Data Sheet

PLUS+1® Mobile Machine Displays
DM430E Series

PLUS **+1**®

The Danfoss DM430E Series Display is a 4.3" modernized display platform, expanding the PLUS+1® family of mobile machine management products.

The DM430E Series 4.3" display is optimized for sunlight viewability with its high brightness, optical bonding, anti-glare coating and wide viewing angles. Ruggedized for mobile machine markets, it brings a modern appearance at a cost-effective price point.

DM430E variants include different button pads, several input options, dual CAN port options, a USB/RS232 connection on the rear of the display, and an optional EIC (Engine Information Center) application.

Programmable back-lit buttons within PLUS+1® GUIDE software using the light sensor. The high resolution color display provides viewability in a wide range of lighting conditions.


Features

- 2 different keypads
  - Traditional 4 button
  - 6 button plus navigation buttons (11 total)
- Backlit buttons
- Up to 6 LEDs
- Integrated light sensor
- EIC application (optional), Tier 4 / Stage IV ready
- Real Time Clock (RTC)
- PLUS+1® GUIDE programmable (Vector-Based Screen Editor)
- Rugged IP66 and IP67 ratings (with mating connectors installed)
- Integrated DEUTSCH connector
- Fast Start-up Time (~2 sec)
- RAM® or Bracket (optional) mount
- Portrait and landscape
- 32MB application log
- CE compliant, E1-Mark (pending) and RoHS compliant
- USB device & RS232 (optional)

Comprehensive technical literature is online at *www.danfoss.com*

Dimensions in mm [in]

Front, side view, and rear view
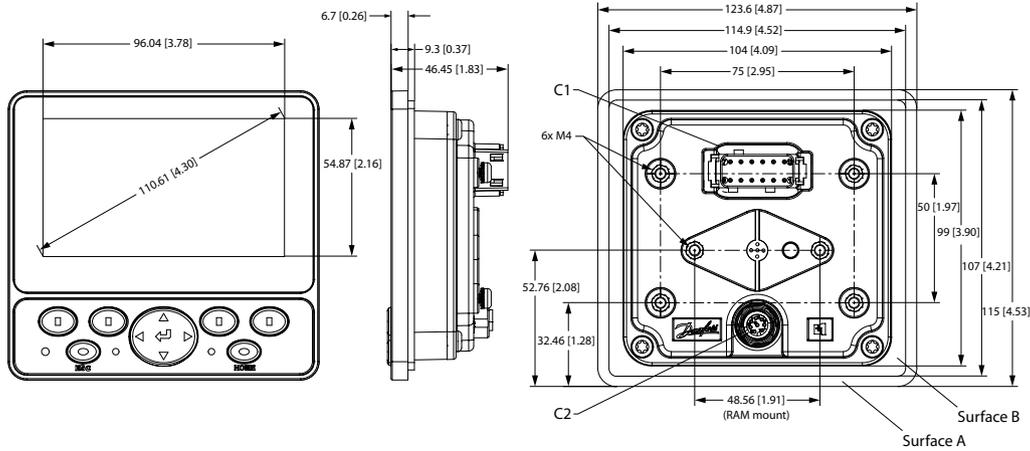
Specifications

*Characteristics*

Processor	ARM-based Cortex-M7
RAM	32MB
EEPROM	32kB
Flash (Program memory)	32MB
Flash (Application log)	32MB
Supply voltage	9-36 V_{DC}
Connector	DEUTSCH DTM06-12
Size	4.3"
Aspect ratio	Wide
Resolution	480x272
Brightness	>700 cd/m2
Contrast ratio	500:1
Viewing angle	+/- 70 degrees in all directions
Color depth	24-bit
Glass	Optically bonded, anti-glare coating
IP rating (with mating connector attached)	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	328 g (0.72 lb)
Vibration	IEC 60068-2-64 (7.67g)
Shock	IEC 60068-2-27 test Ea (50g)
EMI/RFI rating (V/m)	100

12 pin DEUTSCH connector

Pin 7 — | Pin 12

Pin 6 — | Pin 1
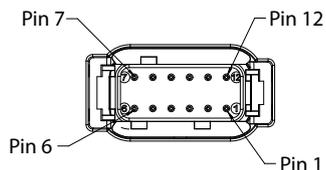
DEUTSCH DTM06-12SA 12 pin

