Data Sheet

PLUS+1® Controllers
OX012-110

Mobile Machine Management

The OX012-110 output expansion module is an element of the flexible, powerful and expandable PLUS+1® family of mobile machine management products. Expansion modules provide costeffective additional I/O to mobile machine control systems.

Product Highlights

Output expansion modules are associated with a PLUS+1® controller. PLUS+1® GUIDE (Graphical User Integrated Development Environment) applications running in the controller write outputs to expansion module pins as if the pins are physically located on the controller. Pin properties are configured in the controller's GUIDE application.

PLUS+1® compliance eliminates need for the system designer to write CAN transmit and receive messages in both the controller and associated expansion modules.

Application Development

Users configure expansion modules using PLUS+1® GUIDE. This Microsoft® Windows®-based development environment features a user-friendly, field proven, icon-based graphical programming tool, application downloader, and service/diagnostic tool.

Features

- 12 pin DEUTSCH DTM connector
- 9 to 36 Vdc power supply, monitored internally
- 1 CAN 2.0B port
- 3 mounting alternatives: stack, end, or side
- CE compliant

Outputs

6 universal (PWMOUT/DOUT/PVGOUT) outputs that are user-defined as either:

- *Digital*: (3 A), configurable as a source or sink;
- *PWM*: (30 to 4000 Hz) configurable as open or closed loop with current control;
- *Analog voltage*: open loop PWM at 4000 Hz.
- Any PWMOUT/DOUT/PVGOUT can be used to provide reference power to one PVG valve.

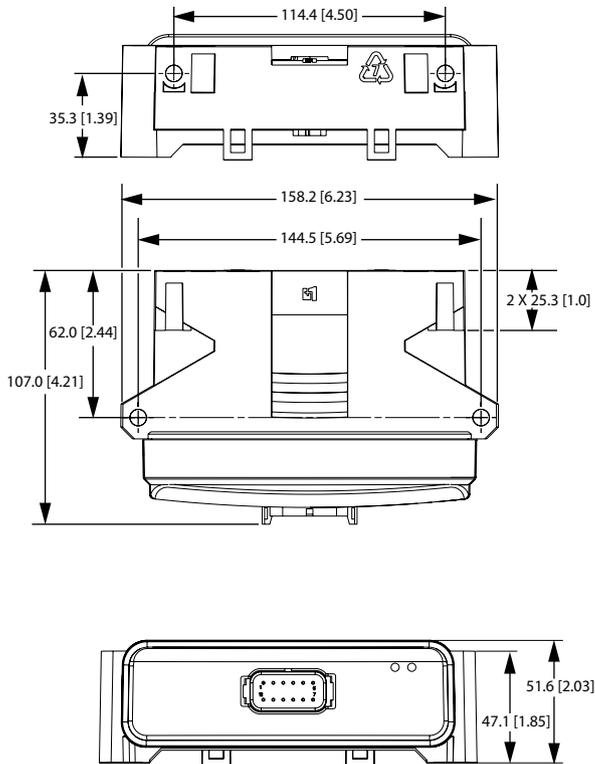Comprehensive technical literature is online at *www.danfoss.com*

OX012-110 dimensions and pin assignments

mm [in]

2199A

! **Caution**

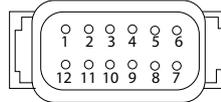PCB damage may occur. All device power supply + pins must be connected to battery +.

Specifications

Supply voltage	9 to 36 V_{DC}
Operating temperature (ambient)	–40°C to 70°C [–40°F to 158°F]
Storage temperature	–40°C to 85°C [–40°F to 185°F]
Programming temperature	0°C to 70°C [32°F to 158°F]
IP rating (with mating connector attached)	IP 67
EMI/RFI rating	100 V/M
Weight	0.34 kg [0.75 lb]
Vibration	IEC 60068-2-64
Shock	IEC 60068-2-27 test Ea
Maximum current, sourcing	16 A
Maximum current, sinking	8 A

! **Caution**

This device is not field serviceable. Opening the device housing will void the warranty.

12 Pin connector

Pin	Controller function
C1-P1	Power ground -
C1-P2	Power supply +
C1-P3	CAN +
C1-P4	CAN -
C1-P5	CAN shield
C1-P6	PWMOUT/DOUT/PVGOUT
C1-P7	PWMOUT/DOUT/PVGOUT
C1-P8	PWMOUT/DOUT/PVGOUT
C1-P9	PWMOUT/DOUT/PVGOUT
C1-P10	PWMOUT/DOUT/PVGOUT
C1-P11	PWMOUT/DOUT/PVGOUT
C1-P12	Power supply +

Use care when wiring mating connector. Pinouts listed are for device pins.

Ordering information

Product part number

OX012-110	11130918

Related products part numbers

CG150 CAN/USB Gateway	10104136	
DEUTSCH mating connector bag assembly	10102025 (16 to 20 AWG)	10100944 (20 to 24 AWG)
PLUS+1® GUIDE single user license	10101000	

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