

Product Highlights

- This DCS Series Controller provides Lighting Control Flexibility in a slim 112 mm x 124 mm x 23 mm package.
- Seamless switching from continuous-on to gated on/off and strobe overdrive; 3 independently configurable trigger inputs.
- 1 output, 3 channels - designed to drive multi-channel RGB / segment lights, as well as single higher current draw lights.



General Specifications

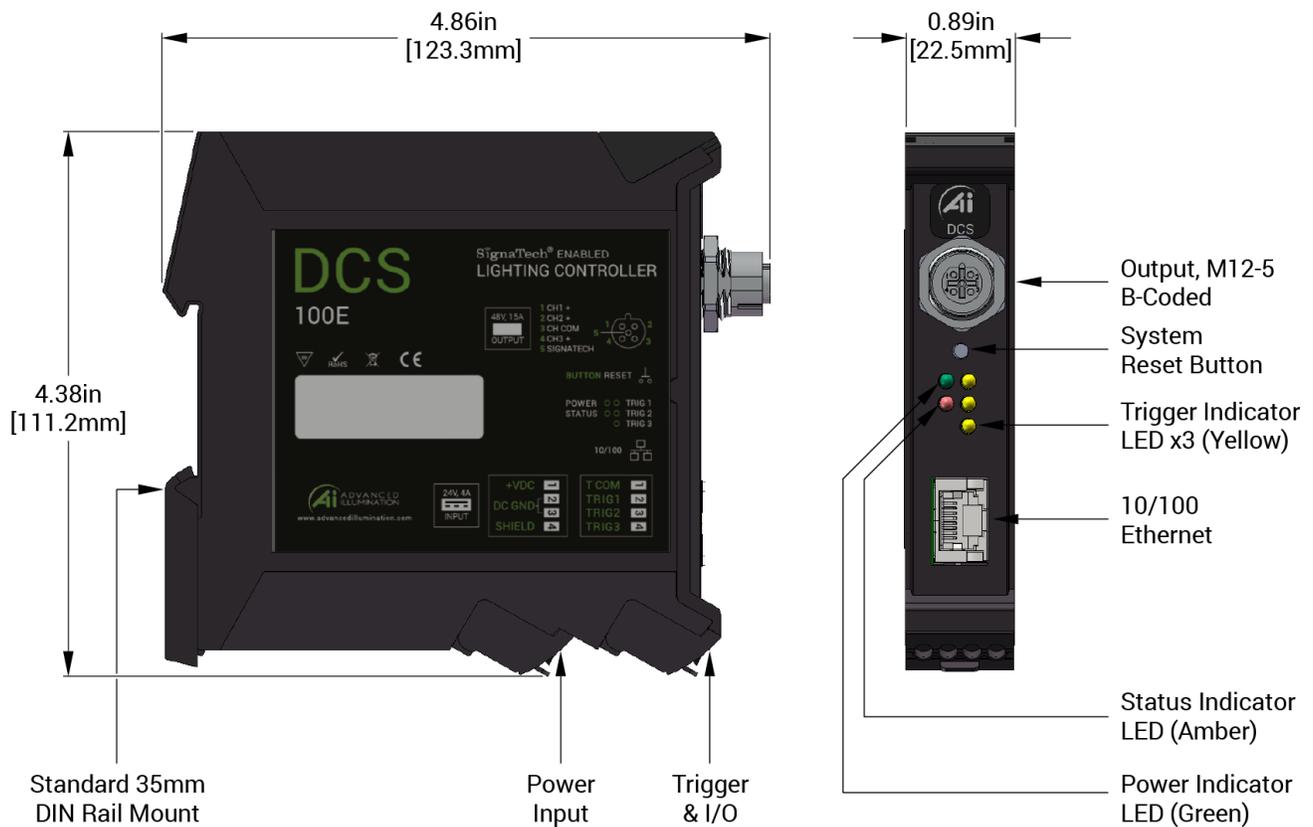
| | |
|--------------------------|--------------------------------------|
| Input Voltage Range | 24V nom. (min 12 / max 30) |
| Maximum Input Current | 4.5A |
| Output Power | 30W per Channel |
| Modes | Pulsed, Continuous, Gated Continuous |
| Trigger to Pulse Latency | 10 µsec |
| Trigger | 5-30VDC, 2KHz, Opto-Isolated Inputs |
| Pulse Width Range | 10 µsec - 65 msec |
| Programmable Pulse Delay | 1 µsec - 10 msec |
| Duty Cycle | 10% pulsed / >10% Gated Continuous |
| Operating Temperature | -25°C to 57°C |
| Weight | 192g (6.77oz) |
| Compliance | CE, RoHS, IEC 62471 |

Part Number Key

| Model | — | Controller | Connection Type |
|-------|---|------------|-----------------|
| DCS | — | XXX | X |
| DCS | — | 100 | E |

Example light part number for DCS lighting controller: **AL295-150WHIC1**

Mechanical Specs

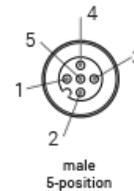


The DCS-100E controller is only compatible with lights employing a "C1" connector.

