



Diaphragm chemical seals

D100-101-111 / D200-201-211 D300-301-311 / D120-121

These series are designed for the measurement of gauge pressure from 0-16 to 1000 bar of corrosive fluids within the temperature range of -60° to +200°C.

In the event of damage sustained by the pressure indicator or transmitter, the diaphragm of the separator ensures leak proof sealing of the system.

Various mounting configurations to suit customer's requirements :

D300 to D314 : 0.16 to 25 bar and -1 +0 to -1 +24 bar
D200 to D214 : 1* to 40 bar and -1 +3 to -1 +24 bar
D100 to D114 : 4 to 160 bar and -1 +9 to -1 +24 bar
D120 - D121 : 160 to 1000 bar

Above pressures are indicative. For more details, please consult the technical leaflet «chemical seal guide».

* For -20°C ≤ T° fluid ≤ 100°C - For 0°C ≤ T fluid ≤ 40°C, P from 0.4 to 40 bar



Tables to simplify the definition of standard chemical seals

Codification DX00 et D120 (X = 1 or 2 or 3)			
Code to define standard separators	Top housing studs and nuts		Uncoated diaphragm
Female connection	Material	Female thread	Material
DX00-01	Steel	G1/4	Stainless steel
DX00-02	Steel	1/4NPT	Stainless steel
DX00-03	Steel	G1/2	Stainless steel
DX00-04	Steel	1/2NPT	Stainless steel
DX00-05	Stainless steel	G1/4	Stainless steel
DX00-06	Stainless steel	1/4NPT	Stainless steel
DX00-07	Stainless steel	G1/2	Stainless steel
DX00-08	Stainless steel	1/2NPT	Stainless steel
D120-01	Steel	G1/4	Stainless steel
D120-02	Steel	1/4NPT	Stainless steel
D120-03	Steel	G1/2	Stainless steel
D120-04	Steel	1/2NPT	Stainless steel

Codification D121						
Code to define standard separator	To housing studs and nuts		Uncoated diaphragm	Bottom housing		P max
Female connection	Material	Female thread	Material	Material	Female thread	Bar
D121-01	Steel	G1/4	Stainless steel	Stainless steel	G1/4	600
D121-02	Steel	G1/4	Stainless steel	Stainless steel	G1/2	1000
D121-04	Steel	1/4NPT	Stainless steel	Stainless steel	1/2NPT	1000
D121-05	Steel	G1/2	Stainless steel	Stainless steel	G1/2	1000
D121-06	Steel	G1/2	Stainless steel	Stainless steel	1/2NPT	1000
D121-08	Steel	1/2NPT	Stainless steel	Stainless steel	1/2NPT	1000
D121-09	Steel	1/2NPT	Stainless steel	Stainless steel	3/8NPT	1000

