

Pressure gauge per EN 837-1 with mounted diaphragm seal With process connection per Svensk Standard SS 1145 Model DSS19F, for food

WIKA data sheet DS 95.21

Applications

- Hygienic pressure measurement in sanitary applications for the food and beverage industry
- Mechanical pressure display on pipelines and vessels
- For gases, vapour; liquid, pasty, powdery and crystallising media

Special features

- Quick cleaning, without residue
- Process connection per Svensk Standard SS 1145
- Suitable for cleaning out of place (COP)
- Sterilisation-in-Place (SIP) up to max. 130 °C [266 °F]



Diaphragm seal system, model DSS19F

Description

The DSS19F complies with the requirements of the food industry. The threaded connection enables a hygienic process connection.

The requirements of COP (cleaning out of place) are fulfilled.

The diaphragm seal systems can withstand the cleaning vapour temperatures occurring in the SIP processes and thus ensure a sterile connection between the medium to be measured and the diaphragm seal.

The proven, all-welded construction ensures a long service life and permanent sealing.

The DSS19F is used for pressure measurement in various process steps, e.g. filtration, separation, pasteurisation, and in filling systems.

Specifications

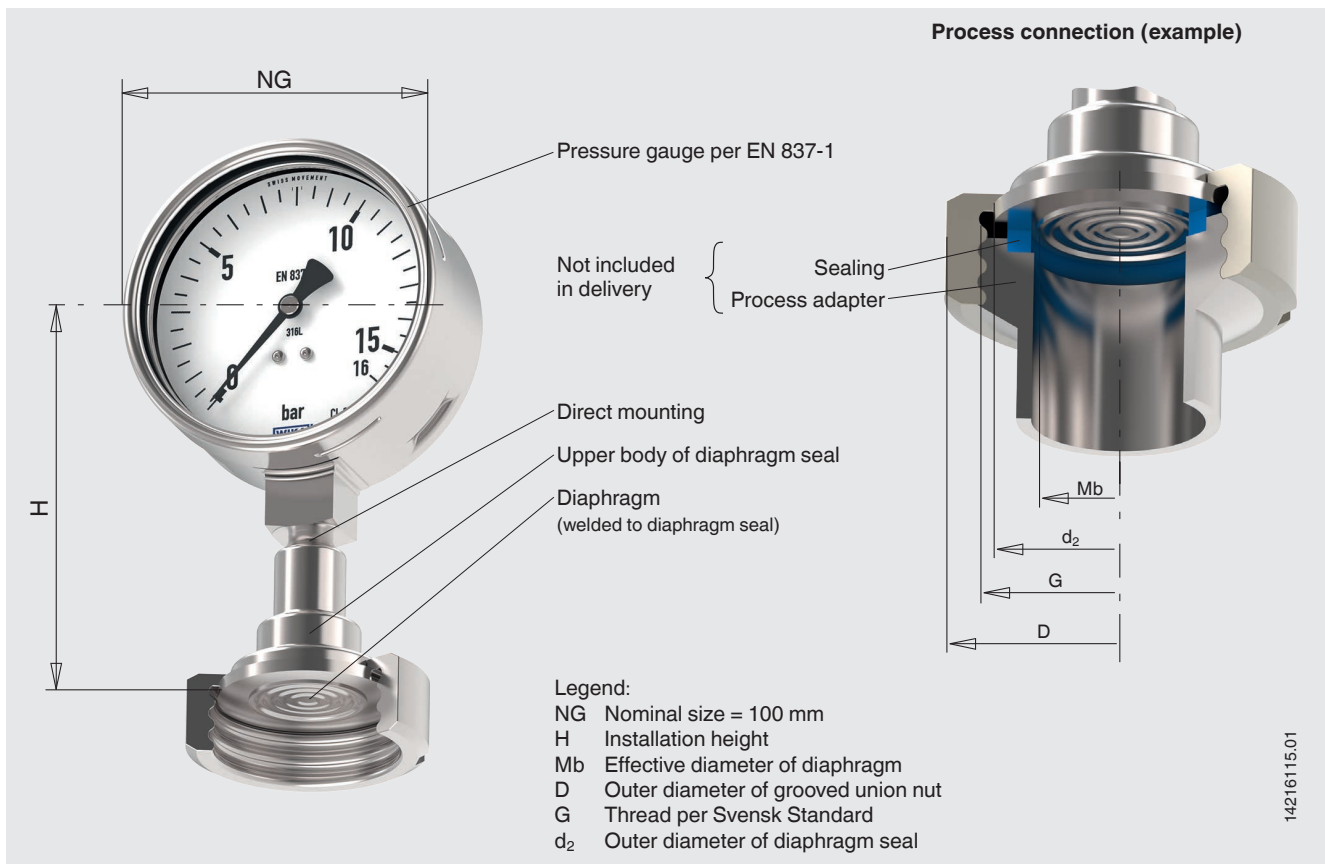
Model DSS19F	
Design	Pressure gauge with Bourdon tube per EN 837-1, welded to diaphragm seal
Nominal size (NS)	100
Accuracy class	1.0
Pressure limitation	Steady: Full scale value Fluctuating: 0.9 x full scale value Short time: 1.3 x full scale value
Permissible temperature range	Medium: 10 ... 80 °C [50 ... 176 °F] for SIP max. 130 °C [266 °F] Ambient: 10 ... 40 °C [50 ... 104 °F] Storage: 10 ... 60 °C [50 ... 140 °F]
Ingress protection	IP65 per IEC/EN 60529
Material	
wetted	Diaphragm seal: Stainless steel 1.4435 [316L] Diaphragm of diaphragm seal: Stainless steel 1.4435 [316L]
non-wetted	Case: Stainless steel 1.4301 [304] Window: Laminated safety glass Dial, pointer: Aluminium
Surface roughness	
wetted	Ra ≤ 0.76 µm [30 µin] per ASME BPE SF3 (except for weld seam)
non-wetted	Case: Ra ≤ 0.76 µm [30 µin] (except for weld seam)
Level of cleanliness of wetted parts	Oil and grease free per ASTM G93-03 level F WIKA standard (< 1,000 mg/m ²)
System fill fluid	Medicinal white mineral oil KN 92 (FDA 21 CFR 172.878, 21 CFR 178.3620(a); USP, EP, JP)

