

# ELECTRO - CHEMICAL DEVICES, INC.

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## SPECIFICATION SUMMARY SHEET T23 ORP TRANSMITTER

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### MEASUREMENT RANGE

+1000 to -1000 mV, fully expandable and reversible, standard.

### OUTPUT

4-20 mA or 20-4 mA, linear and expandable.  
Up to a maximum of 3 outputs.

### POWER REQUIREMENTS (with zero loop impedance)

Recommended	24 vdc
Maximum	50 vdc
Minimum	13.5 vdc

### MAXIMUM LOOP IMPEDANCE (@ 24 vdc)

525 ohms for 4-20 mA compliance on primary (channel 1) output; approximately 800 ohms on secondary outputs.

### RELAY MODULE

2 each Form C, SPDT, dry contacts, 50/60 hz.  
5 amps @ 24vdc  
3 amp @ 24vdc inductive  
Single channel T23: Both relays assigned to channel.  
Dual Channel T23: One relay assigned to the primary channel, one relay assigned to the secondary channel  
Relays can be field configurable as high or low relays. The deadband is fully adjustable.

### DISPLAY

Menu driven, 32 character alphanumeric, Supertwist LCD.  
The main menu simultaneously displays (1) process identity (2) process value (and engineering units), (3) percent output, (4) temperature in °C or °F.

### ENCLOSURE

NEMA 4X, weatherproof

### SHIPPING WEIGHT

Standard T23: 2 lbs (0.91 kgs)

### ACCURACY

+/- 0.10% of full scale

### SENSITIVITY

+/- 1.0 mV

### LINEARITY

+/- 0.05% of full scale

### STABILITY

+/- 0.2% per year @ 0°C to 70°C

### RESPONSE TIME

1 second to reach 90% of the change.

### REPEATABILITY

+/- 1.0 mV

### OPERATING TEMPERATURE

-4°F to +158°F (-20°C to +70°C)

### TEMPERATURE COMPENSATION

Not used for compensation; however, temperature is displayed. Accuracy within +/-0.1°C over a 0°C-100°C span.

### 50/60 Hz NOISE REJECTION

Greater than 70 db

### INPUT/OUTPUT ISOLATION

Maximum 300 volts between process input and any 4-20 mA output (single and multiple channel outputs). No isolation between inputs on multiple channel units.

### CALIBRATION

#### Auto Buffer Calibration

Allows the definition of two buffer points, saved in memory, during the initial start-up. This will allow subsequent standardize and span buffer calibrations with only 2 keystrokes.

#### Back-to-Factory Calibration (Factory Restart)

With 2 keystrokes, allows the technician to return the transmitter to a zero electrode offset (asymmetry potential) and to an ideal Nernstian slope (1.000 mV per ORP unit).

#### Temperature Trim

Allows for compensation for any differences in RTDs by programming the offset into the transmitter.

#### Temperature Display

Temperature can be field configured to display in °C or °F.

#### Display Contrast

Fully adjustable for ambient lighting conditions