Codification DX01 - DX11 (X = 1 or 2 or 3)						
Code to define standard separator		Top housing studs and nuts		Uncoated diaphragm	Bottom housing	
Female connection	Female connection	Material	Female thread	Material	Material	Thread
DX01-01	DX11-01	Steel	G1/4	Stain. steel	Stain. steel	G1/4A
DX01-02	DX11-02	Steel	G1/4	Stain. steel	Stain. steel	G1/2A
DX01-03	DX11-03	Steel	1/4NPT	Stain. steel	Stain. steel	1/4NPT
DX01-04	DX11-04	Steel	1/4NPT	Stain. steel	Stain. steel	1/2NPT
DX01-05	DX11-05	Steel	G1/2	Stain. steel	Stain. steel	G1/2A
DX01-06	DX11-06	Steel	G1/2	Stain. steel	Stain. steel	G1/4A
DX01-07	DX11-07	Steel	G1/2	Stain. steel	Stain. steel	1/2NPT
DX01-08	-	Steel	G1/2	Stain. steel	Stain. steel	G3/8A
DX01-09	DX11-09	Steel	1/2NPT	Stain. steel	Stain. steel	1/2NPT
DX01-10	DX11-10	Steel	1/2NPT	Stain. steel	Stain. steel	1/4NPT
DX01-11	DX11-11	Steel	1/2NPT	Stain. steel	Stain. steel	3/8NPT
DX01-12	DX11-12	Stain. steel	G1/4	Stain. steel	Stain. steel	G1/4A
DX01-13	DX11-13	Stain. steel	G1/4	Stain. steel	Stain. steel	G1/2A
DX01-14	DX11-14	Stain. steel	1/4NPT	Stain. steel	Stain. steel	1/4NPT
DX01-15	DX11-15	Stain. steel	1/4NPT	Stain. steel	Stain. steel	1/2NPT
DX01-16	DX11-16	Stain. steel	G1/2	Stain. steel	Stain. steel	G1/2A
DX01-17	DX11-17	Stain. steel	G1/2	Stain. steel	Stain. steel	G1/4A
DX01-18	DX11-18	Stain. steel	G1/2	Stain. steel	Stain. steel	1/2NPT
DX01-19	-	Stain. steel	G1/2	Stain. steel	Stain. steel	G3/8A
DX01-20	DX11-20	Stain. steel	1/2NPT	Stain. steel	Stain. steel	1/2NPT
DX01-21	DX11-21	Stain. steel	1/2NPT	Stain. steel	Stain. steel	1/4NPT
DX01-22	DX11-22	Stain. steel	1/2NPT	Stain. steel	Stain. steel	3/8NPT



After choosing the chemical seal type: D100 to D114, D200 to D214, D300 to D314, D120-D121 (Table A), specify the various characteristics of the product in the order given in the following tables (C to L) :

		Table	Codes**	Example
Chemical seal type :		A	D203	(separator equipped with a cleaning ring, with a clamped diaphragm, M/F thread)
Top housing : material		C	AC	(steel)
: coating		D	F001	(G1/2)
Diaphragm : material		E	Ti	(titanium)
: coating		I	0	(without coating)
X=1 or 2 or 3	Clamped diaphragm : material	F	-	
	: coating	H	-	
Only DX02, DX12	Cleaning ring : material	F	SS	(316 L stainless steel)
Only DX03, DX04 DX13, DX14				
Bottom housing : material		F	SS	(316 L stainless steel)
: thread		K	M003	(1/2 NPT)
: coating		H	0	(without coating)
Filling fluid :		L	LRS2	-60 to +150 C

** Codes must be used to define the characteristics of chemical seals.

A		0,16 ≤ P ≤ 25 bar P: -1+0 to -1+24 bar 0 ≤ P ≤ 24 bar abs.	1 ≤ P ≤ 40 bar P: -1+3 to -1+24 bar	4 ≤ P ≤ 160 bar P: -1+9 to -1+24 bar	160 ≤ P ≤ 1000 bar
Chemical seal type					
DX00 and D120 (X = 1 or 2 or 3)	Type of assembly	FEMALE CONNECTION			
	Top housing with welded diaphragm	D300	D200 D207 ⁽²⁾	D100 D107 ⁽¹⁾	D120

M = male
F = female

* See front page for rating with respect to fluid *

DX01 to DX14 and D121 (X = 1 or 2 or 3)		Type of assembly	CONNECTION						
			M/F	F/F	M/F	F/F	M/F	F/F	F/F
		Standard separator with welded diaphragm	D301	D311	D201 D208 ⁽²⁾	D211 D218 ⁽²⁾	D101 D108 ⁽¹⁾	D111 D118 ⁽¹⁾	D121
		Standard separator with a clamping ring and clamped diaphragm	D302	D312	D202	D212	D102	D112	-
		Separator equipped with a cleaning ring and a clamped diaphragm	D303	D313	D203	D213	D103	D113	-
		Separator equipped with a cleaning ring with a welded diaphragm	D304	D314	D204 D209 ⁽²⁾	D214 D219 ⁽²⁾	D104 D109 ⁽¹⁾	D114 D119 ⁽¹⁾	-