Scale ranges in bar [psi]

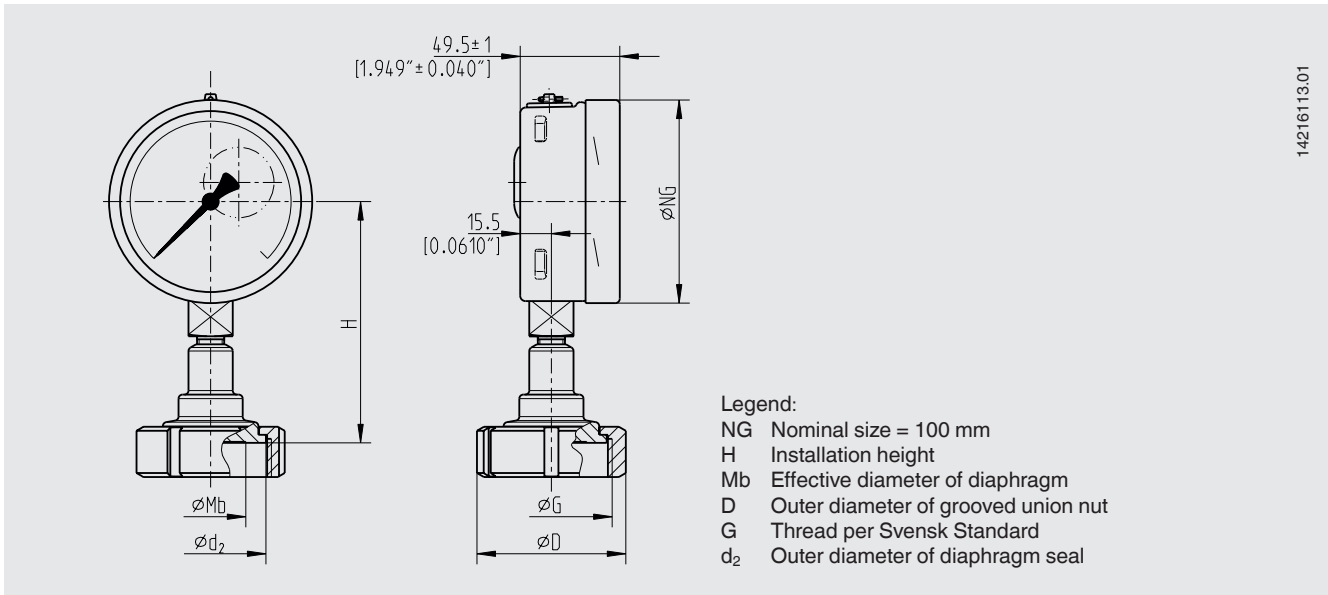
Gauge pressure			
0 ... 1 [0 ... 15]	0 ... 1.6 [0 ... 25]	0 ... 2.5 [0 ... 40]	0 ... 4 [0 ... 60]
0 ... 6 [0 ... 100]	0 ... 10 [0 ... 160]	0 ... 16 [0 ... 250]	0 ... 25 [0 ... 300]

Vacuum and +/- scale range		
-1 ... +5 [-30 inHg ... +70]	-1 ... +9 [-30 inHg ... +130]	-1 ... +10 [-30 inHg ... +145]

Installation example, model DSS19F



Dimensions in mm [in]



14216113.01

Type of process connection: Svensk Standard for food

Pipe standard: Pipes per ISO 1127 row 2 or ISO 2037/1992

DN	For pipe Outer \varnothing x wall thickness	PN	Dimensions in mm [in]					
			NG	G	H	D	d ₂	Mb
38	38 x 1.2 [1.496 x 0.047]	40	100 [3.937]	RD 60 x 1/6 [2.362 x 1/6]	120 [4.724]	74 [2.913]	55 [2.165]	35 [1.378]
51	51 x 1.2 [2.008 x 0.047]	40	100 [3.937]	RD 70 x 1/6 [2.756 x 1/6]	122 [4.803]	84 [3.307]	65 [2.559]	45 [1.772]

Certificates (option)

- 3.1 inspection certificate per EN 10204 (e.g. material proof for wetted metallic parts, calibration certificate)
- 3.1 calibration certificate (list of single measured values; 5 measuring points)

Approvals and certificates, see website

Ordering information

Scale range / Process connection (type of process connection, pipe standard, pipe dimension) / Parts / Certificates

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The specifications given in this document represent the state of engineering at the time of publishing.
We reserve the right to make modifications to the specifications and materials.

WIKA data sheet DS 95.21 · 11/2022

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