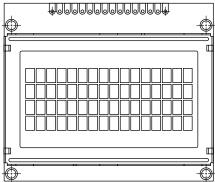




16 x 4 Character LCD



Φ	- <u> </u>	
Φ		()

FEATURES

• Type: Character

• Display format: 16 x 4 characters

• Built-in controller: KS 0066 (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
- Compliant to RoHS directive 2002/95/EC

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	mm							
Dot Pitch	0.60 x 0.60								
Mounting Hole	65.6 x 50.0								
Character Size	2.95 x 4.75								

ABSOLUTE MAXIMUM RATINGS									
ITEM	CVMDOL	STAN	IDARD V	ALUE	LINIT				
IIEW	SYMBOL	MIN.	TYP.	MAX.	UNIT				
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	CONDITION	ST	UNIT					
ITEM	STWIBUL	CONDITION	MIN. TYP. MAX.		MAX.	UNII			
Input Voltage	V_{DD}	V _{DD} = + 5 V	4.7	5.0	5.3	V			
input voitage	V DD	V _{DD} = + 3 V	2.7	3.0	5.3]			
Supply Current	I _{DD}	V _{DD} = + 5 V	-	1.65	-	mA			
		- 20 °C	5.0	5.1	5.7				
Recommended LC Driving		0 °C	4.6	4.8	5.2				
Voltage for Normal Temperature	V_{DD} to V_{0}	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			

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

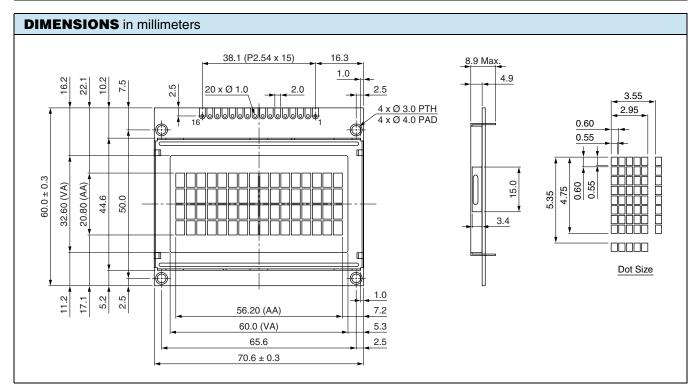
For detailed information, please see the "Product Numbering System" document.

16 x 4 Character LCD



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

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	$ extsf{H} ightarrow extsf{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	К	Power supply for B/L (0 V)				



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