

EXV CONTROLLER

BT Expansion Valve Controller Channel 1 Channel 2 Channel 3 Channel 4		
Sensor Type • TI Combined Press/Temp • 0 - 200 Ohm Min P KPa • 0 - 10 Volts • 0 - 5 Volts • 4 - 20 mA	Control Mode © Super Heat © Sub Cooling © Liquid Level © Pressure © Direct	HELETERET TO POWERPAX
PID Controller Proportional Gair: Control Set Point Control Set Point Control Set Point Target Depende	Units Metric C Imperial 10 Derivative Gain:	

DESCRIPTION

The *PowerPax* EXV controller provides control of up to four *PowerPax* EXV's in response to voltage, current loop, or resistance sensor signals. Control of the valve(s) can be direct (position proportional to input signal) or By PID control algorithm to avhieve a set point value. Valves can be controlled by dedicated inputs or in pairs (2 valves behave as one to double capacity). This versatility allows the valves to be used for various applications such as Refrigerant Expansion or HOT gas modulation In response to Level Superheat (algorithms for R134a and R22 provided) Pressure Or in response to output from a third party controller.

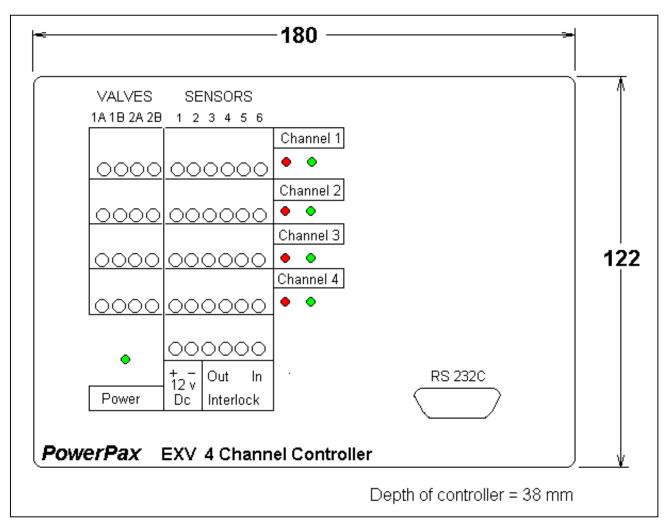
PART NUMBERS FOR ORDERING

2-Channel controller	PPXC-02-01
4-Channel controller	PPXC-04-01

SEE ALSO

PowerPax Float chamber assembly for flooded coolers. (PPFC-100-90)

DIMENSIONS and LAYOUT

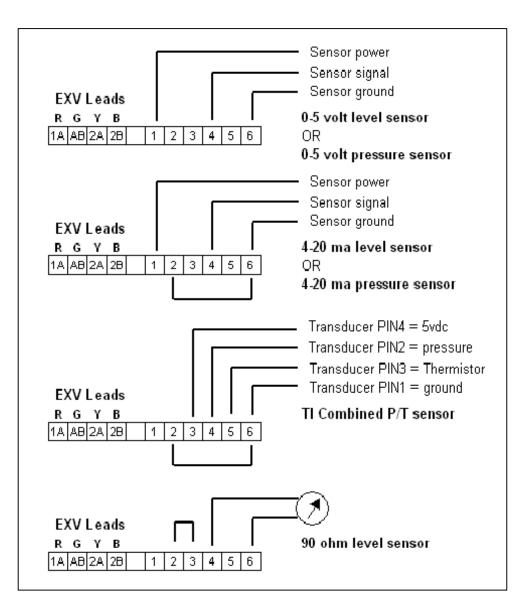


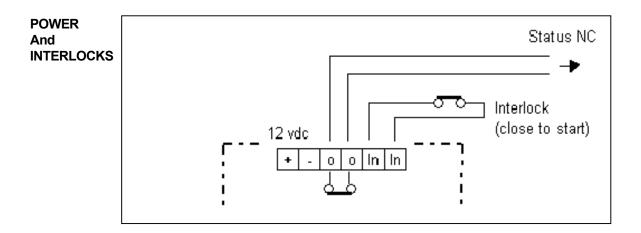
SPECIFICATIONS

Power Input:	12 v dc 100 va (min.)		
Output:	Two bipolar pulse outputs per valve 12 VDC nominal 4 Watt (max.)		
Control options:	Superheat (Choice of R134a or R22) Sub cooling Pressure only Level Analog position in response to voltage or ma current loop.		
Control Inputs:	Temperature and pressure (TI combined sensor). Pressure only 0 to 5vdc 4 to 20 ma current loop		
Set point method:	Set point and control parameters are set using PC software via RS232a (serial port) interface.		
Mounting:	DIN rail mounting		

WIRING

SENSORS





CONTROLLER SCREEN

BT Expansion Valve Co Channel 1 Channel 2 Channel			
Sensor Type TI Combined Press/Temp 0 - 200 Ohm 0 - 10 Volts 0 - 5 Volts 4 - 20 mA	o Min P KPa 0.5 Max P KPa 10.0	Control Mode Super Heat Sub Cooling Liquid Level Pressure Direct	Gas Type C R134A C R22
PID Controller		Units Metric	C Imperial
Proportional Gain: 20 Control Set Point 5000 \$ deg C	Integral Gain:	10 Derivative I	Gain: 0

PROGRAM SETUP

Select the channel to set up the sensor type the control mode Gas type (if superheat or subcooling) Set the control set point value Set the PID terms (suggested start values are: P=500,I=500,D=0) Select OPERATE

Repeat for other channels which are used.

Note: If channel #2 is slaved off channel #1 (or Ch#4 off ch#3) you must still set up the PID terms and select OPERATE. In this case the Control mode is "slave".