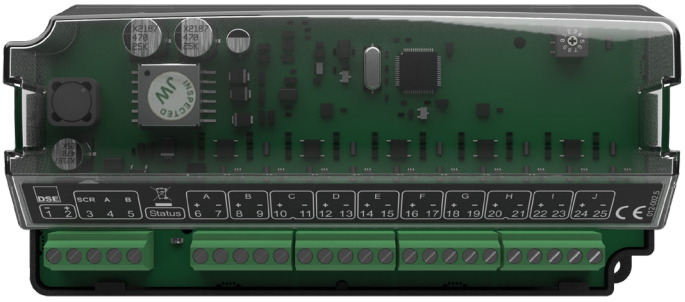
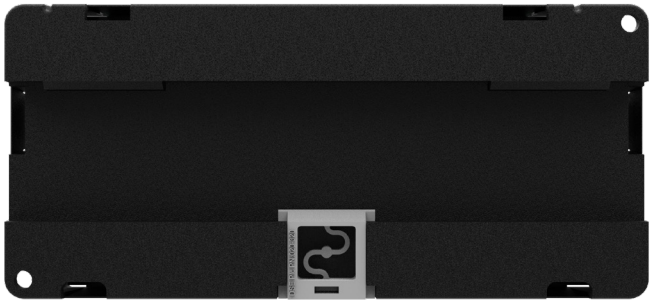
# DSE**2131** DSE**Net**® Ratiometric Input Expansion Module

**Part Number:** 2131-01





**Overview**

The DSE**2131** DSE**Net**® Ratiometric Input Expansion module is used in conjunction with supported DSE**Net**® modules. The DSE**2131** extends the host modules input capabilities for increased application flexibility. This is achieved by providing an additional 10 ratiometric inputs which configured as digital, resistive, 0 V to 10 V or 4 mA to 20 mA.

For enhanced communication with the host module, the DSE**2131** features DSE**Net**® for compatible devices. A red status LED is provided to easily identify when the DSE**2131** is connected to a power source and communicating with the host controller. The DSE**2131** is designed to be mounted within a control panel, either on the panel DIN rail utilising the integral mounts, or chassis mounted utilising the mounting holes.

**Key Features**

- 10 ratiometric inputs (configurable as digital, resistive, 0 V to 10 V or 4 mA to 20 mA)
- Status LED to Indicate Power On and Link Lost LED
- DSE**Net**® Communication

**Product Approvals**
+ CE
+ UL Listed: Standard - UL 6200:2019

**Product Documentation**
053-125 – DSE**2131** Installation Instructions
057-139 – DSE**2131** Operator Manual

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VAT No.316923457

# DSE**2131** DSE**Net**® Ratiometric Input Expansion Module

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| Specifications | |
|---|---|
| **DC Supply** | |
| **Continuous Voltage Rating** | 8 V to 35 V DC continuous |
| **Cranking Dropouts** | Able to survive 0 V for 50 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. LEDs are not maintained during cranking. |
| **Maximum Operating Current** | 166 mA at 12 V, 80 mA at 24 V |
| **Maximum Standby Current** | 87 mA at 12 V, 47 mA at 24 V |
| **Ratiometric Inputs** | |
| **Number** | 10 |
| **Configurable as** | Negative Switching Digital Input, Resistive, Voltage or Current Input |
| **Digital Input Closed Voltage Threshold** | Less than 2.1 V |
| **Digital Input Open Voltage Threshold** | Greater than 6.6 V |
| **Voltage Measurement Range** | 0 V to 10 V |
| **Current Measurement Range** | 0 mA to 20 mA |
| **Measurement Range** | 0 Ω to 3000 Ω |
| **Analogue Input Resolution** | 1% of Full Scale |
| **Analogue Input Accuracy** | ±2% |
| **Communications** | |
| **DSENet®** | Fully isolated |
| **Temperature** | |
| **Operating Temperature** | -30 °C to +70 °C / -22 °F to +158 °F |
| **Storage Temperature** | -40 °C to +85 °C / -40 °F to +185 °F |
| **Dimensions** | |
| **Overall (W x H x D)** | 164.6 mm x 76.4 mm x 48.9 mm / 6.48 ” x 3.01 ” x 1.93 ” |
| **Mounting** | |
| **DIN Rail** | 35 mm / 1.35” |
| **Chassis** | 2 M4 mounting holes with 152.37 mm x 64.50 mm / 6.00 ” x 2.54 ” centres |

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| Related Products | | |
|---|---|---|
| **DSEGenset®** | | |
| **DSEG8900** | 7” Colour Parallel Genset Controller | G8900-01 |
| **DSEG8680** | Bus Tie Controller | G8680-01 |
| **DSEG8660** | Mains (Utility) Controller | G8660-01 |
| **DSEG8600** | Parallel Genset Controller with Integral Heater | G8600-01 |
| **DSEG7400** | Advanced Single Genset Controller | G7400-01 |
| **DSEG7300** | Advanced Single Genset Controller | G7300-01 |
| **DSE8660 MKII** | Auto Transfer Switch & Mains (Utility) Control Module | 8660-02 |
| **DSE8620 MKII** | Synchronising Auto Mains (Utility) Failure Load Share Control Module | 8620-02 |
| **DSE8610 MKII** | Synchronising & Load Sharing Auto Start Control Module | 8610-02 |
| **DSE7410 MKII** | Auto Start Control Module | 7410-03 |
| **DSE7310 MKII** | Auto Start Control Module | 7310-03 |
| **DSE6120 MKIII** | Auto Mains (Utility) Failure Control Module | 6120-05 |
| **DSE6110 MKIII** | Auto Start Control Module | 6110-05 |
| **DSEControl®** | | |
| **DSEE800** | Engine Only Control Module | E800-01 |
| **DSENet®** | | |
| **DSE2548** | DSENet® LED Output Expansion Module | 2548-01 |
| **DSE2170** | DSENet® RTD/Thermocouple/Analogue Output Expansion Module | 2170-01 |
| **DSE2160** | DSENet® Input / Output Expansion Module | 2160-01 |
| **DSE2157** | DSENet® Output Expansion Module | 2157-01 |
| **DSE2152** | DSENet® Analogue Output Expansion Module | 2152-01 |
| **DSE2133** | DSENet® RTD/Thermocouple Input Expansion Module | 2133-01 |
| **DSE2130** | DSENet® Input Expansion Module | 2130-00 |

