

ems55advanced Technical Specification - Glass Door Cooler

The ems55advanced and ems55Radvanced are designed for use within drinks coolers and are available with either an *integrated* motion sensor, or a *remote* motion sensor (sold separately). The parameters listed on the rear of this specification are for Glass Door Coolers.

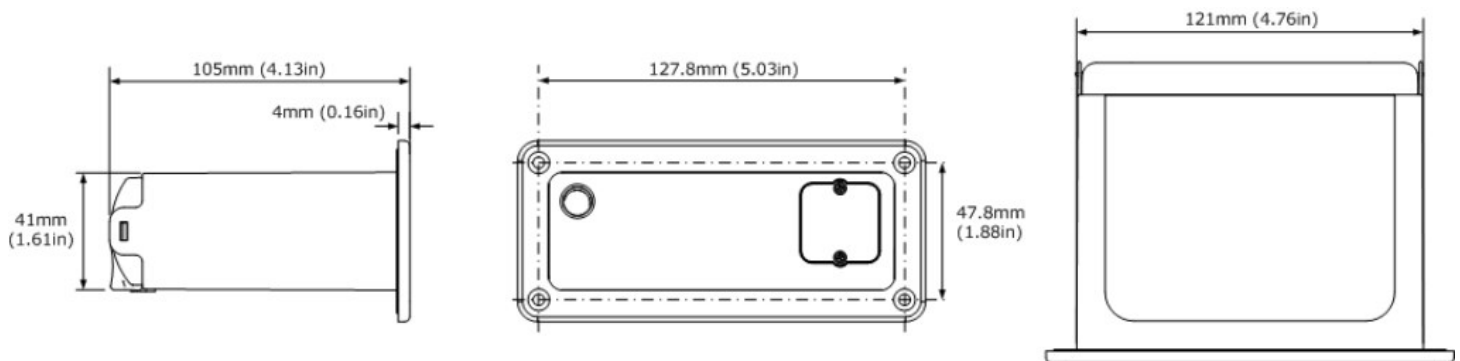


User interface:

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

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

Dimensional drawings:



Relay ratings:

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

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

Environmental ratings:

Characteristic	Value
IP Rating:	
Controller	IPX5
Maximum ambient	50 °C (122 °F)

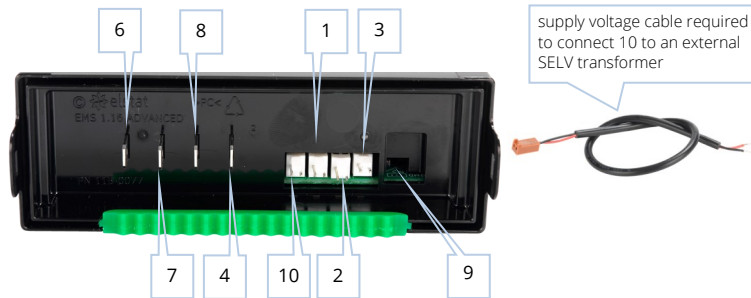
Delivery and packaging:

Controller	50 per box
------------	------------

Product approval:

EN603730-1 EN60730-2-9	IEC60730-1 IEC60730-2-9 Glow wire: IEC60335-1	UL 60730-1 / CSA E60730-1 UL 60730-2-9 / CSA E60730-2-9
---------------------------	---	--

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 - blue cable
- 9 microRMD (ems55*advanced* variant)
- 10 Supply voltage - 12VAC

Parameter set:

CF	Celsius (°C) or Fahrenheit (°F) sets the temperature scale.	rt	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.	LO	Low voltage protection defines the minimum voltage allowed before switching off the compressor. Values are not voltages.
SPC SPF	Set Point temperature in Fahrenheit (SPF) or Celsius (SPC) sets the lower ready mode temperature (cut out temperature).	ds	Delay to standby is the delay in switching to saving mode from the operational mode.	bo	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.	Ld	Light delay is the delay to switch off the cooler lights after switching to the saving 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.	Sr	Saving restart is the maximum time allocated to lower the product temperature to the set point temperature from 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).	Ct	Refrigeration system failure is the maximum continuous runtime of the compressor without reaching the set point temperature (cut out temperature)	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).	dE	Defrost interval is the period between the end of a defrost cycle and beginning of the next defrost cycle.	Sn	Sensor enable enables the motion sensor input.
IPd	Uninterrupted pull down the compressor runs continually until the set point is reached.	dd	Defrost duration is the maximum time of a defrost cycle.	PEr	Saving temperature disable is the option to maintain the ready mode temperature at all times.
dtE	Freeze-up protection is the temperature to disable the compressor and enable the evaporator fan to prevent freeze up due to low temperature.	FcO	Fan cycle on is the active period of the evaporator fan while the compressor is off.	LP	Learning period defines 1-day or 7-day learning period.
dtD	Defrost termination temperature defines the temperature to end a defrost cycle.	FcF	Fan cycle off is the inactive 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.	d2	Display stability sets the rate of change of the displayed temperature	Ar	Marketing mode is the option to keep the lights on at all times.
Ht	Compressor rest time is the minimum time between compressor cycles.	H1	High voltage protection defines the maximum voltage allowed before switching off the compressor. Values are not voltages.		

Note: Ar parameter may not appear in all firmware versions.
New to GDC firmware July 2012