



INTUITIVE HUMAN INTERFACE SOLUTIONS



The MicroDisplay makes it easy to create screens with custom graphics, text and even gauges that automatically adjust based on J1939 values.

Because the MicroDisplay is controlled via J1939 commands, native coding is not required. Screens and graphic objects are created with the included PC software tool and stored in the on-board flash memory. When in use, the vehicle's ECU (Engine Control Unit) sends and receives commands to control the display.

ENVIRONMENTAL SPECIFICATIONS

Table with 3 columns: Specification, Standard, and Value. Rows include Operating temperature, Storage Temperature, Thermal Shock, Altitude, Sand and Dust, Solar Radiation, Wash Down, Humidity, Salt Fog, Chemical resistance, and Ingress Protection.

Your Experts in Cab Controls

Grayhill specializes in the design, development and production of human interface controls, including:

- Cab user interface design
- Customized control panels
- CAN-bus interface devices

www.grayhill.com

Graphic MicroDisplay

- Easily display custom graphic icons, text boxes and active gauge elements.
• Controlled via J1939 PGNs
• Ideal for off-highway vehicle applications
• Rated for off-highway vehicles
• 3.2-inch backlit LCD (256x128)
• Custom Options Available
• System Interface
• Styled to sit next to Grayhill standard 20 button CAN-bus keypad

Agriculture



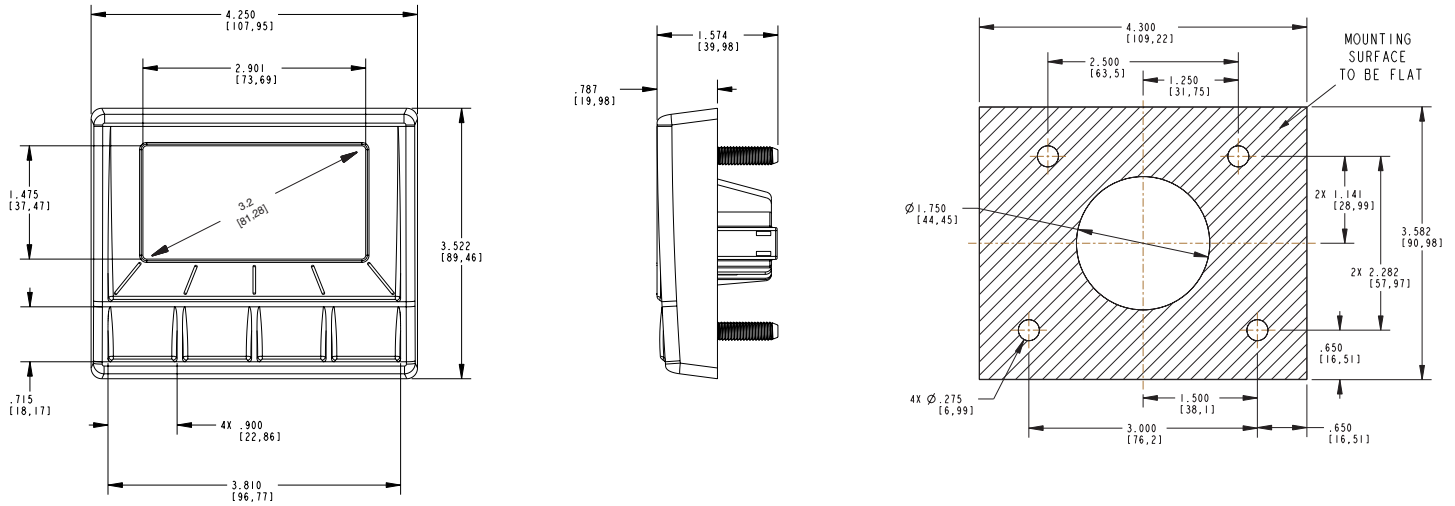
Construction





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**DIMENSIONS**



**ELECTRICAL PERFORMANCE SPECIFICATIONS**

Maximum load	ANSI/SAE EP455 5.1.1	Level 2
Jump start voltage	EP455 5.10.2	36V for 60 minutes; -36V for 60 minutes
Short circuit protection	EP455 5.10.4	36V
Reverse polarity protection	EP455 5.10.3	-36V
Starting profile	ISO 16750-2	Level II code C, Level IV code A
Battery-less operation	ANSI/SAE EP455 5.11.3	Level 2
Load dump	ISO 7637-2 Test Pulse 5b	Us* = 60V
Switching spikes	ISO 7637-2 Test Pulse 3a and 3b	
Wire harness inductance	ISO 7637-2 Test Pulse 2a and 2b	
Wire harness inductance-switching	ISO 7637-3 Test Pulse a and b	
Inductive load pulse	ANSI/SAE EP455 5.11.4	
Mutual coupling	ANSI/SAE EP455 5.11.6	Level 2
Alternator field decay	ANSI/SAE EP455 5.11.2	

**ELECTROMAGNETIC COMPATIBILITY SPECIFICATIONS**

ESD	ANSI/SAE EP455 5.12	Level 1 +/- 25V
Radiated Immunity	EP455 5.16	Level 1
Conducted emissions	SAE J1113-41	Level 4
Radiated emissions	ISO14982	

**MECHANICAL PERFORMANCE**

Vibration, Random	ANSI/SAE EP455 5.15.1	2h each axis @52.4m/s2 RMS overall acceleration and spectral power density of 2m2/s3 from 50Hz to 2000Hz
Vibration, Sinusoidal	ANSI/SAE EP455 5.15.2	A logarithmic sweep from 10Hz to 2000Hz to 10Hz over a period of 20 minutes for 4 hours in each of 3 orthogonal axes with amplitude 1.5mm from 10Hz to 40Hz and a constant acceleration of 35m/s2 RMS from 40Hz to 2KHz
Shock / Crash Safety	ANSI/SAE EP455 5.14	11ms half sine pulse of 490 m/s2 in 3 perpendicular axes
Drop	ANSI/SAE EP455 5.14.2 Level 1	Drop component 400 mm onto a hardwood benchtop on all practical edges.

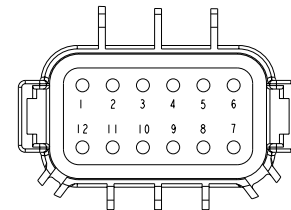
specifications subject to change

PART NUMBER	DESCRIPTION
3D32XK-100	MicroDisplay
3D32HK-100	MicroDisplay with heater

**CONTACT GRAYHILL FOR CUSTOM OPTIONS**



**REAR CONNECTOR**



Pin	Function
1	V in Positive
2	V Return
3	RS-485 +
4	RS-485 -
5	Digital in 1
6	Digital in 2
7	Digital in 3
8	Digital out 1
9	Digital out 2
10	CAN shield
11	CAN HI
12	CAN LOW

Mating Connector: DEUTSCH DT06-12SA

**Grayhill, Inc.**

561 Hillgrove Avenue phone: (708) 354-1040  
LaGrange, Illinois 60525 fax: (708) 354-2820

Bulletin 1144  
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