

Data Sheet

# DP720 Series PLUS+1<sup>®</sup> Mobile Machine Displays

The Danfoss DP720 Series is an element of the PLUS+1<sup>®</sup> family of mobile machine management products.

The DP720 is designed to perform in the most extreme mobile machine environments.

The DP720 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 your own software and layout with PLUS+1<sup>®</sup> GUIDE. A graphic library is available for fast time-to-market.



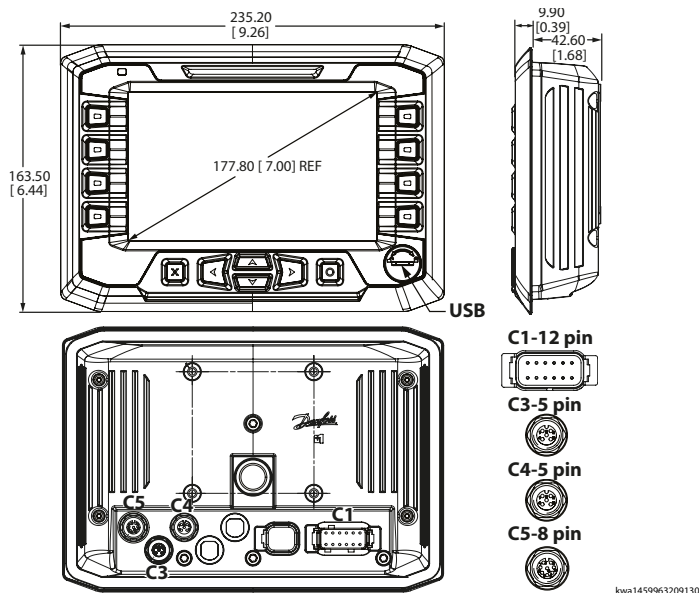
## Features

- 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<sup>®</sup> GUIDE (Graphical User Integrated Development Environment)
- Optically bonded LCD
- Projective Capacitive Touch screen
- 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 brightness >800 cd/m<sup>2</sup>
- Digital output for external alarm buzzer
- CE compliant
- On board real-time clock

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

**Dimensions and connectors**

DP720 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	DOU7

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 Rx D
C5-P3	USB device data D+	C5-P7	USB host D-/RS232 Tx D
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 glass</b>	Transmissive In-Plane Switching (IPS)
<b>Viewable area</b>	152.40 mm x 91.40 mm [6.00 in x 3.598 in]
<b>IP rating</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>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	Part number
DP720	04	02	02	02	04	01	11264358

Model features	Code	Description
A Model name	DP720	PLUS+1 <sup>®</sup> Mobile Machine Displays
B LCD options	04	Transmissive In-Plane Switching (IPS)
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, 2 Video IN, DOUT 2 CAN, 2 DIN/AIN/FreqIn/Rheo/4-20 mA IN, 2 Video IN, DOUT
E Flash memory / application key	02	512 MB/without application key
F USB port type	04	USB device rear/USB host rear or front
G Application log (vault memory)	01	16 MB

*Related products*

Related product	Part number
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

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequent changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.