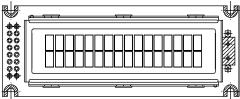




# 16 x 2 Character LCD



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### **FEATURES**

• Type: Character

• Display format: 16 x 2 characters

• Built-in controller: KS 0066 (or equivalent)

• Duty cycle: 1/16

• 5 x 8 dots includes cursor

• + 5 V power supply

• LED can be driven by pin 1, pin 2, or A and K

• N.V. optional for + 3 V power supply

• Optional: Smaller character size (2.95 mm x 4.35 mm)

• Compliant to RoHS directive 2002/95/EC

MECHANICAL DATA									
ITEM	STANDARD VALUE	UNIT							
Module Dimension	85.0 x 32.6								
Viewing Area	66.0 x 16.0								
Dot Size	0.56 x 0.66	mm							
Dot Pitch	0.60 x 0.70								
Mounting Hole	79.0 x 25.2								
Character Size	2.96 x 5.56								

ABSOLUTE MAXIMUM RATINGS										
ITEM	SYMBOL	STAN	UNIT							
I I E IVI	STWIDOL	MIN.	TYP.	MAX.	UNIT					
Power Supply	$V_{DD}$ to $V_{SS}$	- 0.3	-	7.0	V					
Input Voltage	$V_{I}$	- 0.3	-	$V_{DD}$	V					

#### Note

•  $V_{SS} = 0 \text{ V}, V_{DD} = 5.0 \text{ V}$ 

ELECTRICAL CHARACTERISTICS										
ITEM	SYMBOL	CONDITION	ST	UNIT						
II EM	STINIBUL	CONDITION	MIN.	TYP.	TYP. MAX.					
Input Voltage	$V_{DD}$	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				
		- 20 °C	-	-	5.2					
Recommended LC Driving		0 °C	-	-	4.2					
Voltage for Normal Temperature	$V_{DD}$ to $V_0$	25 °C	-	3.8	-	V				
Version Module		50 °C	3.5	-	-					
		70 °C	3.2	-	-	1				
LED Forward Voltage	V <sub>F</sub>	25 °C	-	4.2	4.6	V				
LED Forward Current - Array		05.00	-	100	-	<u> </u>				
LED Forward Current - Edge	⊢ I <sub>F</sub>	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											
PROCESS 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			

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

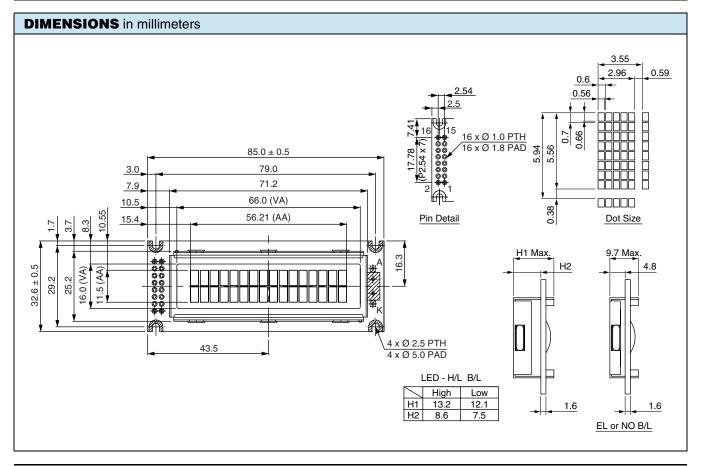
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### 16 x 2 Character LCD



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
					1											

INTERFACE	INTERFACE PIN FUNCTION								
PIN NO.	SYMBOL	FUNCTION							
1	V <sub>SS</sub>	Ground							
2	$V_{DD}$	Power supply (+ 5 V)							
3	V <sub>0</sub>	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 <sub>EE</sub>	Power supply for B/L							
16	К	Power supply for B/L							



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