

CL-630 Jog Dial Rotary Encoder w/ 2 Axis Joystick and push buttons

HED Inc. offers you some of the most robust keypads on the market. Our CL-630 jog dial is no exception, giving you a clean ergonomic interface for displays and other vehicle system with its 5 push buttons and center jog dial that offers a rotary encoder, joystick and pushbutton encoder putting everything right at your fingertips.

Functionality:

- Navigate your displays with the push or turn of a button.
- Customizable functionality based on your system needs.

Features:

- Rotary encoder, with 2 axis switched joystick and entire knob is also a pushbutton
- 5 additional pushbuttons
- J1939 compliant
- Dimmable LED indicators
- Custom Icons
- Sealed to IP67
- Long Life: 500,000 cycles (every action of touch switch and rotary switch)
- 8 to 32 VDC operational range.
- Operating Temperature -40°C to 85°C
- Storage Temperature -40°C to 85°C



Standards/Certifications

EMC

Transient Emissions	Annex D and E, 30MHz to 1GHz	ISO 13766
Conducted Transients	All test pulse in Annex A table A1 for 12V system and Table A2 for 24 V systems	ISO 7637-2
Absorbed-Lined Chamber	Absorbed-lined chamber 100V/M, 10MHz to 2GHz	ISO 11452-2
Bulk Current Injection	100mA, 20MHZ to 400MHZ	ISO 11452-2
ESD	± 15kV air discharges, ± 8kV contact discharges	ISO 10605

Electrical

Over Voltage	36VDC for 60 minutes	ISO 16750-2
Short Circuit Protection	All outputs to ground for 60 seconds	ISO 16750-2
Reverse Polarity Protection	28VDC for 60 seconds	ISO 16750-2
Starting Profile	Class A	ISO 16750-2
Withstand Voltage	500 Vrms with a duration of 60 seconds	ISO 16750-2
Insulation Resistance	500 VDC with a duration of 60 seconds	ISO 16750-2
Superimposed Alternating Voltage	Superimposed alternating voltage: UPP, of 4 VAC	ISO 16750-2 4.4
Slow Decrease and Increase of Supply Voltage	Increase the supply voltage from 0V to Usmin, then decrease it from Usmin to 0V, applying a change rate of 0.5 V/min linear.	ISO 16750-2
Monmentary Drop in Supply Voltage	Apply the test pulse accoding to ISO 16750-2 (figure 4 for 12V system, figure 5 for 24V systems)	ISO 16750-2

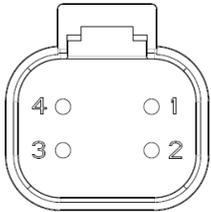
Mechanical

Random Vibration	Test Fh Method 1, random excitation at 10, 150, 220 and 350Hz breakpoint frequencies, 5 hours in each axis.	IEC 60068-2-64
General Vibration	Sweep sine wabe from 5-500Hz, ± 15mm amplitude, 50 20 cycles in each plane.	IEC 60068-2-6
Sinusoidal Vibration	Sinusoidal from 10 to 2000Hz, 5 minutes at resonant point.	IEC 60068-2-6
Shock/Crash Safety	100 shocks in each direction of the 3 axis(600 total) at 400 m/s2 for 6 ms	IEC 60068-2-27
Drop	Test Ec Free Fall—Procedure 1 drop in each direction of the 3 axes (6 total) from 1000mm	IEC 60068-2-31

