

ems25advanced Technical Specification

The *ems25advanced* has the functionality of the larger *ems55advanced*, with a smaller foot print. The controller is available with a remote motion sensor to allow flexibility when installing into smaller coolers. A large fascia kit may be used if required for installation into larger coolers previously fitted with em55 series controllers.

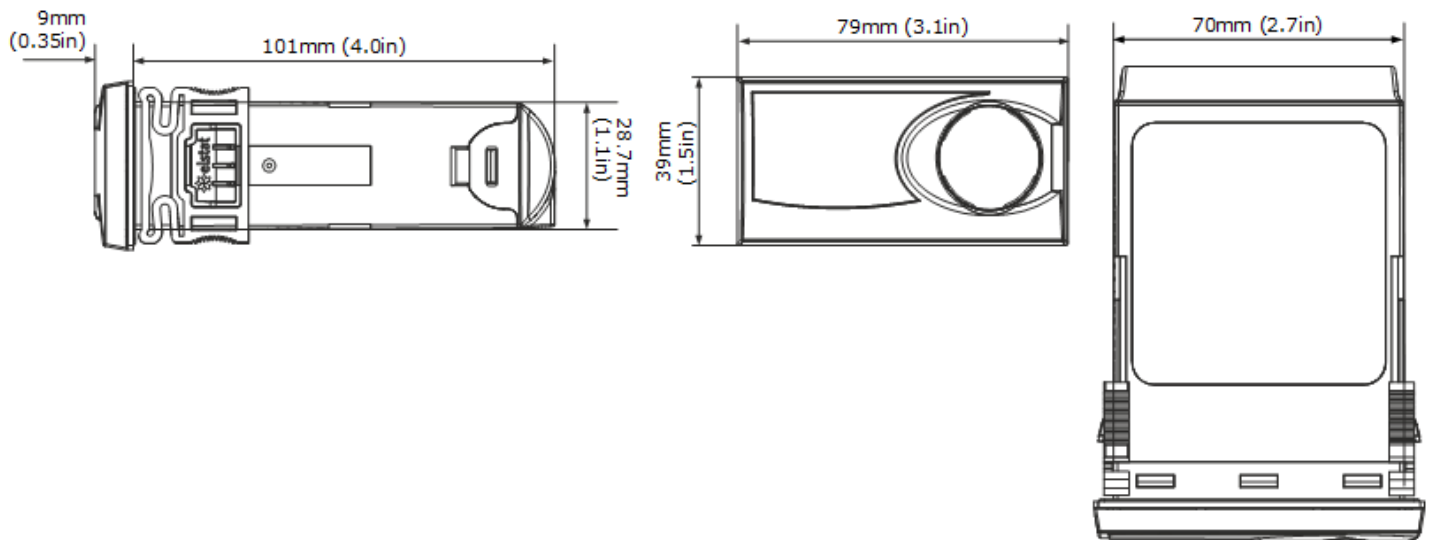


User interface:

Display:	3 digit LED
	0.1°C (1°F) Resolution

Buttons:	LEDs:
Defrost	Compressor
Set	Saving temperature disable
Up	Motion
Down	

Dimensional drawings:



Relay ratings:

Relay	IEC 60730 rating @ 100-120VAC and 220-240VAC 50-60Hz
Compressor	10 (10) A, p.f. 0.6
Lights	2 (2) A, p.f. 0.6
Fan	4 (4) A, p.f. 0.6

Maximum current rating is 14amps

Temperature sensors:

Sensor	Input range (°C)	Input range (°F)
Appliance	-10 °C to 23.3 °C +/- 0.5 °C	14 °F to 74 °F +/- 1°F
Condenser	50 °C to 125 °C +/- 5.0 °C	122 °F to 257 °F +/- 10 °F

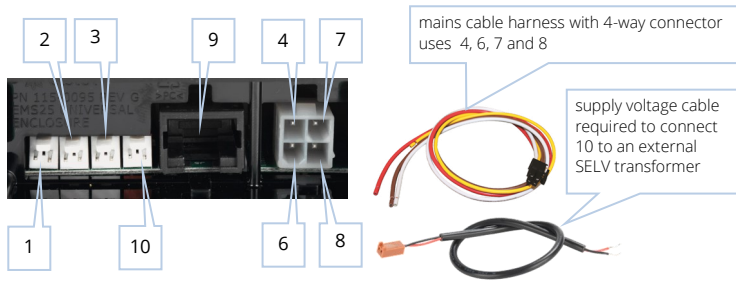
Delivery and packaging:

Controller	50 per box
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Product approval:

	EN603730-1 EN60730-2-9		IEC60730-1 IEC60730-2-9 Glow wire: IEC60335-1
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Electrical connections



- 1 Door switch
- 2 Condenser sensor (ht)
- 3 Appliance sensor (app)
- 4 Lights - white cable
- 5 Not used
- 6 Compressor - red cable
- 7 Live - brown cable
- 8 Fan - yellow cable
- 9 microRMD and Parameter programming port (RJ45)
- 10 Supply voltage - connect to an external SELV transformer

Parameter set:

CF	Celsius (°C) or Fahrenheit (°F) sets the temperature scale.	rt	Compressor rest time is the minimum time between compressor cycles.	dz	Display stability sets the rate of change of the displayed temperature.
SPC SPF	Set Point temperature in Fahrenheit (SPF) or Celsius (SPC) sets the lower ready mode temperature (cut out temperature).	Ht	Condenser high temperature is the maximum permitted temperature measured in the refrigeration system. On reaching Ht, the controller disables the compressor and activates an alarm.	bd	Buzzer enable is the option to disable a warning buzzer for alarm conditions. Does not affect door alarms.
dIF	Differential temperature added to SP temperature.	ds	Delay to standby is the delay in switching to saving mode from the operational mode.	bl	Buzzer duration for open door alarm conditions. After the buzzer duration, the controller switches off the compressor.
CA1	Calibration 1 adds an offset to temperatures measured by the appliance sensor.	Ld	Light delay is the delay to switch off the cooler lights after switching to the saving mode.	Ad	Alarm delay is the maximum time a door can be open before sounding the alarm buzzer.
SSP	Saving mode set point sets the lower saving mode temperature (cut out temperature).	Sr	Saving restart is the maximum time allocated to lower the product temperature to the set point temperature from the saving mode.	AF	Activity frequency is the minimum number of door openings or motion counts to indicate an active 30 minute period in the self-learning matrix.
Sd	Saving differential is the temperature added to SSP that sets the upper saving mode temperature (cut in temperature).	Ct	Refrigeration system failure is the maximum continuous runtime of the compressor without reaching the set point temperature (cut out temperature)	Sn	Sensor enable enables the motion sensor input.
IPd	Uninterrupted pull down the compressor runs continually until the set point is reached.	dE	Defrost interval is the period between the end of a defrost cycle and beginning of the next defrost cycle.	PEr	Saving temperature disable is the option to maintain the ready mode temperature at all times.
dEt	Freeze-up protection is the temperature to disable the compressor and enable the evaporator fan to prevent freeze up due to low temperature.	dd	Defrost duration is the maximum time of a defrost cycle.	LP	Learning period defines 1-day or 7-day learning period.
dEtD	Defrost termination temperature defines the temperature to end a defrost cycle.	FcO	Fan cycle on is the active period of the evaporator fan while the compressor is off.	dIS	Display is the option to display the temperature or the word USE.
FSP	Fan set point is the temperature that if exceeded results in the evaporator fan running continuously even if the door is opened.	FcF	Fan cycle off is the inactive period of the evaporator fan while the compressor is off.	Ar	Marketing mode is the option to keep the lights on at all times.