

The EC3 is a stand-alone universal superheat controller for stable superheat control with stepper motor driven electronic control valves and is used for air conditioning, refrigeration and industrial applications such as chillers, industrial process cooling rooftops, heat pumps, package units, close controls, cold room, food process and air driers. With the EC3-X32, parameters can be downloaded through ECD-002 or through TCP/IP compatible interface.

### Features

- Superheat control in conjunction with Emerson stepper motor driven electrical control valves EX4-EX8
- Limitation of evaporating pressure (MOP)
- Low and high superheat alarm
- Low pressure switch function/alarm
- Freeze protection function/alarm
- Pump down function
- Monitoring of sensors and sensor wiring and detection of sensor and wiring failures
- Intelligent alarm management to protect the compressor, i.e fail safe operation
- Integral rechargeable battery to close EX control valves in case of power loss.
- Support of TCP/IP Ethernet technology with WebServer functionality allows monitoring and configuration of controllers through a standard WebBrowser
- Electrical connection via plug-in type screw terminal
- Aluminum housing for DIN rail mounting

### Ordering Information

Description	Type	Reference #	PCN
Superheat Controller	EC3-X32	807782	097708
Terminal Kit	K03-X32	807644	097709
Temperature Sensor	ECN-N60	804497	097714
Electrical Control Valve	EX4-EX8**	**	**
Pressure Sensors (R-22/R-124/R-134a/R-404A/R-407C/R507C)	PT5-07M	802350	097748
Pressure Sensor (R-410A)	PT5-18M	802851	097749
Pressure Sensor (R-744)	PT5-30M	802352	097753
Plug and Cable Assembly for Pressure Sensor	PT4-M60	804805	097717
Optional Display/Keypad	ECD-002	807657	097712
Cable Connection between EC3-X32 and ECD-002	ECC-N30 or any standard Cat 5 patch cord with RJ45 connectors	807861	097713
Replacement Battery	EC3	807790	097693

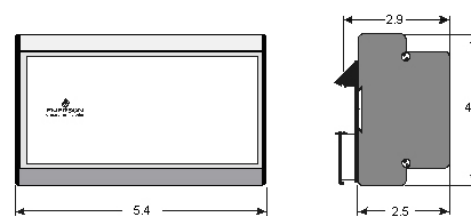
\*\*For further details refer to the EX4-EX8 product page.



### Specifications

- Supply voltage: 24VAC  $\pm$  10%, 50/60 Hz
- Digital input: 24VAC  $\pm$  10%, 50-60 Hz, 24VDC  $\pm$  10%
- Power consumption: 25 VA max. including connected EX valve and display/keyboard
- Internal battery charging time: Approx. 2 hours if battery is fully empty
- Plug-in connector size: Removable screw version, wire size 12-20 AWG
- Ground connection: 1/4 in. spade earth connector
- Applied directive: EMC, LVD, RoHS (EN 61326, EN 50081, EN 61000-6-2, EN 61000-4-2, EN 61000-4-3, EN 610004-4, EN61000-4-5, EN 61000-4-6, EN 61000-4-11)
- Marking: CE
- Temperatures: Storage, -5°F, to +150°F  
Operating, 32°F, to +140°F
- Humidity: 0 – 80% R.H. non condensing

### Dimensional Data



The EC3 is a stand-alone universal superheat controller for stable superheat control with stepper motor driven electronic control valves and is used for air conditioning, refrigeration and industrial applications such as chillers, industrial process cooling rooftops, heat pumps, package units, close controls, cold room, food process and air driers. The EC3-X33 requires the use of the ECD-002 display key pad unit for setting up the controller.

### Features

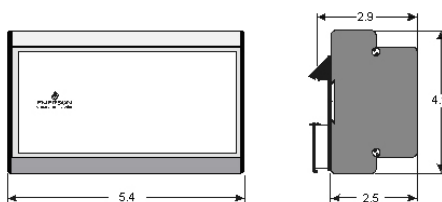
- Superheat control in conjunction with Emerson stepper motor driven electrical control valves EX4-EX8
- Limitation of evaporating pressure (MOP)
- Low and high superheat alarm
- Monitoring of sensors and sensor wiring and detection of sensor and wiring failures
- Intelligent alarm management to protect the compressor, i.e fail safe operation
- Integral rechargeable battery to close EX control valves in case of power loss.
- Electrical connection via plug-in type screw terminal
- Aluminum housing for DIN rail mounting

### Ordering Information

Description	Type	Reference #	PCN
Superheat Controller	EC3-X33	807783	097707
Terminal Kit	K03-X33	807645	097745
Temperature Sensor	ECN-N60	804497	097714
Electrical Control Valve	EX4-EX8**	**	**
Pressure Sensors (R-22/R-124/R-134a/R-404A/R-407C/R507C)	PT5-07M	802350	097748
Pressure Sensor (R-410A)	PT5-18M	802851	097749
Pressure Sensor (R-744)	PT5-30M	802352	097753
Plug and Cable Assembly for Pressure Sensor	PT4-M60	804805	097717
Optional Display/Keypad	ECD-002	807657	097712
Cable Connection between EC3-X33 and ECD-002	ECC-N30 or any standard Cat 5 patch cord with RJ45 connectors	807861	097713
Replacement Battery	EC3	807790	097693

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