

Superheat panel-mounting controller with management of PWM electronic expansion valve

IP65 enclosure, display, power supply 230 VAC, 3 relays, 1 electronic expansion valve output (triac) 24-240 VAC, 5 PT 1000 inputs, 1 0-10 V input, 2 digital inputs, bus interface, clock, plug-in terminals. Compatible with all major pulse width modulated electronic expansion valves on the market (e.g. Danfoss AKV).



The DC24EE controller has very compact dimensions, which makes it easy to install directly in the cabinet.

The DC24EE module is a universal controller that performs measurement, monitoring and control functions for the following applications:

- control of cooling cabinets or cold rooms (MT and LT refrigeration) with superheat control using electronic expansion valves,
- compressor control,
- condenser management,
- humidity control,
- management of air conditioning and lighting zones,
- input-output mode.

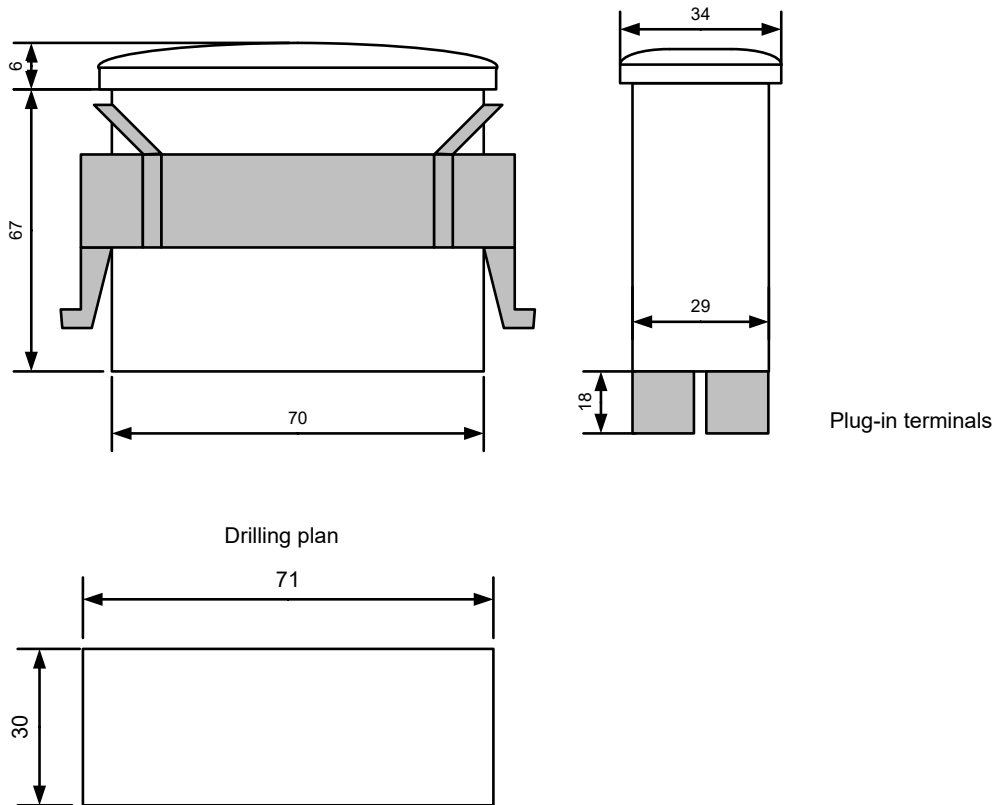
The module can be mounted in the front of a cabinet or integrated in a display case.

The DC24EE module can be programmed using the Teleswin supervision software or directly via the buttons on the front panel. The integrated display shows the values measured by the connected sensors and is used for programming the parameters.

