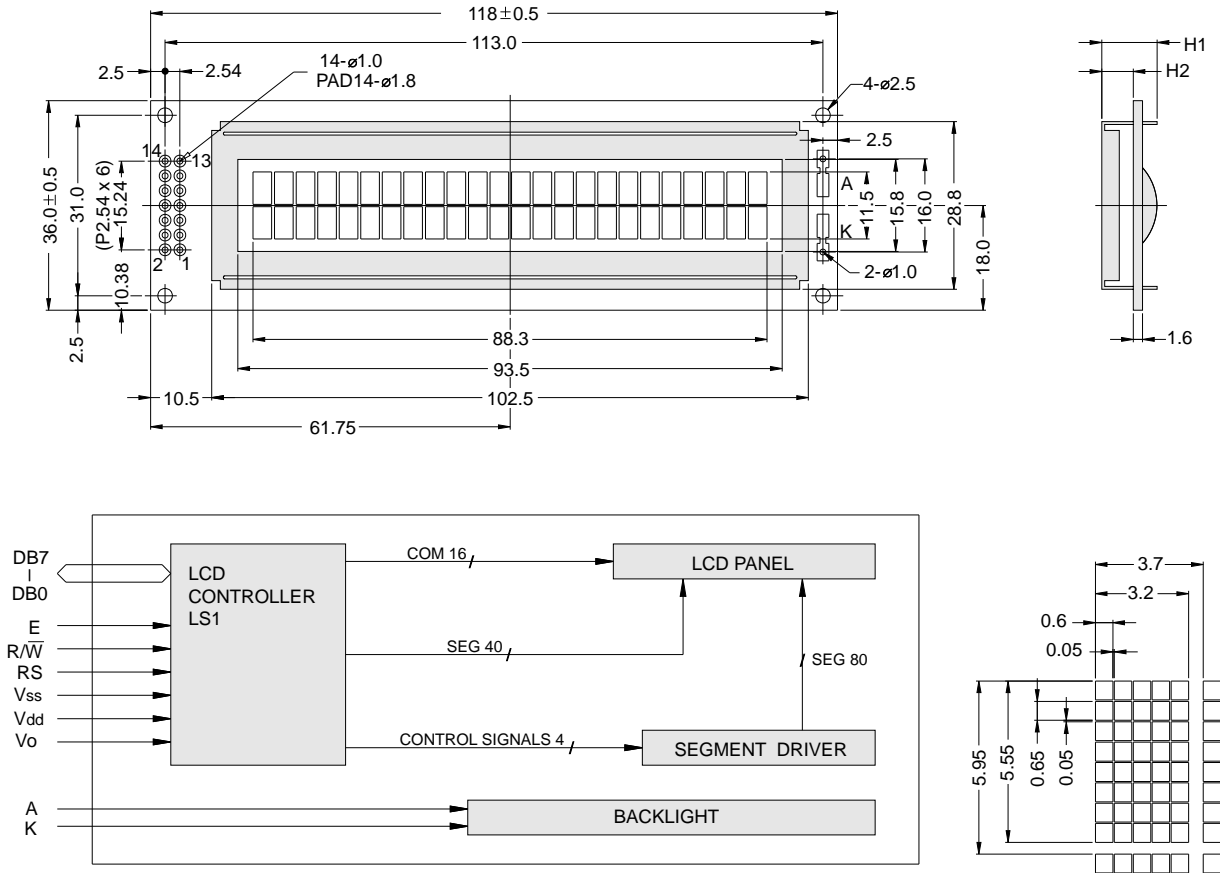




**OUTLINE DIMENSION & BLOCK DIAGRAM**



The tolerance unless classified  $\pm 0.3\text{mm}$

**MECHANICAL SPECIFICATION**

Overall Size	118.0 x 36.0	Module	H2 / H1
View Area	93.5 x 16.0	W/O B/L	5.4 / 9.5
Dot Size	0.60 x 0.65	EL B/L	5.4 / 9.5
Dot Pitch	0.65 x 0.70	LED B/L	8.7 / 13.3

**PIN ASSIGNMENT**

Pin no.	Symbol	Function
1	Vss	Power supply(GND)
2	Vdd	Power supply(+)
3	Vo	Contrast Adjust
4	RS	Register select signal
5	R/W	Data read / write
6	E	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

**ABSOLUTE MAXIMUM RATING**

Item	Symbol	Condition	Min.	Max.	Units
Supply for logic voltage	Vdd-Vss	25°C	-0.3	7	V
LCD driving supply voltage	Vdd-Vee	25°C	-0.3	13	V
Input voltage	Vin	25°C	-0.3	Vdd+0.3	V

**ELECTRICAL CHARACTERISTICS**

Item	Symbol	Condition	Min.	Typical	Max.	Units			
Power supply voltage	Vdd-Vss	25°C	4.5	-	4.5	V			
LCD operation voltage	Vop	Top	N	W	N	W	N	W	V
		-20°C	-	7.1	-	7.5	-	7.9	V
		0°C	4.5	-	4.8	-	5.1	-	V
		25°C	4.1	6.1	4.4	6.4	4.7	6.7	V
		50°C	3.8	-	4.1	-	4.4	-	V
70°C	-	5.7	-	6	-	6.3	V		
LCM current consumption (No B/L)	Idd	Vdd=5V	-	2	3	mA			
Backlight current consumption	LED/edge	VB/L=4.2V	-	15	-	mA			
	LED/array	VB/L=4.2V	-	150	-	mA			

**REMARK**

LCD option: STN, TN, FSTN

Backlight Option: LED,EL Backlight feature, other Specs not available on catalog is under request.

