Data Sheet

PLUS+1® Mobile Machine Displays
DM1x00 Series

The Danfoss DM1x00 display series bring modern appearance and performance to mobile machine markets with two display platforms, expanding the PLUS+1® 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 equipped with an outstanding dual core 800 MHz i.MX6 processor 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.
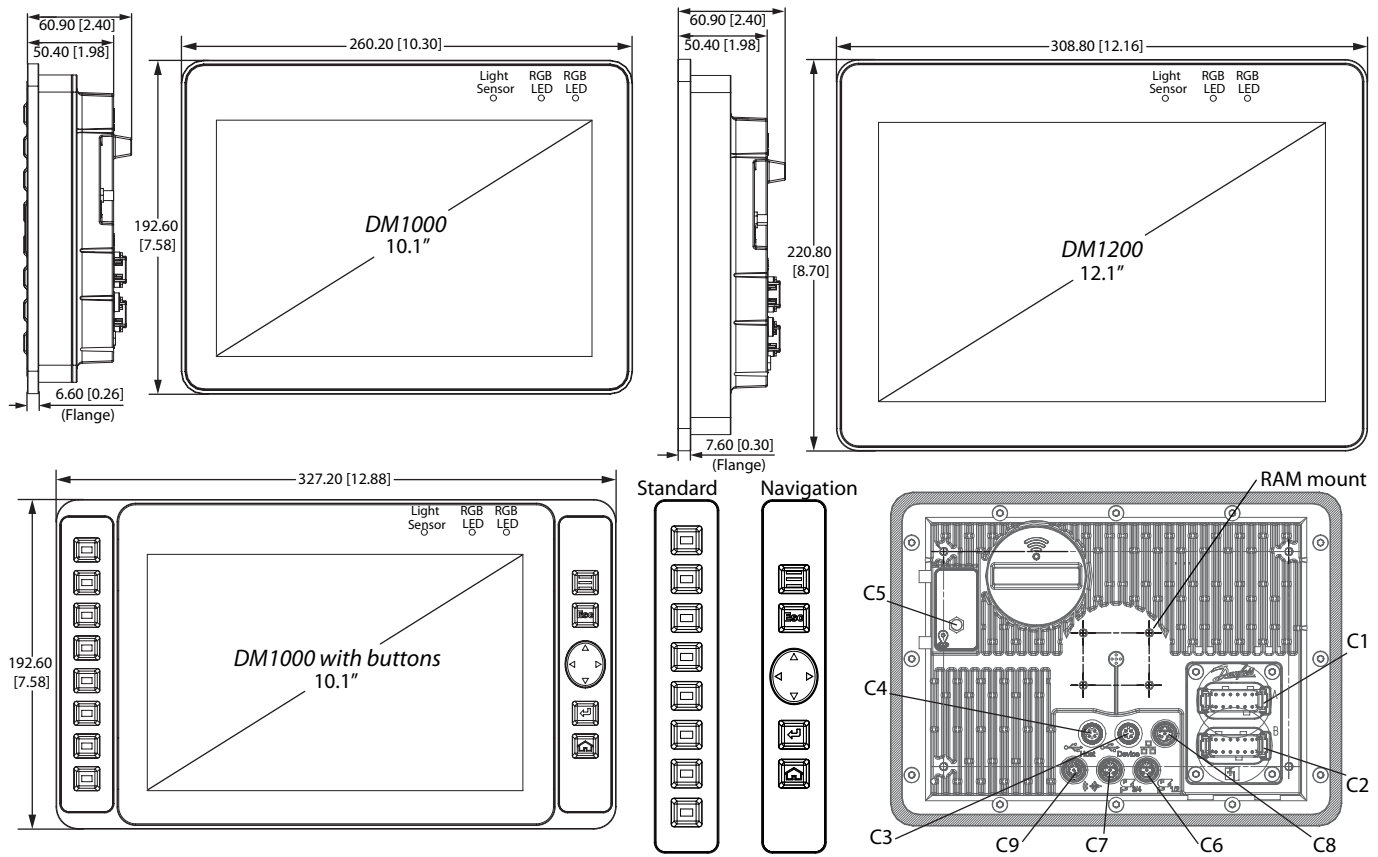
Features

