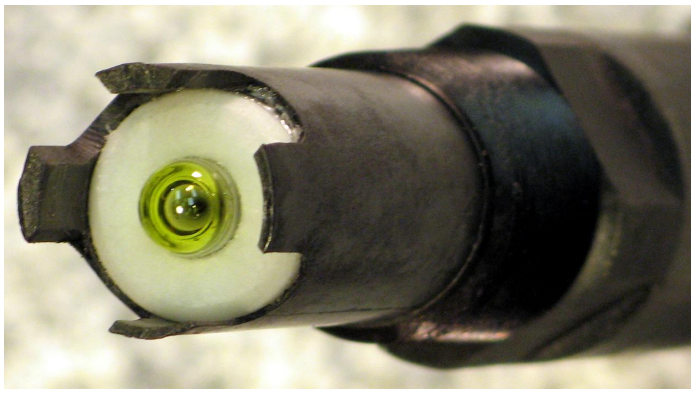
Advanced Sensor Technologies, Inc.
Orange, California USA

Superior pH / ORP / ISE Industrial Sensors

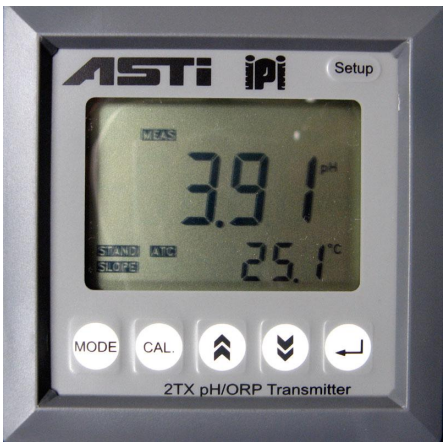
## *Features*

- Guaranteed Longest Lasting Sensors Available with performance guarantee *
- Sensors are compatible with most existing pH/ORP Meters, Transmitters & Analyzers **
- Application Specific Engineering results in optimum Lifetime & Performance ***
- Integrated Temperature Compensation, Preamplifiers & Solution Ground Elements
- Solid State Reference System offers superior resistance to Fouling & Dehydration
- Applications such as Acid/Fluoride, Hi-Temp, Saturated Sodium and Sulfide Resistant are available as standard options
- Custom Applications are available, often at no additional charge
- Most Installation Styles are Supported Including: Immersion, Twist Lock, Valve Retractable & Sanitary
- Available in a wide range of plastics, from inexpensive PVC & CPVC to thermally & chemically resilient **RYTON**® thermoplastic
- High Pressure Applications up to 100 psi for Valve Retractable & 150 psi for Inline Installations can be supported for continuous use
- Operating Temperatures from $^{-}30$ to $^{+}150$ ºC ($^{-}22$ to $^{+}302$ ºF) can be supported for continuous use

## Product Focus No. 1 – Cost Effective pH & ORP Measurement



- Cost-effective pH & ORP sensors can retrofit to your existing Transmitter
  - Solid-state conductive polymer reference system reduces cleaning requirements, allows for aggressive chemical & mechanical cleaning to elongate sensor life
  - Proven in heavy industry slurries, thick-wall pH glass elements are nearly impossible to break during normal process operation, cleaning and calibration
  - Flat pH Elements offer excellent “self-cleaning” operation for slurries
  - Chemically & thermally resistant RYTON® thermoplastic sensor body housing and High Density Poly-Ethylene (HDPE) reference junction matrix
  - Support for embedded temperature compensation elements, stainless steel solution grounds (liquid earth), and conventional & differential preamplifiers allows for connection to almost any existing pH/ORP transmitter or controller
- Cost-effective 4-Wire 4TX and 2-Wire 2TX pH & ORP Transmitters
  - True 2-wire 2TX meter simplifies installation and reduces power requirements
  - 2TX & 4TX support external preamplifiers for installation up to 500 feet away
  - Excellent input impedance support (> $10^{13}$ Ω) for sensors without preamplifiers
  - ¼ DIN pH/ORP Transmitter & Controller in Watertight IP65 Case
  - Four (4) each Programmable 5 Amp Relays & One (1) each 5 Amp Wash Relay
  - Automatic & Manual Temperature Compensation from $^{-}10$ to $^{+}120$ Celsius with 3K Balco or 100 & 1000 Ohm Platinum TC Elements
  - RS 485 Digital Output, 4-digit security password
  - Fully Isolated, Reversible & Programmable single 4-20 mA output for pH or ORP signal with linear or proportional output





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# pH / ORP / ISE Process Control Systems
# Product Focus #1 – Cost Effective pH & ORP

