

ROBERTSHAW INDUSTRIAL PRODUCTS DIVISION	<p style="text-align: center;">IMPORTANT</p> <p style="text-align: center;"><u>SALES MANUAL LETTER</u></p> <p style="text-align: center;">Read carefully and file</p>	NO. SML 110-3 Section 110 DATE: June 1, 2001 BY: John Holly SUPERSEDES November 1, 1997 Page 1 of 1
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GROUND WIRE PROBES

For years, we have offered and sold insulated capacitance probes with a spirally wound ground wire on the probe. The wire is attached to the gland so it is at the gland potential (except for the 736B probe, where it is attached to the flange).

The purpose of the ground wire probe is for use in applications involving conductive, non-sticky, liquid measurement in non-metallic or lined vessels. Example: acids in a glass or rubber-lined vessel where a ground connection into the acid becomes hard or impossible to do. In a case such as this, the acid would come into contact (at the low end of the probe) with the wire, which then provides the necessary ground for the instrument. No extra rods or extended wiring is required for the ground. Of course, dependent on the medium being measured, the gland and wire material may have to be other than 316 stainless steel. This can be furnished. The ground wire **cannot** be furnished on any bare (uninsulated) probe, nor on the ceramic insulated 738A probe.

GROUND WIRE SELECTION FOR ACID APPLICATIONS

Hydrochloric Acid (HCL)

If you have any applications where the product is HCL, specify TANTALUM GROUND WIRE on your order. This applies *only* for concentrations up to 38 percent and a *maximum* temperature of 200°F. For applications outside this range consult the factory.

Hydrofluoric Acid (HFL)

Do not use a Tantalum ground wire for this application. Monel is the best choice for concentrations up to 50 percent and temperatures *up to* 150°F For temperatures *between 150°F and 350°F maximum*, and concentrations up to 70 percent, Hastelloy C or Monel can also be used; however, the expected life of the wire is one year or less. For these applications it is recommended that the customer install his own ground *rod*. For other ranges consult the factory.

Nitric Acid

TANTALUM WIRE should be used for concentrations up to 70 percent and a *maximum* temperature of 350°F. For other ranges consult the factory.

Sulfuric Acid

Hastelloy C should be used for concentrations up to 95 percent and a *maximum* temperature of 120°F. For temperatures between 120°F and 200°F. *maximum*, and concentrations between 10 and 60 percent, Hastelloy B should be used. For other ranges consult the factory.