

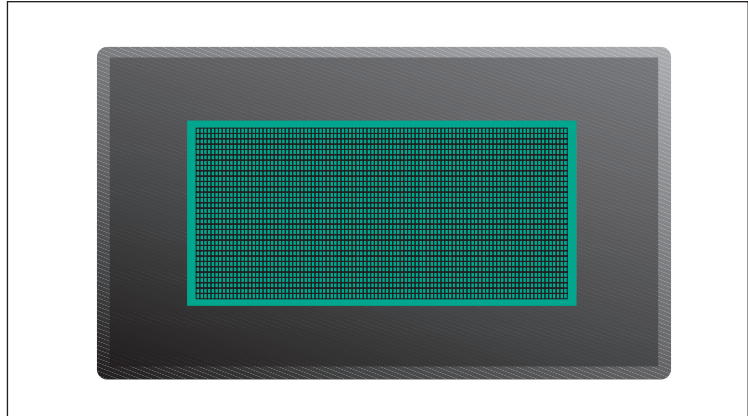
# DMX 973B

100 x 32 Pixel Graphic Dot Matrix Display

The DMX 973B incorporates the latest LCD controller LSI to provide a unique combination of a 100 x 32 pixel display with compact size and ease of use. LED backlighting ensures excellent visibility under low light conditions. Easy to install, the module features 16-pin dual in line connector. Supplied with bezel, window and clips. An optional metal bezel, stock number BEZ 900-IP, provides protection to IP67/NEMA 4X.

## FEATURES

- 100 x 32 Pixels
- High Contrast Supertwist LCD
- 6 o'clock Viewing Direction
- Yellow-Green LED Backlighting
- Based on Epson SED 1530 Controller
- 68XX, 80XX and Serial Interfaces



## ORDERING INFORMATION

Standard Instrument  
IP67 / NEMA 4X Bezel

Stock Number  
DMX 973B  
BEZ 900-IP

## ELECTRICAL SPECIFICATIONS

| Specification               |         | Min.               | Typ. | Max.               | Unit    |
|-----------------------------|---------|--------------------|------|--------------------|---------|
| Supply Voltage (V+)         |         | 4.5                | 5.0  | 5.5                | V d.c.  |
| Supply Current              | Normal  |                    | 100  |                    | $\mu$ A |
|                             | Standby |                    | 10   |                    |         |
| Input Voltage High          |         | 0.7V <sub>DD</sub> | -    | V <sub>DD</sub>    | V       |
| Input Voltage Low           |         | V <sub>SS</sub>    | -    | 0.3V <sub>DD</sub> | V       |
| Output Voltage High         |         | 0.8V <sub>DD</sub> | -    | V <sub>DD</sub>    | V       |
| Output Voltage Low          |         | V <sub>SS</sub>    | -    | 0.2V <sub>DD</sub> | V       |
| Backlight Supply Voltage    |         | -                  | 5    | 5.5                | V d.c.  |
| Backlight Supply Current    |         | -                  | 50   | 90                 | mA      |
| Operating temperature range |         | 0                  |      | 50                 | °C      |

## SAFETY

To comply with the Low Voltage Directive (LVD 93/68/EEC), input voltages to the module's pins must not exceed 60Vdc. The user must ensure that the incorporation of the panel instrument into the user's equipment conforms to the relevant sections of BS EN 61010 (Safety Requirements for Electrical Equipment for Measuring, Control and Laboratory Use).

