

Sterile Connection, Diaphragm In-Line Seals For Sanitary Applications NEUMO BioConnect[®], Model 981.50

WIKA Data Sheet DS 98.50



Applications

- Food and beverage industry
- Biochemical and pharmaceutical industry, production of active ingredients
- Aseptic raw material production in the chemical industry

Special Features

- Completely round diaphragm (Europ. Pat. No. 0609846) to avoid dead spaces
- Quick cleaning of measuring point, without residue
- Suitable for SIP and CIP
- 3-A and EHEDG certified
- FDA approved

Description

Process connection

NEUMO BioConnect[®] connection

- Flange, Form R
- Thread with union nut
- Thread with threaded coupling

for pipes per DIN 11 850 and DIN EN ISO 1127

Pressure rating

Flange: PN 70 bar

Threads: PN 16 bar

(higher pressure ratings on request)

Pressure ranges

0 ... 0,6 bar to 0 ... 70 bar

Material of wetted parts

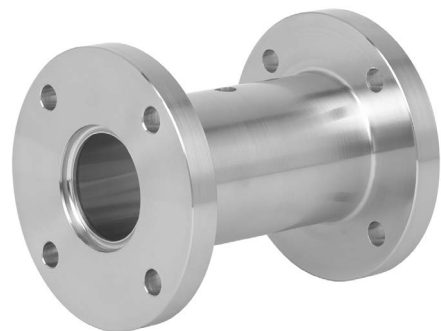
Stainless steel 1.4435 (AISI 316L)

System fill fluid

KN 7 Glycerine, food compatible, FDA approved, per standard US Pharmacopoeia XXIV and European Pharmacopoeia (1998)



Diaphragm Seal, NEUMO BioConnect[®] Model 981.50 with Threaded Coupling, Directly Assembled on Transmitter Model UT-10



Diaphragm Seal, NEUMO BioConnect[®] Model 981.50 with Flanged Connection, Form R

Options

Process connection

- Flange, Form V
- Threaded coupling, male
- Material: stainless steel 1.4435, electropolished

Diaphragm seal for connection to Zone 0

- Body with flame arrester

Pressure measuring instrument assembly

- Assembly via cooling tower
- Assembly via capillary, when ordering please specify length of capillary

System fill fluid

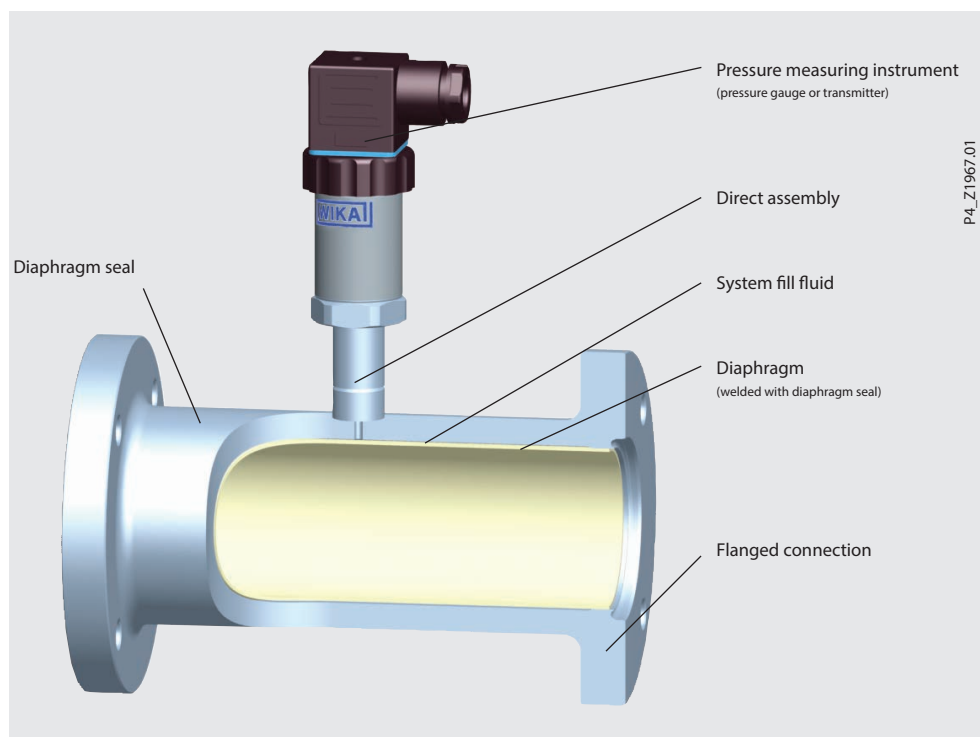
- KN 12: Glycerine/water, FDA approved
- KN 59: Neobee® M-20, FDA approved
- KN 92: Medicinal white mineral oil, FDA and USP approved