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| **Environmental Testing Standards** | |
|---|---|
| **Electro-Magnetic Compatibility** | |
| **BS EN 61000-6-2** | EMC Generic Immunity Standard for the Industrial Environment |
| **BS EN 61000-6-4** | EMC Generic Emission Standard for the Industrial Environment |
| **Electrical Safety** | |
| **BS EN 61010** | Safety of Information Technology Equipment, including Electrical Business Equipment |
| **Temperature** | |
| **BS EN 60068-2-1** | Ab/Ae Cold Test -30 ºC |
| **BS EN 60068-2-2** | Bb/Be Dry Heat +70 ºC |
| **Vibration** | |
| **BS EN 60068-2-6** | Ten sweeps in each of three major axes<br>5 Hz to 8 Hz at ±7.5 mm,<br>8 Hz to 500 Hz at 2 Gn |
| **Humidity** | |
| **BS EN 60068-2-30** | Db Damp Heat Cyclic 20/55 ºC at 95% Relative Humidity 48 Hours |
| **BS EN 60068-2-78** | Cab Damp Heat Static 40 ºC at 93% Relative Humidity 48 Hours |
| **Shock** | |
| **BS EN 60068-2-27** | Three shocks in each of three major axes<br>15 Gn in 11 ms |
| **Degrees of Protection Provided by Enclosures** | |
| **BS EN 60529** | IP21 |

| **Pin Out Description** | |
|---|---|
| **Pin** | **Description** |
| 1 to 2 | DC Supply |
| 3 to 5 | DSE**Net**® |
| 6 to 25 | Ratiometric Inputs |

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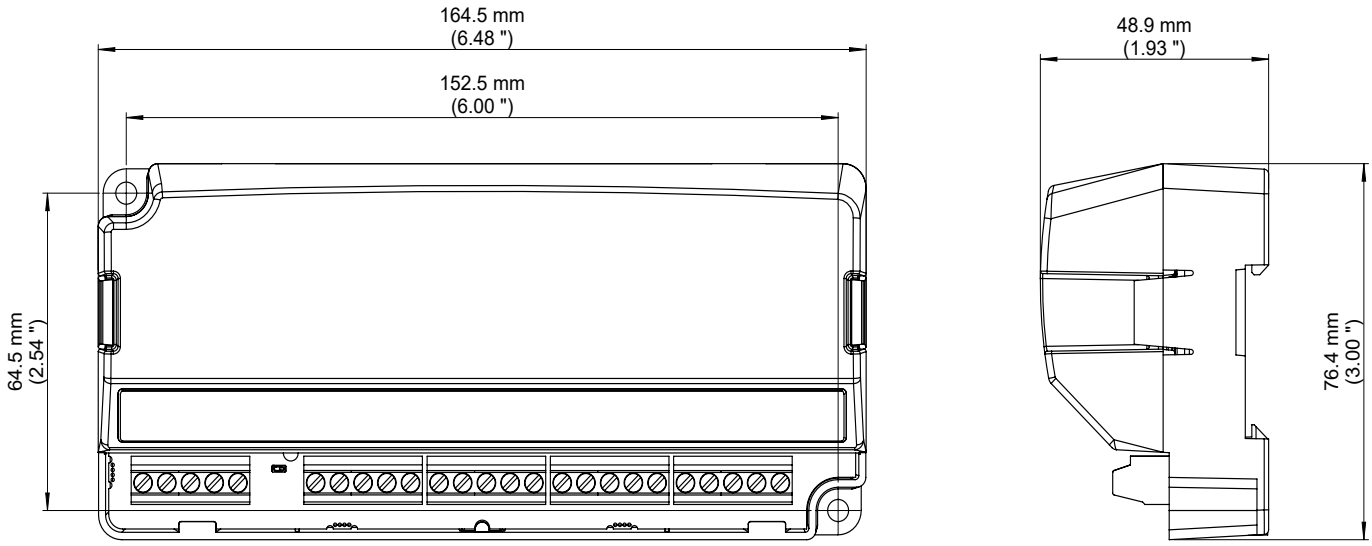
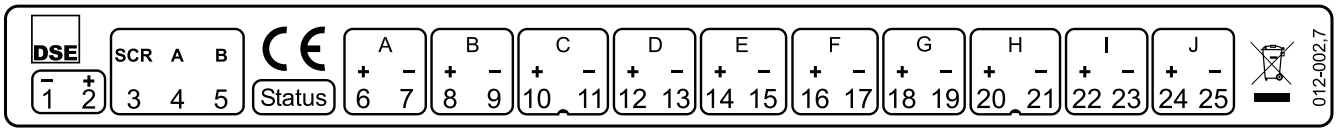
**Technical Drawing**




**Connection Label**

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