PRODUCT SPECIFICATIONS

B4X-15140 and B7-15140

ADJUSTABLE AMBIENT CONTROL THERMOSTATS

APPLICATION

The B4X-15140 and B7-15140 are designed to provide ambient sensing control of electric heat tracing circuits for freeze protection of piping and vessels. These adjustable thermostats can be used to control a single heating circuit or as pilot control of a contactor switching multiple heat tracing circuits.

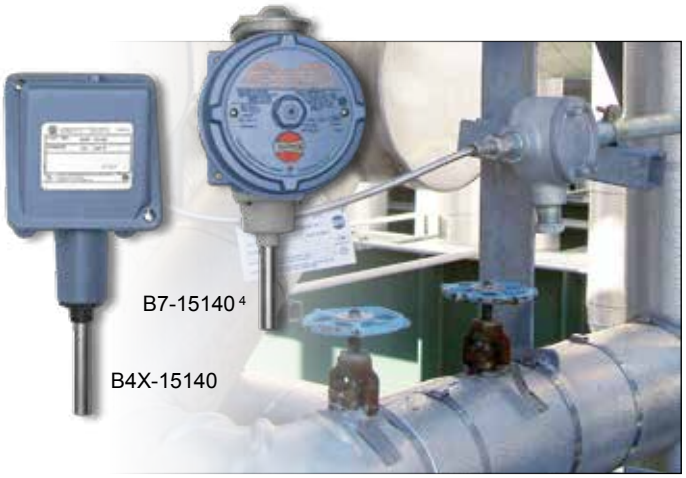
B4X-15140 An epoxy polyamide coated die-cast aluminum NEMA 4X enclosure provides watertight, dust tight and corrosion-resistant protection to the thermostat switch.

B7-15140 An aluminum lacquer finished die-cast aluminum enclosure provides NEMA 4 (watertight and dust tight) and NEMA 7/NEMA 9 (explosion proof) protection to the thermostat switch. The tamper-resistant, threaded and gasketed aluminum dial cover is externally adjustable.

The B4X-15140 thermostat is approved for use in ordinary (nonclassified) locations. The B7-15140 is approved for use in both ordinary (nonclassified) and hazardous (classified) locations.

RATINGS

Voltage rating	125/250/480 Vac
Switch rating	22 amps
Switch type	SPDT [1]
Electrical connection	
B4X-15140 [2]	screw terminals on switch
B7-15140 [3]	terminal blocks
Adjustable control range	15°F to 140°F (-9°C to 60°C)
Maximum control differential	6°F (3.3°C)
Set point repeatability	±2°F (1.1°C)
Maximum bulb exposure temperature	160°F (71°C)
Bulb dimensions	9/16" x 3" (14 x 76 mm)
Bulb material	stainless steel



CERTIFICATIONS/APPROVALS

Underwriters Laboratories Inc.
Ordinary Locations
Hazardous (Classified) Locations (B7-15140 only)
Class I, Divisions 1 & 2, Groups B, C and D
Class II, Divisions 1 & 2, Groups E, F and G
Class III, Divisions 1 and 2
Class I, Zone 1, Group IIB + H_2 T[6]

International Electrotechnical Commission
IEC Certification Scheme for Explosive Atmospheres
UL 09.0004X (B7-15140 only) [5]
Ex d IIC T6
Ex tD A21 IP66 T85°C [6]
-40°C ≤ TAmb ≤ +75°C

Notes

1. See back for typical wiring diagram.
2. The B4X-15140 utilizes a ½" NPT conduit hub with an internal grounding terminal. The external bonding terminal is not to be used as the primary equipment grounding terminal. The internal grounding terminal shall be used as the primary equipment grounding means and the external grounding terminal is only for a supplemental (secondary) bonding connection where local authorities permit or require such a connection.
3. The B7-15140 utilizes a ¾" NPT conduit hub with an internal grounding terminal. The external bonding terminal is not to be used as the primary equipment grounding terminal. The internal grounding terminal shall be used as the primary equipment grounding means and the external grounding terminal is only for a supplemental (secondary) bonding connection where local authorities permit or require such a connection.
4. Date code format on nameplate is "YYWW" for year and week.
5. Zone hazardous locations flameproof gap and joint details. Activation plunger to guide through hole gap joints: 1.105" minimum length by 0.0030" maximum annular gap. Adjustment shaft to shaft through hole gap joints: 1.060" minimum length by 0.0030" maximum annular gap.
6. Plug is approved explosion-proof with the product as a full assembly, and does not carry individual markings.

