

# ***MODEL 28***

## ***DATA SHEET***

### ***pH / ORP ELECTRODE HOLDER***

**Built in preamp— Self-cleaning optional—Temperature compensation**

***WIRELESS COMMUNICATIONS WITH THE ANALYZER***

The Insite Instrumentation Group Model 28 uses the Insite Model 51 (pH) and the Model 52 (ORP) electrodes. The Model 28 holder allows the user to mount pH or ORP electrodes throughout the plant without having to deal with running conduit between the electrodes and analyzer. This allows for significant savings on installation costs while also allowing maximum flexibility in electrode placement. The electrode preamp, signal conditioner, and temperature compensation circuits are all built into the holder, making electrode replacement easy and inexpensive. No other pH / ORP electrode system can compare with the features and benefits of this design.

***UP TO SIXTEEN SENSORS CONNECTED TO ONE ANALYZER***



**MODEL 28 pH/ORP Holder and Electrode  
With MODEL ST2 TRANSMITTER**

The Model 28 holder connects to the Sensor Transmitter junction box (p/n ST2). The ST2 then communicates with the parent analyzer via a ZIGBEE compliant Rf module. There is an embedded antenna with an outdoor line of sight range up to one mile. When several holder/ST2 pairs are installed they form a self-healing mesh network that increases reliability.

The holders incorporate self-cleaning options using either air or water jets. The ability to automatically clean the electrodes in place significantly reduces maintenance and also extends the electrode life. Holder electronic drift is less than 1% per year. Operating temperature range is 0 to 65 degrees C.

**20  
Series**

Wireless Communications



DO SS pH ORP

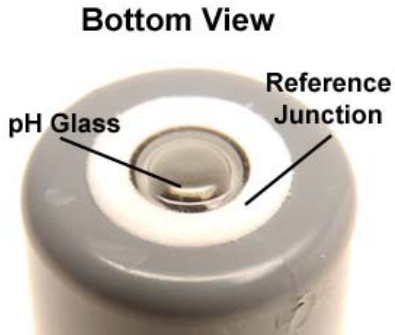


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# MODEL 51 (pH) & 52 (ORP) DESCRIPTION

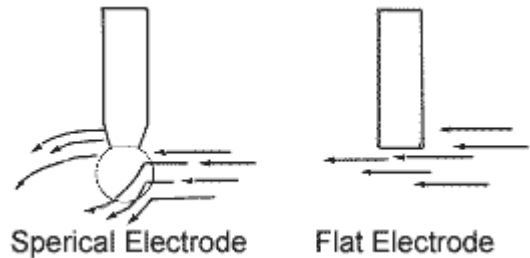
The Model 51 and 52 electrodes use a flat glass surface operating principle. All Insite IG electrodes are combination pH/reference or ORP/reference electrodes with double reference junctions for added protection against contamination. Both the 51 & 52 are cartridge type electrodes making replacement simple and easy. The cartridge is sealed into the holder with a reliable double O-ring seal. All replacement electrodes ship complete with O-rings. The threaded TNC connector at the top of the electrode body ensures a reliable electrical connection to the holder.



In the center of the measuring surface is the pH sensitive flat glass surface. This surface is surrounded by the flat porous reference junction. The large area of this porous junction has thousands of pores allowing for excellent sample contact. The electrode is enclosed by the electrode body. Built into the electrode body is a sealed, gel filled double junction reference half cell. This design adds an extra barrier against contaminants. This also allows the electrode to be used in applications where sulfides, heavy metal ions, and similar materials are present.



The flat surface measuring approach has several advantages over the typical spherical electrode. The flat sensing surface is rugged, abrasion resistant, and to some degree self-cleaning. In both coating and abrasive applications these cartridge type electrodes can improve measurement accuracy, prolong electrode life, reduce maintenance, and virtually eliminate breakage.



The Insite electrode body is CPVC which is suitable for a wide range of water based applications. Materials that come in contact with the process include CPVC, polyethylene, glass, O-rings made of Viton, and, for ORP electrodes, platinum.

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