



## Data Sheet

# DP710 Series PLUS+1® Mobile Machine Displays



**PLUS+1**

## Introduction

The Danfoss DP710 Series is an element of the PLUS+1® family of mobile machine management products.

The DP710 is designed to perform in the most extreme mobile machine environments.

The DP710 offers three different display options to meet your application needs for both in-cab and open usage.

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 viewability and prevents fogging.

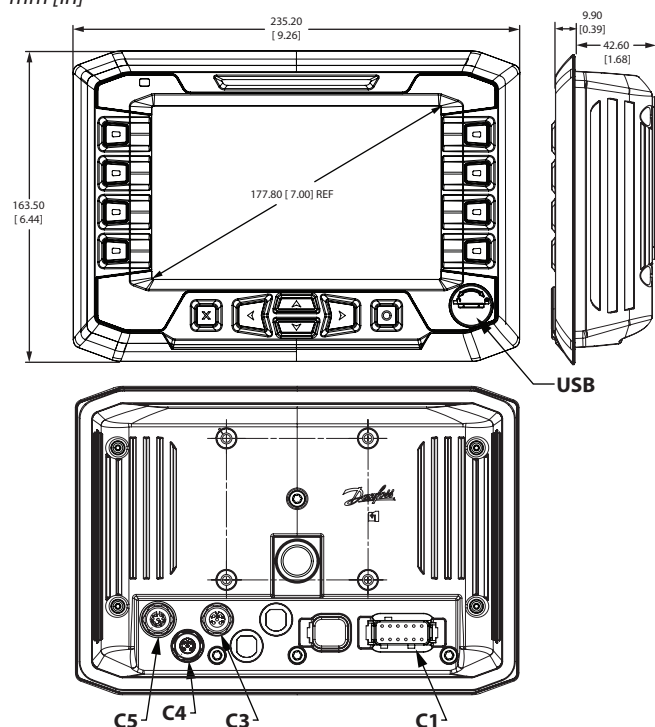
Develop your own software and layout with PLUS+1® GUIDE. A graphic library is available for fast time-to-market.

## 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 GUIDE (Graphical User Integrated Development Environment)
- Optically bonded LCD
- Two optional video inputs with both PAL and NTSC support
- 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
- Keypad with 14 buttons (8 soft-keys and 6 buttons for navigation)
- All buttons have white backlight design for low light and night use, all are individually software controlled
- 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 luminance 400-550cd/m<sup>2</sup>
- Digital output for external alarm buzzer
- CE compliant
- On board real-time clock

**Dimensions and Pin Assignments**

mm [in]


**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 Vdc/1 amp at 14 V, 0.5 amp at 28 V
<b>LCD glass</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>Ingress Protection (IP) rating (with sealing plugs in unused connections)</b>	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>Electromagnetic Compatibility (EMC)</b>	100 V/m
<b>Electrostatic Discharge (ESD)</b>	15 kV

Related products	Part number
Panel mounting kit	11129829
Deutsch 12 pin mating connector kit 20 to 24 AWG	10100944
Deutsch 12 pin mating connector kit 16 to 20 AWG	10102025
Mating connector kit	11130520
USB cable (device only)	11130518
USB cable (device and host)	11130519

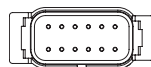
**Danfoss Power Solutions US Company**  
 2800 East 13th Street  
 Ames, IA 50010, USA  
 Phone: +1 515 239 6000

**Danfoss Power Solutions GmbH & Co. OHG**  
 Krokamp 35  
 D-24539 Neumünster, Germany  
 Phone: +49 4321 871 0

**Danfoss Power Solutions ApS**  
 Nordborgvej 81  
 DK-6430 Nordborg, Denmark  
 Phone: +45 7488 2222

**Danfoss Power Solutions**  
 22F, Block C, Yishan Rd  
 Shanghai 200233, China  
 Phone: +86 21 3418 5200

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**Deutsch®DTMO6 12 Pin**


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

**M12 8 Pin**


C5 pin	Function
C5-P1	USB device Vbus
C5-P2	USB device D-
C5-P3	USB device D+
C5-P4	USB device GND
C5-P5	USB host GND/ RS232 GND
C5-P6	USB host D+/RS232 RxD
C5-P7	USB host D-/RS232 TxD
C5-P8	USB host Vbus

**M12 5 Pin**


C3 pin	Function
C3-P1	Video power ground
C3-P2	Video power supply
C3-P3	Video signal input 1
C3-P4	Video signal input ground
C3-P5	NC

**M12 5 Pin**


C4 pin	Function
C4-P1	Video power ground
C4-P2	Video power supply
C4-P3	Video signal input 2
C4-P4	Video signal input ground
C4-P5	NC

**Model Features**

A	B	C	D	E	F	G	Part number
DP710	01	01	02	02	04	01	11126322
DP710	02	01	02	02	04	01	11126323
DP710	03	01	02	02	04	01	11126324

<b>A</b>	<b>Model Name</b>
	<b>DP710</b> PLUS+1® Mobile Machine Displays
<b>B</b>	<b>LCD Options</b>
	<b>01</b> Value—Transmissive
	<b>02</b> Standard—Transmissive
	<b>03</b> High performance—Transmissive-Enhanced View TFT
<b>C</b>	<b>Touch Screen Options</b>
	<b>01</b> None
<b>D</b>	<b>Input/ Output Options</b>
	User configurable
	<b>02</b> 1 CAN, 2 AIN/DIN, 2 DIN/AIN/FreqIn/Rheo/4-20 mA IN, 2 Video IN, DOUT 2 CAN, 2 DIN/AIN/FreqIn/Rheo/4-20 mA IN, 2 Video IN, DOUT
<b>E</b>	<b>Flash Memory/ Application Key</b>
	<b>02</b> 512 MB/without application key
<b>F</b>	<b>USB Port Type</b>
	<b>04</b> USB device rear/USB host rear or front
<b>G</b>	<b>Application Log (Vault Memory)</b>
	<b>01</b> 16 MB