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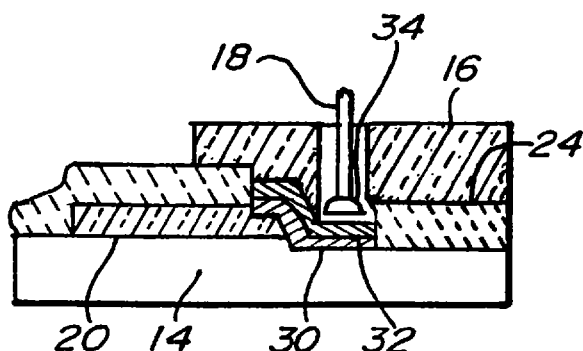
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(54) Title: SENSOR USABLE IN ULTRA PURE AND HIGHLY CORROSIVE ENVIRONMENTS



(57) Abstract: A sensor operable at temperatures in excess of 400 °C is described. The sensor of the present invention operates without fluid fill, is non-porous, non-contaminating, and has no exterior exposed metallic components. The sensor includes a non-porous, impermeable sensing diaphragm that may be positioned in direct contact with fluids in an ultra-pure environment. The non-porous surface may be comprised of a layer of single crystal sapphire that is glassed to a backing plate. The sensor of the present invention is suitable for use in a chemically inert pressure transducer for sensing pressures and/or temperatures in process fluids and may be molded directly into the high temperature plastic housing of the pressure transducer module.

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