

# "FJ" Digital Temperature Gauge

## Introduction

The Anderson-Negele FJ Digital Temperature Gauge carries on the tradition of accurate and reliable electronic temperature indication, while incorporating many new features tailored to a growing industry.

This "next generation" product provides high accuracy temperature monitoring in an operator friendly simple to read design. The FJ also offers new options for remote mounting as well as high and low switches for critical applications where user-defined setpoints can be easily programmed.

The battery-operated version can be ordered with or without a secondary 100 ohm 3-wire RTD. The secondary RTD option is ideal for applications that require local indication, as well as remote recording. As only one vessel penetration is required, a cost savings can be realized.

The DC powered version supplies two (2) SPST low voltage contacts assigned to the adjustable setpoints. An optional remote relay module is available that provides SPDT relays rated 6 amps at 250 VAC.

All models feature simple field calibration for fine tuning to the plant reference standard. As such, the FJ makes a perfect and cost-effective replacement for any mechanical thermometer, from bi-metals to mercury-in-glass. With resolution to a tenth of a degree, the FJ takes the guesswork out of reading dials and mercury columns. And, because it's an Anderson-Negele Life Sciences Series, you get the added value of all 316 "L" electropolished wetted parts, customer specified permanent tagging, a certificate of calibration, and CMTRs with every unit at no additional cost.

Complete specifications and ordering information are available on the reverse. For additional information please visit us on the web at [www.anderson-negele.com](http://www.anderson-negele.com), or contact your local Authorized Anderson-Negele Distributor.

## Features

- Models and fittings specifically designed for Pharmaceutical and Biotech applications
- Operates on field replaceable batteries; DC switching version available
- Large Liquid Crystal Display makes viewing easy and repeatable
- All models offer field calibration capability
- All programming and adjustments behind tamper-resistant back plate



Specifications

Compliance: 3-A, NEMA 4X, IP-66  
 Product Contact Material: Fitting & Probe: 316L SS  
 Product Contact Finish:  $R_a$  max = 8 micro inches, Electropolished (32 micro inches for thermowell fittings)  
 Non-Product Contact Surface: Housing - 304 SS  
 Lens - Polysulfone  
 Process Temp. Range: 0 to 300°F (-18 to 150°C)  
 Units: Deg F and Deg C; field selectable  
 Resolution: 0.1°F or °C  
 Accuracy: ± 0.75°F (± 0.4°C)  
 Repeatability: ± 0.2% of full scale (± 0.6°F)  
 Ambient Operating Limits: 40 to 140°F (4.4 to 60°C)  
 Ambient Temp. Stability: Better than 0.1°C per 10°C ambient shift  
 Storage Temp.: 32 to 140°F (0 to 65°C)

Display: LCD: 4 digit main display, 6 digit secondary; 0.9" high contrast LCD  
 Internal Switch Rating: 1 amp at 24 VDC SPST  
 Remote Relay Rating: 6 amp at 250 VAC SPDT  
 Power: Two "AA" 3.6VDC Thionyl Chloride Lithium (Style 0,1,5)  
 9-30V DC external supply (Style 2)  
 Battery Life: Style 0,1,5: 12 month minimum  
 Style 2: Externally powered  
 Vibration: 10 to 60 Hz, 2g  
 Warranty: 2 year  
 Secondary Output: Additional 100 ohm RTD, 3 wire DIN, wire via quick disconnect fitting (Style 1)  
 Display Update: 3 seconds  
 Calibration Adjustment: Via onboard switches

Order Information

**STYLE**

- 0 Standard Thermometer
- 1 Thermometer w/ Optional RTD
- 2 Thermometer w/Dual Switches(DC power /SPST) <sup>2</sup>
- 5 Remote Display Thermometer (must order mounting style 9)

**DISPLAY UNITS**

- 0 Deg F
- 1 Deg C

**MOUNTING**

- 1 Bottom
- 4 Back (90° elbow)
- A Back (90° adjustable elbow)
- 5 Left <sup>4</sup>
- 6 Right <sup>4</sup>
- 7 Top <sup>4</sup>
- 8 Back (45° elbow)
- 9 Remote Display - Bottom Cable Exit