APPLICATIONS

Medium temperature refrigerated cabinets	yes
Low temperature refrigerated cabinets	yes
Management of compressors	yes (up to 3 compressors, with a pressure sensor 0-10V)
Hygrometry	yes
Programmable inputs-outputs	yes
Concentration of gazes	no
Air-conditioning - cooling/heating	yes
Management of lighting areas	yes

DIMENSIONS



FEATURES

Inputs

PT 1000	5 (also compatible with the probes: NTC 10K/25°C, L.243, KTY81)
0-10 V	yes
4-20 mA	no
Digital	2

Outputs

Relays	3
TRIAC (24-230 VAC)	1
Analogue	no

Others

White display	yes
Power supply	230 VAC
Remote monitoring bus interface	yes
Clock	yes
Electronic expansion valve	yes
Local bus for extensions	no

TECHNICAL DATA

Power supply

Supply voltage 110-250 VAC, 50-60 Hz

Maximum input power 3 W

Protection rating 1

Contamination rating 2

Overvoltage category II

Conditions of use

Temperature 0-40° C

Humidity 0-80% (without condensation)

Breaking capacity of relays outputs inductive load 3 A 250 VAC, resistive load 8 A 250 VAC

Breaking capacity of triacs outputs Inductive load 1 A 250 VAC, resistive load 1 A 250 VAC

