

**plugin**



... the evolution

**CAREL**  
Technology & Evolution

PLUG-IN is the new range of CAREL controls for the regulation of normal or low temperature refrigeration units with static or ventilated evaporators.

The logo for CAREL's PLUG-IN series, featuring a stylized snowflake icon to the left of the word "plugin" in a bold, lowercase, sans-serif font. The entire logo is contained within a black rounded rectangle with a thin orange border.

**plugin**

PLUG-IN is innovative because it offers the OEM:  
advanced electronic technology, excellent performance in the control of the refrigeration unit, customised design solutions, reduction in production costs.

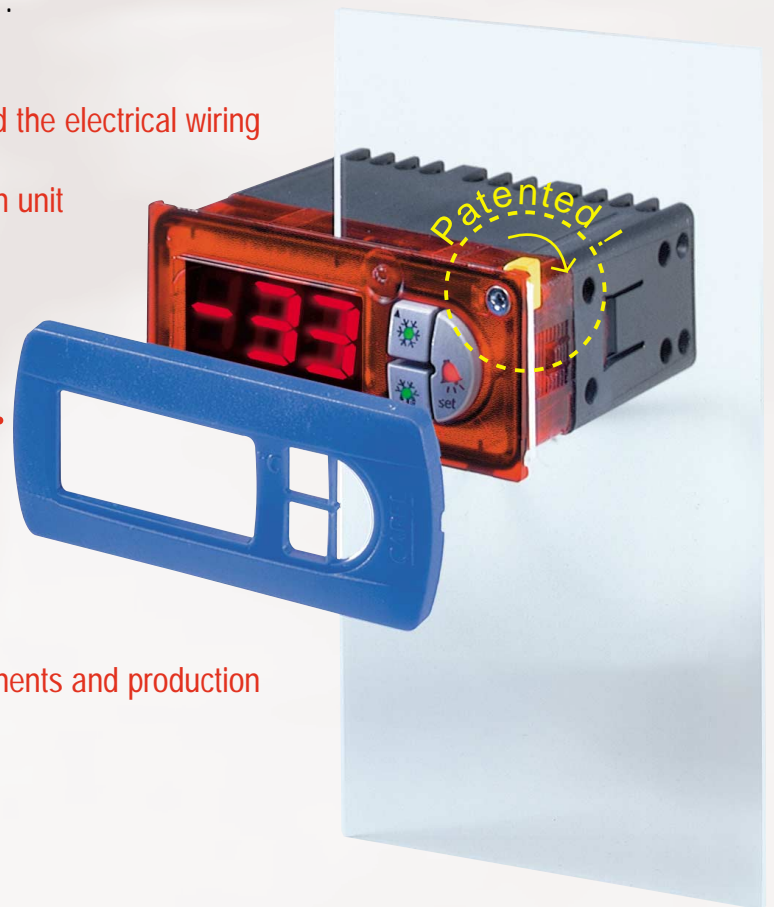
A stylized, hand-drawn signature in white, consisting of several overlapping loops and curves, positioned above the text "for your design!".

*for your design!*

## PLUG-IN is aimed at the manufacturer and the installer

it reduces the final cost of the product as it reduces storage costs (less code numbers to manage) and simplifies the production phases; in particular:

- the mechanical mounting and the electrical wiring
- the testing of the refrigeration unit
- the setting of the operating parameters



it allows:

- design customisation while maintaining standard components and production processes

it guarantees and satisfies the end user, due to its:

- user-friendliness
- electrical safety
- compliance with standards in force (HACCP, EN 441 etc.)

Comply With  
**HACCP**  
93/43/EU

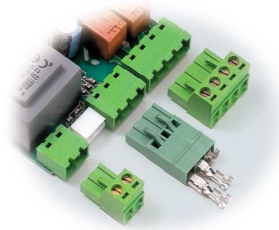




### Innovative mounting System

The PLUG-IN series can be attached directly from the front panel, by simply turning two screws (patented **easy mounting** system).

The instrument is mounted in a 29 x 71 opening, now the market standard.



