SERIES 08-80 Probe Style

Bimetal Temperature Limiting Thermostats

High Temperature - Range 240-500 °F

F-08-80-001
June 2018

FEATURES

- Calibrated Settings from 240 to 500°F (116 to 260°C)
- Snap-Action Switching
- Shock and Vibration Resistant
- Hermetically Sealed
- Tamper-Proof, Preset Temperature
- 100% Factory Tested
- CSA Certified
- CE Compliant 0086
- UL Component Recognized



SPECIFICATION

Temperature Range	Tolerances		Differential (Nominals)	Electrical Rating
	Open	Close		
240 to 350 °F (116 to 177 °C)	±10 °F (±6 °C)	±8 °F (±4.5 °C)	30 °F (17 °C)	**cULus** 120/240VAC, 3A, Resistive, 435 °F AC 100K cycles 120/240VA Pilot duty, 500 °F max, 100K cycles 30DC, 3A, Resistive, 500 °F max, 30K cycles
351 to 400 °F (178 to 204 °C)	±18 °F (±10 °C)	±15 °F (±8 °C)	45 °F (25 °C)	**CSA** 120/240VAC, 3A, Resistive, 500 °F Max 100K cycles 120/240VA Pilot duty, 500 °F max, 100K cycles 30DC, 3A, Resistive, 500 °F max, 30K cycles
401 to 450 °F (205 to 232 °C)	±20 °F (±11 °C)	±18 °F (±10 °C)	50 °F (33 °C)	**CE** 120/240VAC, 3A, Resistive, 500°F Max 100K cycles AC/DC p.f. > 0.6
451 to 500 °F (233 to 260 °C)	±25 °F (±14 °C)	±20 °F (±11 °C)	50 °F (28 °C)	

Note: Differences in temperature checking procedures and equipment between those of the manufacturer and the user can result in temperature variances of up to 2°F (1°C) or 1% of the setting, whichever is greater.

APPLICATIONS

- Commercial Cooking Equipment
- Air and Gas Compressors
- Diesel Engine Coolant and Lubricant Systems
- Refrigeration Compressors
- Plastics Processing Equipment
- Hydraulic Systems
- Medical and Dental Equipment

DESCRIPTION

These high temperature probe-type thermostats are designed specifically for applications where high temperature exposure, hermeticity and vibration resistance are required. When the preset temperature is reached, a snap-acting bimetal disc mounted in the tip of the probe provides fast thermal response and rapid contact action.

To ensure hermeticity, the probes feature welded, stainless steel construction with glass to metal seals. Switch design and construction provides high vibration and shock resistance sufficient to meet MIL-STD-202, Method 204, Condition D. High contact force and the excellent wiping action of the contacts combine to make the probe suitable for light loads of 100 milliamperes or less.

PERFORMANCE

Switch Action: SPST open or close on temperature rise.

Dielectric Strength: 1500VAC, terminals to case.

Insulation Resistance: 100 Megohms at 500VDC.

Vibration: Exceeds MIL-STD-202, Method 204, Condition D; 20G, 10-5000 Hz.

Thermal Shock: MIL-STD-202, Method 107.

Mechanical Shock: MIL-STD-202, Method 213; 100G, 10ms.

Working Pressure: 600 PSI up to 550°F (288ÞC).

Ambient Range: -50 to +600°F (-45 to +315ÞC).

Specifications subject to change without notice.

CSA File No. 159064

CAN/CSA C22.2 No. 0-10
CSA Std C22.1 No. 24-93
ANSI/UL 873

CE682409
BS EN60730-1
BS EN 60730-2-9

UL Component Recognized, File No. E18974

UL 873
CAN/CSA C22.2 No. 24-15

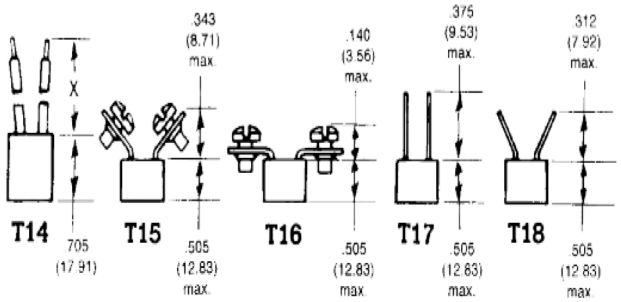
TEST SAMPLES

Operating samples generally can be supplied for application tests. A completed Fenwal Snap-Disc Application Data form, available from Fenwal (at www.fenwalcontrols.com) or your local Fenwal sales representative, is required to select and produce an operating sample.

MATERIALS

- **Body and Tube:** 300 Series Stainless Steel
- **Seal:** All welded construction with glass to metal seals.
- **Headfill:** Black epoxy.
- **Contacts:** Fine Silver.

TERMINATIONS (SEE TABLE 1)



Note: Dimensions are shown in parentheses are in millimeters.

