

# Chemical Diaphragm Seal Flange with flush welded diaphragm model CDS.951

Assembled with MAX series & MBX series  
dry or Glycerine / Silicon liquid filled.  
Assembled with pressure transmitters EDA.370  
st. steel body & st. steel intermediate diaphragm

## General features

- Assembled with pressure gauges & pressure transmitters
- Possible pressure ranges from -1...0 bar to 0...40 bar
- Device with internal diaphragm, large working volume, diaphragm seal parts screwed together

## Application area

- Diaphragm seals protects the gauges from aggressive, highly viscous or solidifying measurement media as well as from high media temperatures, vapours, measurement pressure fluctuations and pressure spikes as well as increasing the overload capacity.
- Food industry, Pharmaceutical industry, Biotechnology.

## General specification

### Assembled with pressure gauges with MAX & MBX.

#### All stainless steel pressure gauges, MAX

MAX.51x, 100mm  
MAX.41x, 80mm  
MAX.31x, 63mm

#### Wetted parts of brass, MBX

MBX.51x, 100mm  
MBX.31x, 63mm

### Assembled with pressure transmitters

EDA.370

### Accuracy class

#### Pressure gauges

MAX.51x / Class 1.0 per EN 837-1  
MAX.41x / Class 1.6 per EN 837-1  
MAX.31x / Class 1.6 per EN 837-1  
MBX.51x / Class 1.0 per EN 837-1  
MBX.31x / Class 1.6 per EN 837-1

#### Pressure gauges

EDA.370 / class 1.0 F.S  
EDA.371 / class 1.0 F.S

### Pressure ranges

-1...0 to 250 bar



## Diaphragm seal with flange connection, series CDS.951

### Upper part with instrument connection

Material st. steel 316L  
Instrument connection G1/2" female

### Lower part with process connection

Material st. steel 316L  
Process connection according to Flange per ANSI B 16.5

### Intermediate diaphragm

High-soft membrane screwed with upper part, helium leak detection upto  $10^{-9}$  mbar l/s.  
Effective diaphragm diameter dM = see standard

Diaphragm st. steel, 316L  
[option]  
Teflon coated on diaphragm

### Depending on standard

- DIN EN 1092-1
- ASME B16.5-2017
- GOST 33259
- API 6A
- JIS B2220

### Normal pressure

PN 250

### Temperature resistance

Medium temperature max. +250 °C



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## Ordering information

Model code

CDS.11

### Mounting method

M1	Direct mounting with bottom connection
M8	Capillary with SUS protection
M9	Capillary with SUS protection & PVC sheath

### Kinds of liquid for calibration

GL	Glycerin
SI	Silicon
VO	Vegitable oil
HT	High Temperature oil

### Process connection

#### DIN EN 1092-1

- DN 25     DN 40     DN 50     DN 65     DN 80  
 DN 100     DN 125

#### ASME B16.5-2017

- 1"     1 1/2"     2"     2 1/2"     3"  
 4"     5"

#### GOST 33259

- DN 25     DN 40     DN 50     DN 65     DN 80  
 DN 100     DN 125

#### API 6A

- 1 1/8"     1 1/16"     1 13/16"     2 1/16"

#### JIS B2220

- DN 25A     DN 40A     DN 50A     DN 80A     DN 100A

### Material of diaphragm

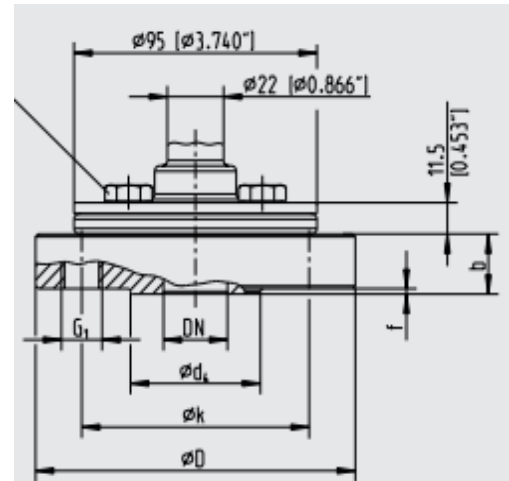
Code	Description
SS	st. steel
HC	Hastelloy C
Ti	Titanium
Ta	Tantalum
TC	Teflon coated on diaphragm
NO	"USE No OIL" for wetted parts
TP	St. steel tag plate, 60 x 20 x 0.5t
DMCC	Manufacture calibration certificate
KC	KOLAS Ilac-MRA calibration certificate
CC	Certificate of conformance / orign

**Dimension in mm [inch.]**

■ **Flanged process connection**

**Flange per ANSI B 16.5**

DN [inch]	PN [class #]	Dimensions [mm]						
		D	k	d <sub>4</sub>	b	f	H	G <sub>1</sub>
1/2"	150	95	61	35	28	2	56	4 x 1/2"
	300	105	75	45	25	2	53	4 x 1/2"
	600	105	75	45	25	2	53	4 x 1/2"
	1500	130	90	45	26	2	54	4 x 3/4"
3/4"	150	100	70	43	28	2	56	4 x 1/2"
	300	120	83	43	22	2	50	4 x 5/8"
	600	120	83	43	25	7	53	4 x 5/8"
	1500	130	89	43	32	7	60	4 x 3/4"
1"	150	110	80	51	22	2	56	4 x 1/2"
	300	125	89	51	22	2	50	4 x 5/8"
	600	125	89	51	25	7	53	4 x 5/8"
	1500	150	102	51	36	7	64	4 x 7/8"
1 1/2"	150	130	99	73	22	2	56	4 x 1/2"
	300	155	115	73	22	2	50	4 x 3/4"
	600	155	115	73	30	7	58	4 x 3/4"
	1500	180	124	73	39	7	67	4 x 1"



Threaded connection:  
 4x to 100 bar  
 8x to 250 bar  
 8x with metal sealing

- Legend:
- Mb Effective diameter of diaphragm
  - D Outer diameter of diaphragm seal
  - b Flange thickness
  - d<sub>4</sub> Sealing face diameter
  - f Height of raised face
  - k Pitch circle diameter
  - G<sub>1</sub> Thread
  - x Number of screws