6542 – Pulp & Paper Resistant pH Sensor for Inline Use with ¾” MNPT Front Threads Immersion and Submersion Type Installations with ¾” MNPT Rear Threads

Front threads interface ¾” FNPT of tee or process tank for Inline Use or Rear threads interface ¾” FNPT of insertion tube for immersion or waterproofing seal for submersion

Measurement pH Range: 0 to 14 pH (-0.5 to +14.5 with Wide Range Option Invoked, Alpha Prefix "V")

Operating Temperature Range: -5 to 105°C (-35 to 150°C with Extreme Dehydration Resistant “E” Option – PVDF Only)

pH Glass Dimensions: 0.315” (8.0 mm) DIA

Initial Impedance: < 1,500 MΩ @ 25°C

Sodium Ion Error: Less than 0.15 pH in sodium (Na⁺) solutions at pH 14.00

Acidic Error: Less than 0.05 pH in hydrochloric acid (HCl) solutions at 0.00 pH

Reference System Specifications:

Type: Double Junction Standard (Triple Junction Optional, Alpha Prefix “TJ”)

Reference Half Cell: Ag/AgCl, Saturated KCl

Primary Junction: Porous Ceramic, Sat. KCl in crosslinked polymer, Interfaced to Secondary Junction

Secondary Junction: Solid-State Non-Porous Cross-Linked Polymer embedded in Kynar/Polypropylene Matrix holds excess KCl assuring saturation at all temps for stability & long sensor service life

Supported Order Options with Alpha Prefix Order Code Designation:


Example Recommended Applications:

Abrasive pulp slurries, high pressure and high flow velocity paper process lines. Inline, immersion or submersible installs for use bleeding and digester process lines. Any measurement where aggressive chemical cleaning is needed to remove fouling and/or low-maintenance operation is required with minimal cleaning and re-calibration.

Storage and Shelf Life:

One (1) year from date of dispatch from factory when stored at indoor ambient room temperature with proper orientation & protector cap. Extreme Dehydration Resistant Option (Alpha Prefix “E”) sensors are suitable for cold storage down to -35°C (-31°F).
1. All dimensions are in inches, unless otherwise indicated with tolerances as detailed below.

2. Sensor body material of construction is CPVC (6X13/6X12), RADEL (6X32), PEEK (6X42), RYTON (6X53/6X54).

3. Drawing shown in the standard with protective tines configuration (4 places, 90 degrees apart).
   The 2 protective tines only "GRO" configuration (2 places, 180 degrees apart) is optional.

4. In the alternate without tines configuration ("NG") the sensor body is exactly 7.5 inches in length.
   The max displacement for parabolic pH glass is 0.2" yielding a max insertion depth of 1.7 inches
   past threads & overall max length of 7.7 inches.

5. Do not use any sensor beyond the factory defined maximum temperature or pressure rating.