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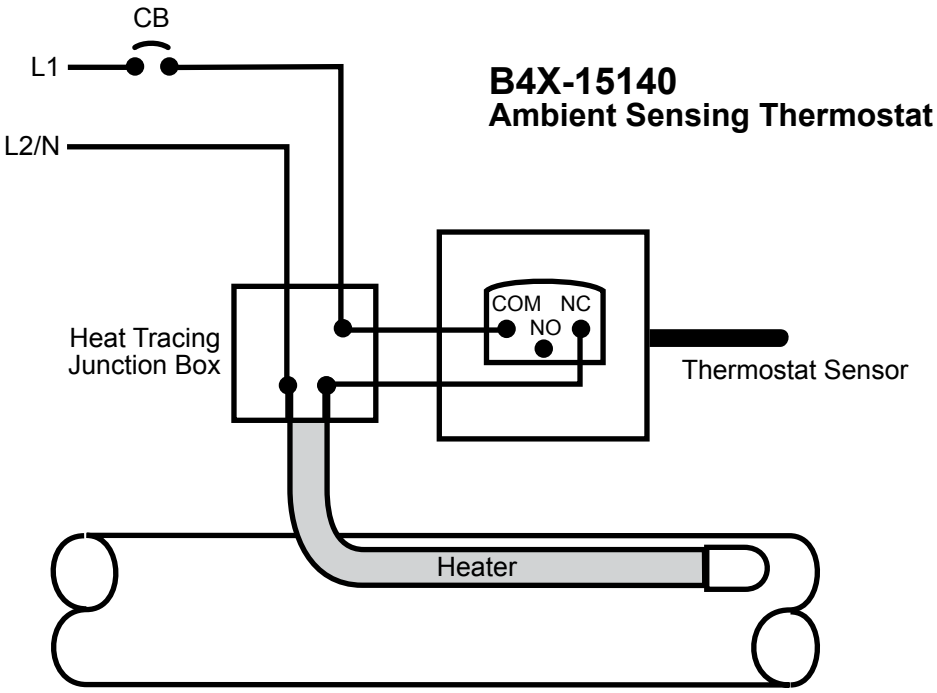
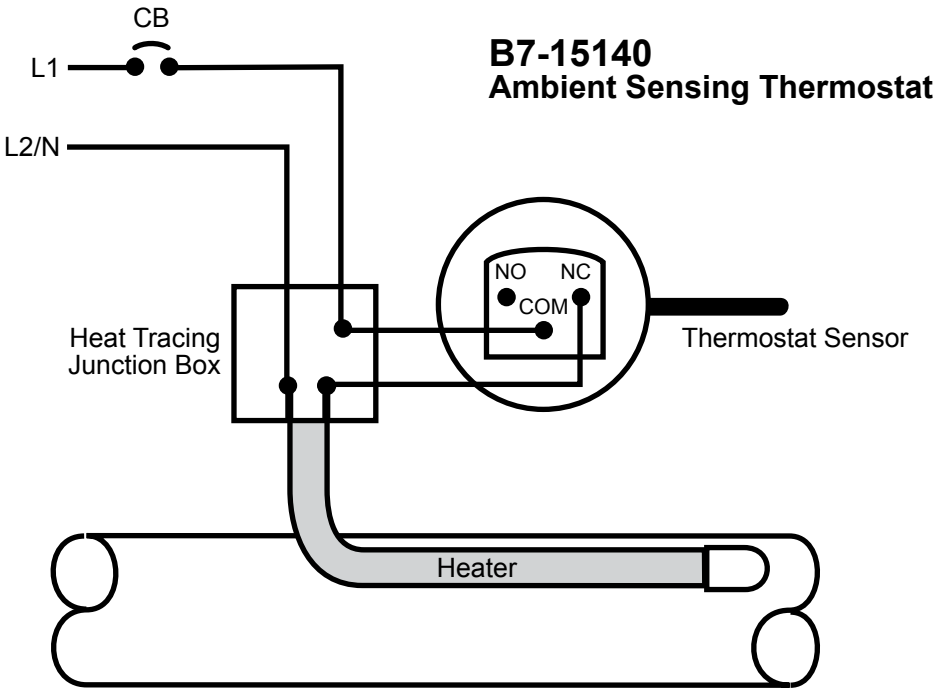
B4X-15140 and B7-15140

ADJUSTABLE AMBIENT CONTROL THERMOSTATS

TYPICAL WIRING DIAGRAM [1] . . .





Note . . .

1. The National Electrical Code, Article 427-56(b) states: “Temperature- controlled switching devices which do not have an “off” position shall not be required to open all ungrounded conductors and shall not be permitted to serve as the disconnecting means.” The E4X/E7-25325 thermostats have no “off” position and therefore may be used for switching one conductor of a two-phase heating circuit.