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Project Name: \_\_\_\_\_

Location: \_\_\_\_\_

IDN# \_\_\_\_\_ Quantity: \_\_\_\_\_

Catalog# \_\_\_\_\_

CAT NO. **XH50P**

**Anti-Sweat Controller**

### Modulating Anti-Sweat Dew Point Controller

The XH50P is a networkable controller that can manage anti-sweat heaters on walk-in's or reach-in's by using internal temperature and humidity sensors to calculate Dew Point.

You can add a remote temperature sensor to mount right near or on the glass as an option. The 0/10V output is paired to an outboard SSR (solid state relay) that modulates the heaters instead of pulsing them on and off, greatly extending the life of the heaters and reducing energy usage.

The XH50P (powered by 12-24Vac/dc) also can be connected to an XWEB LAN via the RS485 Serial connection.

A digital input can be enabled to initiate Energy Saving Mode, to temporarily change the setpoint to conserve energy during peak demand periods.

The serial communication enables the XH50P to connect to XWEB Monitoring Systems and other open systems using ModBus-RTU.

#### Applications include Control of:

- Walk-in Coolers & Freezers
- Reach-in Coolers & Freezers
- Temperature and Humidity Monitoring
- Energy Saving



Optional Glass Door Sensor



Solid State Relay

APPROVALS:

DATE:

**OVERVIEW**

The Control measures temperature and humidity and calculates Dew Point. The control then supplies a 0/10V Analog output to a SSR (Solid State Relay) to modulate the anti-condensate heaters in a refrigeration application to keep the glass doors free from condensate. The unit has 3 LED Indicators, On/Tx./Alarm and it has one Digital Input (voltage free open/closed circuit) that can place the unit into Energy Saver mode. It also has one 8A relay output. It has an RS485 Serial Connection.

**MOUNTING**

The product is wall mounted using multiple wall mounting options on the back of the 4.75" x 3.25" case.

**SENSORS**

The product has one internal %RH and Temperature (NTC) sensors, and one optional remote temperature sensor. The unit can work with either the internal, the external or a ratio between the two.

**POWER**

The product is powered by 12 - 24Vac - 3VA max.

**INPUTS**

The control has one Digital Input (open/closed circuit) that is typically used to place the unit into Energy Saving Mode (as defined by the HES parameter).

**OUTPUTS**

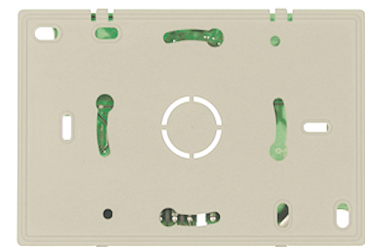
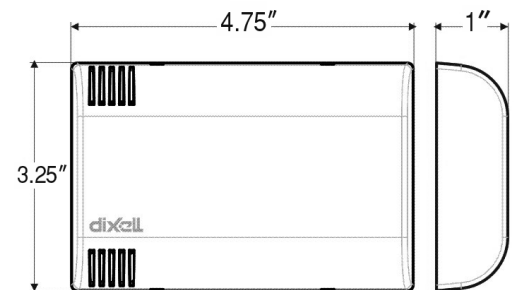
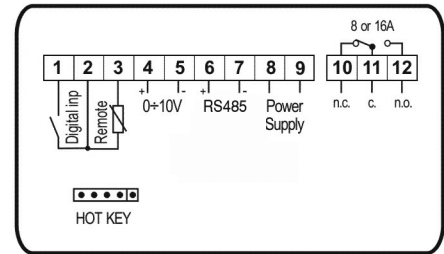
The XH50P has one 8A SPDT relay output, and a 0/10V analog output (47ohm /10mA maxium).

**COMMUNICATIONS**

The Control has a RS485 Serial port. The two way communication protocol shall be MOD-BUS-RTU. The Module has a settable serial address from 1 to 32. MOD-BUS Comments, Registers and Hex Codes are free and open, and are available on request.

**PROGRAMMING**

The control is pre-programmed and pre-addressed with an internal Dew Point calculation. There are 2 levels of control parameters that are password protected. A Hot Key flash memory device can upload or download a program to the unit. The program will remain in internal memory without power.



Easy to install wall bracket

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

**WARRANTY**  
ONE YEAR



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CAT NO. XR30CX – XR70CX

## Refrigeration Controllers

### Controls for Medium and Low Temp Applications

The Dixell CX controls for Refrigeration replace the functions of mechanical thermostats, defrost time clocks, fan control and alarms, in a compact unit that displays the temperature and appliance status in an easy to read LED Display. Fully programmable to meet all Medium and Low temperature applications, the CX Series Controls are UL and NSF listed and operate with line voltage power (120Vac or 230Vac) and large feature internal relays (16A) to ensure a long and reliable operation.

The serial communication enables the CX controls to connect to XWEB Monitoring Systems and other open systems using ModBus-RTU. Multiple temperature, Digital Inputs and up to four relay outputs allow the CX Controls to meet various refrigeration applications.