**FITTING/INSERTION**

001-013	1/2" Tri-Clamp <sup>6</sup>	1-1/4"
002-037	3/4" Tri-Clamp <sup>6</sup>	2-3/4"
004-037	1-1/2" Tri-Clamp <sup>6</sup>	2-3/4"
005-049	2" Tri-Clamp <sup>6</sup>	3-1/2"
006-049	2-1/2" Tri-Clamp <sup>6</sup>	3-1/2"
007-053	3" Tri-Clamp <sup>6</sup>	3-3/4"
008-065	4" Tri-Clamp <sup>6</sup>	4-1/2"
010-031	1-1/2" APC "K" <sup>4</sup>	2-3/8"
011-730	2" APC "K" <sup>4</sup>	2-25/32"
016-031	1-1/2" Cherry-Burrell "I"	2-3/8"
017-730	2" Cherry-Burrell "I"	2-25/32"
027-044	1-1/2" G&H "H" Line (male)	3 3/16"
028-056	2" G&H "H" Line (male)	3-15/16"
032-033	1-1/2" Cherry "Q"	2-1/2"
033-049	2" Cherry "Q"	3-1/2"
044-029	1-1/2" #14 Bevel Seat (with 13 H nut) <sup>4</sup>	2-1/4"
045-035	2" #14 Bevel Seat (w/ nut) <sup>4</sup>	2-5/8"

**REMOTE DISPLAY CABLE LENGTH**

- 0 None
- 5 5' (style 5)
- 6 10' (style 5)
- 7 15' (style 5)
- 8 20' (style 5)

**CABLE LENGTH**

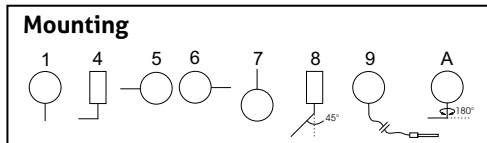
- 00 None (style 0, 2 <sup>3</sup> or 5)
- 02 10' (style 1, 2 or 2 w/AC module)
- 04 20' (style 1, 2 or 2 w/AC module)
- 06 30' (style 1, 2 or 2 w/AC module)
- 08 40' (style 1, 2 or 2 w/AC module)
- 10 50' (style 1, 2 or 2 w/AC module)
- 15 75' (style 1, 2 or 2 w/AC module)
- 20 100' (style 1, 2 or 2 w/AC module)

**PROBE**

- 0 Standard probe (choose for projectile well fittings)
- 1 Heavy duty probe <sup>1</sup> (recommended for lengths over 6")

**Well fittings not electropolished**

- 062-139 Projectile Well(41247) <sup>5</sup> 9-1/8"
- 063-161 Projectile Well(41280) <sup>4,5</sup> 10-1/2"
- 064-187 Projectile Well(41279) <sup>4,5</sup> 12-1/8"
- 084-033 Bi-Metal Well 1/2" NPT <sup>5</sup> 2-1/2"
- 084-057 Bi-Metal Well 1/2" NPT <sup>5</sup> 4"
- 084-089 Bi-Metal Well 1/2" NPT <sup>5</sup> 6"
- 084-137 Bi-Metal Well 1/2" NPT <sup>5</sup> 9"
- 084-185 Bi-Metal Well 1/2" NPT <sup>4,5</sup> 12"
- 084-233 Bi-Metal Well 1/2" NPT <sup>4,5</sup> 15"
- 084-281 Bi-Metal Well 1/2" NPT <sup>4,5</sup> 18"
- 084-377 Bi-Metal Well 1/2" NPT <sup>4,5</sup> 24"



<sup>1</sup> Heavy Duty Probes with 3/4" Dia., insertion lengths from 3-1/2" to 43-1/2" available for standard fittings, Tri-Clamp<sup>®</sup>, Cherry "I", Bevel Seat and Umbrella Consult factory for other fittings.  
<sup>2</sup> For AC Relays, order remote relay module# PM0606004  
<sup>3</sup> Style 2 supplied with 90° Field Wireable Connector, no cable  
<sup>4</sup> Sensors with these options are non-cancellable/non-returnable for credit.  
<sup>5</sup> Meets 3-A when used with a 3-A compliant well  
<sup>6</sup> Not 3-A Compliant

