

# NEW INDUSTRIAL PROBES

from  **HANNA**  
instruments  
C A N A D A



## Process pH and ORP electrodes

Hanna's latest additions to the range of industrial combination pH and ORP electrodes incorporate over 20 years of electrode manufacturing experience. These advanced electrodes feature proven flat tip technology for superior in line performance. The flat tip virtually eliminates deposits that can foul the electrode significantly reducing necessary maintenance.

Each electrode has a built-in potential matching pin. With this feature, electrode fouling due to ground loop current through the reference of the sensor is a thing of the past. These electrodes have been engineered with a replaceable battery to power the amplifier. This feature adds life to the electrode and aids in troubleshooting. Some electrode models are available with a built-in 3-wire Pt 100 sensor allowing the user to do away with any additional probe or thermometer for temperature compensation. For those applications that have proven particularly hostile to glass sensors, Hanna Instruments has developed four types of specialized glass. First is an extremely durable sensor glass for general purpose industrial use. This glass can withstand sudden impacts and extreme mechanical stress. The remaining types of electrode glass allow continuous monitoring in highly acidic solutions containing fluoride ions, as well as high or low temperature process streams significantly increasing the useful life of the electrode.

Your authorized Hanna dealer



**1 - 8 0 0 - 8 4 2 - 6 6 2 9**  
[www.hannacan.com](http://www.hannacan.com)

### Reference System

### Lead

#### Standard glass type pH sensors

Part #	Range	Junction	Type	Electrolyte	M.Pin	ATC	AmpHel	T° Range	Pressure	Connector	Cable	Body
HI 6100405	0-13	Double	Teflon®	Polymer	Yes	-	Yes	-5 to 80°C	6 bars (87 PSI)	BNC	5 m	PVDF
HI 6101405	0-13	Double	Teflon®	Polymer	Yes	Pt100	Yes	-5 to 80°C	6 bars (87 PSI)	BNC+ Lead	5 m	PVDF
HI 1006-2005	0-13	Double	Teflon®	Polymer	Yes	-	-	-5 to 80°C	6 bars (87 PSI)	BNC	5 m	PVDF

#### Low T° glass type pH sensors

Part #	Range	Junction	Type	Electrolyte	M.Pin	ATC	AmpHel	T° Range	Pressure	Connector	Cable	Body
HI 6100605	0-12	Double	Teflon®	Polymer	Yes	-	Yes	-10 to 80°C	6 bars (87 PSI)	BNC	5 m	PVDF
HI 6101605	0-12	Double	Teflon®	Polymer	Yes	Pt100	Yes	-10 to 80°C	6 bars (87 PSI)	BNC+ Lead	5 m	PVDF
HI 1006-1005	0-12	Double	Teflon®	Polymer	Yes	-	-	-10 to 80°C	6 bars (87 PSI)	BNC	5 m	PVDF

#### High T° glass type pH sensors

Part #	Range	Junction	Type	Electrolyte	M.Pin	ATC	AmpHel	T° Range	Pressure	Connector	Cable	Body
HI 6100805	0-14	Double	Teflon®	Polymer	Yes	-	Yes	0 to 100°C	6 bars (87 PSI)	BNC	5 m	PVDF
HI 6101805	0-14	Double	Teflon®	Polymer	Yes	Pt100	Yes	0 to 100°C	6 bars (87 PSI)	BNC+ Lead	5 m	PVDF
HI 1006-3005	0-14	Double	Teflon®	Polymer	Yes	-	-	0 to 100°C	6 bars (87 PSI)	BNC	5 m	PVDF

#### HF resistant glass type pH sensors

Part #	Range	Junction	Type	Electrolyte	M.Pin	ATC	AmpHel	T° Range	Pressure	Connector	Cable	Body
HI 6100205	0-10	Double	Teflon®	Polymer	Yes	-	Yes	-5 to 60°C	6 bars (87 PSI)	BNC	5 m	PVDF
HI 6101205	0-10	Double	Teflon®	Polymer	Yes	Pt100	Yes	-5 to 60°C	6 bars (87 PSI)	BNC+ Lead	5 m	PVDF
HI 1006-4005	0-10	Double	Teflon®	Polymer	Yes	-	-	-5 to 60°C	6 bars (87 PSI)	BNC	5 m	PVDF

pH ELECTRODES FOR ACID SAMPLES WITH FLUORIDE IONS (F<sup>-</sup> max 2 g/L, < 60°C, > 2 pH)\*

\*CONDITIONS LISTED ARE TRUE IN THE PRESENCE OF FLUORIDE

### Reference System

### Lead

#### Platinum type ORP sensors

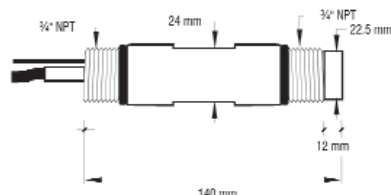
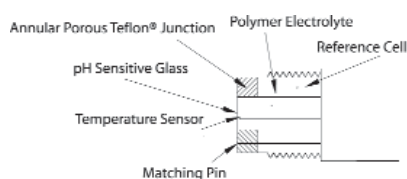
Part #	Range	Junction	Type	Electrolyte	M.Pin	ATC	AmpHel	T° Range	Pressure	Connector	Cable	Body
HI 6200405	±2000 mV	Double	Teflon®	Polymer	Yes	-	Yes	-5 to 100°C	6 bars (87 PSI)	BNC	5 m	PVDF
HI 2004-1005	±2000 mV	Double	Teflon®	Polymer	Yes	-	-	-5 to 100°C	6 bars (87 PSI)	BNC	5 m	PVDF

#### Gold type ORP sensors

Part #	Range	Junction	Type	Electrolyte	M.Pin	ATC	AmpHel	T° Range	Pressure	Connector	Cable	Body
HI 6200505	±2000 mV	Double	Teflon®	Polymer	Yes	-	Yes	-5 to 100°C	6 bars (87 PSI)	BNC	5 m	PVDF
HI 2004-2005	±2000 mV	Double	Teflon®	Polymer	Yes	-	-	-5 to 100°C	6 bars (87 PSI)	BNC	5 m	PVDF

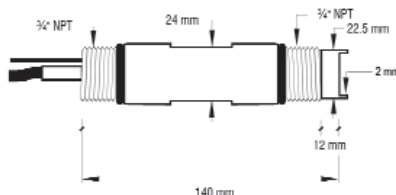
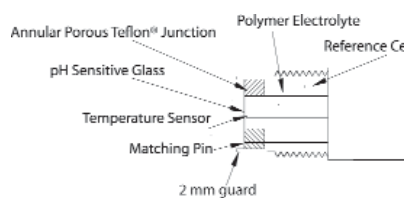
#### Flat tip probe diagram

HI 6100405 HI 6100605 HI 6100205  
HI 6101405 HI 6101605 HI 6101205



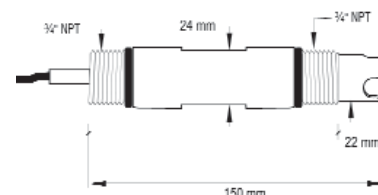
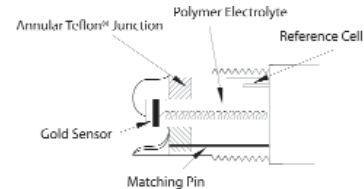
#### Flat tip probe (with guard) diagram

HI 1006-2005 HI 6100805 HI 1006-3005  
HI 1006-1005 HI 6101805 HI 1006-4005



#### Platinum and gold probe diagram

HI 6200405 HI 6200505  
HI 2004-1005 HI 2004-2005



P-L/indprobe