New Products

Process Calibrator
CA300 Series

The CA300 series process calibrators are used to check the operation of instrumentation devices installed in various plants, industrial machinery, and manufacturing equipment and to calibrate them. Since there have been growing concerns about safe, stable operation of plants recently, the importance of maintenance and inspection is attracting increasing recognition. Thus, process calibrators are required to provide high-quality operation more efficiently. Being available in three models of volt mA calibrator, thermocouple calibrator, and RTD calibrator, the CA300 series helps users improve the quality and efficiency of field operations.

MAJOR FEATURES

- CA310 volt mA calibrator
  The CA310 process calibrator is dedicated to checking control loops and inspecting devices. The CA310 offers the best-in-class accuracy of ±0.015% for voltage and current generation and measurement. In addition, the CA310 has an embedded 250Ω resistance for HART and BRAIN communications, which improves the efficiency of field work.

- CA320 TC calibrator
  The CA320 process calibrator is dedicated to inspecting and calibrating thermocouples. The CA320 offers the best-in-class accuracy of ±0.5°C. The CA320 can simulate the generation of thermoelectric power and measure the output of sensors. The CA320 can handle thermocouples of the following standards: JIS (Japanese Industrial Standards), IEC (International Electrotechnical Commission), DIN (German Institute for Standardization), ASTM (American Society for Testing and Materials), and GOST-R (Gosstandart of Russia). Thus, the CA320 can inspect and calibrate instruments equipped with any of the 16 types of thermocouples specified in the above standards.

- CA330 RTD calibrator
  The CA330 process calibrator is dedicated to inspecting and calibrating RTDs. The CA330 can simulate the generation of resistance and measure the output of sensors with the best-in-class accuracy of ±0.3°C. In addition to RTDs complying with JIS and IEC standards, the CA330 can handle RTDs under the GOST-R standard. Thus, the CA330 can inspect and calibrate instruments equipped with any of the 14 types of RTDs specified in these standards. The CA330 can handle 4-wire RTDs, as well as 2-wire and 3-wire RTDs, enabling generation and measurement with higher precision.

MAJOR SPECIFICATIONS

- Basic accuracy
  CA310: ±0.015% (DC voltage/mA source and measurement)
  CA320: ±0.5°C (typical for type K)
  CA330: ±0.3°C (typical for Pt100)

- Source and measurement range
  - CA310 voltage/mA calibrator
    Current generation (DC) : 20 mA
    Current simulation (SINK) : 20 mA
    Voltage generation (DC) : 500 mV/3 V/30 V
    Voltage measurement (DC) : 20 mA/50 mA
    Voltage measurement (DC) : 500 mV/3 V/30 V/50 V
    Loop power supply: 24 V ± 1 V (communication resistance: OFF, load current: 24 mA)
    24 V ± 6 V (communication resistance: ON, load current: 20 mA)
  - CA320 thermocouple calibrator
    Type: K/E/J/T/N/L/U/R/S/B/C/XK/A/D (W3Re/W25Re)/G (W/W26Re)/PL-II
    Voltage generation and measurement (DC): 90 mV
  - CA330 RTD calibrator
    Type: Pt100 (4 types)/Pt500/Pt1000/Cu10/Ni120/Pt50/Pt50G/Pt100G/Cu50M/Cu100M
    Resistance generation and measurement: 500Ω/3000Ω

- Display
  Segment LCD

- Display refresh rate
  Approx. 1 sec.

- Warm-up time
  Approx. 5 min.

- Operation temperature and humidity range
  –10 to 55°C, 20 to 80%RH (without condensation)

- Power supply
  4 alkaline AA batteries
  Dedicated AC adapter (optional)

- Battery life
  CA310: 50 hours (source: 5 V, load: over 10 kΩ)
  CA320: 25 hours (source: 20 mA, load: under 5 V)
  CA330: 55 hours

- Dimensions
  Approx. 90 (W) × 192 (H) × 42 (D) mm

- Weight
  Approx. 440 g (including batteries)

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