C1 pin	DM430E-0-x-x-x	DM430E-1-x-x-x	DM430E-2-x-x-x
1	Power ground -	Power ground -	Power ground -
2	Power supply +	Power supply +	Power supply +
3	CAN 0 +	CAN 0 +	CAN 0 +
4	CAN 0 -	CAN 0 -	CAN 0 -
5	AnIn/CAN 0 Shield	AnIn/CAN 0 Shield	AnIn/CAN 0 Shield
6	DigIn/AnIn	DigIn/AnIn	DigIn/AnIn
7	DigIn/AnIn	DigIn/AnIn	DigIn/AnIn
8	DigIn/AnIn	CAN 1+	Sensor power 5 V/100 mA
9	DigIn/AnIn	CAN 1-	Secondary power input[*]
10	Multifunction input (DigIn/AnIn/Freq/4-20 mA/Rheostat)	Multifunction input (DigIn/AnIn/Freq/4-20 mA/Rheostat)	Multifunction input (DigIn/AnIn/Freq/4-20 mA/Rheostat)
11	Multifunction input (DigIn/AnIn/Freq/4-20 mA/Rheostat)	Multifunction input (DigIn/AnIn/Freq/4-20 mA/Rheostat)	Multifunction input (DigIn/AnIn/Freq/4-20 mA/Rheostat)
12	Digital out (0.5A sinking)	Digital out (0.5A sinking)	Digital out (0.5A sinking)

[*] From controller (requires surge protection).

8 pin M12 connector

Pin 5 — | Pin 6
Pin 4 — | Pin 7
Pin 3 — | Pin 8
Pin 2 — | Pin 1
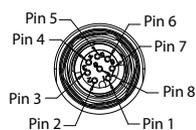
M12-A 8 pin

C2 pin	Function
1	Device Vbus
2	Device data -
3	Device data +
4	Ground
5	Ground
6	RS232 Rx
7	RS232 Tx
8	NC

Model variants

Part number	Order code	Description
11197958	DM430E-0-0-0-0	4 Buttons, I/O
11197973	DM430E-1-0-0-0	4 Buttons, 2-CAN
11197977	DM430E-2-0-0-0	4 Buttons, Sensor Power, Secondary Power Input
11197960	DM430E-0-1-0-0	4 Buttons, I/O, USB/RS232
11197974	DM430E-1-1-0-0	4 Buttons, 2-CAN, USB/RS232
11197978	DM430E-2-1-0-0	4 Buttons, Sensor Power, Secondary Power Input, USB/RS232
11197961	DM430E-0-0-1-0	Navigation Buttons, I/O
11197975	DM430E-1-0-1-0	Navigation Buttons, 2-CAN
11197979	DM430E-2-0-1-0	Navigation Buttons, Sensor Power, Secondary Power Input
11197972	DM430E-0-1-1-0	Navigation Buttons, I/O, USB/RS232
11197976	DM430E-1-1-1-0	Navigation Buttons, 2-CAN, USB/RS232
11197980	DM430E-2-1-1-0	Navigation Buttons, Sensor Power, Secondary Power Input, USB/RS232
11197981	DM430E-0-0-0-1	4 Buttons, I/O, EIC Application
11197985	DM430E-1-0-0-1	4 Buttons, 2-CAN, EIC Application
11197989	DM430E-2-0-0-1	4 Buttons, Sensor Power, Secondary Power Input, EIC Application
11197982	DM430E-0-1-0-1	4 Buttons, I/O, USB/RS232, EIC Application
11197986	DM430E-1-1-0-1	4 Buttons, 2-CAN, USB/RS232, EIC Application
11197990	DM430E-2-1-0-1	4 Buttons, Sensor Power, Secondary Power Input, USB/RS232, EIC Application
11197983	DM430E-0-0-1-1	Navigation Buttons, I/O, EIC Application
11197987	DM430E-1-0-1-1	Navigation Buttons, 2-CAN, EIC Application
11197991	DM430E-2-0-1-1	Navigation Buttons, Sensor Power, Secondary Power Input, EIC Application
11197984	DM430E-0-1-1-1	Navigation Buttons, I/O, USB/RS232, EIC Application
11197988	DM430E-1-1-1-1	Navigation Buttons, 2-CAN, USB/RS232, EIC Application
11197992	DM430E-2-1-1-1	Navigation Buttons, Sensor Power, Secondary Power Input, USB/RS232, EIC Application

Model code

A	B	C	D	E
DM430E				

Model code key

A—Model name	Description
DM430E	4.3" Color Graphical Display

B—Inputs/Outputs	Description
0	1 CAN Port, 4DIN/AIN, 2 MFIN
1	2 CAN Port, 2DIN/AIN, 2 MFIN
2	1 CAN Port, 2DIN/AIN, 2 MFIN, Sensor Power

C—M12 connector	Description
0	No USB Device, No RS232
1	USB Device, RS232

D—Button Pads	Description
0	4 Buttons, 6 LEDs
1	Navigation buttons, 2 Dual-color LEDs

E—Application key (EIC Application)	Description
0	No Application Key
1	Application Key (EIC Application)

Related product part numbers

DEUTSCH 12-pin Connector Kit (DTM06-12SA)	10100944
Mounting Bracket Kit	11198661
CG150-2 CAN/USB Gateway (Sold separately)	11153051
PLUS+1® GUIDE Professional	11179523
Cable, M12 8-Pin to USB Device	11130518
Cable, M12 8-Pin to Lead Wires	11130713