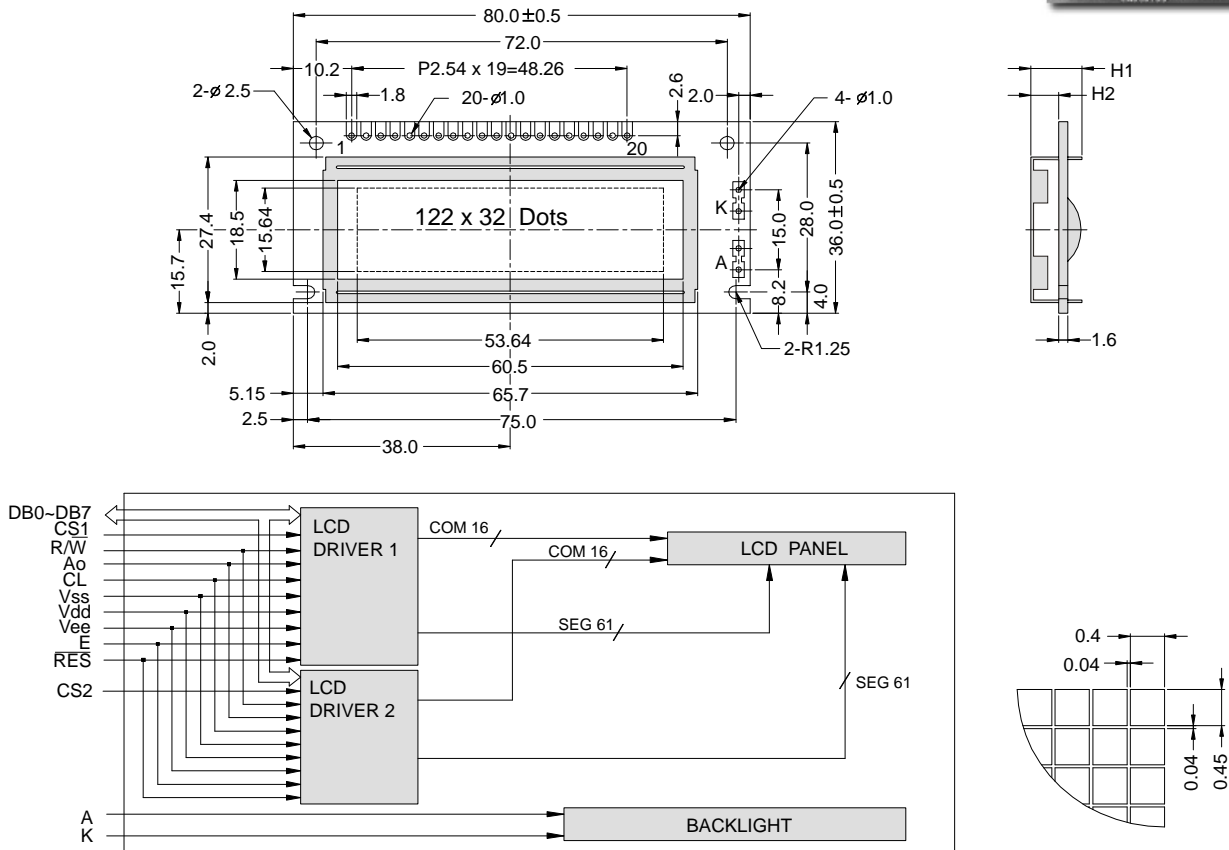


## PG 12232-B

### OUTLINE DIMENSION & BLOCK DIAGRAM



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

MECHANICAL SPECIFICATION			
Overall Size	80.0 x 36.0	Module	H2 / H1
View Area	60.5 x 18.5	W / O B/L	4.9 / 9.0
Dot Size	0.40 x 0.45	EL B/L	4.9 / 9.0
Dot Pitch	0.44 x 0.49	LED B/L	8.9 / 13.0

PIN ASSIGNMENT		
Pin no.	Symbol	Function
1	Vss	Power supply(GND)
2	Vdd	Power supply(+)
3	Vo	Contrast Adjust
4	A0	Command / data input
5	CS1	Chip select driver 1
6	CS2	Chip select driver 2
7	CL	External clock input
8	E	Enable signal
9	R/W	Data read / write
10-17	DB0-DB7	Data bus line
18	RES	Reset
19	A	Power supply for LED B/L (+)
20	K	Power supply for LED B/L (-)

ABSOLUTE MAXIMUM RATING									
Item	Symbol	Condition	Min.	Max.	Units				
Supply for logic voltage	Vdd-Vss	25°C	-0.3	8.0	V				
LCD driving supply voltage	Vdd-Vee	25°C	-0.3	16.5	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	2.7	-	5.5	V			
LCD operation voltage	Vop	Top	N	W	N	W	V		
		-20°C	-	8.6	-	9.1	-	9.6	V
		0°C	6.1	-	6.4	-	6.7	-	V
		25°C	5.6	7.7	5.9	8.1	6.2	8.5	V
		50°C	5.1	-	5.4	-	5.7	-	V
70°C	-	7.2	-	7.6	-	8	V		
LCM current consumption (No B/L)	Idd	Vdd=5V	-	1.0	2.5	mA			
Backlight current consumption	LED/edge	VB/L=4.2V	-	-	-	mA			
	LED/array	VB/L=4.2V	-	120	-	mA			

LCD option: STN, TN, FSTN

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