

Model 772C Two-sensor Input Conductivity / Resistivity / TDS Analyzer

Features :

- Dual channel analyzer.
- Multiple measurements.
(Conductivity, resistivity, TDS)
- Ultra-pure water capability, USP standards
- Calculated sensor A and B measurement.
[% rejection, ratio (B/A), difference (B-A)]
- Accepts both RTD 1K ohm/RTD 100 ohm temperature input.
- Large backlit LCD readout.
- Two/Three isolated 4-20 mA analog outputs.
- Menu - guided operation.
- Universal-mount ½ DIN case, captive screws.
- Passcode – protected access.
- Electrical Protection
- Optional RS-232 communication



Specifications

Display Graphic dot matrix LCD, 128 x 64 pixels with LED backlighting; ½ inch (13 mm) main character height; 1/8 inch (3 mm) auxiliary information character height; menu screens contain up to six text lines

Measurement

Selectable Ranges

Conductivity µS/cm: 0-2.000, 0-20.00, 0-200.0, or 0-2000; mS/cm: 0-2.000, 0-20.00, 0-200.0

Resistivity 0-19.99 M• · cm or 0-19.99 K• · cm

TDS..... 0-9999 ppm or 0-9999ppb

Calculated Sensor A and B Measurement:

% Rejection: 0-100%

ratio B/A 0-9.999, 0-99.99, 0-999.9, or 0 – 9999

Difference B-A Same ranges as those listed above for conductivity, resistivity, or TDS

Temperature -20.0 to + 200.0°C

mA Outputs (# 1, # 2 ,# 3) 4.00-20.00 mA

Ambient Conditions -30 to + 50°C (-22 to +122°F); 0-100% relative humidity, non-condensing

Relays

Types/Outputs Two/Fo u r electromechanical relays; SPST
Contacts; U. L. rated 5A 115/230 VAC, 5A@ 30 VDC resistive

Functional Modes Each relay (A,B, C,D) can be assigned to be driven by the:
• Selected sensor A or B measurement (conductivity, resistivity, TDS, or temperature)
• Calculated Sensor A and B measurement (% rejection, rati on B/A, or difference B-A)

Operating Modes

Control: Settings for high/low phasing, setpoint, deadband.

Alarm: Settings for low alarm point, low alarm point deadband,
high alarm point, high alarm point deadband.

Indicators Relay A,B,C,D annunciators indicate respective relay status.

Temperature Compensation Automatic, -20.0 to +200.0°C with selection for Pt 1000 ohm RTD or Pt 100 ohm RTD
temperature element, or a manually entered value from 0°C to 100°C

The following temperature compensation methods are available:

- Linear % per °C slope
- No compensation

Sensor-to-Analyzer Distance 300 ft. (91 m) maximum

Power Requirements 90-130 VAC, 50/60 Hz. (10 VA max.) or 190-260 VAC, 50/60 Hz. (10VA max.)

Calibration Methods:

1-point Sample MethodEnter one reference solution value or one sample value
(determine by laboratory analysis or comparison reading).

Zero MethodWith the dry sensor in air, press keys to initiate automatic system zeroing.

Outputs: Analog Two/Three isolated 4-20 m outputs; each with 0.004 mA
(12-bit) resolution and capability to drive up to 600 ohm loads

Note: Each output can be assigned to represent sensor A or B's selected parameter (conductivity, resistivity, or TDS), sensor A or B's temperature, or a calculated sensor A and B measurement (% rejection, ratio B/A, or difference B-A). Parameter (or calculated measurement) values can be entered to define the endpoints at which the minimum and maximum mA output values are desired. During calibration, both outputs as well as relays are held at their present values.

Memory Backup (non-volatile) ... All user settings are retained indefinitely in memory (EEPROM)

Analyzer Performance (Electrical, Analog Output):

Accuracy 0.5% of span
 Stability 0.05% of span per 24 hours, non-cumulative
 Repeatability 0.1% of span or better
 Temperature Drift .. Zero and span : less than 0.03% of span per °C;

Mechanical:

Enclosure NEMA 4X; ½ DIN Polycarbonate with four ½ inch conduit holes and two stainless steel mounting brackets.
 Mounting Conf Surface, Panel and horizontal pipe mount. Vertical pipe mounting optional
 Net Weight 3 lbs. (1.36 kg) approximately

Ordering Information

MODEL NUMBER 772C Contacting conductivity/resistivity/TDS analyzer (with dual input)
LINE VOLTAGE 1 115 volts, 50/60 Hz. 2 230 volts, 50/60 Hz.
ANALOG OUTPUT 10 - No mA outputs 11 - With Isolated mA outputs
RELAYS R0 - No Relays R1 - With 2 Relays
N Standard Instrument K Special Instrument

Product Number (Specify for both channels. a) Range, b) Cell constant, c) Temperature input elements)

Choose one from each category

A sensor's measuring range is determined by its basic cell constant. Choose a sensor with a cell constant that can handle your measurement needs. The table below lists cell constant and their measuring ranges.

Sensor Cell Constant	Inherent Measuring Range		
	Conductivity (in µS/cm)	Resistivity (in MΩ • cm)	TDS (in ppm)
0.05	0-100	0.002-20	See Note below
0.1	0-200	0.002-20	See Note below
0.5	0-1000	0.001-20	See Note below
1	0-2000	Not applicable	See Note below
5	0-10,000	Not applicable	See Note below
10	0-200,000	Not applicable	See Note below

NOTE A: To determine which cell constant to use, convert the full-scale TDS value to its equivalent conductivity value at 25°C. Do this by multiplying the TDS value by “2”. Then find the range in the conductivity column corresponding to the calculated value.

Dimensions Inches(mm)

