

Superheat Controllers Series EC3-X32 / EC3-X33

For stable superheat control with stepper motor driven electrical control valves Series EX4-8 and FX5-9

Digital Superheat Controllers Series EC3-D72 / EC3-D73

For stable superheat control only with EX4-6 electrical control valves and automatic synchronisation of the PWM capacity control valve incorporated into the Copeland Scroll Digital™ compressor technology



EC3-X33 with ECD-002

Features

- Limitation of evaporating pressure (MOP)
- Feed-through of 20 mA signal of evaporating pressure transmitter to operate third party controllers with a common pressure transmitter
- Intelligent alarm management, superheat alarm
- Monitoring of sensors and sensor wiring, detection of sensor and wiring failures
- Integral rechargeable battery to close Electrical Control Valve in case of power loss
- Electrical connection via plug-in type screw terminals
- Aluminum housing for DIN rail mounting

Additional Features EC3-X32 and EC3-D72 With TCP/IP

- WebServer functionality allows monitoring and configuration of controllers through a standard Web browser (e.g. Internet Explorer®)
- Internal data logging
- Freeze protection
- Low and high superheat alarm
- Low pressure switch function/alarm

ECD-002 Display Unit

- Front panel mounted interface for parameter and status read-out and controller setup via keypad
- Indicator LEDs for valve opening/closing, external ON and alarm

Selection Table

Description	Stand alone		TCP/IP	
	Type	Part No.	Type	Part No.
Superheat Controller for EX4-8 & FX5-9	EC3-X33	807783	EC3-X32	807782
Superheat Controller Kit*	EC3-X33 Contr.Kit	808036	EC3-X32 Contr.Kit	808037
Terminal kit	K03-X33	807645	K03-X32	807644
Superheat Controller for EX4-6	EC3-D73	807804	EC3-D72	807805
Superheat Controller Kit*	EC3-D73 Contr.Kit	808041	EC3-D72 Contr.Kit	808042
Terminal kit	K03-331	807648	K03-331	807648

Note: * Kits contain terminal kit, pressure transmitter PT5-07M with cable assembly, NTC sensor ECN-N60, transformer ECT-623

Selection Table - Accessories

Description		Type	Part No.
Display/keypad unit (opt.)		ECD-002	807657
Connection cable EC3 to ECD-002	Cable length 1.0 m	ECC-N10	807860
	Cable length 3.0 m	ECC-N30	807861
	Cable length 5.0m	ECC-N50	807862
Temperature sensor	Cable length 3.0 m	ECN-N30	804496
	Cable length 6.0 m	ECN-N60	804497
	Cable length 12.0 m	ECN-N99	804499
Pressure sensor			
for R22 / R134a / R507 / R404A / R407C / R124 / R448A / R449A / R450A / R513A / R1234ze	0.8...7 bar	PT5-07M	802350
		PT5-07T	802370
for R410A	0...18 bar	PT5-18M	802351
		PT5-18T	802371
for R410A / R744	0...30 bar	PT5-30M	802352
		PT5-30T	802382
for R744	0...50 bar	PT5-50M*	802353
Plug and cable assembly for pressure sensor	Cable length 1.5 m	PT4-M15	804803
	Cable length 3.0 m	PT4-M30	804804
	Cable length 6.0 m	PT4-M60	804805
Transformer - 230VAC Input, 24V output, Din rail mounting			
For one set of controller and valve	25 VA	ECT-323	804424
For two sets of controllers and valves	60 VA	ECT-623	804421
Replacement battery kit			807790

Note: *) PT5-50M is not released for use with EXD-D72/D73

Technical Data

EC3

Supply Voltage	24 VAC ±10%, 50/60 Hz
Digital input	24 VAC ±10%, 50-60 Hz 24 VDC ±10%
Power consumption	25 VA max. including connected ECV and display/keyboard
Internal battery charging time	Approximately 2 hours if battery is fully empty
Plug-in connector size	Removable screw version wire size 0.14...1.5 mm ²
Marking	CE
Protection class	IP20 (according to DIN EN60529)
Mounting	DIN rail mounted
Temperature range input	ECN-Nxx: -50...+50°C

ECD-002 Display Unit

Supply	From EC3 Series Controller via connecting cable
LED indicators	Valve opening, valve closing, alarm, demand
Display LED	Numeric segmental display, 2½-digits, red, with automatic decimal point between ±19.9, switchable between °C and °F
Connecting cable	ECC-Nxx or standard CAT5 patch cord with RJ45 connectors
Protection class (DIN EN 60529)	IP65 (mounting in front panel with gasket)
Mounting	Panel mount (71 x 29 mm cutout)