

## Data Sheet

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

## DM1x00 Series

PLUS+1

The Danfoss DM1x00 display series bring modern appearance and performance to mobile machine markets with two display platforms, expanding the PLUS+1<sup>®</sup> family.

The DM1x00 series was developed for best operator viewability with its high brightness, optical bonding, anti-glare, anti-reflection, oleophobic coating and wide viewing angles. It is quipped with an outstanding dual core 1.2 GHz i.MX6 and 4Gb flash memory delivering high performance. Ruggedized for mobile machine markets, it is built to withstand harsh operating environments with its IP66 and IP67 rating and the water-resistant screen allowing for multi-touch while wearing gloves.

The integrated file viewer and media player provides view of documents and media files on the run using the audio line out to connect to the vehicle speaker system.

To meet specific needs, the DM1x00 includes two different screen sizes (10.1" and 12.1") with optional multi-touch and two button pad configurations with programmable back-lights and tactile feedback.

WiFi and Bluetooth<sup>®</sup> provide wireless channels for servicing the machine remotely.

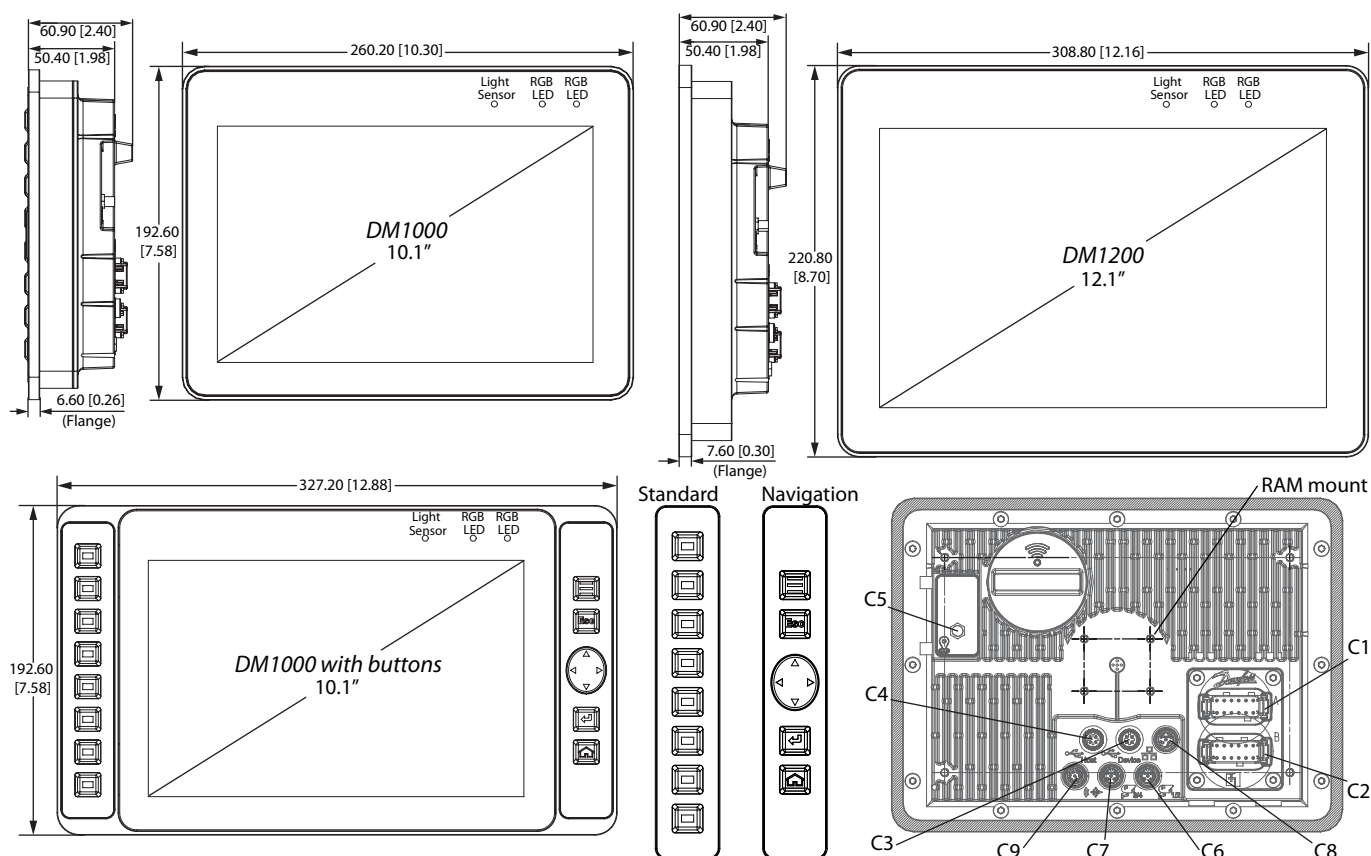


### Features

- 4 CAN ports
- RS232 and USB 2.0 high-speed
- Ethernet
- Bluetooth<sup>®</sup> and WiFi, GNSS (optional)
- 4 Camera inputs (Up to 2 displayed at one time)
- Audio line out
- Sensor supply out
- Optional keypad with either 8 buttons on each side (16 total) or 8 buttons plus navigation panel (16 total)
- Backlit buttons
- Touch screen (optional)
- Optical signal (2 RGB LEDs)