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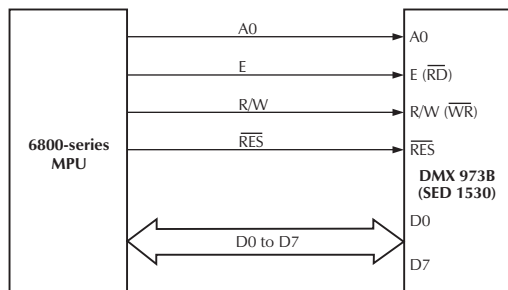
Page 1 of 3

### PIN FUNCTIONS

|       |       |                                                                                  |
|-------|-------|----------------------------------------------------------------------------------|
| 1.    | 0V    | } Power supply to the dot matrix display.                                        |
| 2.    | +5V   |                                                                                  |
| 3.    | RES   |                                                                                  |
| 4.    | A0    | Control Data/Display Data flag input. (0=Control Data, 1=Display Data)           |
| 5.    | R/W   |                                                                                  |
|       | (WR)  | Write enable signal in 8080-series mode.                                         |
| 6.    | E     | Enable clock signal in 6800-series mode.                                         |
|       | (RD)  | Read enable signal in 8080-series mode.                                          |
| 7-14. | D0-D7 | 8-Bit bi-directional microprocessor data bus. (D7= SI, D6=SCL in serial mode)    |
| 15.   | BL-   | } Power supply to the LED backlighting, electrically isolated from pins 1 and 2. |

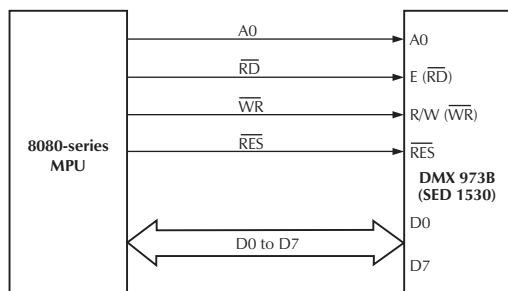
### REFERENCE APPLICATIONS

#### Interface with 6800 Series



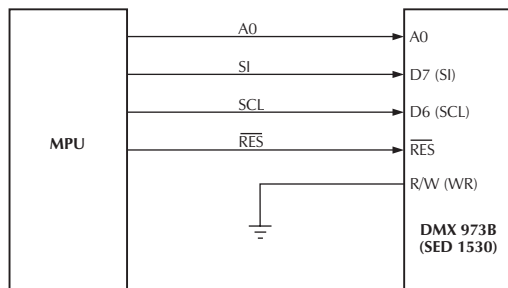
Ensure solder link Ser is Open and solder link 80xx is Open.  
(factory default condition)

#### Interface with 8080 Series



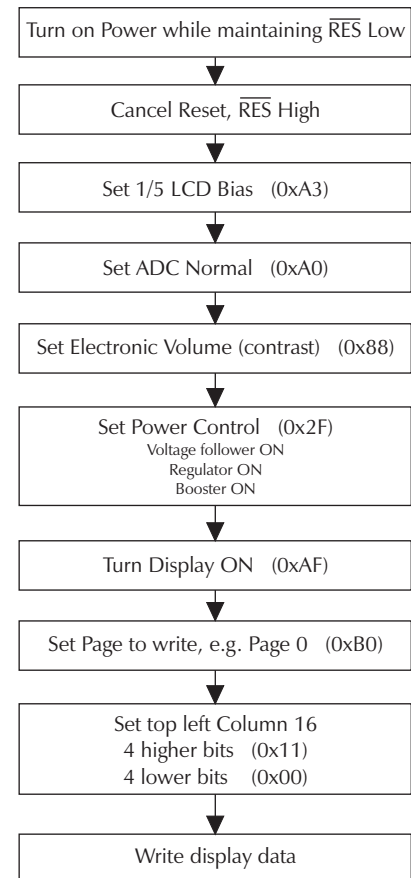
Ensure solder link Ser is Open (factory default condition) and solder link 80xx is Closed.

