

Model 643 pH/ORP Sensor

Specifications	Model 643	Model 643-2	Model 643-3	Model 643-4(X)	Model 643-5HF	Model 643-6
Measurement Range	pH: 0 to 14	pH: 0 to 14	pH: 0 to 14	ORP: -2000 mV to 2000 mV	pH: 0 to 12	pH: 0 to 14
Sensing Element Temperature Range	0 °C to 130 °C (32 °F to 266 °F)	0 °C to 45 °C (32 °F to 113 °F)	10 °C to 105 °C (50 °F to 221 °F)	0 °C to 90 °C (32 °F to 194 °F)	0 °C to 105 °C (32 °F to 221 °F)	0 °C to 90 °C (32 °F to 194 °F)
Sensing Element	Rugged glass tip	Low temperature pH glass tip	High pH glass tip	-4 (P) = Platinum -4(G) = Gold	H.F. Resistant glass tip	Flat glass tip
Wetted Materials	CPVC, Wood or PTFE, Glass	CPVC, Wood or PTFE, Glass	CPVC, Wood or PTFE, Glass	CPVC, Wood or PTFE, Platinum or Gold, Glass (Platinum only)	CPVC, Wood or PTFE, Glass	CPVC, Wood or PTFE, Glass
Process Connections	1.5 in FNPT submersion pipe mount; 1.5 in MNPT via ball valve or direct insertion	1.5 in FNPT submersion pipe mount; 1.5 in MNPT via ball valve or direct insertion	1.5 in FNPT submersion pipe mount; 1.5 in MNPT via ball valve or direct insertion	1.5 in FNPT submersion pipe mount; 1.5 in MNPT via ball valve or direct insertion	1.5 in FNPT submersion pipe mount; 1.5 in MNPT via ball valve or direct insertion	1.5 in FNPT submersion pipe mount; 1.5 in MNPT via ball valve or direct insertion
Pressure & Temperature Limits at Insertion	345 kPa at 50 °C (50 psi at 113 °F)	345 kPa at 50 °C (50 psi at 113 °F)	345 kPa at 50 °C (50 psi at 113 °F)	345 kPa at 50 °C (50 psi at 113 °F)	345 kPa at 50 °C (50 psi at 113 °F)	345 kPa at 50 °C (50 psi at 113 °F)
Electrode Dimensions	Length: 50.8 cm (20.0 in) Diameter: 3.3 cm (1.3 in)	Length: 50.8 cm (20.0 in) Diameter: 3.3 cm (1.3 in)	Length: 50.8 cm (20.0 in) Diameter: 3.3 cm (1.3 in)	Length: 50.8 cm (20.0 in) Diameter: 3.3 cm (1.3 in)	Length: 50.8 cm (20.0 in) Diameter: 3.3 cm (1.3 in)	Length: 50.8 cm (20.0 in) Diameter: 3.3 cm (1.3 in)
Ball Valve (BV) Electrode Dimensions	Retracted BV length: 81.3 cm (32.0 in) Inserted BV length: 63.5 cm (25.0 in)	Retracted BV length: 81.3 cm (32.0 in) Inserted BV length: 63.5 cm (25.0 in)	Retracted BV length: 81.3 cm (32.0 in) Inserted BV length: 63.5 cm (25.0 in)	Retracted BV length: 81.3 cm (32.0 in) Inserted BV length: 63.5 cm (25.0 in)	Retracted BV length: 81.3 cm (32.0 in) Inserted BV length: 63.5 cm (25.0 in)	Retracted BV length: 81.3 cm (32.0 in) Inserted BV length: 63.5 cm (25.0 in)
Maximum Electrode Insertion Depth	22.9 cm (9.0 in)	22.9 cm (9.0 in)	22.9 cm (9.0 in)	22.9 cm (9.0 in)	22.9 cm (9.0 in)	22.9 cm (9.0 in)
Sensor Cable	3.0 m (10.0 ft) with BNC connector; 4 Conductor or 2 Conductor (no temperature compensation)	3.0 m (10.0 ft) with BNC connector; 4 Conductor or 2 Conductor (no temperature compensation)	3.0 m (10.0 ft) with BNC connector; 4 Conductor or 2 Conductor (no temperature compensation)	3.0 m (10.0 ft) with BNC connector; 4 Conductor or 2 Conductor (no temperature compensation)	3.0 m (10.0 ft) with BNC connector; 4 Conductor or 2 Conductor (no temperature compensation)	3.0 m (10.0 ft) with BNC connector; 4 Conductor or 2 Conductor (no temperature compensation)
Preamplifier	Remote or internal	Remote or internal	Remote or internal	Remote or internal	Remote or internal	Remote or internal
Weight	0.9 kg (2.0 lb)	0.9 kg (2.0 lb)	0.9 kg (2.0 lb)	0.9 kg (2.0 lb)	0.9 kg (2.0 lb)	0.9 kg (2.0 lb)
Shipping Weight	1.8 kg (4.0 lb)	1.8 kg (4.0 lb)	1.8 kg (4.0 lb)	1.8 kg (4.0 lb)	1.8 kg (4.0 lb)	1.8 kg (4.0 lb)
Shipping Dimensions	81 cm × 15 cm × 15cm (36 in × 6 in × 6 in)	81 cm × 15 cm × 15cm (36 in × 6 in × 6 in)	81 cm × 15 cm × 15cm (36 in × 6 in × 6 in)	81 cm × 15 cm × 15cm (36 in × 6 in × 6 in)	81 cm × 15 cm × 15cm (36 in × 6 in × 6 in)	81 cm × 15 cm × 15cm (36 in × 6 in × 6 in)
<i>Above shipping specifications are based on a standard configuration single sensor.</i>						