Cable Specifications:

- B-Coded
- PVC Jacket
- Foil Shield + Drain Wire
- 5.7mm (0.225") outer diameter

Optional M12 Pinout



Electrical Specs

Standard Wiring Information

| Pin | Channel | Wire Color | Type |
|----------------|---------------|------------|-------|
| 1 | Channel 1 (+) | Brown | Power |
| 2 | Channel 2 (+) | White | Input |
| 3 | Channel (-) | Blue | Power |
| 4 | Channel 3 (+) | Black | Input |
| 5 ¹ | SignaTech® | Gray | Input |

¹ Do NOT connect anything to pin 5 – damage to internal electronics may occur if pin 5 is used for anything other than SignaTech® protection.

- Trigger Inputs are bi-directional opto-isolated.
- Common may be tied to +V or GROUND depending on whether sinking or sourcing is to be used.
- All inputs are TTL-compliant, and are rated to +30VDC.
- Inputs are clamped and protected against overvoltage.

Power Input

| Pin | Function | Notes |
|-----|----------|---|
| 1 | 24V DC | 4.5A recommended minimum for best performance |
| 2 | DC GND | |
| 3 | DC GND | |
| 4 | SHIELD | Optional: Tied to chassis copper for ESD/EMI protection. Tie to earth ground if needed. |

External Trigger Input

| Pin | Function | Notes |
|-----|-----------|---|
| 1 | COMMON | Connect to common ground of supply voltage based on sinking/sourcing requirements. All triggers share common. |
| 2 | TRIGGER 1 | 5-30VDC tolerant |
| 3 | TRIGGER 2 | -- |
| 4 | TRIGGER 3 | -- |

Change Notice

PCN No: 154

Date Issued: 09/19/18

Notice Type: Product Revision Change

Product Type: DCS-100E & DCS-103E

Change Notification Summary

In an effort to improve our products, Advanced illumination (Ai) will update the wire connection layout and PCBs on the DCS-100E and DCS-103E controllers. Customers may still buy the current revision of these models until March 4th of 2019. After that time, orders for these products will be converted to their respective DCS-100E and DCS-103E REV A versions.

This revision change will simplify the connector layout by relocating the input power terminal from the top of the controller to the former reserved position at its base, allowing for both trigger and power to be oriented on one side of the controller. The top connection terminal will be removed as a result.

Additionally, the voltage regulators on the controller PCB have been upgraded to improve brightness stability at slow strobing frequencies; this upgrade should have no effect on any other controller functionality.

Please contact your Ai Sales Representative if you have any questions.

PCN 254 DCS-100E & DCS-103E

Warranty Information

Every Advanced illumination, Inc. (Ai) product is thoroughly inspected and tested before leaving the factory. Products are warranted to be free of defects in workmanship and materials for a period of FIVE YEARS from the original date of purchase. Should a defect develop during this period, customers may return the complete product, freight prepaid, to one of Ai's distributors or to the Ai factory. All product warranty returns require a Return Merchandise Authorization (RMA) number which is obtained from Customer Service. The RMA number must be clearly marked on the outside of the package. Ai will inspect the unit, and if a defect is found will, at our option, repair or replace the product without charge. Ai disclaims liability for any implied warranties, including implied warranties of "merchantability" and "fitness for a specific purpose." For products under warranty that have since been discontinued, Ai will make an effort to replace with equivalent parts; for circumstances that do not allow for equivalent replacement, Ai reserves the right to repair or replace these products with an updated version. Ai cannot be held responsible for the unauthorized or inappropriate use of its products. Any unauthorized repair or modifications will result in a voided warranty.

No Liability for Consequential Damages: In no event shall Ai be liable for any consequential, special, incidental, or indirect damages of any kind arising from the sale or use of the products.

Electromagnetic Compatibility

This product was tested and complies with the regulatory requirements and limits for electromagnetic compatibility (EMC) as stated in the product specifications. These requirements and limits are designed to provide reasonable protection against harmful interference only when the product is operated in its intended industrial electromagnetic environment. To minimize the potential for electromagnetic interference or unacceptable performance degradation, install and use this product in strict accordance with the instructions in the product documentation.

Customer Service

For information on existing orders, or to make an order adjustment, contact us Monday through Friday 8:00 am to 5:00 pm ET or send an email to orders@advancedillumination.com.

Company Information

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