

DDFCUC

Fan Coil Unit Controller



Specification Sheet

Controllers > HVAC Controllers



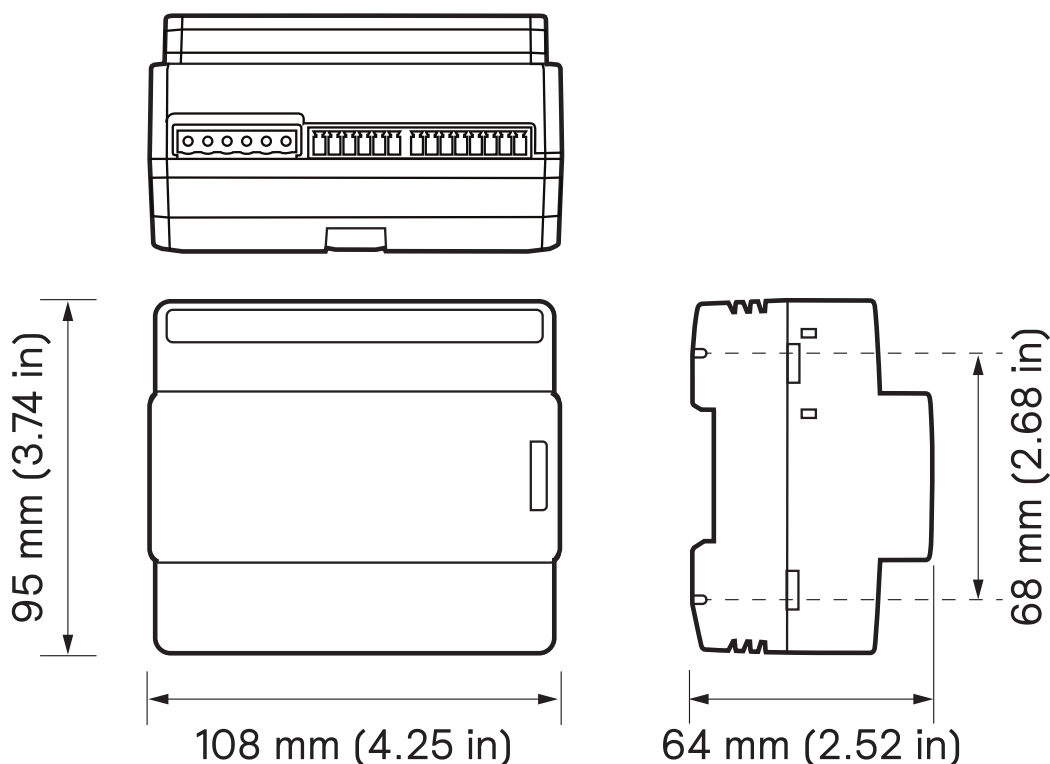
Direct control of air conditioning

The Dynalite DDFCUC is a fan coil unit controller designed for direct connection to components commonly found in heating, ventilation, and air conditioning (HVAC) systems with fan coil units (FCUs).

Key Features

- **0-10 V and TRIAC (0-24 V) valve outputs** – Provided for control of hot and cold water valves.
- **0-10 V fan output** – Silent, accurate speed signal control of compatible fans.
- **1- to 3-speed fan output** – Switched control of LOW/MED/HIGH fan settings.
- **GPR (General Purpose Relay)** – Provided for use with electrical heaters or power outlet switching via an external contactor.
- **Suitable for non-seasonal two-pipe systems** – Refer to the easy-to-follow DDFCUC Installation Instructions and online commissioning guide for more information.
- **Configurable inputs** – For use with peripheral devices including smoke detector, motion detector, window open/close sensor, airflow detector, drip tray overflow, dirty air filter, and hot water on cold valve. Supports 0-10 V, dry contact, and 20 k Ω NTC sources.
- **0-10 V valve position feedback** – With compatible valves, INPUT1 and INPUT2 can capture position feedback for control outputs VALVE1 and VALVE2 respectively.
- **Resistive or networked temperature sensors** – Respond to data from a local temperature sensor, or networked temperature sensor such as an Antumbra or Revolution user interface.
- **Networkable** – Can be networked with other Dynalite equipment via the onboard RS-485 DyNet port.

