BL983315 • BL983319
BL983321 • BL983329

TDS Mini Controllers

- Models available with 4-20 mA galvanic isolated output with external dosing disable contact
- Large Clear LCD
- Fire Retardant Casing
- Splash-Resistant Cover

These compact, panel mounted, process controllers are for measuring total dissolved solids (TDS) of a process stream. The controllers feature a large LCD with protective cover. Users may choose from automatic or manual dosing modes.

BL983315: When in automatic mode, the dry contact relay is activated when a reading is above the set point. The relay can be used to supply power to a dosing pump or a solenoid connected to a valve. The BL983315 can also be used to monitor the quality of water produced from ion exchange, reverse osmosis (RO) or distillation.

BL983315 uses a 0.5 conversion factor in which 1.0 µS/cm = 0.5 ppm.

BL983319: When in automatic mode, the dry contact relay is activated when a reading is below the set point. The relay can be used to supply power to a dosing pump to add fertilizer to a nutrient solution in order to maintain an ideal concentration.

BL983319 uses a 0.65 conversion factor in which 100 µS/cm = 65 ppm.

BL983321: When in automatic mode, the dry contact relay is activated when a reading is above the set point. The relay can be used to activate a solenoid that switches from one DI (deionized) tank to another or to open a valve that will allow lower TDS water to flow into a tank being monitored in order to lower its TDS. The BL983321 can also be used to monitor the quality of water produced from ion exchange, reverse osmosis (RO) or distillation.

BL983321 uses a 0.5 conversion factor in which 1.00 µS/cm = 0.50 ppm.

BL983329: When in automatic mode, The dry contact relay is activated when a reading is above the set point. The relay can be used to supply power to a dosing pump or a solenoid connected to a valve.

BL983329 uses a 0.5 conversion factor in which 100 µS/cm = 50 ppm.

Specifications		BL983315	BL983319	BL983321	BL983329
Range		0.0 to 199.9 mg/L (ppm)	0 to 1999 mg/L (ppm)	0.00 to 19.99 mg/L (ppm)	0 to 999 mg/L (ppm)
Resolution		0.1 mg/L (ppm)	1 mg/L (ppm)	0.01 mg/L (ppm)	1 mg/L (ppm)
Accuracy		±2% f.s. at 25 °C (77 °F)			
TDS Factor		0.5	0.65	0.5	0.5
Temperature Compensation		automatic from 5 to 50°C (41 to 122°F) with β =2%/°C			
Calibration		manual, with calibration trimmer			
Output		galvanic isolated 4-20 mA output; accuracy ±0.2 mA; 500 Ω maximum load (BL9833XX-2 only)			
Dosing	adjustable setpoint	adjustable setpoint: covers measure range			
	relay	relay closes when reading > setpoint	relay closes when reading < setpoint	relay closes when reading > setpoint	relay closes when reading > setpoint
	dosing contact	maximum 2A (internal fuse protection), 250 VAC or 30 VDC			
	overtime	dosing relay is disabled if setpoint is not reached within the set time interval. Timer adjustable between aprox. 5 to 30 minutes, or disabled by jumper.			
	external disable input	Normally Open: enable / Closed: disable dosing (BL9833XX-2 only)			
Power Supply		models "-0": 12 VDC adapter (included) models "-1": 115/230 VAC; 50/60Hz models "-2": 115/230 VAC, 4-20 mA Output input: 10 VA for 115/230 VAC, 50/60 Hz models; 3 W for 12 VDC models; fuse protected; installation category II.			
Dimensions		83 x 53 x 99 mm (3.3 x 2.1 x 3.9")			
Weight		12 VDC models, 200 g (7.1 oz); 115/230 VAC models 300 g (10.6 oz)			
Ordering Information		**BL983315-0** (12 VDC), **BL983315-1** (115/230 VAC), **BL983315-2** (115/230 VAC, 4-20 mA Output), **BL983319-0** (12 VDC), **BL983319-1** (115/230 VAC), **BL983319-2** (115/230 VAC, 4-20 mA Output), **BL983321-0** (12 VDC), **BL983321-1** (115/230 VAC), **BL983329-0** (12 VDC), **BL983329-1** (115/230 VAC), and **BL983329-2** (115/230 VAC, 4-20 mA Output), are supplied with mounting brackets, transparent cover and quick reference guide with instrument quality certificate.			
Recommended Probe		**HI7634-00** EC/TDS probe with internal temperature sensor and 2 m (6.6') cable (not incl.). **HI7634-00/4** EC/TDS probe with internal temperature sensor and 4 m (13.1') cable (not incl.). **HI7634-00/5** EC/TDS probe with internal temperature sensor and 5 m (16.4') cable (not incl.).			

See EC/TDS probes and cable lengths on page 15.90; TDS solutions begin on page 5.41; see rear connections on page 15.93