

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

**Features:**

- Dual channel analyzer.
- Multiple measurements. (Conductivity, resistivity, TDS)
- Ultra-pure water capability.
- 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 4-20 mA analog outputs.
- Menu - guided operation.
- Universal-mount 1/2 DIN case.
- Passcode – protected access.
- Electrical Protection.
- Optional RS-232 communication.



**.Specifications:**

Display.....Graphic dot matrix LCD, 128 x 64 pixels with LED backlighting; 1/2 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 MΩ •cm or 0-19.99 KΩ • cm

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

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 and # 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/Four electromechanical relays; SPDT (Form C)

Contracts; 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, ration 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 and 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 enter 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 Method.....Enter one reference solution value or one sample value (determine by laboratory analysis or comparison reading).

Zero Method.....With 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 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
- Sensitivity.....0.05% of span
- Stability.....0.05% of span per 24 hrs,  
non-cumulative
- Non-linearity.....0.05% of span
- Repeatability.....0.1% of span per °C or better
- Temperature Drift...Zero: less than 0.01% of span per °C

**Mechanical**

- Enclosure.....NEMA 4X; ½ DIN, Polycarbonate with two 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**

<b>MODEL NUMBER</b>	
772C	Contacting conductivity/resistivity/TDS analyzer (with dual input)
<b>LINE VOLTAGE</b>	
1	115 volts, 50/60 Hz. Single-fused (for single phase line power)
2	230 volts, 50/60 Hz. Single-fused (for single phase line power)
<b>ANALOG OUTPUT</b>	
I0	No mA outputs
I1	With Isolated mA outputs
<b>RELAYS</b>	
R0	No Relays
R1	With 2 Relays
R2	With 4 Relays
N	Standard Instrument
K	Special Instrument

Choose one from each category

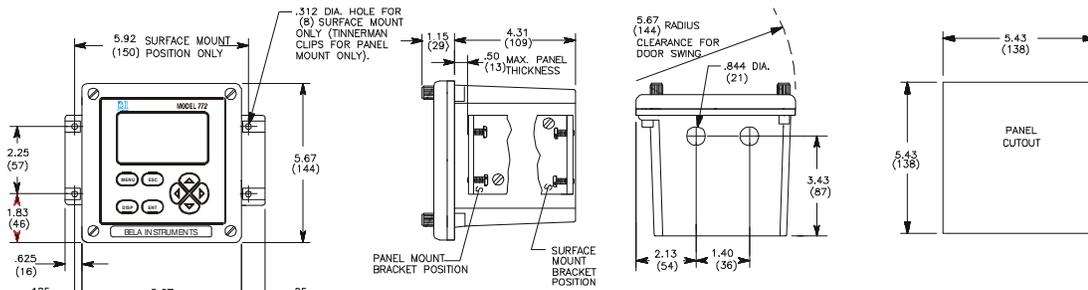
Product Number (Specify for both channels. a) Range, b) Cell constant, c) Temperature input elements)

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.

	<i>Cell Constant</i>	<i>Measuring Ranges, µS/cm)</i>
	0.05	0-200
	0.1	0-200
	0.5	0-2000
	1	0-2000
	5	0-10,000
	10	0-200,000

**NOTE A:** To determine which cell constant to use, convert the full-scale TDS value to its equivalent conductivity value at 25°C. Multiply the TDS value by "2", and then choose the cell constant for that calculated value.

**Dimensions**  
Inches (mm)



Panel cutout (5.43" x 5.43", 138 mm x 138 mm)



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For Upgradation, BI reserves the rights to alter the specifications at any time.