Dimensions



Specifications

Electrical	
Supply Type	Single-phase
Supply Voltage	100-240 VAC
Supply Current	0.25 A
DyNet DC Output Voltage	12 VDC
DyNet DC Output Current	200 mA SELV/CLASS 2 (UL)
0-10 V Outputs	2 x valve control 1 x analog fan control
0-24 V Valve Outputs	2 x dual-TRIAC (Open, Close)
Fan Control Output	Three-way selectable relay (High, Medium, Low)
GPR Output	1 x switched relay
IEC Overvoltage Category	III

Control	
Communication Ports	1 x RS-485
Supported Protocols	DyNet
Configurable Inputs	4 (0-10 V / Dry contact / 20 kΩ NTC temperature sensor) (Networked temperature sensors also supported)
0-10 V Output Resolution	± 0.01 V
User Controls	1 x service switch
Indicators	1 x service LED

Physical	
Dimensions	95 x 108 x 64 mm (3.74 x 4.25 x 2.52 in)
Packed Weight	0.29 kg (0.64 lb)
Construction	Polycarbonate DIN rail enclosure (6 unit)
Serial Ports	1 x 6-way pluggable screw terminal
Serial Port Conductor Size	0.3-2.5 mm² (#22-12 AWG)
Fan Control Terminals	4 x screw terminal
GPR Output Terminals	2 x screw terminal
TRIAC Output Terminals	5 x screw terminal
Fan/GPR/Valve Terminal Conductor Size	0.2-5 mm² (#24-10 AWG)
0-10 V Output Terminals	1 x 6-way pluggable screw terminal
Configurable Input Terminals	1 x 8-way pluggable screw terminal
0-10 V/Input Terminal Conductor Size	0.2-1.5 mm² (#24-16 AWG)
Supply Terminals	3 x screw terminal
Supply Terminal Conductor Size	0.2-5 mm² (#24-10 AWG)
Maximum Dry Contact Cable Length	20 m

Environment	
Operating Temperature	0° to 50°C ambient (32° to 122°F)
Storage/Transport Temperature	-25° to 70°C ambient (-13° to 158°F)
Relative Humidity	≤90% non-condensing
IEC Pollution Degree	II
Installation Note	For indoor installation only

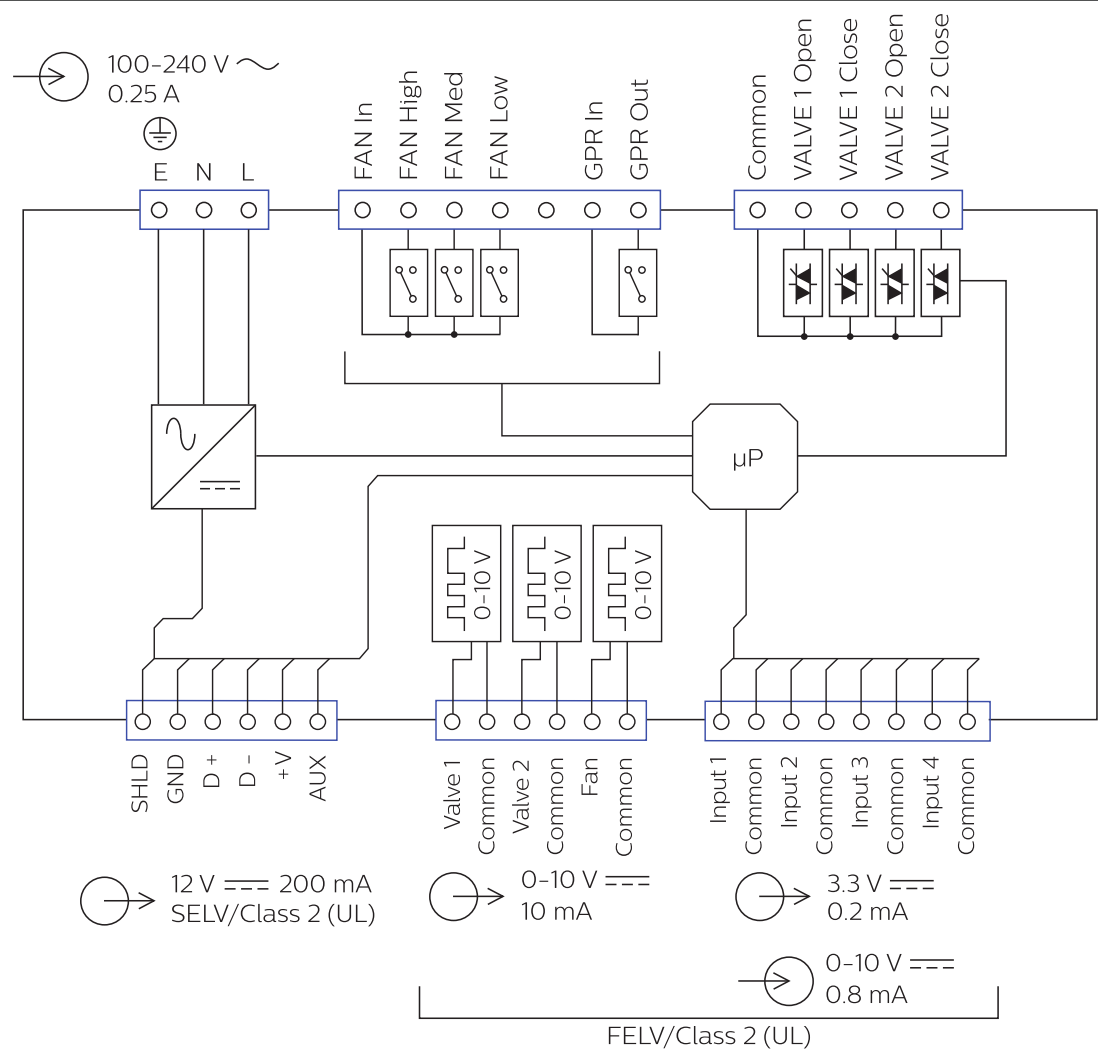
Compliance	
Certifications	CE, RCM, UL/cUL, FCC, ISED, UKCA, RoHS



