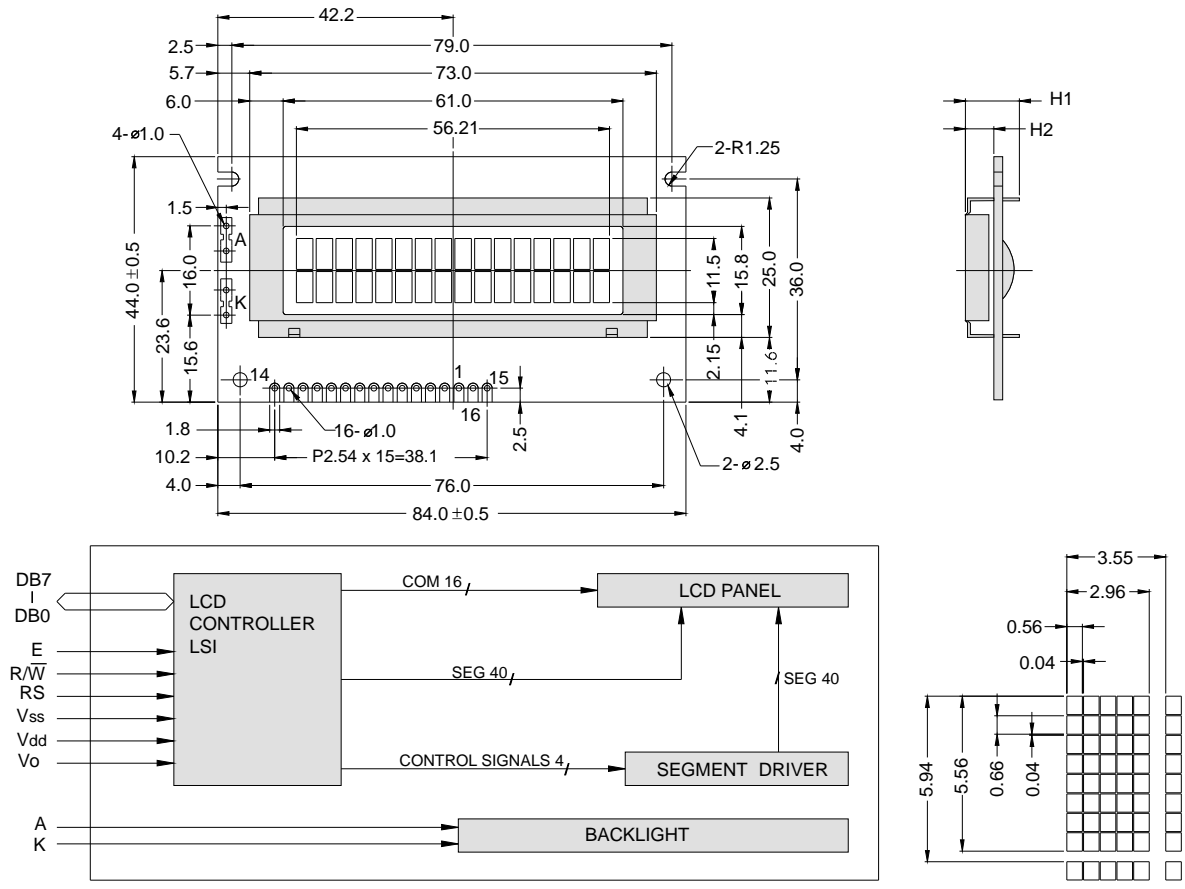




**OUTLINE DIMENSION & BLOCK DIAGRAM**



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

| MECHANICAL SPECIFICATION |             |         |            |
|--------------------------|-------------|---------|------------|
| Overall Size             | 84.0 x 44.0 | Module  | H2 / H1    |
| View Area                | 61.0 x 15.8 | W/O B/L | 5.1 / 9.7  |
| Dot Size                 | 0.56 x 0.66 | EL B/L  | 5.1 / 9.7  |
| Dot Pitch                | 0.60 x 0.70 | LED B/L | 9.4 / 14.0 |

| 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                |
| 15             | A      | Power supply for LED B/L (+) |
| 16             | 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 | 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      | 2.7  | -       | 5.5   | V     |     |     |   |
| LCD operation voltage            | Vop       | Top       | N    | W       | N     | W     | V   |     |   |
|                                  |           | -20°C     | -    | 7.1     | -     | 7.5   | -   | 7.9 | V |
|                                  |           | 0°C       | 4.5  | -       | 5.1   | -     | 5.3 | -   | V |
|                                  |           | 25°C      | 4.1  | 6.1     | 4.7   | 6.4   | 4.9 | 6.7 | V |
|                                  |           | 50°C      | 3.8  | -       | 4.4   | -     | 4.6 | -   | 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 | -    | 40      | -     | mA    |     |     |   |
|                                  | LED/array | VB/L=4.2V | -    | 120     | -     | mA    |     |     |   |

**REMARK**

LCD option: STN, TN, FSTN

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