### Fast and reliable connections

Removable connectors (crimped or screw-on) guarantee fast and efficient connection and assist the manufacturer in the standardisation and construction of the electrical panel.

Indeed, the combination of this type of electrical connection and the ease of the front-mounting system means that the final instrument mounting phase can be performed on the production line.



### Electrical safety

Carel has always paid attention to the safety aspect of its instruments. This is why this control features a transformer, which ensures excellent insulation.

Other solutions without transformers (despite being cheaper), can not guarantee the user, as insulation measurement probes are used and the power supply is not e



## Three different configuration modes:



### With PC tools or factory-set

The instrument comes with a standard input allowing the fitting of an optional external serial board for connection to a PC. Using the special Carel software tools, the instrument can be programmed quickly and adapted to the type of refrigeration unit.

Naturally, the instrument can also be ordered from Carel with customised configuration.



### With key

The programming key allows the instrument to be programmed quickly and without needing to be powered, offering the certainty of error-free setting. It reduces the codes in store and allows the instrument to be set in just a few seconds during end of production testing. This is also an excellent tool for after-sales service purposes.



### End of production

The PLUG-IN series is not just a range of regulators but rather a system designed to respond to the needs of the OEM, from design to production. Carel can offer systems that automatically manage the testing process.

We would be delighted to offer you the opportunity to analyse your needs and propose a customised solution.



### Ease of use and quantity of information

The highly-efficient display and keypad with status indicators offer the end user the advantage of simple operation, with a large quantity of information on the operating status of the refrigeration unit being controlled.



### Innovative appearance and customisation

The manufacturer can choose frames from a wide range of colours, as well as customise them with its company name and logo; the frames can also be customised by including, for example, an ON/OFF switch, a light switch, fuses, etc. In this way the OEM, without compromising on the standardisation of components and the production process of its refrigeration unit, can easily integrate the control into the design of its own products.

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# ... for your design!



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## Standards compliance



### Comply with EN 441

The European standard EN441-13 defines the criteria for measuring the temperature in refrigeration units. In particular, it prescribes the characteristics of the measuring equipment in terms of accuracy, resolution, range of measurement and time constant. Furthermore, it gives precise indications on the positioning of the temperature probe, which must allow the display of the "hot point" (which does not normally coincide with the regulated temperature). The PLUG-IN series controls satisfy the requirements of this standard. In particular, the regulation temperature can be kept separate from the hot point temperature of unit shown on the display.

### Comply With HACCP 93/43/EU

The optional HACCP Real Time Clock module is a useful accessory for ensuring that the temperature control of stored food products conforms to the guidelines of HACCP systems. The parameters are always set in the instrument itself, and the time and temperature limits can be set according to the values indicated in the standards on stored foods. The control automatically monitors the unit, highlighting any critical situations. It signals if any of the set limits have been exceeded, saving to EEPROM (permanent memory) the temperature reached and the duration of the anomaly. It also signals any power failures in the event where these have critical consequences on the maintenance of the set temperatures. All the data can be easily read on the instrument, and the alarm events are signalled automatically.



	Vac power supply	OUTPUTS				INPUTS				PLUS				
		compressor	defrost	alarm	ventilated evaporator	ambient temperature	defrost temperature	product temperature	on/off input	easy link	quick mounting	back-lit keypad	removable terminals	buzzer
Basic Version														
PJ32S0EL	12	●				●								
PJ32S0E0	230	●				●								
Top Version														
PJ32S000	230	●				●				●	●	●	●	
PJ32S0P0	230	16A				●		●		●	●	●	●	●
PJ32S1P0	230	16A				●			●	●	●	●	●	●
Top Version														
PJ32S200	230	●		●		●			●	●	●	●	●	
Basic Version														
PJ32Y0EL	12	●	●			●	●	(*)						
Top Version														
PJ32Y000	230	●	●			●	●	(*)		●	●	●	●	
PJ32X100	230	●	●			●			●	●	●	●	●	
Top Version														
PJ32C000	230	●	●		●	●	●	(*)		●	●	●	●	

(\*) available by selecting time defrosting-end