Documentation

- 2.2 or 3.1 Material Certificate, DIN 10 204
 - Test and calibration certificates
 - Pressure and stability tests
 - Confirmation of FDA approval
 - 3-A and EHEDG marking and/or certificate
- Further certificates and documents on request

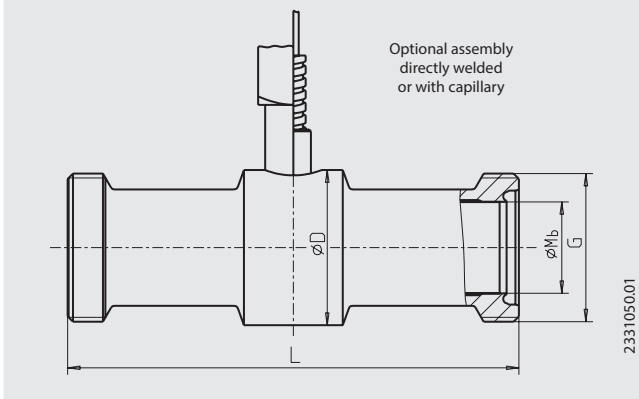
Example for installation

Diaphragm Seal with flanged connection, Form F



Dimensions in mm

BioConnect® threaded connection with threaded coupling, male



For pipes per DIN 11 850

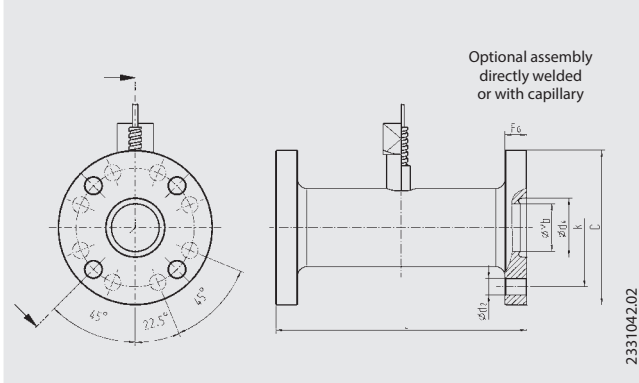
DN in mm	Dimensions in mm			Mb	Weight in kg
	G	L	D		
15	M30 x 1.5	138	34	16	0.4
20	M36 x 2	138	38	20	0.5
25	M42 x 2	138	44	26	0.6
32	M52 x 2	138	52	32	1.1
40	M56 x 2	166	56	38	1.3
50	M68 x 2	166	68	50	1.6
65	M90 x 3	166	90	68	2.5
80	M100 x 3	166	100	81	2.7
100	M130 x 4	166	130	100	6.0

Mb = effective diameter of diaphragm

For pipes per DIN EN ISO 1127

DN in mm	Dimensions in mm			Mb	Weight in kg
	G	L	D		
15	M30 x 1.5	138	38	18.1	0.3
20	M36 x 2	138	42	23.7	0.4
25	M42 x 2	138	44	29.7	0.5
32	M52 x 2	138	58	38.4	0.7
40	M56 x 2	166	62	44.3	0.8
50	M68 x 2	166	74	56.3	0.9
65	M90 x 3	166	90	71.5	2.0
80	M100 x 3	166	100	84.3	2.2
100	M130 x 4	166	130	109.1	4.0

