Temperature & Superheat
Controllers & Kits

EXD-SH1, EXD-SH2

Simplified ordering and installation with kits that include everything you need in one box.

Multi-Function Control

Superheat control, temperature control, low pressure switch, freeze protection

EXD-SH2 can control two valves in independent circuits

For use with Emerson EX and CV series valves

(2)

Simple Installation

Kits include all components needed for setup in one box

Integrated keyboard with two line display eliminates need for additional components

Electrical connection via plug-in type screw terminals

Self adaptive algorithm eliminates need for setting PID control for individual systems

(2)

(2)   (2)

(2) Signifies x2 for EXD-SH2K

Easy System Monitoring

Connect via Modbus to monitoring systems including Emerson's E2 system controller

EMERSON

SPECIFICATIONS:

Supply Voltage
24VAC/DC +or-10%, 50/60Hz

Power Consumption
EXD-SH1 Max. 25 VA / EXD-SH2 Max. 50 VA

Terminals 1 to 12
Suitable for 12 poles molex plug

Terminals 13 to 36
Suitable for removable screw version: wire size 0.005...0.006 in.

Temperatures
Operating: 32°F to 131°F
Storage: -13°F to 140°F
Humidity: 20 to 85% R.H. non condensing

Mounting
DIN RAIL mounting

Weight
0.71 lbs.

Housing
Self-extinguishing ABS

Protection Class
IP 00

Agency
CE, EAC

Compliance
EMC, roHS

INPUT, OUTPUT EXD-SH1, EXD-SH2

DESCRIPTION	SPECIFICATION
Analog input(s): NTC Temperature sensor Analog input: PT1000 Temperature sensor"	ECN-N...-49°F...122°F sensing range ECN-Z60 sensing range
Analog input(s): 4...20 mA pressure transmitters Analog input(s): 0.5...4.5 V pressure transmitters"	PT5N Third party ratiometric pressure transmitters (total error: ≤ 1%)"
Digital input(s)	Dry contact, potential free
Digital output(s): Alarm relay(s) Contact is closed: During alarm condition Contact is open: During normal operation and supply power OFF	Resistive Load 24 VAC/DC, max. 1 A Inductive Load 24 VAC, max. 0.5 A
Communication	RS485 RTU Modbus, two wires
Stepper motor output	Bi-Polar Valves: EX4-8
Refrigerants	R-22; R-134a; R-507; R-404A; R-407C; R-410A; R-124; R-744; R-407A; R-407F; R-23; R-32*; R-1234ze; R-448A; R-449A; R-450A; R-513A

* R-32 is for systems/regions which it does not consider R-32 as potential explosive refrigerant (flammable or low flammable) and PED/CE marking is not required.

EXD-SH1 / EXD-SH2 CONTROLLERS & KITS

	DESCRIPTION	MODEL NUMBER	ITEM NUMBER
CONTROLLERS	Superheat and/or temperature controller for a single EX4-8 or CV4-7 valves	EXD-SH1 807855	097175
	Superheat and/or temperature controller with second circuit superheat control for two EX4-8 or CV4-7 valves	EXD-SH2 807856	097176
CONTROLLER KITS	Superheat and/or temperature controller kit for single EX4-8 valve (kit includes 1 each EXD-SH1, EXV-M60, PT5N-18M, PT4-M60, TP1-NP6, EXD-M03, 90-T40F3). **Valve not included.**	EXD-SH1K	EXD-SH1K
	Superheat and/or temperature controller kit for second circuit superheat control for two EX4-8 valves (kit includes 1 each EXD-SH2, EXD-M03, 90-T50F3 and 2 of each PT4-M60, TP1-NP6, EXV-M60, PT5N-18M). **Valve not included.**	EXD-SH2K	EXD-SH2K

EXD-SH1 / EXD-SH2 PARTS & ACCESSORIES

DESCRIPTION	MODEL NUMBER	ITEM NUMBER
12 pin molex plug with 3 meter cable for supply voltage to EXD-SH1 and EXD-SH2	EXD-M03 807865	097177
Electronic expansion valve cable and connector, 6 meter	EXV-M60 804665	097741
Pressure transmitter able to operate in a vacuum*	PT5N-07M 805350	805350
Pressure transmitter for refrigerants including R-410A	PT5N-18M 805351	805351
Pressure transmitter including R-744*	PT5N-30M 805352	805352
Plug and cable assembly for pressure transmitter, 6 meter	PT4-M60 804805	097717
Temperature sensor - ultra low temp*	ECN-Z60 807826	807826
Temperature sensor std. cable, 6 meter	TP1-NP6 804490	804490
Transformer for 1 circuit	90-T40F3	90-T40F3
Transformer for 2 circuits	90-T50F3	90-T50F3

* Not included in kit.

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