

## Model 672C Conductivity Analyzer

### FEATURES

- Accepts contacting type conductivity sensor with any cell constant.
- Displays conductivity, temperature, system configuration and mA output.
- Simple automated calibration.
- Two-fully programmable relays.
- Auto/Manual temperature compensation.
- Diagnostic error messages identify abnormal system conditions.
- Simple proportional control.
- Customised and OEM designs offered.



### Specifications

#### Operational:

Display.....4-1/2 digit LCD with measurement unit and setup variable identifiers, 7/8" high digits  
 Measuring Range: .....0 - 20, 200, 2000 & 5000 μS/cm; 0 – 10 & 75 mS/cm  
 Temperature ..... (-) 10.00 to (+) 200 °C (14 to 392°F)  
 Ambient Conditions ..... -20 to 60°C (-4 to 140 °F), 0 to 100% relative humidity, non-condensing.

#### Relay Function:

Operating Modes.....**Control:** Setpoint with adjustable deadband. Selectable operation in response to increasing or decreasing measured value.  
**Alarm:** Dual-alarm relay operation with low and high alarm points and fixed deadbands (1.0 % of full scale)  
**Fail-safe:** Reverses normal activation of Relay A and B (in control or alarm mode) so that relays are denergized in the non-control or non-alarm state.  
**System Alarm:** Relays B energized whenever instrument detects a system diagnostic error (out-of-range conductivity and/or temperature input or memory loss). This mode overrides selected control or alarm mode.

Indicators.....Relay A and B annunciators flash on and off whenever respective relay energizes.

Outputs.....Two SPDT contact outputs, U.L. rating: 5A 115/250 VAC, 5A @ 30 VDC resistive.

Conductivity Sensor.....Cell Constant = 0.05, 0.5 or special  
 (a) 3239 (Upto 200°C. **Boiler blowdown steam condensate** applications)  
 Refer : 3239 Datasheet  
 (b) 30000 (Upto 125°C DM water, Multi Distill Column applications)  
 Refer : 30000 Data sheet

Temperature Compensation.....Automatic : 0-200 °C for Pt 1000 RTD. 0-125 °C for 3K Ohm Thermister.  
 Manual : 0-200 °C automatic programmed fixed value in case of temp. element failure

Sensor-to-Analyzer Distance.....300 feet

Power Requirements.....98-132 VAC, 50/60Hz (less than 5VA), Optional 195-265 VAC, 50/60Hz

Analog Outputs\*.....Isolated 0-1 mA, 100 ohms Maximum load  
 Isolated 0-5 VDC, 1000 ohms Maximum load  
 Isolated 4-20 mA, 1000 ohms Maximum load

Range Expand – The analog outputs can be made to represent any 10% segment of the measuring scale.

\*Each output is isolated from the input, ground and line power, but not from each other.

#### Analyzer Performance

##### (Electrical, Analog Output):

Sensitivity .....0.3% of span  
 Stability .....0.1% of span per 24 hours, non-cumulative  
 Non-Linearity .....0.5% of span  
 Repeatability .....0.2% of span or better  
 Temperature Drift .....Zero: 0.05% of span per °C  
 Span: 0.025% of span per °C  
 Response time .....1, 10 or 30 seconds to 90% of value

upon step change, selectable.

##### Mechanical:

Enclosure .....NEMA 4X, ½ DIN with two ½ -inch conduit holes and two stainless steel mounting brackets  
 Mounting.....Surface, panel, and horizontal pipe Mount. Vertical pipe mounting optional  
 Net Weight .....3 lbs. (1.36 kg).

CONDUCTIVITY

### Ordering Information

**MODEL NUMBER**

672C Microprocessor based analyzer in NEMA 4X, 1/2 DIN enclosure, Polycarbonate

**CELL CONSTANT**

K1 0.05  
 K2 0.5  
 K3 1.0 (NTC 3 KΩ only)  
 K4 10.0  
 K5 Special

**TEMPERATURE**

T1 RTD 1K ohm  
 T2 Thermistor 3K ohm

**LINE VOLTAGE**

V1 115 Vac, 50/60 Hz  
 V2 230 Vac, 50/60 Hz

**ANALOG OUTPUT**

I0 Without 4-20mA output  
 I1 Isolated 4-20mA output

**RELAYS**

R0 Without Relays  
 R1 With Relays  
 N Standard Instrument  
 K Special Instrument

— Product Number (specify range)

Choose one from each category.

**Dimensions**

Inches (mm)

