

Intellical Probes



Choose from a broad selection of Intellical probes to meet your most demanding laboratory and field applications, for parameters such as pH, Dissolved Oxygen (DO), Conductivity, Total Dissolved Solids (TDS), Ammonia, Ammonium, Chloride, Fluoride, Nitrate, Sodium, Biochemical Oxygen Demand (BOD) and RedOx (ORP).

All Intellical probes are automatically recognised by HQ/HQD meters and maintain calibration data on the probe itself—eliminating the need of recalibration when switching probes between meters.





Probes for Every Application

- For high-volume labs or applications where performance is critical, Intellical Red Rod pH probes offer exceptional performance and response time across a wide variety of sample types in the laboratory.
- Standard lab probes and rugged field probes are available to measure a wide variety of parameters and are extremely practical for on-site analysis. Thanks to the digital technology, they can be used with cables up to 30 metres long.
- The LBOD probe utilises optical technology to provide fast, accurate DO measurements while dramatically reducing maintenance costs.





Key Features:






- Designed for water & industrial QC testing.
- Smart sensors embedding calibration data and history.
- Complete portfolio for Laboratory and field use.

Intellical Probes - pH

				
Model	PHC101 Laboratory Cable Length: 1 m or 3 m	PHC101 Rugged Field Cable Length: 5, 10, 15, or 30 m	PHC108 Laboratory Cable Length: 1 m	PHC201 Laboratory Cable Length: 1 m or 3 m
Application	Clean & Dirty Samples	Clean & Dirty Samples	Piercing / Semi-Solids	Clean Samples
Electrode Type	Non-Refillable Gel Reference Element	Non-Refillable Gel Reference Element	Non-Refillable Gel Reference Element	Non-Refillable Gel Reference Element, semi-liquid gel
Range	2 - 14 pH	2 - 14 pH	2 - 12 pH	0 - 14 pH
Accuracy	±0.02 pH	±0.02 pH	±0.02 pH	±0.02 pH
Temperature Range	0 - 50 °C (32 - 122 °F)	0 - 50 °C (32 - 122 °F)	0 - 60 °C (32 - 140 °F)	0 - 80 °C (32 - 176 °F)
Sensor material	Epoxy	Zeonor™/ Stainless Steel	Stainless Steel	Epoxy
Special Features	Double junction reference	Double junction reference	For semi-solid media/samples	General purpose. Clean water samples.
Sample Depth	20 mm	20 mm	15 mm	15 mm
Prod. No.	PHC10101 PHC10103	PHC10105, PHC10110, PHC10115, PHC10130	PHC10801	PHC20101 PHC20103

Intellical Probes - pH

				
Model	PHC281 Laboratory Cable Length: 1 m or 3 m	PHC301 Laboratory Cable Length: 1 m or 3 m	PHC705 Laboratory Cable Length: 1 m	PHC705A Laboratory Cable Length: 1 m
Application	Low Ionic Strength Samples	Clean Samples	High Performance (-10 to 100 °C)	High Performance/High Alkalinity
Electrode Type	Refillable Reference Element	Refillable Reference Element	RedRod / Refillable Reference Element	RedRod / Refillable Reference Element
Range	0 - 14 pH	0 - 14 pH	0 - 14 pH	0 - 14 pH
Accuracy	±0.02 pH	±0.02 pH	±0.01 pH	±0.01 pH
Temperature Range	0 - 50 °C (32 - 122 °F)	0 - 50 °C (32 - 122 °F)	-10 - 100 °C (14 - 212 °F)	0 - 100 °C (32 - 212 °F)
Sensor material	Zeonor™	Zeonor™	Glass	Glass
Special Features	Double junction reference	Double junction reference		High-alkalinity samples
Sample Depth	15 mm	15 mm	18 mm	18 mm
Prod. No.	PHC28101 PHC28103	PHC30101 PHC30103	PHC70501	PHC705A01






					
Model	PHC725 Laboratory Cable Length: 1 m	PHC729 Laboratory Cable Length: 1 m	PHC735 Laboratory Cable Length: 1 m	PHC745 Laboratory Cable Length: 1 m	PHC805 Laboratory Cable Length: 1 m
Application	Low Ionic Strength & Dirty Samples - Annular Ring	Surface Measurement	Very Dirty Samples	Extremely Dirty Samples	High Performance (0 to 80 °C)
Electrode Type	RedRod / Refillable Reference Element	RedRod / Refillable Reference Element	RedRod / Refillable Reference Element / High Flow	RedRod / Refillable Reference Element / High Flow	RedRod / Refillable Reference Element
Range	0 - 14 pH	0 - 12 pH	0 - 14 pH	0 - 14 pH	0 - 14 pH
Accuracy	±0.01 pH	±0.01 pH	±0.01 pH	±0.01 pH	±0.02 pH
Temperature Range	-10 - 100 °C (14 - 212 °F)	-10 - 100 °C (14 - 212 °F)	-10 - 100 °C (14 - 212 °F)	-10 - 100 °C (14 - 212 °F)	0 - 80 °C (32 - 176 °F)
Sensor material	Glass	Glass	Glass	Glass	Glass
Special Features	Low Ionic Strength Media	Surface Measurements	Dirty Media	Clogging Media	
Sample Depth	14 mm	1 mm	14 mm	18 mm	18 mm
Prod. No.	PHC72501 PHC72501AP*	PHC72901 PHC72901AP*	PHC73501 PHC73501AP*	PHC74501 PHC74501AP*	PHC80501 PHC80501AP*

