

## Data Sheet

# DP730 Series

## PLUS+1<sup>®</sup> Mobile Machine Displays



The Danfoss DP730 Series is an element of the PLUS+1<sup>®</sup> family of mobile machine management products.

The DP730 is designed to perform in the most extreme mobile machine environments.

The DP730 offers different display options to meet your application needs. The display is equipped with a Projective Capacitive touch screen that works through mud, water and with gloves on.

The latest technology with backlight provides outstanding brightness and contrast performance resulting in an easy-to-read screen. Optically Bonded LCD/Lens Technology improves sunlight view-ability and prevents fogging.

Develop and customize your display using PLUS+1<sup>®</sup> GUIDE and the GUIDE Vector Based Screen Editor (VBSE).

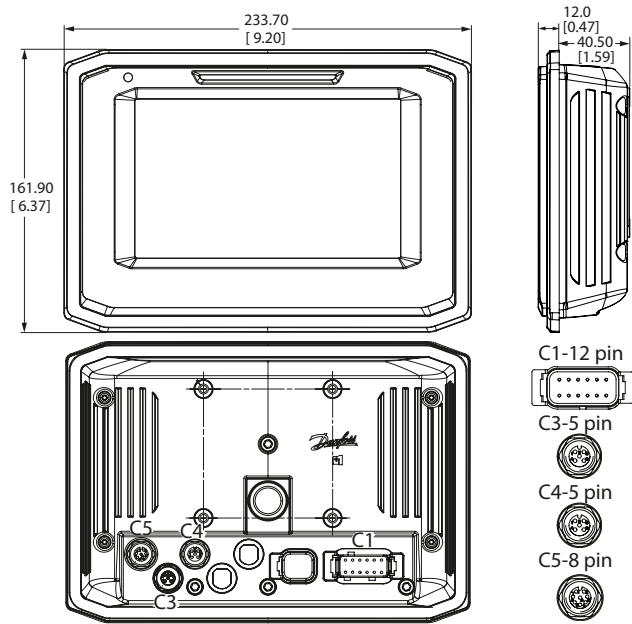


### Features

- 7" High resolution TFT display 800 x 480 pixels, 18-bit colour
- Ideal for gauges, diagnostic menus, and other ancillary functions
- User-programmable with PLUS+1<sup>®</sup> GUIDE (Graphical User Integrated Development Environment)
- Optically bonded LCD
- Projective Capacitive Touch screen
- Video inputs:
  - Two connectors are available for PAL or NTSC signals
  - Only one video input at time can be overlay-ed on screen
- Two multifunction inputs that include DIN/ AIN/FreqIN/Rheo/4-20 mA
- Fully integrated connectors and silicone keypad provide water and dust protection from all sides
- Protective glass provides superior antiglare and contrast control under all light conditions
- Two mounting options:
  - Flush mount in dashboard
  - Stand-alone post mount according to VESA standard: 75 mm x 75 mm (2.953 in x 2.953 in)
- Can be mounted in Portrait or Landscape orientation
- Software configurable LED light bar
- USB port for fast software downloads and uploads
- Integrated light sensor for automatic backlight adjustment
- LCD brightness 400-550cd/m<sup>2</sup>
- LCD contrast from 600:1 to 1000:1
- Digital output for external alarm buzzer
- CE compliant
- On board real-time clock
- 16 MB of flash vault memory (application logging memory)

Comprehensive technical literature is online at [www.danfoss.com](http://www.danfoss.com)

DP730 dimensions (mm [in]); C1, C3, C4, C5 connectors



**Pin assignments**

C1—DEUTSCH DTMO6 12 pin

| Pin   | Function              | Pins   | Function               |
|-------|-----------------------|--------|------------------------|
| C1-P1 | Power GND -           | C1-P7  | CAN1 Low - (AIN/DIN)   |
| C1-P2 | Power supply +        | C1-P8  | Sensor power (AIN/DIN) |
| C1-P3 | CAN0 High +           | C1-P9  | Sensor GND             |
| C1-P4 | CAN0 Low -            | C1-P10 | Multifunction-input    |
| C1-P5 | CAN shield/AIN        | C1-P11 | Multifunction-input    |
| C1-P6 | CAN1 High + (AIN/DIN) | C1-P12 | DOUT                   |

