

Data Sheet

PLUS+1[®] Mobile Machine Displays

DM430E Series



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

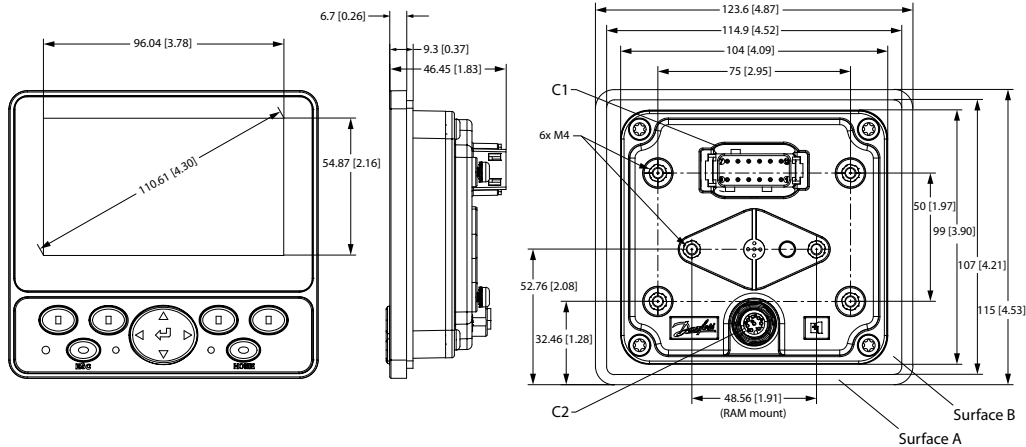
- 2 different keypads
 - Traditional 4 button
 - 6 button plus navigation buttons (11 total)
- Backlit buttons
- Up to 6 LEDs
- Integrated light sensor
- EIC application (optional), Tier 4 / Stage IV ready
- Real Time Clock (RTC)
- PLUS+1[®] GUIDE programmable (Vector-Based Screen Editor)
- Rugged IP66 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

Data Sheet
DM430E Series Display

Dimensions in mm [in]

Front, side view, and rear view



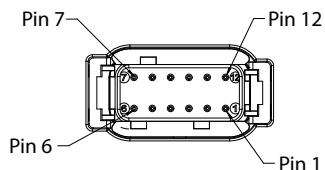
Specifications

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/m ² |
| 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 |

DM430E Series Display

12 pin DEUTSCH connector

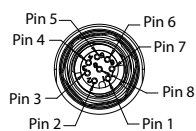


DEUTSCH DTM06-12SA 12 pin

| 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



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 | | | | |

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

Model code key

| A—Model name | Description |
|--------------|------------------------------|
| DM430E | 4.3" Color Graphical Display |

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

| 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 |

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 |

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

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