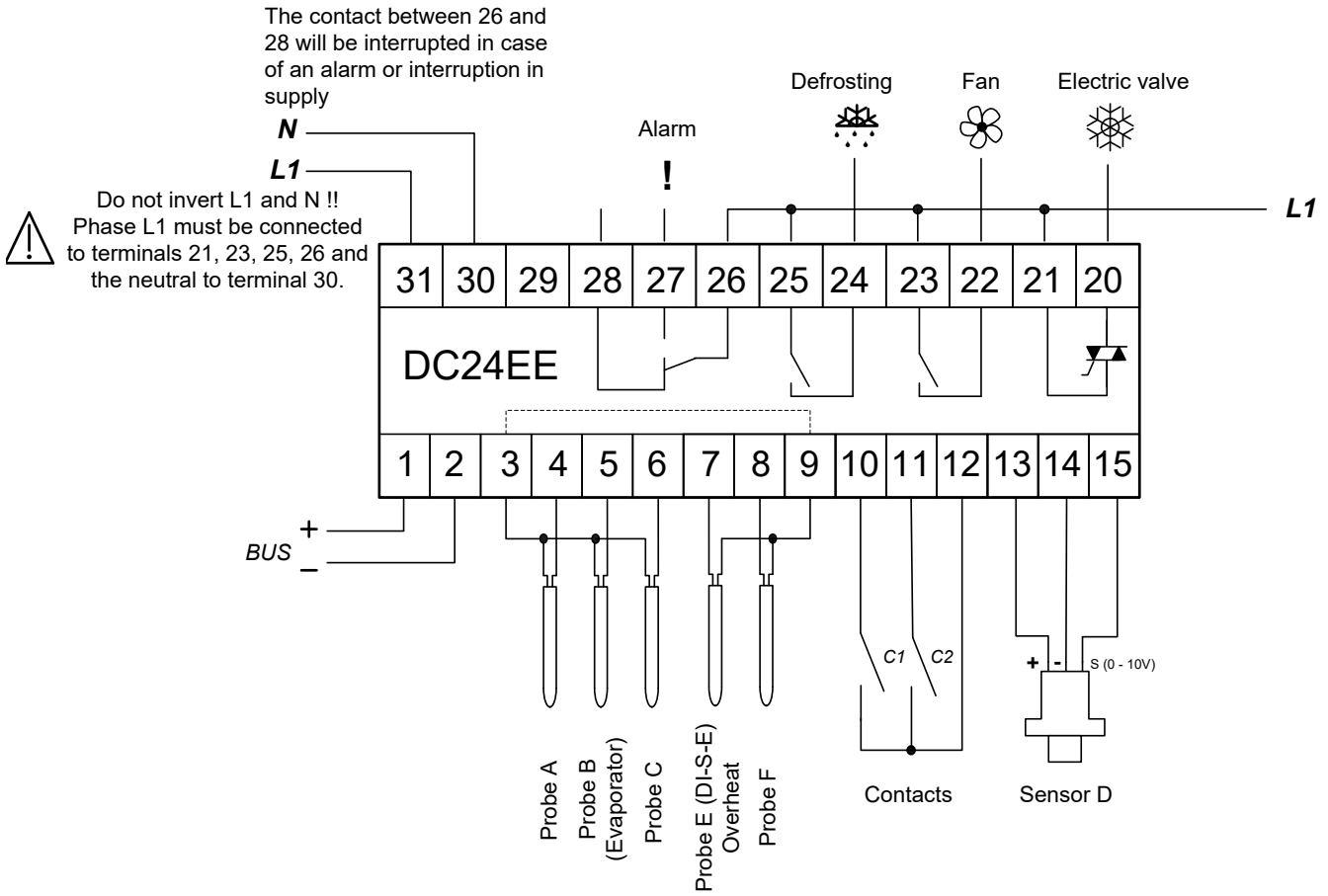
Minimal current of triac output 11 mA

Clock – reserve operating margin 4 days

Input 0-10 V Range of measurement: 0-10 V

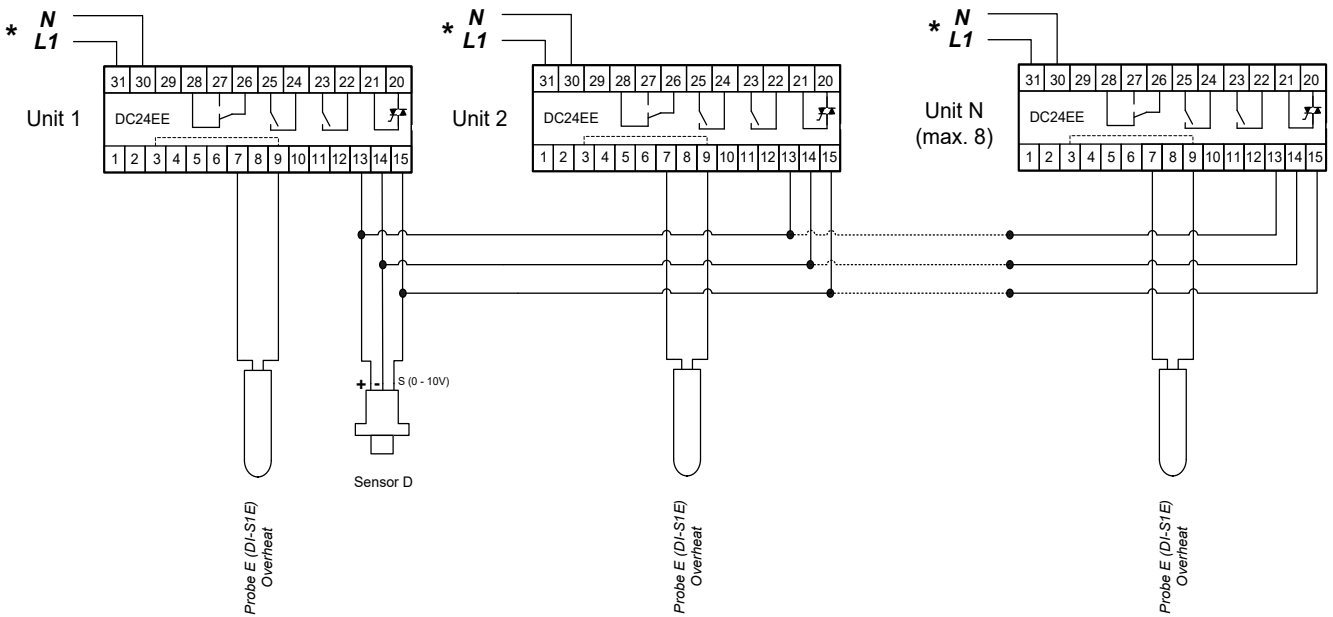
ASSEMBLY DIAGRAMS

DC24EE in in refrigerated unit control mode



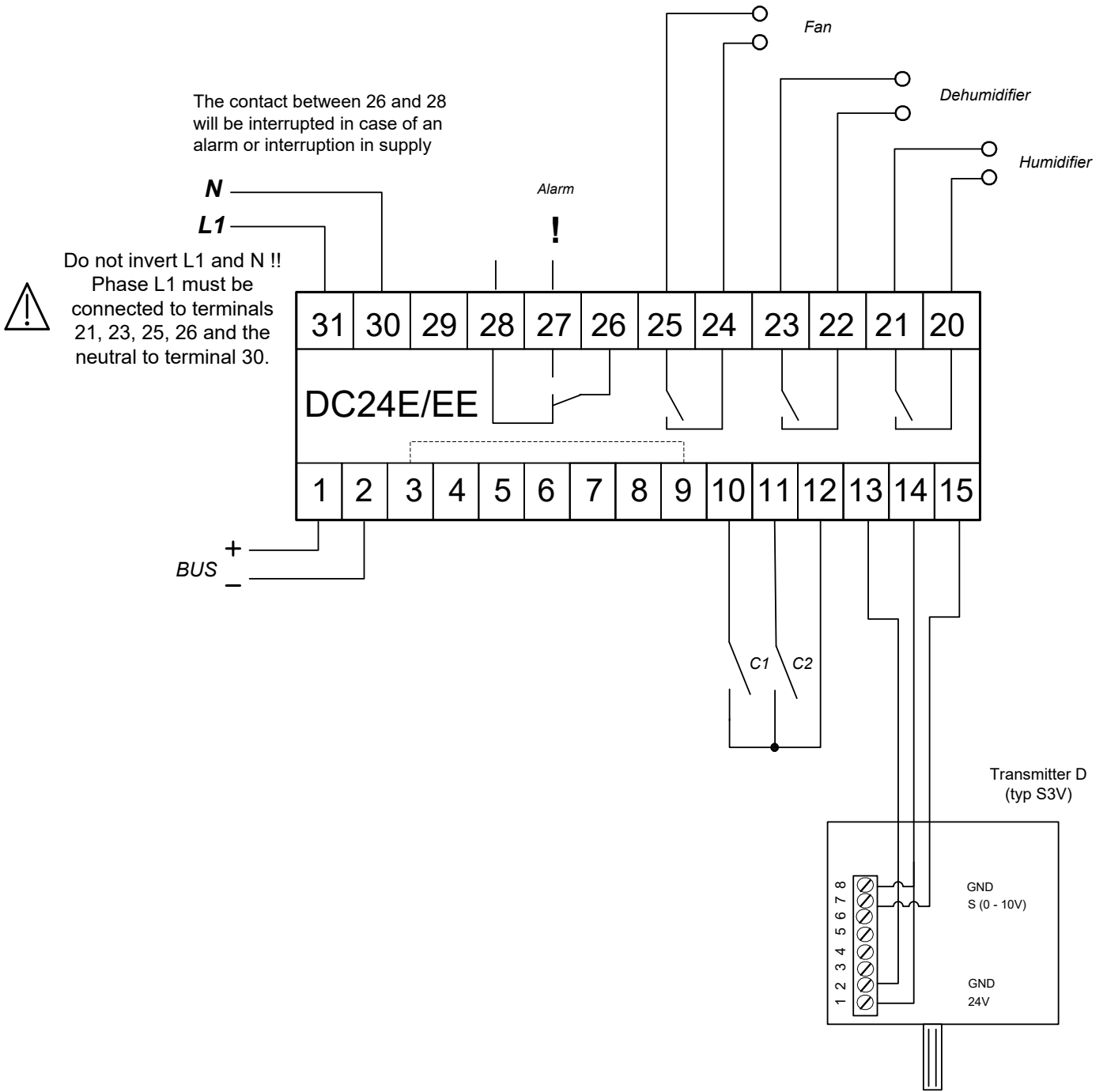
DC24EE in cooling station control mode with several evaporators

If several evaporators are controlled in close proximity and the pressure drop between their outputs is negligible, the same pressure sensor can be used to measure the suction pressure of several DC24 modules (maximum 8). Each evaporator is equipped with a separate temperature sensor.