#### OUTPUTS (XR70CX) up to 4

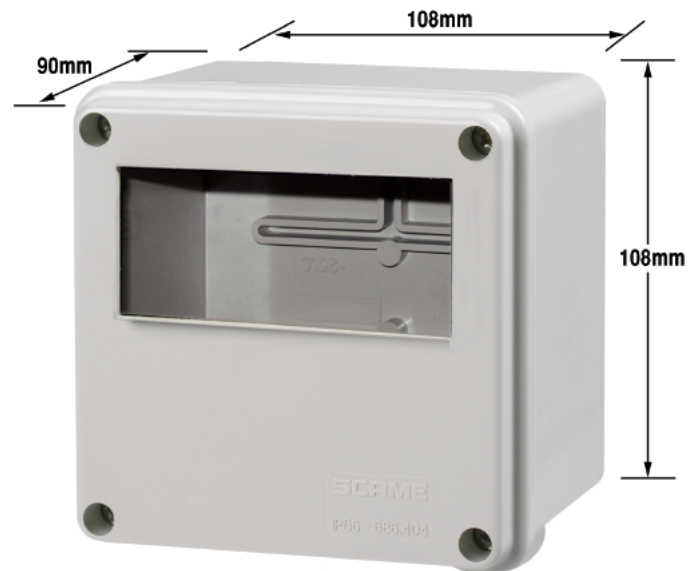
1. Compressors/Solenoid Valve (one or two)
2. Defrosts (electric or hot gas, one or two)
3. Evaporator Fans
4. Alarm or  
Lights or  
Condenser fans or  
Anti-Sweat Heaters

#### OUTPUTS (XR30CX) up to 2

1. Compressors/Solenoid Valve w/Off Cycle Defrost
2. Alarm or  
Lights

#### PROBE INPUTS

1. Room (controlling)
2. Evaporator (end defrost/control fans)
- 3/4. Opt. Display/Condenser/2nd zone



APPROVALS:

DATE:

**OVERVIEW**

The product has .5" LED temperature display and up to 8 status icons on the front display. The unit shall have a 6 keypad interface, consisting of a Up, Down, SET, DEF, Light and ON/OFF or ES Mode (Energy Savings) The control can display in either °F or °C and have a range of -58°F to 230°F (°C)

**MOUNTING**

The product is panel mounted in a 29 x 71mm panel hole or wall mounted in a C-Box 108 x 108 x 90mm enclosure.

**SENSOR**

The product shall have up to 2 NTC Thermistors (XR30CX) or up to 4 (XR70CX) temperature probes, which can be extended up to 300ft. The Room probe (controlling probe) is to be placed typically in the return-air, or discharge air, and the Evaporator probe to be mounted in the coldest spot of the evaporator. Optional third and fourth probes can be used for display or condenser.

**POWER**

The product shall be powered by 120Vac or 230Vac (+/-10% 50/60Hz).

**INPUTS**

The CX control shall have one Digital Input (open/closed circuit) that is typically used with a magnetic door switch to indicate door openings.

**OUTPUTS**

The XR30CX has two relay outputs. Compressor (or solenoid valve) rated at 16FLA/96LRA plus a second relay (8A) for alarm, light or fan.

The XR70CX has four relay outputs. Compressor 16FLA/60LRA, Defrost 8A, Fan 5A, plus a fourth 8A relay, that can be configured as: Alarm/Light/2nd Comp/2nd Def/Anti-Sweat heater.

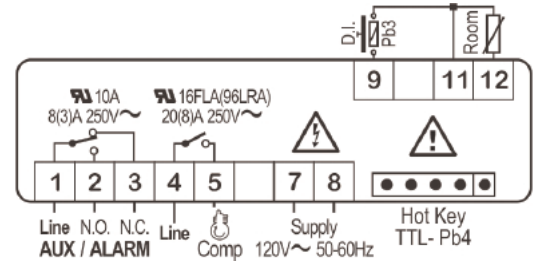
**COMMUNICATIONS**

The Product has a TTL Serial port. A XJ485CX adaptor is required. The two way communication protocol is MOD-BUS-RTU. The Control has a settable serial address of 1-247. MOD-BUS-Comments, Registers and Hex Codes are free and open (available on request.)

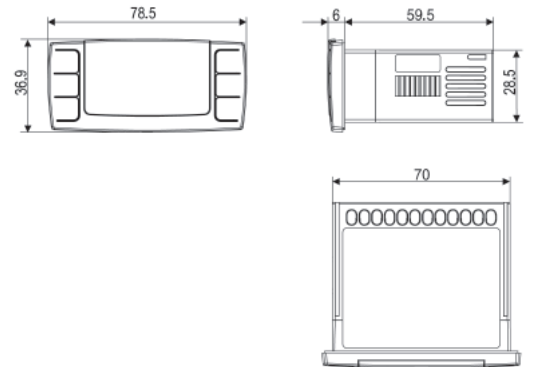
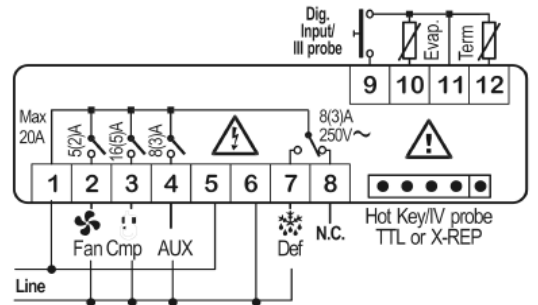
**PROGRAMMING**

The control is pre-programmed for Medium temp applications (XR30CX), and Low Temp applications (XR70CX). There are 2 levels of parameters that are password protected. The Keyboard can also be locked. A Hot Key flash memory device can upload or download a program to the unit. The program shall remain in internal memory without power.

**XR30CX**



**XR70CX**



Dimensions in mm.

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ONE YEAR