



DSEE050 – eView® Engine Display

Part Numbers: E050-01



Overview

The eView® DSEE050 is a fully configurable colour engine display and controller designed to meet the demands of modern electronic engines and equipment applications. The DSEE050 supports J1939 electronic engines including Tier 4 Final and Stage V engine parameters and supports speed control using TSC 1 messages.

The DSEE050 is an extremely powerful and versatile product suited to a wide number of different application environments. The DSEE050 is fully configurable using the license-free DSE Configuration Suite software, which allows users to create custom configurations, event sequences and user interface screens. Users can also add company branding to the displays start-up screen and select from a light and dark background during configuration.

Key Features

- Fully configurable display colours
- Adjustable display icons
- Digital / analogue I/O mapping to icons
- TSC 1 speed control via push buttons or onboard inputs
- Configurable speed step size & ramp
- Configurable displayed units
- SPN ignore list
- 3.5" 320 x 240 pixel optically bonded TFT display
- 4 configurable multi-functional inputs (digital, current, voltage, resistance)
- 3 digital outputs controlling for external devices, LEDs and audible buzzer
- 82 mm circular panel cutout for simple replacement of traditional gauges
- IP67 rated front and rear
- Integrated panel gasket
- Industry standard Deutsch 18 pin connector
- 120 Ω resistor software switchable
- Auto on / off heated display
- Compatible with Tier 4 Final and Stage V engine parameters
- Displays of DM1 and DM2 diagnostic trouble codes
- Configurable CAN baud rate (125 kbit/s, 250 kbit/s or 500 kbit/s)
- Configurable start-up screen and instrumentation pages
- Dark and light screen themes
- Five backlit soft navigation keys
- Customisable image display (30 screen support)
- Low power / power save mode
- PC configurable using DSE Configuration Suite Software

Product Documentation

057-300 – DSEE050 Operators Manual
053-242 – DSEE050 Installation Instructions
057-299 – DSEE050 Configuration Suite PC Software Manual



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Specifications	
DC Supply	
Continuous Voltage Rating	8 V to 32 V continuous (5 V for up to 1 minute)
Cranking Dropouts	Able to survive 0 V for 100 ms, providing supply was at least 10 V before dropout and supply recovers to 5 V. This is achieved without the need for internal batteries
Maximum Operating Current	300 mA at 12 V, 150 mA at 24 V
Maximum Standby Current	115 mA at 12 V, 65 mA at 24 V
Display	
Measurement	320 x 240 resolution 16 bit colour. Optically bonded.
Brightness	500 cd/m ² (nit)
Inputs	
Quantity	4
Type	Voltage 0 V to 10 V Current 0 mA to 20 mA Resistive 0 Ω to 3k Ω Digital Positive / Negative
Accuracy	1 %
Resolution	0.2 %
Outputs	
Quantity	3
Type	Digital - High side supplied from plant voltage +ve
Current	1 A _{DC} at 85 °C / (185 °F)

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Specifications	
Interfaces / Communications	
CAN	CAN Interfaces 2.0 A/B, ISO11898 125 kbits/s / 250 kbit/s / 500 kbit/s SAE J1939
Temperature	
Operating Temperature	-40 °C to +85 °C / -40 °F to + 185 °F
Storage Temperature	-40 °C to +85 °C / -40 °F to +185 °F
Heated Display Operating Range	Turns on at -25 °C / -13 °F Turns off at -5 °C / 23 °F
Dimensions	
Overall (W x H x D)	112.5 mm x 115 mm x 49 mm / 4.43 " x 4.53 " x 1.93 "
Panel Cut-Out	82 mm (3.23 ") hole is suitable. If a punch or milling machine is available, adding 'flats' at 74 mm (2.91 ") spacing serves to prevent rotation of the device in the panel cut-out.
Weight	1 kg 2.20 lb
Maximum Panel Thickness	6 mm / 0.24 "

Related Products	
Accessories	
DT16 Deutsch Connector A	007-850
E050 / M835 Connector Harness	016-176
E050 / M835 Programming Harness	016-177
USB-CAN Interface (PCAN)	016-179

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Environmental Testing Standards	
CE Marking	
EN 61000-6-2	Electromagnetic compatibility (EMC) noise immunity
EN 61000-6-4	Electromagnetic compatibility (EMC) emission standard
ISO 11452	Electromagnetic Compatibility - Road Vehicles
ISO 7637-3:2016	Road Vehicles - Electrical disturbances from conduction and coupling Part 3: Electrical transient transmission by capacitive and inductive coupling via lines other than supply lines
BS EN 61010-1	Safety requirements for electrical equipment for measurement, control and laboratory use
BS EN 61010:2010	Part 1: General Requirements
BS EN 61010-2-030: 2010	Part 2-030: Particular Requirements for Testing Measuring Circuits
Water and Dust	
BS EN 60529	IP67 / NEMA6
Electrical Tests	
ISO 16750-2: 2012	Road vehicles - Environmental conditions and testing for electrical and electronic equipment Part 2: Electrical loads 4.6.3 Starting profile 4.6.4 Load dump
Mechanical Tests	
EN 60068-2-6	Vibration Resonance Search Freq range: 10 Hz to 2 kHz Acceleration: 10 g
EN 60068-2-64	Vibration Random Freq range: 10 Hz to 350 Hz
EN 60068-2-27	Mechanical Shock: Operational Shock Pulse Shape: Half Sine Amplitude: 50 g Duration: 11 ms Number of Shocks: 3 in each direction of each axis (9 in total of each duration)
EN 60068-2-27	Mechanical Shock Amplitude: 50 g Duration: 6 ms
Temperature	
BS EN 60068-2-1	Ab/Ae Cold Test -40 °C (-40 °F)
BS EN 60068-2-2	Bb/Be Dry Heat +85 °C (185 °F)
Chemical	
ISO 16750-5	Chemical testing for electrical and electronic equipment - Road Vehicles