- Integrated ambient light sensor for automatically adjusting brightness to lighting conditions
- Ignition input
- Wake up over input
- Dual core 1.2 GHz i.MX6
  - 4 GB Flash memory
- Media player and File viewer (PDF, JPG, MP3, MP4)
- PLUS+1<sup>®</sup> GUIDE programmable
- Real Time Clock (RTC)
- Rugged IP66 and IP67 rating
- 2 Integrated DEUTSCH connectors
- CE Compliant, E1 E-Mark and RoHS Compliant
- FCC certification for displays with radio
- Fast Start-up Time (less than 5 seconds)
- RAM<sup>®</sup> or Bracket (optional) mount (portrait or landscape)
- Integrated accelerometer for auto-adjusting between screen orientations
- 32 MB App Log

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

## DM1x00 Series Displays



C1—DEUTSCH DTM06-12SA

Pin	Name
1	Battery Ground
2	Battery Power
3	CAN0+
4	CAN0-
5	DigIn/AnIn/CAN Shield
6	CAN1+
7	CAN1-
8	+5V SNSR
9	Ignition Input (K15)
10	Multifunction input (DigIn/AnIn/Freq/4-20 mA/Rheostat)
11	Multifunction input (DigIn/AnIn/Freq/4-20 mA/Rheostat)
12	DigOut

C2—DEUTSCH DTM06-12SB

Pin	Name
1	Sensor Ground
2	DigOut
3	CAN2+
4	CAN2-
5	DigIn/AnIn/CAN Shield
6	CAN3+
7	CAN3-
8	Multifunction input (DigIn/AnIn/Freq/4-20 mA/Rheostat)
9	Multifunction input (DigIn/AnIn/Freq/4-20 mA/Rheostat)
10	Wake Input (DigIn)
11	DigOut
12	DigOut

C3—USB Device M12 4 Pin, Male, 'A' key

Pin	Name
1	Device Data +
2	Device Data -
3	Host Vbus
4	Ground

C4—USB Host M12 4 Pin, Male, 'B' key

Pin	Name
1	Host Data +
2	Host Data -
3	Host Vbus
4	Ground

**Pin assignments (continued)**
**C5—GNSS Antenna SMA Coaxial**

Pin	Name
1	TxD+
2	RxD+
3	TxD-
4	RxD-

**C6—Video M12 5 Pin, Female Primary**

Pin	Name
1	RS232 TxD
2	RS232 RxD
3	RS232 Gnd
4	NC
5	Audio Left
6	Audio Right
7	Audio Gnd
8	NC