*AP=Application Package, includes probe and reagents

Learn More



Intellical Probes - ORP

					
Model	MTC101 Laboratory Cable Length: 1 m or 3 m	MTC101 Rugged Field Cable Length: 5, 10, 15, or 30 m	MTC301 Laboratory Cable Length: 1 m or 3 m	MTC306 Laboratory Cable Length: 1 m	MTC695 Laboratory Cable Length: 1 m
Electrode Type	Non-Refillable Gel Reference Element	Non-Refillable Gel Reference Element	Refillable Reference Element	Metal RedOx Titration, Pt/Ref	Metal RedOx Titration, Pt-Pt
Range	±1200 mV	±1200 mV	±1200 mV	±1200 mV	±1200 mV (±200 µA)
Accuracy	±0.02 mV or 0.05%, whichever is greater	±0.02 mV or 0.05%, whichever is greater	±0.02 mV or 0.05%, whichever is greater		
Temperature Range	0 - 80 °C (32 - 176 °F)	0 - 80 °C (32 - 176 °F)	0 - 80 °C (32 - 176 °F)	0 - 80 °C (32 - 176 °F)	-10 - 80 °C (14 - 176 °F)
Sensor material	Epoxy	Epoxy / Stainless Steel	Epoxy	Epoxy	Epoxy
Special Features	Flat disc sensor for easy cleaning.	Flat disc sensor for easy cleaning.	Flat disc sensor for easy cleaning.	Argentometric Silver nitrate) Titration	Imposed current Redox Titration
Sample Depth	20 mm	20 mm	20 mm	20 mm	10 mm
Prod. No.	MTC10101 MTC10103	MTC10105, MTC10110, MTC10115, MTC10130	MTC30101 MTC30103	MTC30601	MTC69501

Intellical Probes - ISE

						
Model	ISECL181 Laboratory Cable Length: 1 m or 3 m	ISEF121 Laboratory Cable Length: 1 m or 3 m	ISENA381 Laboratory Cable Length: 1 m or 3 m	ISENH318 Laboratory Cable Length: 1 m or 3 m	ISENH418 Laboratory Cable Length: 1 m or 3 m	ISENO318 Laboratory Cable Length: 1 m or 3 m
Parameter	Chloride	Fluoride	Sodium	Ammonia	Ammonium	Nitrate
Electrode Type	Non-Refillable Dritek Gel Reference Element	Non-Refillable Dritek Gel Reference Element	Refillable Reference Element	Non-Refillable Gel Reference Element, Replaceable membrane	Non-Refillable Dritek Gel Reference Element	Non-Refillable Dritek Gel Reference Element
Range	0.1 mg/L (3 x 10 ⁻⁶ M) - 35.5 g/L (1 M) Cl ⁻	0.01 mg/L (5 x 10 ⁻⁷ M) - 19 g/L (1 M) F ⁻	0.023 mg/L (1 x 10 ⁻⁶ M) - 23 g/L (1 M) Na ⁺	0.01 mg/L (5 x 10 ⁻⁷ M) - 14 g/L (1 M) NH ₃ -N	0.018 mg/L (10 ⁻⁶ M) - 9 g/L (0.5 M) NH ₄ -N	0.1 mg/L (7 x 10 ⁻⁶ M) - 14 g/L (1 M) NO ₃ -N
Accuracy	±0.02 mV or 0.05%, whichever is greater	±0.02 mV or 0.05%, whichever is greater	±0.02 mV or 0.05%, whichever is greater	±0.02 mV or 0.05%, whichever is greater	±0.02 mV or 0.05%, whichever is greater	±0.02 mV or 0.05%, whichever is greater
Temperature Range	5 - 50 °C (41 - 122 °F)	5 - 50 °C (41 - 122 °F)	0 - 50 °C (32 - 122 °F)	5 - 50 °C (41 - 122 °F)	0 - 50 °C (32 - 122 °F)	0 - 50 °C (32 - 122 °F)
Sensor material	Epoxy	Epoxy	Zeonor™	Epoxy	Epoxy	Epoxy
Special Features	Dry storage & fast response time. No replacement membranes.	Dry storage & fast response time. No replacement membranes.		Easy-to-replace membrane modules.	Dry storage & fast response time. No replacement membranes.	Dry storage & fast response time. No replacement membranes.
Sample Depth	26 mm	26 mm	26 mm	26 mm	26 mm	26 mm
Prod. No.	ISECL18101, ISECL18103, ISECL181AP*	ISEF12101, ISEF12103, ISEF121AP*	ISENA38101, ISENA38103, ISENA381AP*	ISENH318101, ISENH318103, ISENH3181AP*	ISENH418101, ISENH418103, ISENH4181AP*	ISENO318101, ISENO318103, ISENO3181AP*

