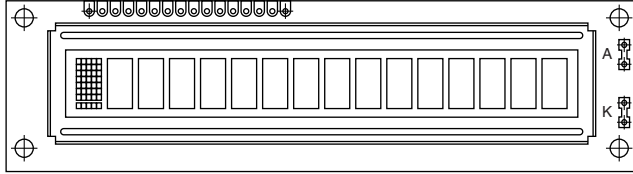


# 16 x 1 Character LCD



## FEATURES

- Type: Character
- Display format: 16 x 1 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)
- LED can 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 [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS**  
COMPLIANT

MECHANICAL DATA		
ITEM	STANDARD VALUE	UNIT
Module Dimension	122.0 x 33.0	mm
Viewing Area	99.0 x 13.0	
Dot Size	0.92 x 1.10	
Dot Pitch	0.98 x 1.16	
Mounting Hole	115.0 x 25.2	
Character Size	4.84 x 8.06	

ABSOLUTE MAXIMUM RATINGS					
ITEM	SYMBOL	STANDARD VALUE			UNIT
		MIN.	TYP.	MAX.	
Power Supply	$V_{DD}$ to $V_{SS}$	- 0.3	-	7.0	V
Input Voltage	$V_I$	- 0.3	-	$V_{DD}$	

**Note**

- $V_{SS} = 0$  V,  $V_{DD} = 5.0$  V

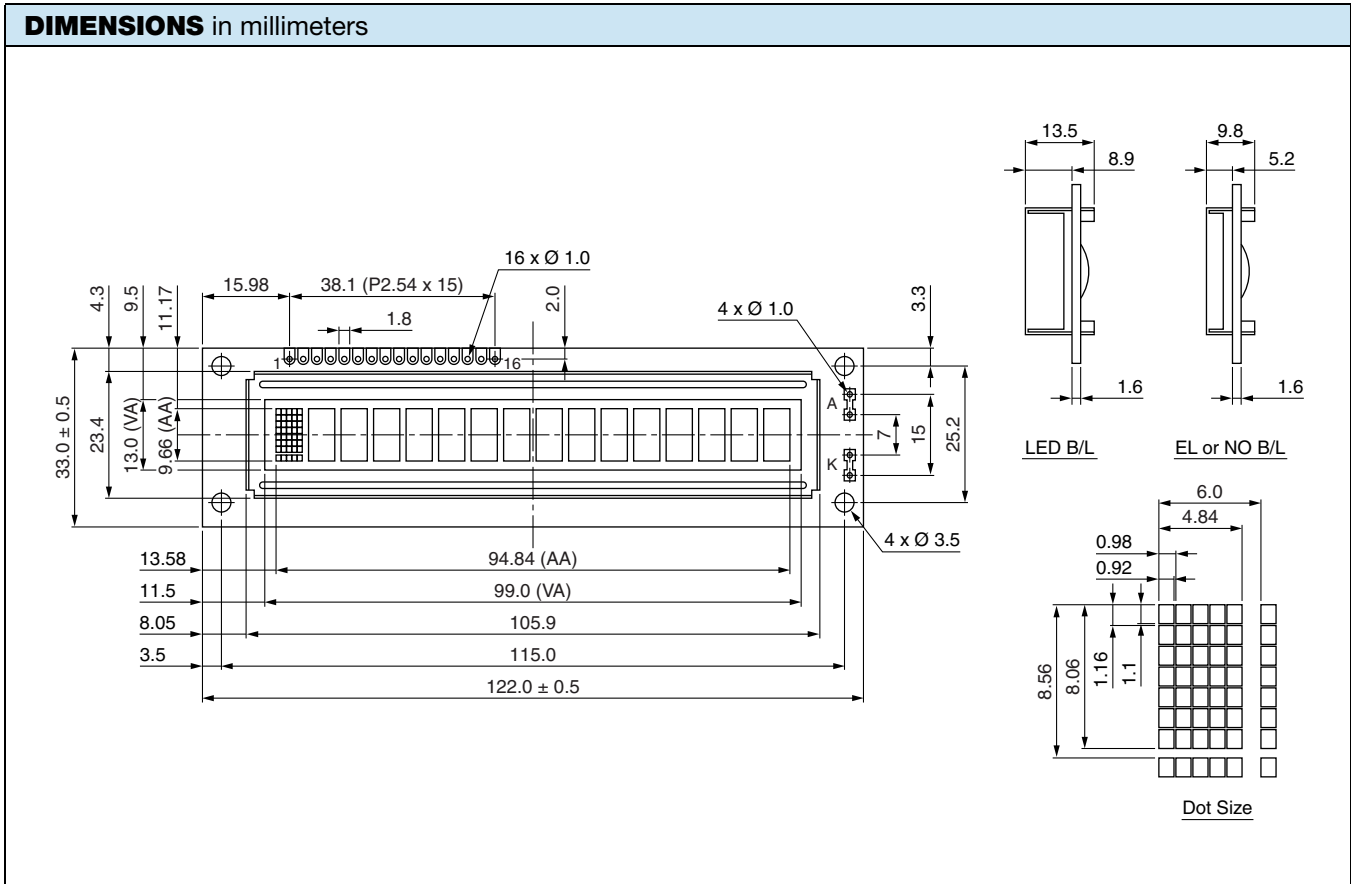
ELECTRICAL CHARACTERISTICS						
ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT
			MIN.	TYP.	MAX.	
Input Voltage	$V_{DD}$	$V_{DD} = + 5$ V	4.7	5.0	5.3	V
Supply Current	$I_{DD}$	$V_{DD} = + 5$ V	-	1.2	1.4	mA
Recommended LC Driving Voltage for Normal Temperature Version Module	$V_{DD}$ to $V_0$	- 20 °C	4.9	5.1	5.5	V
		0 °C	4.5	4.8	5.1	
		25 °C	4.1	4.5	4.7	
		50 °C	3.8	4.2	4.4	
		70 °C	3.5	3.9	4.1	
LED Forward Voltage	$V_F$	25 °C	-	4.2	4.6	V
LED Forward Current	$I_F$	25 °C	-	160	-	mA

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

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

DISPLAY CHARACTER ADDRESS CODE																
Display Position																
DD RAM Address	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	00	01	02	03	04	05	06	07	40	41	42	43	44	45	46	47

INTERFACE PIN FUNCTION		
PIN NO.	SYMBOL	FUNCTION
1	$V_{SS}$	Ground
2	$V_{DD}$	+ 5 V
3	$V_0$	Contrast adjustment
4	RS	H/L register select signal
5	$R/\bar{W}$	H/L read/write signal
6	E	H → 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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