- 4 CAN ports
- RS232 and USB 2.0 high-speed
- Ethernet
- 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 800 MHz i.MX6
  - 4 GB Flash memory

- Media player and File viewer (PDF, JPG, MP3, MP4)
- PLUS+1® GUIDE programmable
- Qt Enabled (Plugin Design Studio to PLUS+1® GUIDE)
- Real Time Clock (RTC)
- Rugged IP66 and IP67 rating
- 2 Integrated DEUTSCH connectors
- Fast Start-up Time
- RAM® 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*

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	Device Vbus
4	Ground

C4—USB Host M12 4 Pin, Male, 'D' Code

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

Ensure the connections are secured properly to avoid signal degradation.

C6—Video M12 5 Pin, 'A' Code

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

C7—Video M12 5 Pin, 'A' Code

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

C8—Ethernet M12 4 Pin, 'D' Code

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

C9—RS232/Stereo M12 8 Pin, 'A' Code

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

Characteristics/certifications

Processor	800 MHz i.MX6
RAM	512 MB
FRAM	32 kB
Program Flash	4 GB
Supply voltage	9 to 36 V_{DC}
Connector	DEUTSCH DTM06-12SA and DTM06-12SB
Size	10.1" and 12.1"
Aspect ratio	16:10 wide view
Resolution	1280x800, IPS
Brightness	900 cd/m^2
Contrast ratio	500:1
Viewing angle	±85° vertical and horizontal
Color depth	24 bit
IP rating	IP66 and IP67 front and back
Operating temperature	-30°C to +70°C [-22°F to +158°F]
Storage temperature	-40°C to +85°C [-40°F to +185°F]
Weight	DM1000: 2.106 kg [4 lb 10 oz] DM1000 (w/ buttons): 2.528 kg [5 lb 9 oz] DM1200: 2.722 kg [6 lb]
Vibration/Shock	IEC 60068-2-64 (3.17g) /2-27 (50g)
EMI/RFI rating	ISO 13766
Humidity	IEC 60068-2-78, 60068-2-30
Transients	ISO 7637/1, 2, 3

	DM1000	DM1200
CE	Certified	Certified
UKCA	Certified	Certified
E-Mark	Pending	Pending

Model variants

Part number	Order code	Description
11223953	DM1000-0-0-0-0	10.1", Non-Touch, No Buttons
11223955	DM1000T-0-0-0-0	10.1", Touch, No Buttons
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
11223961	DM1000T-0-0-1-0	10.1", Touch, 2x8 Buttons
11223965	DM1000T-0-0-2-0	10.1", Touch, 1x8 + Navigation Buttons
11223963	DM1200T-0-0-0-0	12.1", Touch, No Buttons
11336171	DM1000T-0-0-0-3	10.1" Touch, No Buttons, Qt
11336232	DM1200T-0-0-0-3	12.1" Touch, No Buttons, Qt

Mounting kits are not included. Please see Related Product section for ordering info.

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—Not configured	Description
0	NC

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

E—Additional feature SW	Description
0	NC
3	QT framework enabled
4	ACL

Related products part numbers

Connector kit

10100944	DEUTSCH 12-pin Connector Kit (DTM06-12SA)

Connection tools

10100744	DEUTSCH Extraction tool size 20 red
10100745	DEUTSCH solid contacts terminal crimp tool

Panel mounting kits

11224242	Panel mounting kit for 10" Display unit with no buttons
11224243	Panel mounting kit for 10" Display unit with buttons
11224244	Panel mounting kit for 12" Display unit

Cable kits

11231512	Cable, M12 4-Pin to USB Device A code	Connector C3/Plus+1 Programing Cable
11130713	Cable, M12 8-Pin to Lead Wires A code	Connector C9
11130712	Cable, M12 5-Pin to Lead Wires A code	Connector C6,C7

Software

11179523 (Annual renewal with 11179524 to keep the software updates)	PLUS+1® GUIDE Professional Software (includes 1 year of software updates, a single user license, Service and Diagnostic Tool and Screen Editor)
Qt design studio	Procured from QT please visit www.qt.io