

# 7777 Style Durafet® III Electrode Mounting with Vario Pin Connector

## Specification

### Overview

Honeywell's 7777 Style Series of electrode mountings enables an user to interface Durafet III pH electrodes to a process by either submersing the electrode or mounting it into a 3/4" threaded connection.

Durafet® III pH electrodes use a non-glass, ISFET (Ion Sensitive Field Effect Transistor) technology for the pH sensor. This solid-state ISFET technology eliminates the conventional fragile glass pH sensor. The Durafet pH electrode, with over 11 years of industry-proven application experience, provides fast, accurate and dependable pH measurement in the most demanding industrial applications. Typical applications include wastewater influent/effluent, neutralization, cooling towers and process pH measurements.

Durafet® III pH electrodes offer a reliable combination of measuring and reference electrodes together with an integral automatic temperature compensator in a 1-piece corrosion-resistant molded Rytan body. A quick-disconnect Vario Pin Connector enables easier installation and maintenance than with any other electrode available. The compact Durafet III electrodes with 3/4" NPT male connections are easily adapted for in-line or submersion mounting without O-rings or special seals.

### Features

#### Durafet III Electrode

- Uses ISFET (Ion Sensitive Field Effect Transistor) technology for exceptionally fast response.

- Virtually unbreakable, truly solid state.
- **New** Vario Pin quick disconnect, IP68 waterproof cable for easy electrode installation/replacement
- "No epoxy" packaging design for greater reliability
- Reference junction frit and gel are replaceable.
- Low impedance pH signal.
- One electrode for entire pH and temperature ranges.
- Retrofittable to existing pH instrumentation.
- Rugged combination electrodes with fast-responding integral automatic temperature compensator.
- Molded, chemically-resistant Rytan body.
- Suitable for in-line and submersion applications; may be mounted in any position.
- Large reference electrode volume uses a true gel fill that maintains high viscosity with temperature.
- Cap Adapter cable options for mounting to APT series analyzers.
- DirectLine remote cable options for mounting to DL421 DirectLine modules.
- Other cable options to mount to UDA 2182 Analyzer and older Honeywell instruments and preamps.

#### 7777 Style Mountings:

- FM-approved intrinsically safe for Class I, Division 1, Group A, B, C, D areas with APT 2000/DirectLine transmitters and barriers.

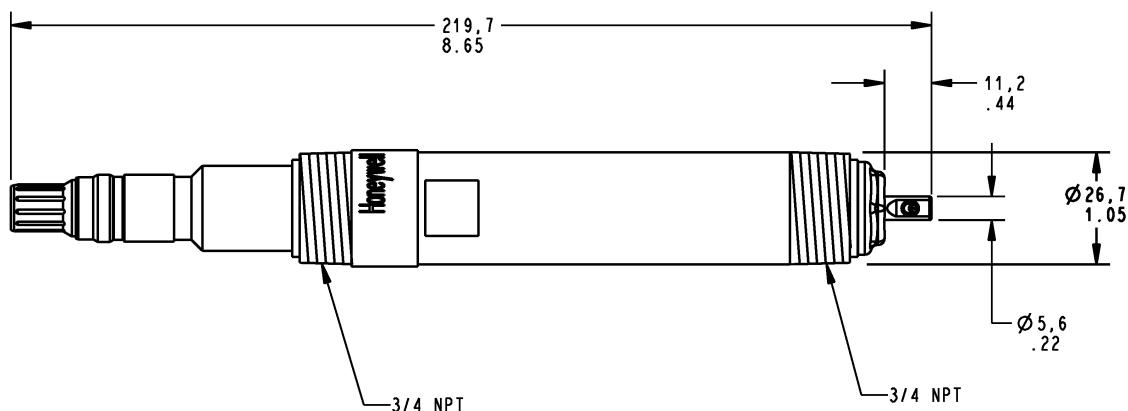


7777 Style Durafet III

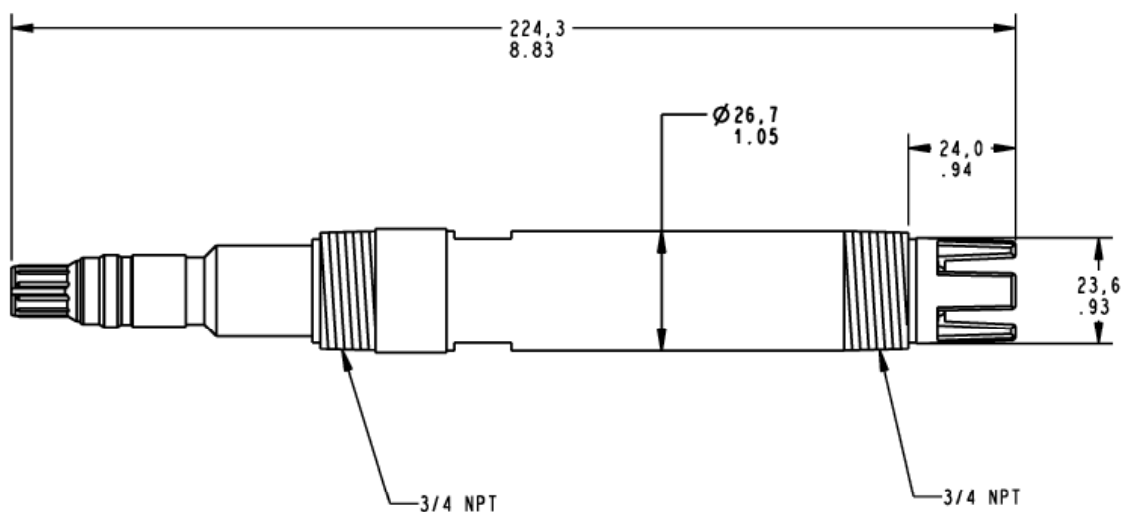
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## Dimensions

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Durafet III in-line mounting (P/N 51453503-001)



Durafet III submersion mounting (P/N 51453503-005)

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## Durafet III Cable options

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### Cap Adapter

The Cap Adapter is essentially a preamp that is an integral part of the electrode cable. It does not require a separate mounting. The output of the Cap Adapter is connected directly to an pH instrument (9782 or APT series).