#### Serial Interface

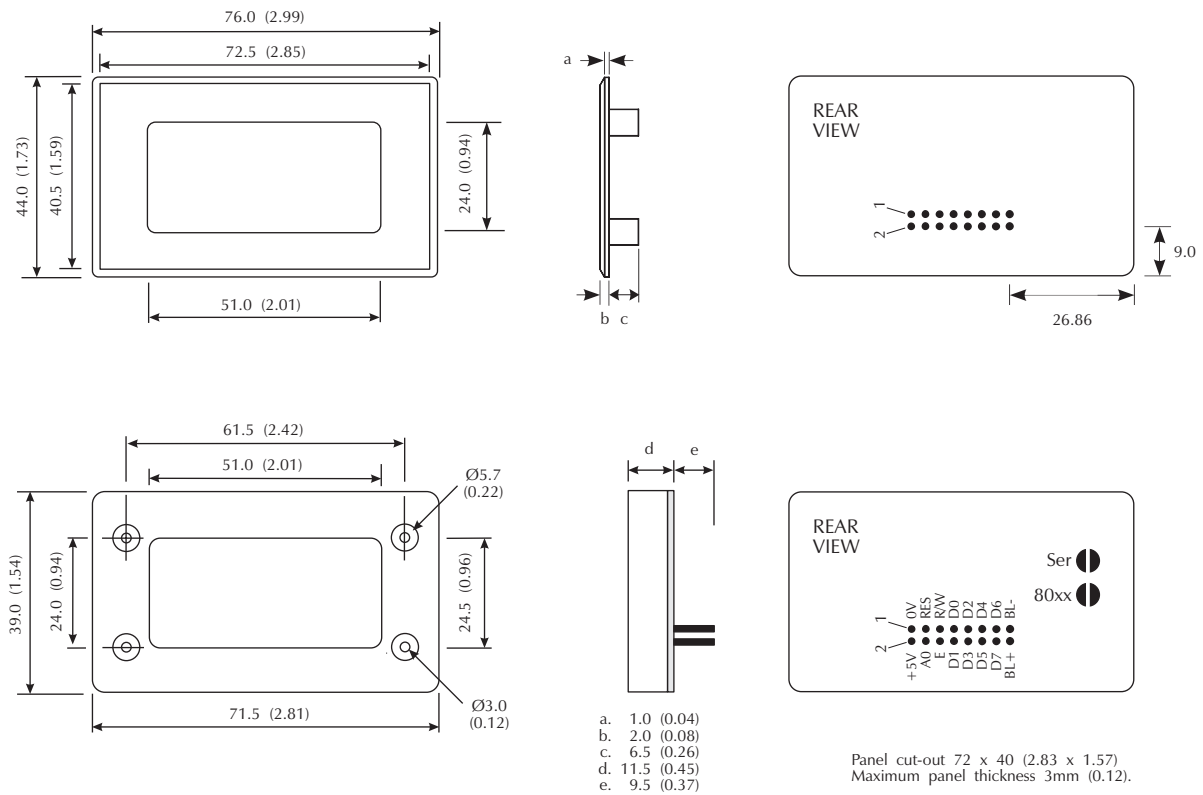


Ensure solder link Ser is Closed. Solder link 80xx may be Open or Closed. Fix R/W (WR) to GND.

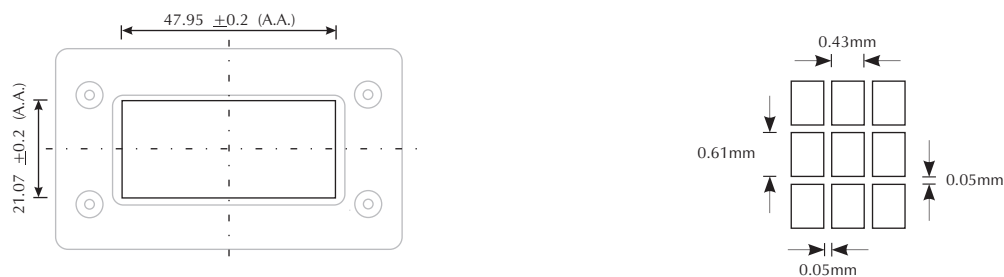
#### RECOMMENDED INITIALISATION PROCEDURE



## MODULE AND BEZEL DIMENSIONS (All dimensions in mm (inches))



## LCD DIMENSIONS (All dimensions in mm)



**For detailed programming data, consult the DMX 973B product page at [www.lascarelectronics.com](http://www.lascarelectronics.com) and download the SED 1530 technical datasheet.**