









DPS-C Instrument Clusters

Catalog MSG33-5014/US





Application

The DPS-C is a general purpose display for vehicle instrumentation. There is a standard electronic configuration and standard overlay. The end user can customize the DPS-C with a custom overlay and custom application software. By incorporating the new cluster, a wide range of industrial vehicles can be operated more efficiently for greater productivity.

Properties

Features

This versatile instrument cluster supports two CAN communication channels, as well as USB. The DPS-C has 18 digital inputs: 4 are active high with wake-up. There are 4 analog inputs, and 2 frequency inputs. For outputs the DPS-C has 2 high-side and 2 low-side. The outputs provide a maximum current of 2.5 A with pulse width modulation capabilities. Low-side outputs have analog feedback which provides open circuit, short to battery, and ground detection.

Reliability

The DPS-C cluster is ideal for various industrial and off-road vehicle applications, with five backlit gauges, 28 positions for LED status indicators (tell-tales) and a 3.5", transflective color LCD, 320 x 240 pixel screen. The robust enclosure is designed to be used in rugged environments, and has been tested to a suitable mix of standards based on the J1455, ISO, and EP455 environmental specifications. The connectors are rugged, environmentally sealed, Molex MX150 type.

General Weight

Temperature range
- Operating, ambient
- Storage, ambient
- Yoltage supply

- 20 to +60°C
- 40 to +85°C
- IP69 (front), IP65 (rear)
- 32 Vdc

1.2 kg

1 mA (12V), 2 mA (24V)

Current (standby) Communication

CAN (SAE J1939) 2 USB, B-port 1 (via separate cable)

Outputs

Digital out high-side 2
- Type high-side switch
- Max load 2.5 A
- Max PWM frequency 200 Hz
Digital out low-side 2
- Type low-side switch

- Max load 2.5 A - Max PWM frequency 200 Hz

Inputs

Voltage inputs

- Signal range

- Absolute error

Frequency inputs

- Signal range

Digital inputs

- Signal high

- Signal low

0 - 5 Vdc

2%

5 - 6500 Hz

18

2.43 Vdc - V_{BAT}

0 - 0.80 Vdc

Ordering part numbers

DPS-C 0971001ECD



Technical data

Environmental protection

EMI

J1455 Section 4.13.1, Over-voltage J1455 Section 4.13.1, Reverse polarity J1455 Section 4.13.1, Short circuit ISO7637 Section 5.6.x, EP455 Section 5.11.x, Transients EP455, ISO, J1113-41, EMC emissions EP455, ISO, J1113-41, EMC susceptibility

ESD

EP455 Section 5.12, ESD (surface) EP455 Section 5.12, ESD (connectors)

Chemical environment

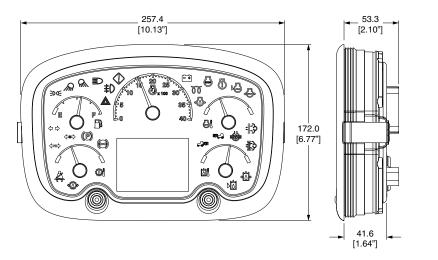
MIL_STD 202G M101E-B, Salt spray

Mechanical environment

BS EN7691 Section 6.6.1, Random vibration EP455 Section 5.14.2.2, Drop test

Climate environment

IEC 60529 Section 14.2.6, Water IP65 (rear only) IEC 60529 Section 13.6.8, Water IP69 (front only) IEC 68-2-2 Section 2, High temperature IEC 68-2-1 Section 2, Low temperature EP455 Section 5.1.1, Temperature cycle J1455 Section 4.1.3.2, Temperature shock EP455 Section 5.13.2, Humidity soak EP455 Section 5.13.1, Humidity cycle



units=mm [inch]



WARNING - USER RESPONSIBILITY

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This product can expose you to chemicals including VINYL CHLORIDE which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov



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