Durable color display

Danfoss DP250 Series Displays are elements of the PLUS+1® family of mobile machine management products.

The DP250 series provide mobile machine OEMs with a range of rugged, high quality, cost effective color displays.

DP250 Series variants include several input options, dual CAN port options and two USB options: a USB device mini-connector on the front of the display or a USB connector on the rear of the display.

Large function-programmable buttons provide tactile feedback. The high resolution color display is viewable in a wide range of lighting conditions. Backlight and contrast settings are programmable.

The DP250 display family features robust mechanical, electrical and environmental specifications that meet the harsh operating conditions found in mobile machine applications.

Features

- User-programmable with PLUS+1® GUIDE (Graphical User Integrated Development Environment)
- J1939 engine monitor (Engine Information Center) application software available (application keyed)
- High resolution color TFT display (240x320 pixels, 15-bit color)
- 6 software controlled LEDs (2 red, 2 amber, 2 green)
- 4 user-programmable soft keys
- 2 CAN 2.0 ports option
- 4 digital analog inputs options
- All models include 2 multifunction inputs (DIN/AIN/FrequencyIN/CurrentIN, 4–20 mA)
- 1 fixed-range analog input/CAN shield pin
- 16 MB program memory
- 16 MB application log memory option
- Real-time clock
- Buzzer output
- Two USB options:
  - Mini USB connector (USB device function) on the front of the display
  - Binder USB connector (USB function) on the back of the display
- IP 67 ingress rating
  - Exception: IP 54 rating for DP250 display with front mini-USB connector
- -30°C to 70°C (-22°F to 158°F) operating temperature range
- CE marked

Comprehensive technical literature online at powersolutions.danfoss.com
**Data Sheet**

**Mobile Machine Displays DP250 Series**

### Dimensions

**DP250 in mm [in]**

- **Dimensions**
  - Length: 115.90 [4.56]
  - Width: 59.10 [2.33]
  - Height: 34.00 [1.33]

**Mounting panel cutout in mm [in]**

- **Dimensions**
  - Length: 99.00 [3.90]
  - Width: 41.50 [1.63]
  - Height: 32.50 [1.27]

### Specifications

- **Processor**: ARM 7 core, 16/32 bit/72 MHz
- **RAM**: 64KB on-chip, 1MB on board
- **FRAM**: 16 KB
- **Supply Voltage**: 9–63 Vdc/6.5W
- **Current Consumption**: Heater 10W
- **Connector**: DEUTSCH DTM-12
- **LCD Glass**: TFT with 15-bit resolution
- **Resolution**: 320 x 240 pixels
- **Viewable Area**: 70.08 mm x 52.56 mm [3.15 x 2.16]
- **IP Rating**: IP67 or IP54
- **Operation Temperature**:
  - Code C00: –20 °C - +70°C [–4°F - +158°F]
  - Code C01: –30 °C - +70°C [–22°F - +158°F]
- **Storage Temperature**: –40 °C to +85°C [–40°F to +176°F]
- **Weight**: 250g [0.5lb]
- **Vibration/Shock**: 5g/50g
- **EMC/ESD**: 100V/m / 15kV

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The DP250 front mini-USB model option carries an IP54 ingress rating. The USB cover/plug must be in place for full IP54 protection. This model variant is recommended for in-cab installation only.

For full IP67 ingress rating of rear USB models, the cable or plug must be in place.

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**USB mini-B connector pin out information**

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<th>Pin</th>
<th>Description</th>
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<td>Vbus</td>
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<tr>
<td>2</td>
<td>Data -</td>
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<tr>
<td>3</td>
<td>Data +</td>
</tr>
<tr>
<td>4</td>
<td>N/C</td>
</tr>
<tr>
<td>5</td>
<td>Ground</td>
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<tr>
<td>7</td>
<td>N/C</td>
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<td>8</td>
<td>N/C</td>
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Use care when wiring mating connector. Diagrams show device pins.

DEUTSCH 12-pin connector pin out information

1  Power ground -
2  Power supply +
3  CAN 0 +
4  CAN 0 -
5  AIN/ CAN Shield
6  See Code B option/TI
7  See Code B option/TI
8  See Code B option/TI
9  See Code B option/TI
10  DIN/AIN/FREQ IN/CURRENT IN, RHEOSTAT
11  DIN/AIN/FREQ IN/CURRENT IN, RHEOSTAT
12  DOUT (0.5A)

Model features and Ordering information

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1 EIC installed
2 With app key which allows EIC SW installation

Accessory information

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<td>Binder Connector and Cable Kit (Series 702)</td>
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