






# The Emerson Valves and Electronic Controls Solution



Today's systems require improved energy efficiency, tighter temperature control and the incorporation of new features, such as remote monitoring and diagnostics. An electronic control solution can provide the optimal performance to meet these needs. Emerson is leading the industry with its revolutionary bi-polar stepper motor driven control valve for commercial air conditioning and refrigeration applications. The patented EX series electrical control valves, featuring the fastest response time in the industry, meet or exceed today's most demanding application requirement for long lasting reliable and precise control of refrigerant flow. Complementing the valves is our EC series network-enabled electronic valve drivers and superheat controllers. For the complete cutting edge technology solution, choose Emerson. Install confidence.



EMERSON. CONSIDER IT SOLVED.™

Product	Application	Feature
 <p><b>EX 4-8</b></p>	<ul style="list-style-type: none"> <li>• Optimized for the control of liquid or gaseous mass flow in refrigeration systems</li> <li>• Multifunction capability as expansion valve, hot gas bypass, suction gas throttling, head pressure, liquid line actuator and other applications</li> </ul>	<ul style="list-style-type: none"> <li>• Stepper motor driven</li> <li>• Fully hermetic design</li> <li>• Fast full stroke time</li> <li>• High linear flow capacity</li> <li>• Wide capacity range (10 - 100%)</li> <li>• Direct coupling of motor and valve (no gear mechanism)</li> </ul>
 <p><b>EXD-U00</b></p>	<ul style="list-style-type: none"> <li>• Universal drivers that enable the operation of Emerson stepper motor driven valves such as: <ul style="list-style-type: none"> <li>- Electronic expansion valves</li> <li>- Hot gas bypass or evaporator pressure regulator</li> <li>- Crankcase pressure regulator</li> <li>- Heat reclaim regulator</li> <li>- Liquid level control</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Valve opening proportional to 4-20mA or 0-10V analog input signal</li> <li>• Plug and play, no parameter setting needed</li> <li>• Digital input can be used to force valve closing</li> <li>• Dip-switches for selection of Electronic Control Valves, analog input and start mode</li> </ul>
 <p><b>EC3-X33</b></p>	<ul style="list-style-type: none"> <li>• Stand-alone universal superheat controller for stable superheat control with stepper motor driven electronic control valves</li> <li>• Used for air conditioning, refrigeration and industrial applications such as: <ul style="list-style-type: none"> <li>- chillers</li> <li>- rooftops</li> <li>- cold room</li> <li>- air driers</li> <li>- heat pumps</li> <li>- package units</li> <li>- food process</li> <li>- industrial process cooling</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• MOP function protects the compressor from dangerous overload conditions</li> <li>• Positive shut-off function eliminates the use of an additional solenoid valve</li> <li>• Controller can be easily adjusted for each refrigerant and valve type</li> <li>• Requires ECD-002 to download programmable parameter</li> </ul>
 <p><b>ECD-002</b></p>	<ul style="list-style-type: none"> <li>• Display/keypad unit necessary for set up of controllers</li> </ul>	<ul style="list-style-type: none"> <li>• Front panel mounted interface for parameter and status read-out and for controller setup via keypad</li> <li>• Indicator LEDs for valve opening/closing, external ON and alarm</li> </ul>
 <p><b>EC3-X32</b></p>	<ul style="list-style-type: none"> <li>• Stand-alone universal superheat controller for stable superheat control with stepper motor driven electronic control valves</li> <li>• Used for air conditioning, refrigeration and industrial applications such as: <ul style="list-style-type: none"> <li>- chillers</li> <li>- rooftops</li> <li>- cold room</li> <li>- air driers</li> <li>- heat pumps</li> <li>- package units</li> <li>- food process</li> <li>- industrial process cooling</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• MOP function protects the compressor from dangerous overload conditions</li> <li>• Positive shut-off function eliminates the use of an additional solenoid valve</li> <li>• Controller can be easily adjusted for each refrigerant and valve type</li> <li>• Parameters can be downloaded through ECD-002 or through TCP/IP compatible interface</li> <li>• Low pressure function/alarm</li> <li>• Pump down feature</li> <li>• Freeze protection</li> </ul>

[EmersonClimate.com/flowcontrols](http://EmersonClimate.com/flowcontrols)

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