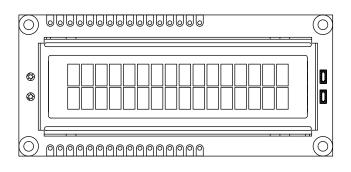
# LCD-016N002W



## 16 x 2 Character LCD



MECHANICAL DATA							
ITEM	STANDARD VALUE	UNIT					
Module Dimension	80.0 x 36.0						
Viewing Area	66.0 x 16.0						
Dot Size	0.55 x 0.65						
Dot Pitch	0.60 x 0.70	mm					
Mounting Hole	75.0 x 31.0						
Character Size	2.95 x 5.55						

#### **FEATURES**

- Type: Character
- Display format: 16 x 2 characters
- Built-in controller: ST 7066
- Duty cycle: 1/16
- 5 x 8 dots includes cursor
- + 5 V power supply
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

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

#### Note

•  $V_{SS} = 0 V, V_{DD} = 5.0 V$ 

ELECTRICAL CHARACTERISTICS									
ITEM	SYMBOL			STANDARD VALUE					
	STINIDUL	CONDITION	MIN.	TYP.	MAX.	UNIT			
Input Voltage	V <sub>DD</sub>	V <sub>DD</sub> = + 5 V	4.5	5.0	5.5	V			
Supply Current	I <sub>DD</sub>	$V_{DD} = +5 V$	1.0	1.2	1.5	mA			
		- 20 °C	4.9	5.2	5.5				
Recommended LC Driving	$V_{DD}$ to $V_0$	0°C	4.5	4.8	5.1	v			
Voltage for Normal Temperature Version Module		25 °C	4.1	4.4	4.7	v			
		70 °C	3.5	4.0	4.1	1			
LED Forward Voltage	V <sub>F</sub>	25 °C	-	-	140	V			
LED Forward Current - Array	IF	25 °C	-	-	5.0	mA			
EL Power Supply Current	I <sub>EL</sub>	V <sub>EL</sub> = 110 V <sub>AC</sub> , 400 Hz	-	-	-	mA			

OPTIONS	S								
		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.

COMPLIANT

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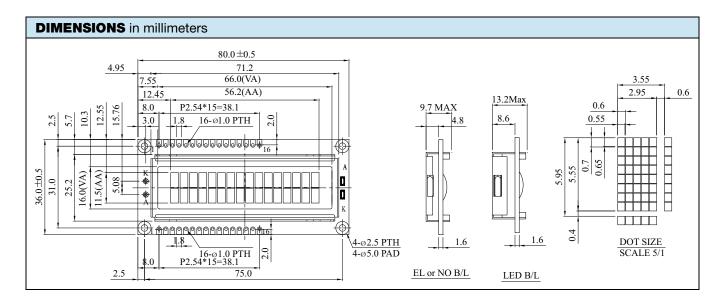


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DISPLAY	<b>CHARACTER</b>	ADDRESS CODE
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Display Position																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
DD RAM Address	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
DD RAM Address	40	41	42	43	44	45	46	47	48	49	4A	4B	4C	4D	4E	4F

INTERFACE PIN FUNCTIONS							
PIN NO.	SYMBOL	FUNCTION					
1	V <sub>SS</sub>	Ground					
2	V <sub>DD</sub>	Supply voltage for logic					
3	V <sub>0</sub>	Operating voltage for LCD					
4	RS	H: data/L: instruction code					
5	R/W	H: read (MPU $\rightarrow$ module)/L: write (MPU $\rightarrow$ module)					
6	E	Chip enable signal					
7	DB0	Data bus line					
8	DB1	Data bus line					
9	DB2	Data bus line					
10	DB3	Data bus line					
11	DB4	Data bus line					
12	DB5	Data bus line					
13	DB6	Data bus line					
14	DB7	Data bus line					
15	A	LED +					
16	К	LED -					



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