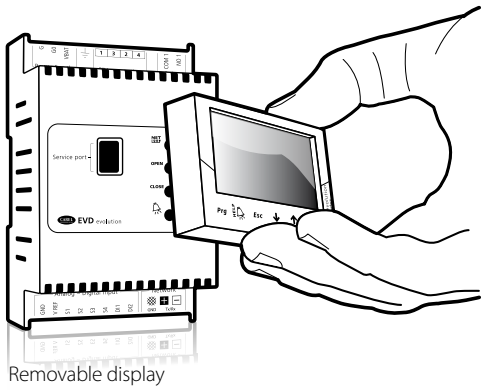
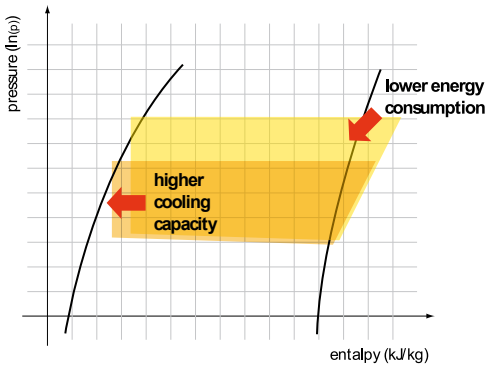
EVD evolution

Drive the power easily



Removable display



The extended operating range of the E^{X}V means the refrigeration unit can work with floating condensing pressure, and consequently at the minimum allowed for the ambient temperature. This brings significant energy savings in all refer applications.

The EVD evolution series of controllers for electronic valves is the latest step in the development of the famous CAREL drivers for superheat control. Compared to the standard EVD, this instrument adds advanced functions and a new user interface that makes it even easier to use and configure.

A new graphic display and a simple programming procedure allow the controller to be started by selecting just 4 parameters: refrigerant used, model of valve, type of pressure probe and application (chiller, display cabinet, etc.), selected from the multiple choice menus.

EVD evolution is complete with LEDs for controlling the main functions, and can house a removable LCD display for the configuration and monitoring of all the variables.

EVD evolution can be connected to the pCO series controllers or PlantVisorPRO for the integrated management of the driver via tLAN (EVD0000E00), pLAN (EVD0000E10) or RS485/Modbus® (EVD0000E20); it can also operate independently (stand-alone version) using a digital input to switch the device ON/OFF. EVD evolution can also act as a simple positioner, with a 4 to 20 mA or 0 to 10 V analogue input signal.

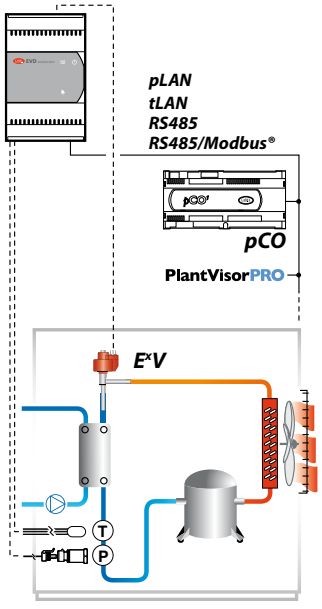
The new EVD evolution series can manage other functions in addition to superheat control, such as hot gas bypass, evaporator pressure control (EPR) and control of the valve downstream of the gas cooler in circuits with CO_2 transcritical cycle; other control functions include the management of the condenser pressure or the "modulating thermostat" function.

Main functions:

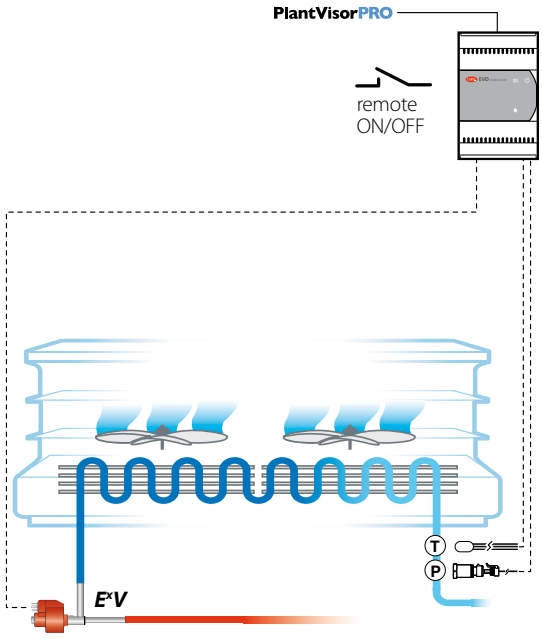
- superheat control with auxiliary protectors - MOP, LOP, low superheat
- assisted start-up procedure (just 4 parameters)
- connection diagram visible on the display
- multilanguage graphic display, with "help" on the various parameters
- management of multiple units of measure
- user management with passwords to access different levels of configuration
- copy parameters to other EVDs using the display
- LEDs for monitoring the main parameters
- use of ratiometric or 4-20mA transducers (the latter shared between several drivers)
- second digital input for defrost management
- possibility to use backup probes

Combined with the CAREL E²V series electronic expansion valves, the EVD evolution driver forms an integrated control system for the evaporator that optimises operation and achieves high levels of energy saving.
The CAREL electronic expansion valves are currently available for cooling capacities up to 280 kW.

Example of application on a chiller



Example of application on a display cabinet



Code	Description
EVD0000E00	EVD evolution (tLan)
EVD0000E10	EVD evolution (pLan)
EVD0000E20	EVD evolution (RS485/Modbus®)
EVD0000E01	EVD evolution (tLan), multiple pack of 10 pcs. *
EVD0000E11	EVD evolution (pLan), multiple pack of 10 pcs. *
EVD0000E21	EVD evolution (RS485/Modbus®), multiple pack of 10 pcs. *
EVDIS00DE0	Display for EVD evolution, German
EVDIS00EN0	Display for EVD evolution, English
EVDIS00ES0	Display for EVD evolution, Spanish
EVDIS00FR0	Display for EVD evolution, French
EVDIS00IT0	Display for EVD evolution, Italian
EVDIS00PT0	Display for EVD evolution, Portuguese
EVDCON0021	EVD evolution connector kit (10 pieces) for multiple packs

*: the multiple pack codes do not include the connectors, code EVDCON0021 includes the required connector kit.

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