	-	20	40	- mA		
EL Power Supply Current	I <sub>EL</sub>	V <sub>EL</sub> = 110 V <sub>AC</sub> , 400 Hz	-	-	5.0	mA		

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

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



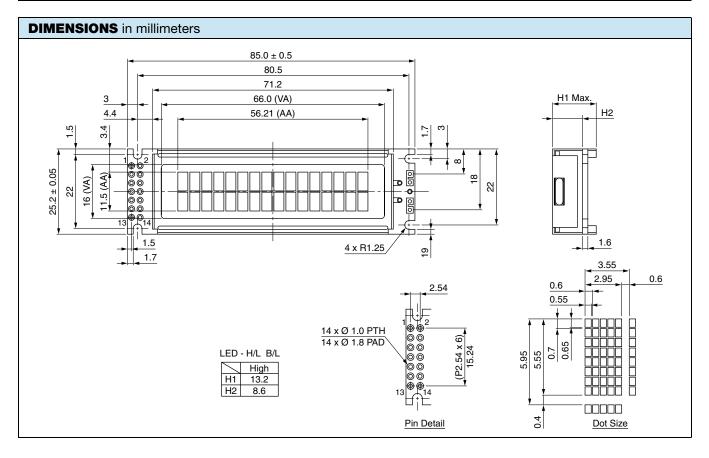
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#### **DISPLAY CHARACTER ADDRESS CODE**

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

INTERFACE PIN FUNCTION							
PIN NO.	SYMBOL	FUNCTION					
1	DB7	H/L data bus line					
2	DB6	H/L data bus line					
3	DB5	H/L data bus line					
4	DB4	H/L data bus line					
5	DB3	H/L data bus line					
6	DB2	H/L data bus line					
7	DB1	H/L data bus line					
8	DB0	H/L data bus line					
9	Е	$H \rightarrow L$ enable signal					
10	R/W	H/L read/write signal					
11	RS	H/L register select signal					
12	V <sub>0</sub>	Contrast adjustment					
13	V <sub>SS</sub>	Ground					
14	V <sub>DD</sub>	Power supply (+ 5 V)					



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