### UDA2182 Cable

The **NEW!** UDA2182 Dual Input Analyzer accepts inputs from the Durafet III pH electrode. The input termination in the UDC2182 is screw terminals. The UDA2182 Cable has skinned and tinned leads to connect to these terminals.

### DirectLine Remote pH Cable

The DL421 pH module will accept a remote mounted Durafet III pH electrode. The DirectLine Remote pH Cable has a Vario Pin connector on one end and a DirectLine module connector on the other end. (See MSG 51-52-16-71 to order these options.)

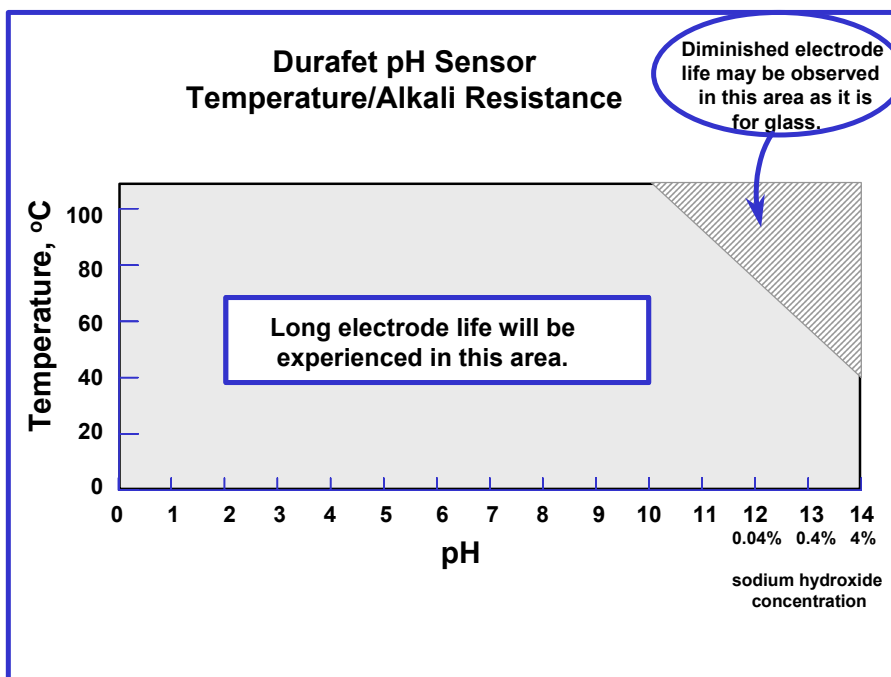
### Preamp Cables

In older instrumentation the Durafet pH input was connected to a preamp (internal or external). The **NEW!** Durafet III pH electrode can be retrofitted to this older instrumentation by using the Vario Pin Preamp cable. This cable has a Vario Pin connector on one end and an 8-pin Amp connector on the other end.

## Specifications

<b>Operating Range</b>	0 to 14 pH
<b>Temp. Rating</b>	Electrode: -10 to 110° C (+14 to 230° F) Cap Adapter Cable: 0 to 70° C (+32 to 158° F)
<b>Wetted Materials</b>	Electrode: Ryton body, silicon ISFET die, Ceramic reference junction, Viton media seal, nickel plated brass, EPM reference frit seals Cables: PVC, nickel plated brass, Viton
<b>Pressure Rating</b>	345 kPa (50 psig) @ 100° C (212° F), 690 kPa (100 psig) @ 50° C (122° F)
<b>Mounting, In-Line</b>	3/4 inch NPT male process connection, fits into standard 3/4 inch sch. 40 metal pipe tee or special dimension plastic tee (see accessories in Model Selection Guide)
<b>Mounting, Immersion</b>	3/4 inch NPT male to support pipe (sch. 40 metal)
<b>Electrical Connection</b>	Vario Pin, 11 conductor connector, IP68 rated @ 33 ft. immersion for 1000 hrs.
<b>Cable lengths</b>	DirectLine Remote Cables 6.096m (20') P/N 51453225-001 15.24m (50') P/N 51453225-002  Cap Adapter Cables (9782P & APT Series) 6.096m (20') P/N 51453388-001 15.24m (50') P/N 51453388-002  Preamp Cables 6.096m (20') P/N 50001623-001 15.24m (50') P/N 50001623-002  UDC2182 Cables 6.096m (20') P/N 50001391-001 15.24m (50') P/N 50001391-002
<b>Dimensions</b>	220 x 27 mm dia. (8.65 x 1.05 inches)
<b>Weight</b>	Approximately 0.23 kg (0.5 lb)

The Durafet III ISFET sensor lifetime is affected by exposure to high pH and high temperature solutions. The following graph can be used as a guideline to determine if the electrode will be affected by these adverse conditions.



Distributor :



[www.fluidic-ltd.co.uk](http://www.fluidic-ltd.co.uk)

For more information, contact Honeywell sales at 1-800-343-0228.

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