C3 and C4—M12 5 pin

| Pin   | Function               | Pins  | Function               |
|-------|------------------------|-------|------------------------|
| C3-P1 | Video power GND        | C4-P1 | Video power GND        |
| C3-P2 | Video power supply     | C4-P2 | Video power supply     |
| C3-P3 | Video signal input 1   | C4-P3 | Video signal input 2   |
| C3-P4 | Video signal input GND | C4-P4 | Video signal input GND |
| C3-P5 | NC                     | C4-P5 | NC                     |

C5—M12 8 pin

| Pin   | Function             | Pins  | Function               |
|-------|----------------------|-------|------------------------|
| C5-P1 | USB device $V_{BUS}$ | C5-P5 | USB host GND/RS232 GND |
| C5-P2 | USB device data D-   | C5-P6 | USB host D+/RS232 RxD  |
| C5-P3 | USB device data D+   | C5-P7 | USB host D-/RS232 TxD  |
| C5-P4 | USB device GND       | C5-P8 | USB host $V_{BUS}$     |

### Specifications

|   |  |
|---|--|
| <b>Processor</b>                            | ARM11, 532 MHz   |
| <b>RAM</b>                                  | 128 MB   |
| <b>FRAM</b>                                 | 8 kB   |
| <b>Supply voltage / current consumption</b> | 9 to 36 V <sub>DC</sub> / 1 amp at 14 V, 0.5 amp at 28 V |
| <b>LCD type</b>                             | TFT with 18 bit resolution                               |
| <b>Viewable area</b>                        | 152.40 mm x 91.40 mm [6.00 in x 3.598 in]                |
| <b>IP rating</b>                            | Front: IP 69K; Rear: IP 67                               |
| <b>Operating temperature</b>                | -30° C to +60° C [-22° F to +140° F]                     |
| <b>Storage temperature</b>                  | -30° C to +80° C [-22° F to 176° F]                      |
| <b>Weight</b>                               | 1000 g [2.2 lb]  |
| <b>Vibration</b>                            | 3.17 g   |
| <b>Shock</b>                                | 50 g   |
| <b>EMC</b>                                  | 100 V/m  |
| <b>ESD</b>                                  | 15 kV  |

### Ordering information

Model features and product part numbers

| A     | B  | C  | D  | E  | F  | G  | H  | Part number |
|-------|----|----|----|----|----|----|----|-------------|
| DP730 | 02 | 02 | 02 | 02 | 02 | 01 | 00 | 11162884    |
| DP730 | 03 | 02 | 02 | 02 | 02 | 01 | 00 | 11162885    |
| DP730 | 02 | 02 | 02 | 02 | 02 | 01 | 01 | 11162887    |
| DP730 | 03 | 02 | 02 | 02 | 02 | 01 | 01 | 11162888    |

| Model features                   | Code  | Description   |
|----------------------------------|-------|---|
| A Model name                     | DP730 | PLUS+1 <sup>®</sup> Mobile Machine Displays   |
| B LCD options                    | 02    | Standard - transmissive   |
|                                  | 03    | High performance—Transmissive-Enhanced View TFT   |
| C Touchscreen options            | 02    | Projective capacitive touch   |
| D Input / output options         | 02    | User configurable   |
|                                  |       | 1 CAN, 2 AIN/DIN, 2 DIN/AIN/FreqIn/Rheo/4-20 mA IN, DOUT<br>2 CAN, 2 DIN/AIN/FreqIn/Rheo/4-20 mA IN, DOUT |
| E Flash memory / application key | 02    | 512 MB / without application key  |
| F USB port type                  | 02    | USB device rear / USB host rear or front  |
| G Application log (vault memory) | 01    | 16 MB   |
| H Bezel color                    | 00    | Black   |
|                                  | 01    | Gray  |

*Related products*

| <b>Related product</b>                           | <b>Part number</b> |
|--|--------------------|
| Panel mounting kit                               | 11144800           |
| DEUTSCH 12 pin mating connector kit 20 AWG       | 10100944           |
| DEUTSCH 12 pin mating connector kit 16 to 22 AWG | 10102025           |
| Mating connector kit with camera cable           | 11130520           |
| USB cable (device only)                          | 11130518           |
| USB cable (device and host)                      | 11130519           |