*AP=Application Package, includes probe and reagents

Intellical Probes - Conductivity and Oxygen (LDO)

					
Model	CDC401 Laboratory Cable Length: 1 m or 3 m	CDC401 Rugged Field Cable Length: 5, 10, 15, or 30 m	LDO101 Laboratory Cable Length: 1 m or 3 m	LDO101 Rugged Field Cable Length: 5, 10, 15, or 30 m	LBOD101 Laboratory Cable Length: 1 m
Parameter	Conductivity	Conductivity	Dissolved Oxygen	Dissolved Oxygen	BOD
Electrode Type	Conductivity Cell; 4 Poles - Graphite	Conductivity Cell; 4 Poles - Graphite	Luminescent Dissolved Oxygen	Luminescent Dissolved Oxygen	Luminescent Dissolved Oxygen
Range	Conductivity: 0.0 $\mu\text{S}/\text{cm}$ - 200 mS/cm TDS: 0.00 mg/L - 50.0 g/L as NaCl Salinity: 0 - 42 ppt or ‰ Resistivity: 2.5 Ωcm - 49 $\text{M}\Omega\text{cm}$	Conductivity: 0.0 $\mu\text{S}/\text{cm}$ - 200 mS/cm TDS: 0.00 mg/L - 50.0 g/L as NaCl Salinity: 0 - 42 ppt or ‰ Resistivity: 2.5 Ωcm - 49 $\text{M}\Omega\text{cm}$	0.05 - 20.0 mg/L 1 - 200% saturation	0.05 - 20.0 mg/L 1 - 200% saturation	0.05 - 20.0 mg/L 1 - 200% saturation
Accuracy	Cond: $\pm 0.5\%$ of reading TDS: $\pm 0.5\% \pm 1$ digit Salinity: ± 0.1 , ± 1 digit	Cond: $\pm 0.5\%$ of reading TDS: $\pm 0.5\% \pm 1$ digit Salinity: ± 0.1 , ± 1 digit	± 0.1 mg/L from 0 to 8 mg/L ± 0.2 mg/L for greater than 8 mg/L	± 0.1 mg/L from 0 to 8 mg/L ± 0.2 mg/L for greater than 8 mg/L	± 0.05 mg/L from 0 to 10 mg/L ± 0.1 mg/L for greater than 10 mg/L
Temperature Range	-10 - 110 $^{\circ}\text{C}$ (14 - 230 $^{\circ}\text{F}$)	-10 - 110 $^{\circ}\text{C}$ (14 - 230 $^{\circ}\text{F}$)	0 - 50 $^{\circ}\text{C}$ (32 - 122 $^{\circ}\text{F}$)	0 - 50 $^{\circ}\text{C}$ (32 - 122 $^{\circ}\text{F}$)	0 - 50 $^{\circ}\text{C}$ (32 - 122 $^{\circ}\text{F}$)
Sensor material	Noryl	Noryl / Stainless Steel	Polycarbonate / ABS	Polycarbonate / ABS / Stainless Steel	Polycarbonate / ABS
Special Features					Integrated stirring system.
Sample Depth	45 mm	45 mm	10 mm	10 mm	10 mm
Prod. No.	CDC40101 CDC40103	CDC40105, CDC40110, CDC40115, CDC40130	LDO10101 LDO10103	LDO10105, LDO10110, LDO10115, LDO10130	LBOD10101

Intellical Accessories

SM5010 Beaker for Electrode/Sensor Calibration, colourless, 30 mL, pk/80

SM5011 Beaker for pH Electrode Calibration, Red, 30 mL, pk/80

SM5012 Beaker for pH Electrode Calibration, Yellow, 30 mL, pk/80

SM5013 Beaker for pH Electrode Calibration, Blue, 30 mL, pk/80

SM5014 Beaker for pH Electrode Calibration, Green, 30 mL, pk/80

8508850 Universal Probe Stand for Standard Intellical Probes

5818400 Clip a color-coded band to each end of your probe cable for identification. Ten clips of five different colors per package.

NOTE: One package of clips included with each probe.

5825900 Includes protective bell and locking ring. The rugged shroud absorbs the impact from rough wear and tear. NOTE: probe not included.

5828610 Taking reading at specific depths with rugged probes is a snap with these Depth Markers. Visually identify the depth of your probe by attaching Depth Marker securely on cable at points to meet your needs. Five Depth Markers per package.

NOTE: For use with rugged probes only.

5811200 Intellical Sensor Cap Replacement for LDO Sensor

5838000 Intellical Sensor Cap Replacement for LBOD101 Sensor

5812711 Intellical Replacement Membrane Modules for Ammonia ISE, 3 pcs