Excellent Design & Manufacture

Temperature Detectors

The EDM temperature detectors utilizes a vapor-pressure thermal system. Fluid vapor pressure changes predictably according to the influence of temperature on the sensing bulb. Process temperature changes cause proportional vapor pressure changes in the temperature sensing bulb that act on the diaphragm/piston assembly to actuate and deactuate a snap-action electrical detecting element at discrete process temperatures. The instrument's behavior is determined by the vapor pressure principle.

Application Information

Basic models with direct and six-foot remote temperature bulbs can be specifed.

More specific application requirements can be met by selecting optional components, such as housings and electrical detecting elements, from the balance of the catalog.

Features and Benefits

Robust Construction

- Rugged, high-cycle rate tolerance, long life, not critical to vibration, high overrange and proof pressures, excellent corrosion resistance to hostile environments.
- Enclosure ratings: NEMA 1, 4, 4X, 7, or 9 available.
- Ingress protection rating up to IP66.

Vapor Pressure Principle

- Device's behavior is predictable and in accordance with the vapor pressure principle.
- Minimal ambient temperature influence, fast response, high repeatability, narrow dead band.

Vapor Fill Fluid

- Excellent chemical and thermal stability, predictable temperature-vapor pressure curve, nonflammable, low toxicity.

Direct Immersion Temperature Sensing Bulbs

- 316SS can withstand 2300 psig (1000 psig on 105 range) without thermowell, faster response time, lower cost.

Remote Mount Sensing Bulbs

- 316SS capillary tube with 300 Series SS armor allows instrument to be panel mounted and bulb to be remotely located.
- Standard 300 Series SS armor protects capillary.

Snap-Action Electrical Detecting Element

- Long life, high load capacity, high ambient temperature limit, insensitive to vibration, SPDT or DPDT detecting action, optional "hermetically sealed" capsule for hazardous locations and hostile environments.

Shock/Vibration

- Select models tested to MIL-S-901D (Navy) shock test.
- Select models tested to MIL-S-167 vibration test.

Factory Calibration

- ***FREE!*** Calibrated to customer's set point, ready to install.

Agency Listings/Certification

- Select models with ATEX, IECEx, CSA, INMETRO, TestSafe, UL
- Meets most code and customer requirements.

Safety Certified to IEC 61508 (SIL)

- EDM products are certifed to IEC 61508 for non-redundant use in SIL1 and SIL2 Safety Instrumented Systems for most models. For more details or values applicable to a specific product, see the Safety Integrity Level Quick Guide.

Model Number System

EEB104-018006-018

Adustable Ranges

Adjustable Range Increasing Temperature		Typical Dead Band		Overrange Temperature		Maximum Process Pressure	
°F	°C	°F	°C	°F	°C	psi	bar
50 to 200	10 to 93	1.2	0.7	340	171	2300	158

Product Specifications

Sensing Bulb Designator

- Mounting Configuration: Remote
- Capillary Length: 6.0 feet / 1.8 meters
- Process Connection: 1/2” NPT(M)

Housing

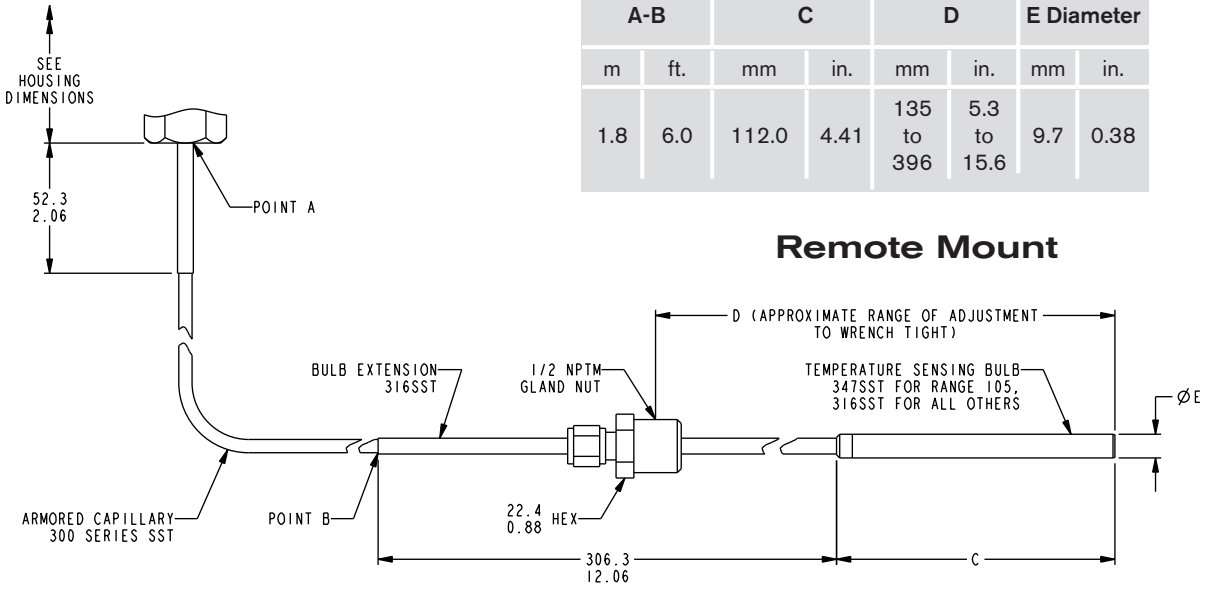
- Weatherproof - NEMA 4, 4X, IP66
- Electrical: 3/4” NPT(F) - Top
- Standard terminal block
- Material: Aluminum

Detecting Element

- Designator: SPDT
- Dead Band Multiplier: 1.0
- Rating: 5.0 Amps @ 30 VDC

Dimensions in this catalog are for reference only. They may be changed without notice. Contact the factory for certified drawings for a particular model number. All dimensions shown are expressed as millimeters over inches. (Linear = mm/in.)

A-B		C		D		E Diameter	
m	ft.	mm	in.	mm	in.	mm	in.
1.8	6.0	112.0	4.41	135 to 396	5.3 to 15.6	9.7	0.38



Weatherproof-Non-Hazardous Service (NEMA 4, 4X, IP66)