



Diaphragm seal MD 51 for hygienic processes



Benefits

- All materials FDA-listed
- SIP/CIP enabled
- No dead space
- Various standards available

Application

Diaphragm seals MD 50/51 with food law compliant screwed pipe connection for hygienic process separation of pressure measuring and control units in pipes or tanks. For mounting to Bourdon tube pressure gauges, pressure transducers and pressure switches. For installation in hygienic processes without dead spaces.

Food and beverages industry

Dairies

Beverage machines

Breweries

Versions

Threaded socket SMS 1147

| | Process connection | Instrument connection | Nominal pressure | Minimum range* (in bar) at nominal size | | | | | Part no. |
|---|--------------------|-----------------------|------------------|---|---------|---------|---------|--------------|----------|
| | | | | 63 | 100 | 160 | DMU | DMU 13 Vario | |
|  | DN 1½" | Welded connection | PN 40 | 0.6 bar | 0.6 bar | 0.6 bar | 1 bar | 1 bar | 31320W |
| | DN 2" | Welded connection | PN 40 | 0.6 bar | 0.6 bar | 0.6 bar | 0.6 bar | 1 bar | 31321W |

Blue part no. = in-stock items

Grooved union nut SMS 1147

| | Process connection | Instrument connection | Nominal pressure | Minimum range* (in bar) at nominal size | | | | | Part no. |
|---|--------------------|-----------------------|------------------|---|---------|---------|---------|--------------|----------|
| | | | | 63 | 100 | 160 | DMU | DMU 13 Vario | |
|  | DN 1½" | Welded connection | PN 40 | 0.6 bar | 0.6 bar | 0.6 bar | 1 bar | 1 bar | 31314W |
| | DN 2½" | Welded connection | PN 25 | 0.6 bar | 0.6 bar | 0.6 bar | 0.6 bar | 0.6 bar | 31316W |

Blue part no. = in-stock items



Description

All materials used are FDA-listed. The chemical seal and the measuring instrument are welded together, resulting in an inseparable single, shock- and vibration-resistant unit that does not require additional external protection. The chemical seals are available with various nominal diameters; due to their compact design, they are suitable for a wide range of applications.

Technical specifications

Process connection

Stainless steel 316 L
SMS 1147
DN 1½", DN 2", DN 2½"

Surface roughness R_A

≤ 0.8 µm

Diaphragm

Stainless steel 316 L

Instrument connection

Welded connection

Pressure transmission liquid

Paraffin oil (FM 09), FDA-listed

Pressure range

See overview of versions

Nominal pressure

PN 40, PN 25

Can be mounted to

- Bourdon tube pressure gauges NG 50, 63, 80, 100, 160
- Pressure transducers (DMU)
- Pressure switches (DS)

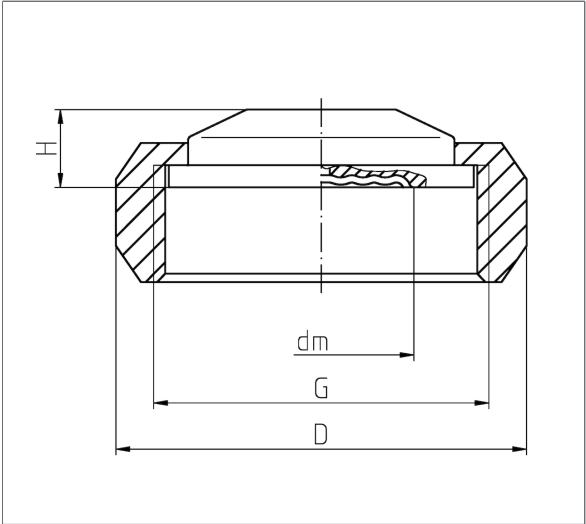
Options

- Other designs (Südmö, Guth)
- Other materials
- Electropolished
- Cooling element
- Capillary
- Other pressure transmission liquids
- Accessories such as union nuts and seals
- Other process connections:
 - MD 52-1: DIN 11864-1 GS or ÜM, design A/B, DN 25/80, H3
 - DIN 11853-1 GS or ÜM, DN 25/80, H3
 - MD 52-2: DIN 11864-2 NF or BF, design A/B, DN 25/80, H3
 - DIN 11853-2 NF or BF, DN 25/80, H3
 - MD 52-3 DIN 11864-3 NKS or BKS, design A/B, DN 25/80, H3
 - DIN 11853-3 NKS or BKS, DN 25/80, H3
 - MD 53: APV-RJT 1" to 3"
 - MD 54: IDF 1" to 3"
 - MD 55: APV-ISS 1" to 3"



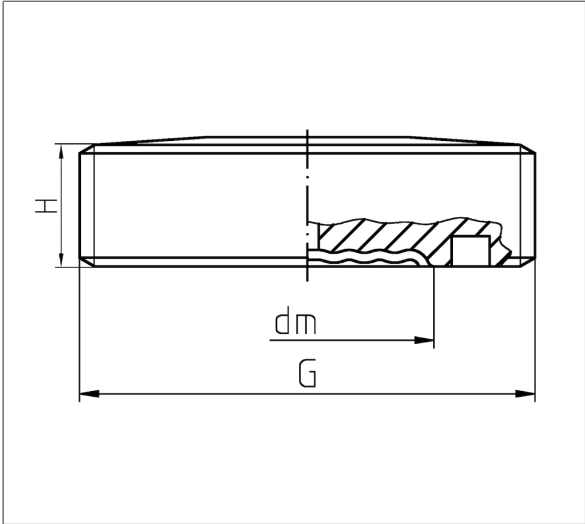
Technical drawings

Socket and union nut SMS 1147



| DN | PN | dm | G | H |
|-----|----|----|----------|----|
| 1½" | 40 | 36 | Rd60x1/6 | 17 |
| 2" | 40 | 48 | Rd70x1/6 | 17 |
| 2½" | 25 | 48 | Rd85x1/6 | 17 |

Threaded socket SMS 1147



| DN | PN | dm | G | D | H |
|-----|----|----|----------|-----|----|
| 1½" | 40 | 36 | Rd60x1/6 | 74 | 14 |
| 2" | 40 | 48 | Rd70x1/6 | 84 | 14 |
| 2½" | 25 | 48 | Rd85x1/6 | 100 | 14 |