PRODUCT DATASHEET

Diaphragm-Seal Assembly for Pressure Instruments

Filled diaphragm seals in alloy C-276, tantalum and other alloys for corrosive service

Product page





Close-up: alloy diaphragm and filled capillary

OVERVIEW

The Tech Inc. Diaphragm-Seal Assembly for Pressure Instruments protects pressure gauges, switches and transmitters from process fluids that would corrode, clog or freeze them. A thin diaphragm in a corrosion-resistant alloy separates the process from a fill fluid; the fill fluid transmits the pressure to the instrument.

TYPICAL DESIGN DATA

Diaphragm	C-276, tantalum, alloy 400, titanium, 316L
Pressure	Vacuum to about 400 bar depending on design
Temperature	About -40 to 300 °C with the right fill fluid
Codes and standards	Pressure parts designed with a safety factor; flanges to ASME B16.5
Fill fluids	Silicone oils, inert fluorinated fluids, food-grade oils
Filling	Evacuated and filled under vacuum
Instrument	Gauge, switch or transmitter calibrated as an assembly

MODELS AND CAPACITIES

- **TI-DSA-T** – threaded
- **TI-DSA-F** – flanged
- **TI-DSA-H** – hygienic clamp
- **TI-DSA-C** – with capillary

Indicative connections.

ORDERING CODE

Example **TI-DSA-F-C-G**: **F** connection: T threaded, F flanged, H hygienic, C capillary; **C** diaphragm: C C-276, T tantalum, M alloy 400, I titanium, S 316L; **G** instrument: G gauge, S switch, T transmitter.

SCOPE OF SUPPLY

Included: factory acceptance test with a written report; drawings for approval, material certificates and manual. **Options:** flushing rings; armoured capillary; hygienic clamp connections; spare diaphragms.

KEY ADVANTAGES

- **Right alloy** – from C-276 to tantalum
- **Protected** – no process in the instrument
- **Accurate** – vacuum-filled, calibrated as an assembly
- **Flexible** – threaded, flanged, hygienic or capillary

Designed and built by Tech Inc. · **Part of the Davey Group since 1990**

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