MOUNTING (SEE TABLE 1)

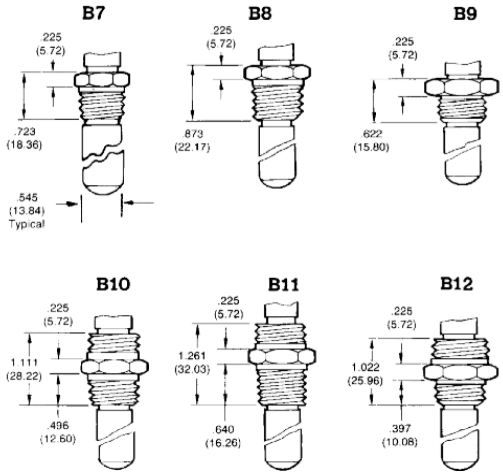


TABLE 1

Mounting Configurations Standard Threads	
B7 - 3/8-18PTF, SAE short, 11/16 in. hex	
B8 - 1/2-14PTF, SAE short, 7/8 in. hex	
B9 - 3/4-16UNF3A, 1 in. hex	
Coupling Head	
B10 - 3/8-18PTF, SAE short x 1/2-14NPSM, 7/8 in. hex	
B11 - 1/2-14PTF, SAE short x 1/2-14NPSM, 7/8 in. hex	
B12 - 3/4-16UNF3A x 1/2-14NPSM, 1 in. hex	
Terminations and Positions	
T14 - Lead wires	
*T15 - 8-32 screw terminals, 45Þ offset	
*T16 - 8-32 screw terminals, 90Þ offset	
T17 - 1/4 in. Quick Connects, parallel vertical	
T18 - 1/4 in. Quick Connects, parallel, 30Þ offset	
* Available only in B7, B8 and B9 configurations	
Lead Wires (specify length)	
L1 - No Lead Wires	
L3 - 200°C TFE, 18 AWG, 600V insulation	
L4 - 250°C TGGT, 18 AWG, 600V insulation	
Tube Lengths	
P1 - 9/16 in. (14 mm)	P2 - 1 in. (25 mm)

HOW TO ORDER

Based on the listed specifications, an eleven (11) digit catalog number will be assigned by the factory. All future communications with Fenwal should reference this number.

To order:

1. Specify Series 08-80.
2. Specify opening and closing temperatures in degrees Fahrenheit or Celsius with tolerance, and whether the switch should open or close on temperature rise.
3. Specify mounting configuration, terminations, leads wire type (if applicable), and tube length by selecting one code number from each category in Table 1.

EXAMPLE: Series 08-80 open at 390°F±18°F, close at 355°F±15°F; B8, T17, L1, P2.

EXPORT INFORMATION (USA)
Jurisdiction: EAR
Classification: EAR99
This document contains technical data subject to the EAR.

FENWAL CONTROLS

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This literature is provided for informational purposes only. KIDDE-FENWAL, INC. assumes no responsibility for the product's suitability for a particular application. The product must be properly applied to work correctly. If you need more information on this product, or if you have a particular problem or question, contact KIDDE-FENWAL, INC., Ashland, MA 01721.

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Fenwal Controls
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EU DECLARATION OF CONFORMITY

We

Company Name:	Kidde-Fenwal, LLC
Postal Address:	400 Main Street
City and Post Code:	Ashland, MA 01721
Tel:	508-881-2000

Declare that the DoC is issued under sole responsibility and belongs to the following product:

Apparatus Model(s)	Series 08-02 & 08-03 and 08-80 & 08-81
Type:	Fitting
Batch Number	Date code and Revision Level Assigned per production lot, (YYWW RR)

Object of the Declaration:

Series 08-02 & 08-03 Surface Mount Bimetal Thermostats
Series 08-80 & 08- 81 Probe Mount Bimetal Thermostats



SURFACE MOUNT



PROBE MOUNT

The object of the declaration described above is in conformity within the relevant union harmonization legislation:

Gas Appliance Regulation:	**(EU) 2016/426**	*Low Voltage Directive:*	**2014/35/EC**
EMC Directive:	**2014/30/EC**	*Rohs*	**2011/65/EU**

The following harmonized standards and technical specifications have been applied:

BS EN 60730-1:2006 +A1:2019	Automatic Electrical controls for Household and Similar use. Part 1 General Requirements
BS EN 60730-2-9:2019 +A2:2020	Automatic Electrical controls for Household and Similar use Part 2-9 Particular requirements for Temperature Sensing Controls

Name of Notified Body & Number:	BSI Group, 2797, EU Type Examination Certification
Notified Body Certificate No.:	Series 08-02 & 08-03: CE682411 Series 08-80 & 08-81: CE682409
NB GAR Surveillance Certificate No.:	CE 691115 GAR Surveillance
Surveillance Audit Notified Body:	BSI Group

For copies of the Installation Instructions and the EU DoC, got to www.fenwalcontrols.com, - Document Library - Data sheets.

Paul Finn

Kidde-Fenwal, LLC Ashland, MA USA	29 October 2025	Paul Finn, Certification Engineer
Place of Issue:	Date of Issue	Name

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