Output Channel Ratings

Load Type	Fan
Resistive	10 A, 240 VAC
Motor	9.8 FLA (½HP) 120 VAC 8 FLA (1 HP) 240 VAC
Pilot Duty	A300
Load Type	GPR - Can be used for SELV/Class 2 (UL)
Resistive	1 A, 240 VAC 1 A, 30 VDC
Pilot Duty	C300 R300
Load Type	Valves - FELV/Class 2 (UL)
Valve Control	0.25 A, 24 VAC
Load Type	0-10 V Outputs - FELV/Class 2 (UL)
Valve Control	10 mA, 0-10 VDC
Fan Control	10 mA, 0-10 VDC

Electrical Drawing



Ordering Codes

Product	12NC
DDFCUC	913703367009

Policies and Notices

Specific Data Notice

This Specific Data Notice applies to the Fan Coil Unit Controller as specified in this product specification sheet (the "**Controller**") that is part of or works with a Professional System offered by Signify for use in the European Union and supplements and/or corrects the Generic Data Notice For Professional Systems and Services that can be found at <https://www.signify.com/global/resources/policies-announcements> (the "**Generic Data Notice**") by providing additional and/or more specific details specific to this Controller.

Terms starting with a capital in this Specific Data Notice will have the meaning as attributed thereto in the Generic Data Notice, unless explicitly defined otherwise in this document.

When used in a Signify professional lighting system in combination with a Dynalite Gateway with either the Dynalite Switch App, Dynalite System Builder, Dynalite System Manager, or Dynalite Cloud, the Controller can generate the Data as specified below:

- Operational Data: Lighting or room control commands based on the events or control logic configured in this product

The type and volume and format of Data that is generated depends on the actual devices connected, the product and/or software configuration. For further details on data generation capabilities of such devices, please check the product specification sheets of such devices.

The Data generated in this combination is communicated via the network to the gateway and is stored on the gateway. If configured to do so, the gateway can forward the Data to Dynalite Cloud or to Dynalite System Manager. For applicable retention period and means of access to Data that is Readily Available Data, please refer to the Dynalite Cloud software specification sheet. Data can be accessed from the Gateway using Dynalite System Builder or directly from any of the APIs of the Gateway. The Gateway will persist the Data for 28 days on a rolling basis.

This Specific Data Notice may be changed by Signify from time to time. The current version of this notice will apply and can be obtained at request via the point of contact as indicated in paragraph 7 of the Generic Data Notice.