**C7—Video M12 5 Pin, Female Secondary**

Pin	Name
1	Pwr Ground
2	Pwr Supply
3	Signal In 1
4	Signal Ground
5	Signal In 2

**Specifications**

<b>Processor</b>	1.2 GHz i.MX6
<b>RAM</b>	512 MB
<b>FRAM</b>	32 kB
<b>Supply voltage</b>	9 to 36 V <sub>DC</sub>
<b>Connector</b>	DEUTSCH DTM06-12SA and DTM06-12SB
<b>Size</b>	10.1" and 12.1"
<b>Aspect ratio</b>	16:10 wide view
<b>Resolution</b>	1280x800, IPS
<b>Brightness</b>	1000 cm/m <sup>2</sup>
<b>Contrast ratio</b>	500:1
<b>Viewing angle</b>	±85° vertical and horizontal
<b>Color depth</b>	24 bit
<b>IP rating</b>	IP66 and IP67 front and back
<b>Operating temperature</b>	-30°C to +70°C [-22°F to +158°F]
<b>Storage temperature</b>	-40°C to +85°C [-40°F to +185°F]
<b>Weight</b>	DM1000: 2.106 kg [4 lb 10 oz]; DM1000 (w/ buttons): 2.528 kg [5 lb 9 oz]; DM1200: 2.722 kg [6 lb]
<b>Vibration/Shock</b>	IEC 60068-2-64 (3.17g) /2-27 (50g)
<b>EMI/RFI rating</b>	ISO 13766
<b>Humidity</b>	IEC 60068-2-78, 60068-2-30
<b>Transients</b>	ISO 7637/1, 2, 3

**C8—Ethernet M12 4 Pin, Female**

Pin	Name
1	Pwr Ground
2	Pwr Supply
3	Signal In 3
4	Signal Ground
5	Signal In 4

**C9—RS232/Stereo M12 8 Pin, Female**

Pin	Name
1	TxD
2	RxD
3	Ground
4	Manufacturing Use Only (Leave Floating)
5	Left Channel
6	Right Channel
7	Ground
8	NC

Ensure the connections are secured properly to avoid signal degradation.

## Model variants

Part number	Order code	Description
11223953	DM1000-0-0-0-0	10.1", Non-Touch, No Buttons
11223954	DM1000-0-1-0-0	10.1", Non-Touch, No Buttons, WIFI/BT/GNSS
11223955	DM1000T-0-0-0-0	10.1", Touch, No Buttons
11223957	DM1000T-0-1-0-0	10.1", Touch, No Buttons, WIFI/BT/GNSS
11223958	DM1000-0-0-1-0	10.1", Non-Touch, 2x8 Buttons
11223956	DM1000-0-0-2-0	10.1", Non-Touch, 1x8 + Navigation Buttons
11223959	DM1000-0-1-1-0	10.1", Non-Touch, 2x8 Buttons, WIFI/BT/GNSS
11223960	DM1000-0-1-2-0	10.1", Non-Touch, 1x8 + Navigation Buttons, WIFI/BT/GNSS
11223961	DM1000T-0-0-1-0	10.1", Touch, 2x8 Buttons
11223965	DM1000T-0-0-2-0	10.1", Touch, 1x8 + Navigation Buttons
11223962	DM1000T-0-1-1-0	10.1", Touch, 2x8 Buttons, WIFI/BT/GNSS
11223966	DM1000T-0-1-2-0	10.1", Touch, 1x8 + Navigation Buttons, WIFI/BT/GNSS
11223963	DM1200T-0-0-0-0	12.1", Touch, No Buttons
11223964	DM1200T-0-1-0-0	12.1", Touch, No Buttons, WIFI/BT/GNSS

Mounting kits are sold separately.

## Model code

A	B	C	D	E
DM1x00				

A—Model name	Description
DM1000	10.1" Non-Touch
DM1000T	10.1" Touch
DM1200T	12.1" Touch

B—Not configured	Description
0	NC

C—WIFI/BT/GNSS	Description
0	Without WIFI/BT/GNSS
1	With WIFI/BT/GNSS

D—Buttons	Description
0	No Buttons
1	2x8 Buttons
2	1x8 + Navigation Buttons

E—Not configured	Description
0	NC

## Related products part numbers

### Connector kit

<b>10100944</b>	DEUTSCH 12-pin Connector Kit (DTM06-12SA)
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### Connection tools

<b>10100744</b>	DEUTSCH stamped contacts terminal crimp tool, size 20
<b>10100745</b>	DEUTSCH solid contacts terminal crimp tool

### Panel mounting kits (sold separately)

<b>11224242</b>	Panel mounting kit for 10" Display unit with no buttons
<b>11224243</b>	Panel mounting kit for 10" Display unit with buttons
<b>11224244</b>	Panel mounting kit for 12" Display unit

### Cable kits

<b>11231512</b>	Cable, M12 4-Pin to USB Device
<b>11130713</b>	Cable, M12 4-Pin to Lead Wires

### Software

<b>11179523</b> <b>(Annual renewal with 11179524 to keep the software updates)</b>	PLUS+1 <sup>®</sup> GUIDE Professional Software (includes 1 year of software updates, a single user license, Service and Diagnostic Tool and Screen Editor)
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