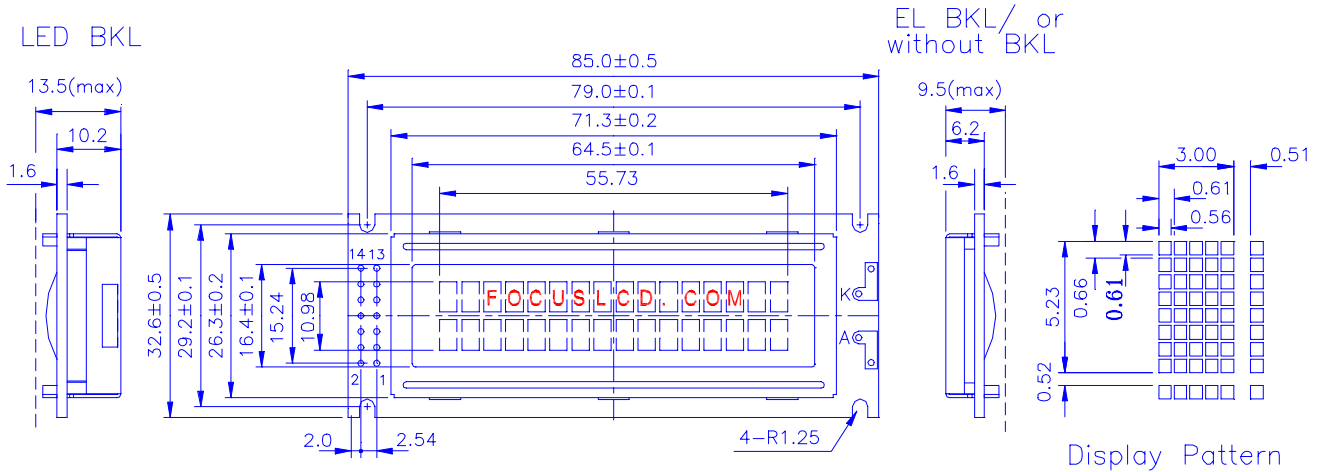


FOCUS DISPLAY SOLUTIONS

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FDS16x2(79x29.2)XBC



| PERFORMANCE FEATURES | |
|----------------------|---|
| LC FLUID: | TN, STN |
| POLARIZER: | REFLECTIVE, TRANSFLECTIVE TRANSMISSIVE |
| COLOR: | GRAY, YELLOW, BLUE |
| BACKLIGHT: | LED (YELLOW-GREEN) |
| TEMPERATURE RANGE: | STANDARD, WIDE |

| PIN | SIGNAL | PIN | SIGNAL |
|-----|--------|-----|--------|
| 1 | VSS | 9 | DB2 |
| 2 | VDD | 10 | DB3 |
| 3 | V0 | 11 | DB4 |
| 4 | RS | 12 | DB5 |
| 5 | R/W | 13 | DB6 |
| 6 | E | 14 | DB7 |
| 7 | DB0 | A | LED+ |
| 8 | DB1 | K | LED- |

Feature:

1. 5x8 Dots with cursor
2. Built-in controller (KS0066U or Equivalent)
3. +5V power supply (also available for +3.0V)
4. 1/16 duty cycle
5. BKL to be driven by pin1 pin2 or pin+ pin- or A.K.
6. N.V. Optional

Interface Pin Connections

| NO | SYM | LEVEL | FUNCTION | NO | SYM | LEVEL | FUNCTION |
|----|-----------------|-------|---------------------|----|-----------------|-------|------------|
| 1 | V _{SS} | - | GND | 9 | DB ₂ | H/L | DATA BIT 2 |
| 2 | V _{DD} | - | 5V | 10 | DB ₃ | H/L | DATA BIT 3 |
| 3 | V _O | - | CONTRAST ADJUSTMENT | 11 | DB ₄ | H/L | DATA BIT 4 |
| 4 | RS | H/L | REGISTER SELECT | 12 | DB ₅ | H/L | DATA BIT 5 |
| 5 | R/W | H/L | READ/WRITE | 13 | DB ₆ | H/L | DATA BIT 6 |
| 6 | E | H/L | ENABLE SIGNAL | 14 | DB ₇ | H/L | DATA BIT 7 |
| 7 | DB ₀ | H/L | DATA BIT 0 | 15 | A(+) | 4.2V | BACKLIGHT |
| 8 | DB ₁ | H/L | DATA BIT 1 | 16 | K(-) | 0V | BACKLIGHT |

Absolute Maximum Rating

| ITEM | SYMBOL | MIN | TYP | MAX | UNIT |
|---------------|----------------------------------|------|-----|-----------------|------|
| POWER SUPPLY | V _{DD} -V _{SS} | -0.3 | --- | 5.5 | V |
| INPUT VOLTAGE | V _I | -0.3 | --- | V _{DD} | |

Electrical Characteristics

| ITEM | SYM | CONDITION | MIN | TYP | MAX | UNIT |
|---|---------------------------------|------------------------------------|------|-----|-----|------|
| INPUT VOLTAGE | V _{DD} | + 5V | 4.7 | 5.0 | 5.5 | V |
| | | +3.3V | 2.7 | 3.0 | 5.3 | V |
| SUPPLY CURRENT | I _{DD} | V _{DD} = 5V | -- | 1.5 | 4 | mA |
| RECOMMENDED LCD DRIVING VOLTAGE FOR NORMAL TEMPERATURE VERSION MODULE | V _{DD} -V _O | -20 C | ---- | 5.0 | --- | V |
| | | 0 C | 4.7 | 4.8 | 5.5 | |
| | | 25 C | 4.3 | 4.5 | 4.7 | |
| | | 50 C | 4.1 | 4.4 | 4.5 | |
| | | 70 C | --- | 4.3 | --- | |
| LED FORWARD VOLTAGE | V _F | 25 C | ---- | 4.2 | 4.6 | V |
| LED FORWARD CURRENT | I _F | 25 C | --- | 120 | --- | mA |
| EL POWER SUPPLY CURRENT | I _{EL} | V _{EL} = 110V AC 400Hz | --- | --- | --- | mA |

Mechanical Data

| ITEM | STANDARD | UNIT |
|------------------|-------------|------|
| MODULE DIMENSION | 85.0 X 32.6 | mm |
| VIEWING AREA | 64.5 X 16.4 | mm |
| DOT SIZE | 0.56 X 0.61 | mm |
| CHARACTER SIZE | 3.00 X 5.23 | mm |

DISPLAY CHARACTER ADDRESS CODE:

| Display position | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| DDRAM address | 00 | 01 | 02 | -- | -- | -- | -- | -- | -- | -- | | | | | | 0FH |
| DDRAM address | 40 | 41 | 42 | -- | -- | -- | -- | -- | -- | -- | | | | | | 4FH |