## Superior pH / ORP / ISE Industrial Sensors



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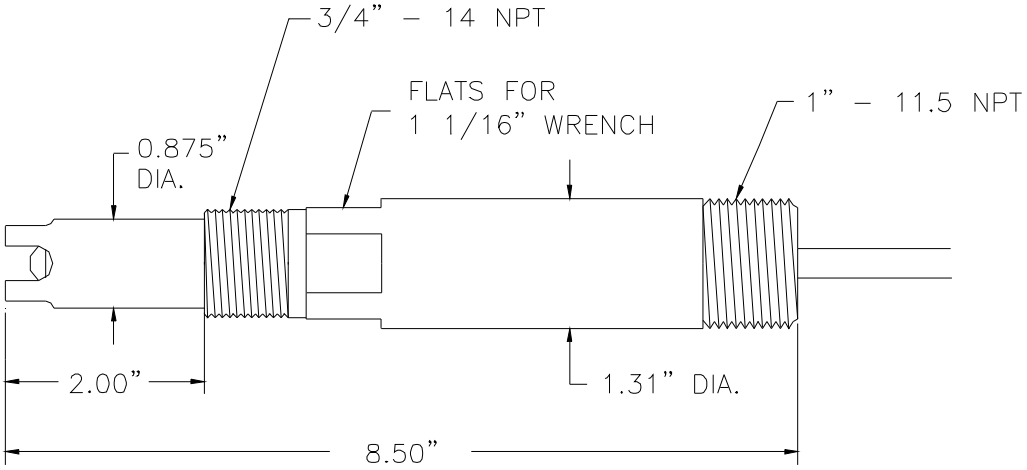
*Low Cost pH Sensor <u>WITHOUT</u> preamplifier for 4TX or 2TX meters*
**Model:** PNZ 2012-1000-15 Low Cost General Purpose pH Sensor
**Description:** ¾"- ¾" MNPT Immersion **CPVC** Bodied Low Cost pH Sensor with thick-wall break resistant Low Impedance Fast Response 9 millimeter MUGG pH glass and **solid-state** conductive polymer double junction **HDPE** reference; Integrated 1000 Ohm Platinum Temperature Compensator; 15 feet of cable to connect directly to 4TX & 2TX pH Transmitters

*Rugged pH Sensor <u>WITH</u> preamplifier for 4TX or 2TX meters*
**Model:** PN 6952-4TX-100 Rugged Saturated Sodium Purpose pH Sensor
**Description:** ¾"- 1" MNPT Immersion **RYTON** Bodied Saturated Sodium Resistant pH Sensor with thick-wall break resistant CH-III pH glass & **solid-state** conductive polymer double junction **HDPE** reference; Integrated 1000 Ohm Platinum Temperature Compensator & 6311 compatible preamplifier; 100 feet cable with tinned lead wires to connect directly to 4TX & 2TX pH Transmitters

*Rugged ORP Sensor <u>WITHOUT</u> preamplifier for 4TX or 2TX meters*
**Model:** PN 6852-1000-15 Rugged General Purpose ORP Sensor
**Description:** ¾"- 1" MNPT Immersion **RYTON** Bodied General Purpose ORP sensor with thick-band platinum (ORP) sensing element and **solid-state** conductive polymer double junction **HDPE** reference; Integrated 1000 Ohm Platinum Temperature Measurement Element; 15 feet of cable with tinned lead wires to connect directly to 4TX & 2TX ORP Transmitters




**<u>Choosing the Correct pH/ORP Sensor</u>**

1. Choose a sensor body type that suits the physical parameters of the installation (refer to the ***Configurations Portion of pH/ORP and Ion Selective webpages***).
2. Choose a sensor that suits the process application, temperature, chemistry, and physical parameters of the installation (refer to ***Sensor Selection Guides and call factory or local sales agent for support***)
3. Choose a sensor housing material that is compatible with the process chemistry, temperature & pressure (refer to ***Chemical Resistance Charts as posted under the Technical Documents portion of the website***).
4. Select suitable temperature compensation element, solution ground & integrated preamplifier based upon the mating pH/ORP Instrument (refer to ***Electrochemical Instrumentation Page & ask for factory support***).
5. Specify the required cable length based upon installation location (refer to ***Part Numbering Guide***).

* Subject to application qualification and review by an approved ASTI sales agent and/or factory. Performance guarantee is posted on the ASTI online application questionnaire page.
** See list of supported pH/ORP/ISE Instruments webpages as posted on the ASTI website.
*** Completion of Application Questionnaire form is required. Other restrictions may apply.

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