MCG 310 Analog Output Resistance Temperature Detector

Resistive Temperature Detector

The MCG 310 Resistance Temperature Detector (RTD) measures spot temperature by outputting a resistance change to a gauge or transmitter. This change in resistance, which is directly proportional to temperature, is detected by a precision input bridge circuit in the transmitter.

Analog 4-20mA Output

The loop-powered MCG 310 provides an analog 4-20mA output to easily interface with other devices that accept a 4-20mA input.

Local Graphical LCD Display

The optional local graphical LCD display provides product temperature and analog output status directly from the probe housing, allowing for easy accessibility and status checking.

Specifications

Construction:
Stainless Steel Probe*
*Other Materials Available

Element Lengths:
12” through 60” standard

Standard Thermowell Connections:
Up to 1-1/2” NPT, UP to 3” ANSI, Flange

Accuracy:
0.5º F

Calibrations:
100 ohm Copper, 100 ohm DIN Platinum, 100 ohm “Platinum Characterized” Copper

Features

• Analog 4-20mA Output Standard
• Optional Graphical LCD Display
• Displays Temperature & Analog Output Status Locally
• Accurate Temperature Measurement

Applications

• Temperature measurement for inventory process control
• Volume correction for custody transfer applications
### Dimensions

![Diagram of MCG 310 with dimensions](image)

All designs subject to change. Certified dimensions and specifications available upon request.

### MCG 310 Ordering Guide

**MCG 310 - Resistance Temperature Detector**

Includes: 304 Stainless Steel Housing, 1/2” NPT Connection

#### Model Number Selection:

The model number will consist of a base number **MCG 310** followed by 10 digits. These digits will represent 6 sets of option tables:

- **AB** – Length
  - 01: 12” Long (30 cm)
  - 02: 24” Long (60 cm)
  - 03: 36” Long (90 cm)
  - 04: 48” Long (120 cm)
  - 05: 18” Long (45 cm)

- **CD** – Head
  - 00: No Local Display
  - 01: Local Graphical LCD Display

- **EF** – Well (3/4” NPT)
  - 01: None
  - 02: Standard (316L Stainless Steel)
  - 03: Machined
  - 04: 2” - 300# Stainless Steel RF Flange
  - 05: Van Stone Connection
  - 06: 2” - 150# Stainless Steel RF Flange

- **G** – Calibration
  - 0: Standard Single Element

- **H** – Calibration
  - 1: PI Standard Curve (.3850 coefficient, European)
  - 2: PI American Curve
  - 3: Cu (option 01 is recommended for greater temperature range)

- **IJ** – Spring Loading
  - 01: Normal
  - 02: Spring Loaded