

## WDT400/410 Specifications

### 1. Measurement Performance

Conductivity Range	0 - 10,000 $\mu\text{S}/\text{cm}$ (microSiemens/centimeter)
Conductivity Resolution	1 $\mu\text{S}/\text{cm}$
Conductivity Accuracy	10 - 10,000 $\mu\text{S}/\text{cm} \pm 1\%$ of reading 0 - 10 $\mu\text{S}/\text{cm} \pm 20\%$ of reading
Temperature Range	32 – 158°F (0 – 70°C)
Temperature Resolution	0.1°C
Temperature Accuracy	$\pm 1\%$ of reading

### 2. Electrical: Input/Output

<b>Input Power</b>	100-240 VAC, 50/60 Hz, 8A Fuse: 1.0 ampere, 5 x 20 mm
<b>Input Signals</b>	
Conductivity Electrode	1.0 cell factor, 10K thermistor
Flow Meter (0, 1 or 2 optional)	Isolated, dry contact closure required (i.e. relay,reed switch)
Flow Switch (0, 1 or 2 optional)	Isolated, dry contact closure required (i.e. reed switch)
<b>Outputs</b>	
Mechanical Relays (5)	Pre-powered on circuit board switching line voltage 6 A (resistive), 1/8 HP All relays are fused together as one group, total current for this group must not exceed 6A
4 - 20 mA (0,1, or 2 optional)	Fully isolated 600 Ohm max resistive load Resolution .001% of span Accuracy $\pm 1\%$ of reading
<b>Agency Approvals</b>	
UL	ANSI/UL 61010-1:2004, 2 <sup>nd</sup> Edition*
CAN/CSA	C22,2 No.61010-1:2004 2 <sup>nd</sup> Edition*
CE Safety	EN 61010-1 2 <sup>nd</sup> Edition (2001)*
CE EMC	EN 61326 :1998 Annex A*

Note: For EN61000-4-6,-3 the controller met performance criteria B.

\*Class A equipment: Equipment suitable for use in establishments other than domestic, and those directly connected to a low voltage (100-240 VAC) power supply network which supplies buildings used for domestic purposes.

### 3. Mechanical

Enclosure Material	Polycarbonate
NEMA Rating	NEMA 4X
Dimensions	8.5" x 6.5" x 5.5"
Display	2 x 16 character backlit liquid crystal
Operating Ambient Temp	32 – 122°F (0 – 50°C)
Storage Temperature	-20 – 180°F (-29 – 80°C)
Graphite electrode pressure rating	150 psi
Flow switch manifold pressure rating	150 psi
Flow switch manifold connections	$\frac{3}{4}$ " NPTF

## 4. WDT Variables and their Limits

		Low Limit	High Limit
<b>Conductivity menu</b>	PPM Conversion Factor	0.200 ppm/ $\mu$ S/cm	1.000 ppm/ $\mu$ S/cm
	Interval Time (sampling)	5 minutes	24:00 hours
	Duration Time (sampling)	1 minute	59 min: 59 sec
	% Calibration Range	-50	+50
<b>Temperature Menu</b>		No variables	
<b>pH Input Menu</b>			
	Days Between Cal	1-99 days	0=no reminder
<b>Bleed Menu</b>	Set Point	0 $\mu$ S/cm	10,000 $\mu$ S/cm
	Dead Band	5 $\mu$ S/cm	500 $\mu$ S/cm
	Bleed Limit Time (set in hours/minutes)	1 minute	8 hrs: 20 min (enabled)
			0=unlimited (disabled)
<b>Feed Menu</b>	Feed Lockout Timer (Mode A)	1 second	99 min: 59 sec
	Percent of Bleed (Mode B)	5 %	99 %
	Feed Time Limit (Mode B)	1 minute	99 min: 59 sec
	Percent of Time (Mode C)	5 %	99 %
	Feed Cycle Time (Mode C)	10 minutes	59 min: 59 sec
	Time per Contact (Mode D)	1 second	59 min: 59 sec
	Divider Count (Mode D)	1 contact	100 contacts
	Feed Time Accumulate (Mode D)	1 minute	99 min: 59 sec
<b>mA Menu</b>	4 & 20 mA Settings	0 $\mu$ S/cm	10,000 $\mu$ S/cm
<b>Access Code</b>	New Value	0	9999
<b>Alarms Menu*</b>	High & Low (set to zero to disable)	1%	50%
<b>Datalog Menu (Optional)</b>		No variables	
<b>Config Menu (Optional)</b>		No variables	
<b>Upgrade Menu</b>		No variables	

\*Note: The Alarm relay is non-programmable. Refer to the Main Menu diagram on page 16 for the list of error conditions that trigger the alarm relay.

## 5. Model Code

WDT400	-	1	4	5	N
WDT410	-				
		Voltage	Output	Sensor	USB

### VOLTAGE

- 1 = 120 VAC, prewired
- 5 = 100-240 VAC, conduit

### OUTPUT

- N = No data output
- 4 = Single 4-20 mA output
- 2 = Dual 4-20 mA output

### WDT400 SENSOR

- N = No electrode
- 1 = Two graphite electrodes & tees, (inline or submersion) 20ft. (6.1m) cable
- 2 = Two graphite electrodes & flow switch manifolds, 20 ft. (6.1m) cable
- 4 = Two high pressure electrodes & glands, 10 ft.(3m) cable
- 5 = Two high pressure electrodes & flow switch manifolds 20 ft. (6.1m) cable
- 6 = Two SS electrodes & tees, 20 ft. (6.1m) cable
- 7 = Two SS electrode & flow switch manifolds on PP panel, 20 ft. (6.1m) cable

### WDT410 SENSOR

- N = No electrode
- 1 = SS + pH electrodes & tees, (inline or submersion), 20ft. (6.1m) cable
- 2 = SS + ORP electrodes & tees (inline or submersion), 20 ft. (6.1m) cable
- 3 = SS + pH electrodes & flow switch manifold on PP panel, 5ft. (1.5m) cable
- 4 = SS + ORP electrodes & flow switch manifold on PP panel, 5ft. (1.5m) cable
- 6 = Graphite + pH electrodes & tees (inline or submersion), 20ft. (6.1m) cable
- 7= Graphite + ORP electrodes, & tees (inline or submersion), 20ft. (6.1m) cable
- 7R= Graphite + ORP rod style electrode & tees, ft. (inline or submersion), 20ft. (6.1m) cable
- 8 = Graphite + pH electrodes & flow switch manifold on PP panel, 5ft. (1.5m) cable
- 9 = Graphite + ORP rod style electrode & flow switch manifold on PP panel, 5ft. (1.5m) cable
- A = High pressure electrodes (Cond + pH) & flow switch manifold on PP panel, 5ft. (1.5m) cable
- B = High pressure electrodes (Cond + ORP) & flow switch manifold on PP panel, 5ft. (1.5m) cable

### USB FEATURES

- N = Software upgrade capability only
- U = Integrated datalogging, event/reset logging, and configuration file import/export