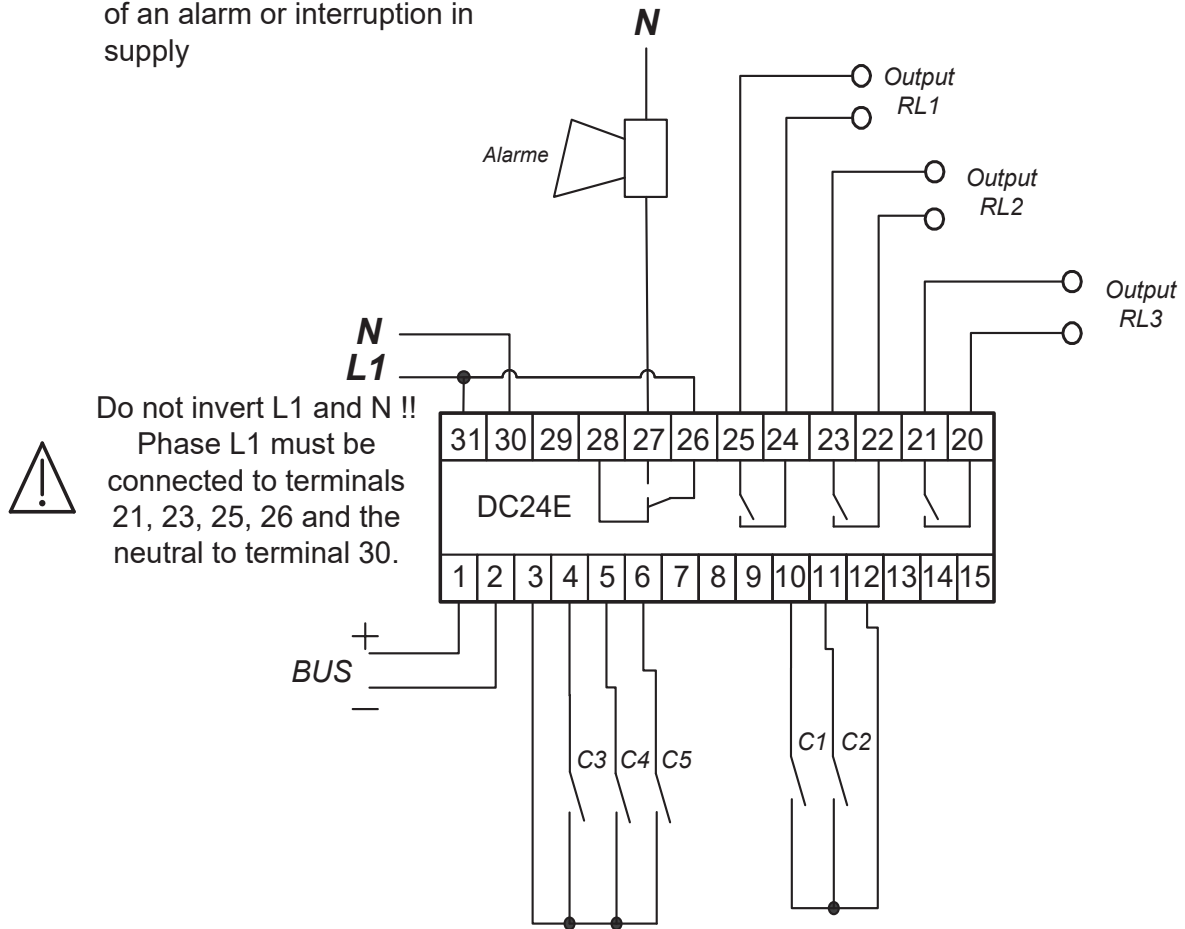
* Do not invert L1 and N !!
Phase L1 must be connected to terminals 21, 23, 25, 26 and the neutral to terminal 30.

DC24EE in humidity management mode



DC24EE inputs/outputs mode

The contact between 26 and 28 will be interrupted in case of an alarm or interruption in supply



About us

Digitel provides high-end control, monitoring and remote management solutions for installations requiring a high degree of performance: refrigeration, heat recovery, controlled atmosphere chamber, growth chamber or special and customized installations.

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