Product parameters — Diaphragm seals

Parameter	Typical value / notes
Primary function	Isolate pressure-measuring instruments (gauges, transmitters, switches) from the process medium — transmit pressure via a filled, sealed cavity to the instrument.
Common diaphragm designs	Welded single-piece diaphragms; bolted (clamped) flanged diaphragms; flush (cap or extended) diaphragms; inline (flow-through) sanitary diaphragms; remote seals (capillary/cooling element).
Wetted / diaphragm materials	316L / 1.4435 stainless steels, 316 Ti, Monel, Hastelloy (C276/C22), Inconel, tantalum, PTFE (linings), and other corrosion-resistant alloys; sanitary versions use polished stainless steels or PTFE linings.
System fill fluids	Glycerin, silicone oils (various cSt), halocarbon fluids, special high-temp low-expansion fluids — vendor fill-fluid tables list recommended fluids by temp range and application.
Typical pressure capability (examples)	Threaded/flange seals: up to 250 bar (threaded example) to 1,000 bar (high-pressure designs) depending on construction and diaphragm diameter. Always confirm on the specific model table.
Typical temperature capability (examples)	Vendor published application ranges for instrument protection: e.g., WIKA notes combined systems usable from −130 °F to +750 °F for selected designs (check fill fluid & diaphragm material for exact allowed range).
Typical process connections / common sizes	Threaded (¼″, ½″, ¾″ NPT etc.), flanged per EN1092-1 (DN25, DN40, DN50, DN80, DN100, DN125) and ASME B16.5 (1″, 1½″, 2″, 3″, 4″ etc.), inline port sizes (½″–8″ pipe for some inline designs).
Capillary / remote seal options	Capillary remote seals commonly offered with capillary lengths from ~0.3 m (1 ft) up to ~15 m (49.2 ft) (varies by vendor and capillary internal diameter). Capillary IDs offered (examples): 0.6 mm, 1.0 mm, 1.5 mm, 2.0 mm.
Typical sanitary / hygienic features	In-line or flush designs that eliminate dead space; polished wetted surfaces; tri-clamp / hygienic flanges; compliance notes for food/pharma (avoid crevices).
Common procurement deliverables buyers expect	PDF datasheet with pressure/temperature limits, material list, groove/flange dimensional table, CAD (STEP/DWG), recommended fill fluid, certificate of material (e.g., 3.1/PMI), and ordering code for capillary length.