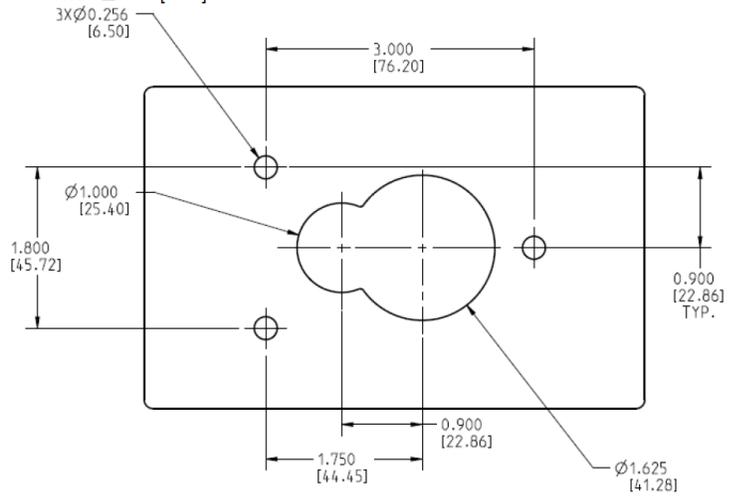
Environmental

Storage Temperature ¹	-40C 4 hours; +85C 4 hours	
Thermal, Hot Soak	Test Bb, +85°C for 96 hours	IEC 60068-2-2
Thermal, Cold Soak	Test Ab, -40°C for 96 hours	IEC 60068-2-1
Thermal Shock	Test Na -40°C to +85°C 10 cycles for 10 hours	IEC 60068-2-14
Solar Radiation ²	1000 hours, test method Cycle 1, 0.51W/m2*nm at 340nm, per cycle	ISO 4982-2
	102 mins light / 18 mins light and spray, BP temp. 65°C, air temp. 38°C, RH 50%	
Salt Spary ²	Test Kb, Severity Level 4	IEC 60068-2-52
Ingress Protection	IP67	ISO 20653
Humidity, soak	Test cab, 30°C at 93% RH for 10 days	IEC 60068-2-78
Humidity, cyclic	Test Db Method 1, 55 to 25 at 90% RH 6 cycles of 24 hours each	IEC 60068-2-30
Chemical Resistance ²	ISO 16750 Method II(Brushing) for engine oil, hydraulic oil, diesel fuel, grease and urea at room temperature for 24 hours.	ISO 16750-5
Thermal Cycling	Test Nb, -40°C to 85°C, dwell: 3 hours; Transfer rate: (3±0.6°C)/min, 2 cycles	IEC 60068-2-14

Mating Connector	
4 Socket, Key A - Deutsch P/N:	DT06-4S
Socket 16-20awg - Deutsch P/N:	0462-201-16141 or equivalent
Seal Plug - Deutsch P/N:	114017
Pinout - (DT06-4S)	
Pin	Function
1	8-32 VDC +
2	Ground DC-
3	CAN-H
4	CAN-L

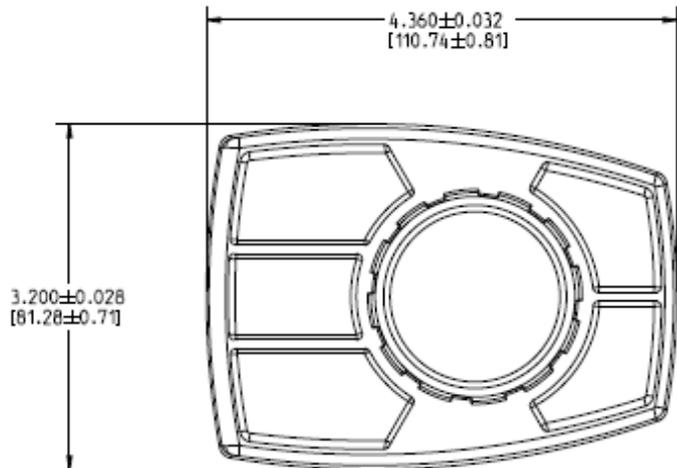
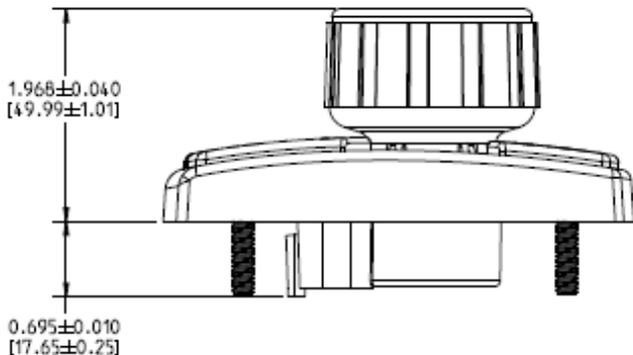
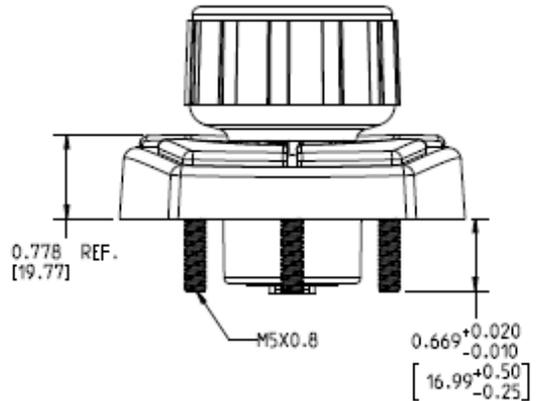
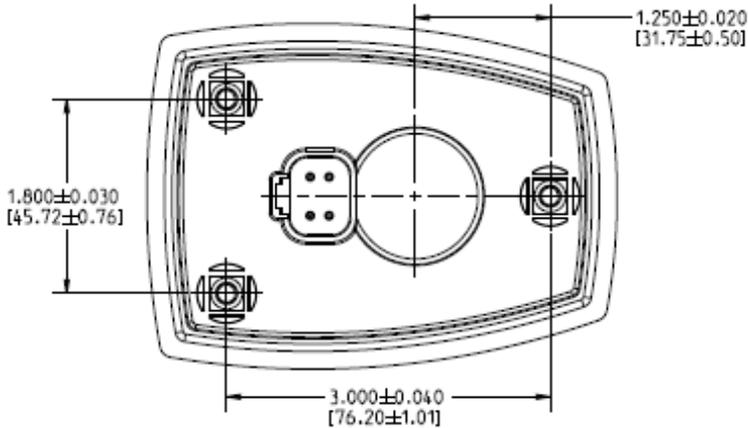


Recommended Panel Cutout Size
Tolerance $\pm .005$ [0.13]



Mounting

Mounting bolts should be torqued between 20 and 25 in-lb. There are 3 x M5 bolts on the under side of the jog dial.





Please contact your HED Sales Representative for additional information.

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