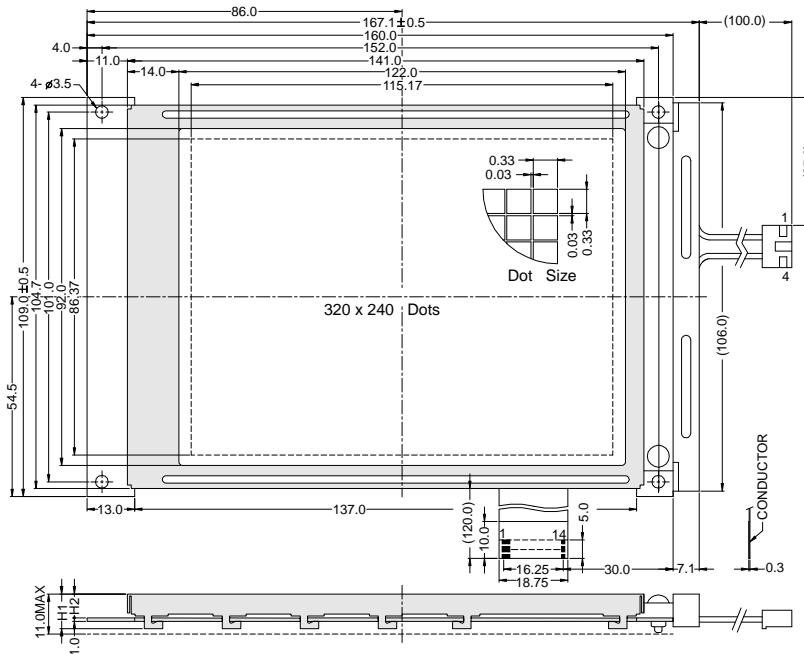




OUTLINE DIMENSION & BLOCK DIAGRAM



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

| MECHANICAL SPECIFICATION | | | |
|--------------------------|---------------|----------|-----------|
| Overall Size | 167.1 x 109.0 | Module | H2 / H1 |
| View Area | 122.0 x 92.0 | W/O B/L | - / - |
| Dot Size | 0.33 x 0.33 | EL B/L | - / - |
| Dot Pitch | 0.36 x 0.36 | CCFL B/L | 6.5 / 9.5 |

| PIN ASSIGNMENT | | |
|----------------|--------|------------------------|
| Pin no. | Symbol | Function |
| 1 | DB0 | Data bus line |
| 2 | DB1 | Data bus line |
| 3 | DB2 | Data bus line |
| 4 | DB3 | Data bus line |
| 5 | D-OFF | Column output control |
| 6 | FLM | Shift direction select |
| 7 | N.C | No connection |
| 8 | CL1 | Clock signal input |
| 9 | CL2 | Clock signal input |
| 10 | Vdd | Power supply (+) |
| 11 | Vss | Power supply (GND) |
| 12 | Vee | N.V. input |
| 13 | Vo | Contrast adjust |
| 14 | FGND | Frame ground |

| ABSOLUTE MAXIMUM RATING | | | | | | | | |
|----------------------------------|-----------|-----------|------|---------|-------|-------|---|---|
| Item | Symbol | Condition | Min. | Max. | Units | | | |
| Supply for logic voltage | Vdd-Vss | 25°C | -0.3 | 7.0 | V | | | |
| LCD driving supply voltage | Vdd-Vee | 25°C | 0 | 35.0 | 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 | - | 5.5 | V | | |
| LCD operation voltage | Vop | Top | N | W | N | W | V | |
| | | -20°C | - | - | - | 31.1 | - | V |
| | | 0°C | - | - | - | - | - | V |
| | | 25°C | - | - | - | 24.5 | - | V |
| | | 50°C | - | - | - | - | - | V |
| 70°C | - | - | - | 20.5 | - | V | | |
| LCM current consumption (No B/L) | Idd | Vdd=5V | - | 3.5 | 7 | mA | | |
| Backlight current consumption | LED/edge | VB/L=4.2V | - | - | - | mA | | |
| | LED/array | VB/L=4.2V | - | - | - | mA | | |

REMARK

LCD option: STN, TN, FSTN

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