BioConnect® flanged connection, Form R



For pipes per DIN 11 850

DN in mm	Dimensions in mm						Mb	Weight in kg
	D	FG	k	d ₂	d ₄	L		
15	75	10	55	4 x 9	21.3	138	16	1.3
20	80	12	60	4 x 9	25.3	138	20	1.7
25	85	12	65	4 x 9	32.3	138	26	1.7
32	95	12	75	4 x 9	38.3	138	32	2.1
40	100	12	80	4 x 9	44.3	166	38	2.6
50	110	14	90	4 x 9	56.3	166	50	3.3
65	140	16	115	4 x 11	72.3	166	66	5.0
80	150	16	125	8 x 11	87.3	166	81	5.9
100	175	18	150	8 x 11	106.3	166	100	8.0

Mb = effective diameter of diaphragm

For pipes per DIN EN ISO 1127

DN in mm	Dimensions in mm						Mb	Weight in kg
	D	FG	k	d ₂	d ₄	L		
15	75	10	55	4 x 9	23.4	138	18	1.3
20	80	12	60	4 x 9	29	138	23.7	1.5
25	85	12	65	4 x 9	36	138	29.7	1.6
32	95	12	75	4 x 9	44.7	138	38.4	1.7
40	100	12	80	4 x 9	50.6	166	44.3	2.1
50	110	14	90	4 x 9	62.6	166	56.3	2.6
65	140	16	115	4 x 11	77.8	166	71.5	4.2
80	150	16	125	8 x 11	90.6	166	84.3	5.3
100	175	18	150	8 x 11	115.4	166	109.1	7.0

Assembly on bourdon tube pressure gauges

- Stainless steel version
model 232.50/233.50,
without/with liquid filling
(see data sheet PM 02.02)



- Stainless steel, safety pattern version
model 232.30/233.30,
without/with liquid filling
(see data sheet PM 02.04)



Following application conditions apply:

- Pressure gauge directly assembled on diaphragm seal
Temperature range
process: +10 ... +150 °C
ambient: +10 ... +40 °C

		NEUMO BioControl® connection with DN				
		15	20 ... 25	32 ... 50	65	80 ... 100
Pressure gauge	Model	23x.50.63	23x.50.63 23x.50.100	23x.50.63 23x.50.100	23x.50.100 23x.30.100	23x.50.100 23x.30.100
Minimum measuring range		0 ... 6 bar -1 ... +5 bar	0 ... 4 bar -1 ... +3 bar	0 ... 1 bar -1 ... +3 bar	0 ... 1 bar -1 ... +1.5 bar	0 ... 0.6 bar -1 ... +1.5 bar
Overpressure safety (optional)		-	-	2 x full scale value	2 x full scale value	2 x full scale value
Inductive alarm contact (optional), suitable for Zone 1 and Zone 2 (Model 831)		-	-	possible	possible	possible

Assembly on transmitters

- Pressure transmitter
model S-10 or
model F-20,
(see data sheet
PE 81.01 or
PE 81.19)



- Process pressure transmitter UniTrans, model UT-10 / IUT-10, (see data sheet PE 86.01 / PE 86.02)



- or with process pressure transmitter, model IPT-10, (see data sheet PE 86.11)



The above mentioned application conditions apply.

		NEUMO BioConnect® connection with DN				
		15	20 ... 25	32 ... 50	65	80 ... 100
Minimum measuring range		0 ... 6 bar	0 ... 2.5 bar	0 ... 1 bar	0 ... 600 mbar	0 ... 400 mbar

Further instrument versions and measuring ranges can be supplied subject to technical verification and clarification by WIKA.

Ordering information

Model / Size of NEUMO BioConnect® connection / Material of wetted parts / Type of assembly, if necessary length of capillary / System fill fluid / Assembly on pressure measuring instrument model... / Process conditions as per questionnaire / Options or special versions

Modifications may take place and materials specified may be replaced by others without prior notice. Specifications and dimensions given in this leaflet represent the state of engineering at the time of printing.