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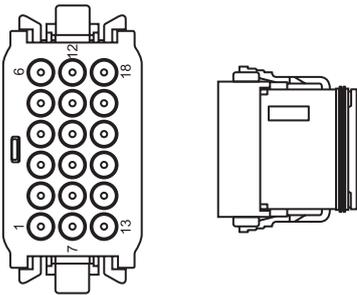


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Connector A	
Pin	Description
1	Ground
2	CAN Screen
3	CAN L In
4	CAN H In
5	Input 4
6	Input 1
7	Battery Positive
8	CAN Screen
9	CAN L Out
10	CAN H Out
11	Ground
12	Input 2
13	Battery Negative / Ground
14	Output 1
15	Output 2
16	Output 3
17	VREF Out
18	Input 3

Connector Diagrams



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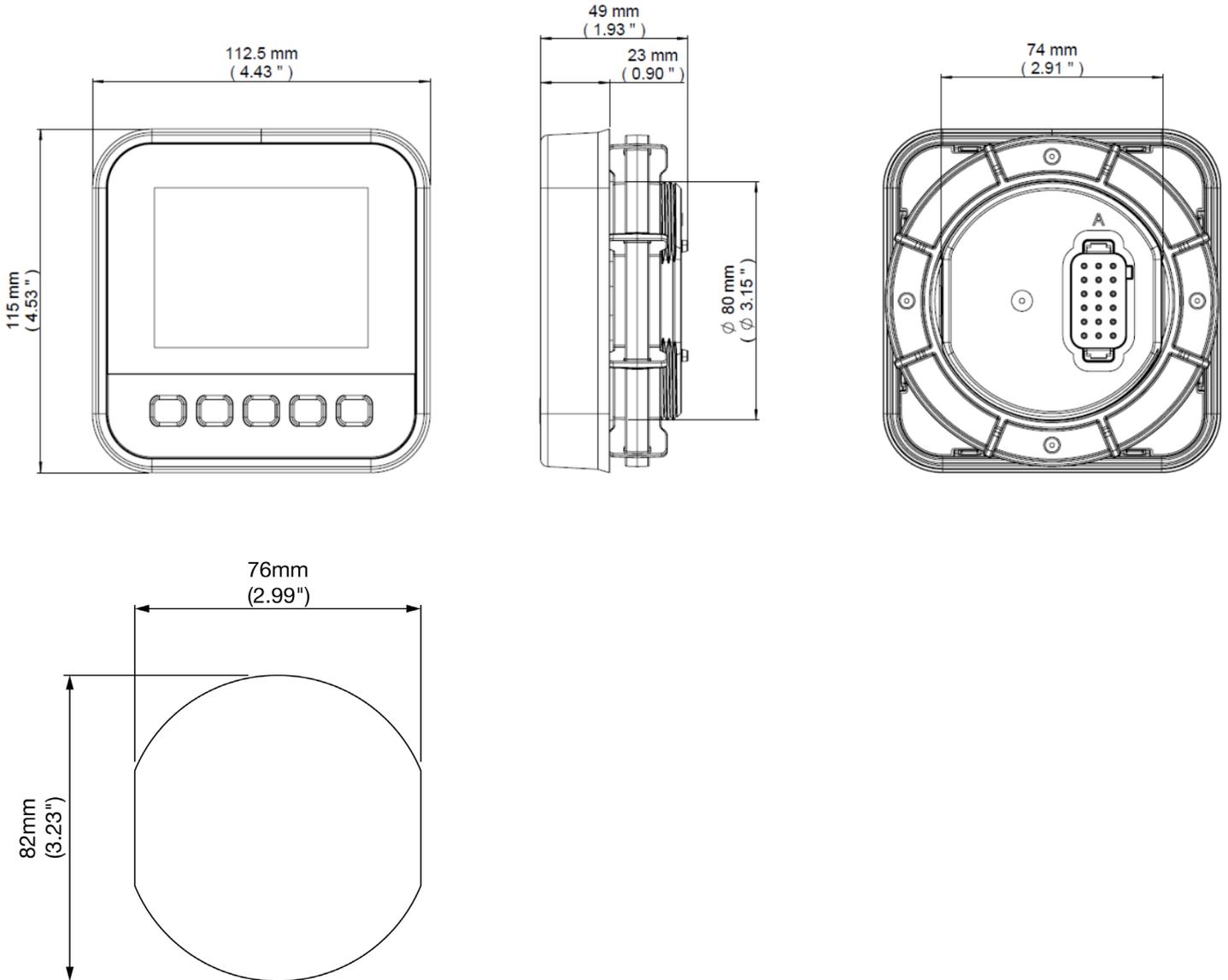
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Technical Drawing



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