(1) reinforced version : P max up to 400 bar

(2) reinforced version : P max up to 100 bar



Code**	C
Top housing material	
AC	Steel
SS	Stainless steel 316 L

Code**	D
Top housing female thread	
F001	Fem. G1/2
F002	Fem. G1/4
F003	Fem. 1/2NPT
F004	Fem. 1/4NPT

Code**	E	F
diaphragm	Material	
	Housing ring code**	
	Steel	Ac
SS	Stainless steel 316 L	SS
Ur	Uranus B6	Ur
NI	Nickel	NI
HB	Hastelloy B	HB
HC	Hastelloy C 276	HC
Ta	Tantalum	Ta
TI	Titanium (1)	TI
Mo	Monel 400	Mo

Code**	H	I
	Coating	
Housing and ring		
Diaphragm		
0	No coating	0
1	PTFE 0.02 mm thick	1 ⁽¹⁾
2	PTFE 2 mm thick	
3	Halar 0.2 mm thick	3 ⁽¹⁾
	PTFE lining adhesive, 0.25 mm thick only P > Pa	2
	Gold 15 µ thick	4

Code**	K		P. Maxl
	Bottom housing		
Male thread		Female thread	
M001	G1/2A		1000
M003	1/2 NPT*		1000
M004	G3/8A*		800
M007	G1/4A*		600
M009	1/4 NPT*		600
M000	Other threads to be specified		
F001		G1/2*	1000
F012		NPT 1/2*	1000
F000	Other threads to be specified	Female thread ≤1/2*	600

(1) Clamp diaphragm only

Code**	L	
	Liquid filling	
Operating temperature		Application
LRS 0	No filling	
LRS 1	-15° + 150° C	Std
LRS 2	-60° + 150° C	Low temperature
LRS 3	-20° + 300° C	High temperature
LRS 4	-15° + 150° C	Oxygen-chlorinated product Max. p = 150 bar

* no coating possible

**Codes must be used to define the various characteristics of chemical seals.

Nota : Coating of PTFE, 2 mm thick, limit the operating pressure to 10 bar. It is possible only for cylindrical male threads.

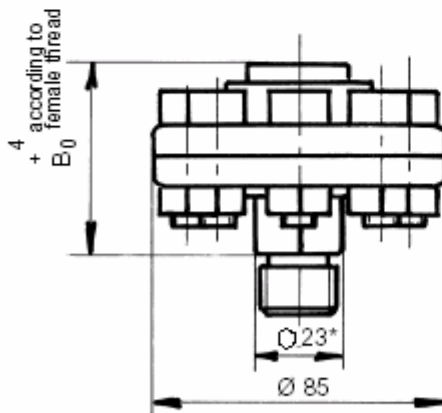
(1) Tantalum diaphragm coating not available for D300 serie

Dimensions (mm)

Sizes and weight

SERIE DX01 to DX04

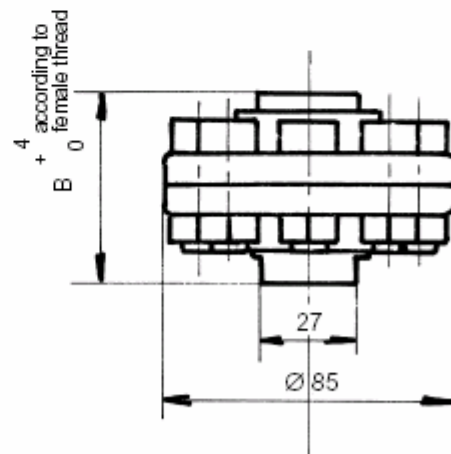
(X = 1 or 2)



Type	B	Weight kg D101 to D104	Weight kg D201 to D204
D101/201	54	0.965	0.935
D102/202	62	1.215	1.135
D103/203	69	1.425	1.320
D104/204	69	1.425	1.320

SERIE DX11 to DX14 and D121

(X = 1 or 2)



Type	B	Weight kg D111 to D114	Weight kg D211 to D214	Weight kg D121
D111/211	54	0.975	0.995	-
D112/212	62	1.225	1.195	-
D113/213	69	1.435	1.380	-
D114/214	69	1.435	1.380	-
D121	54	-	-	1.410

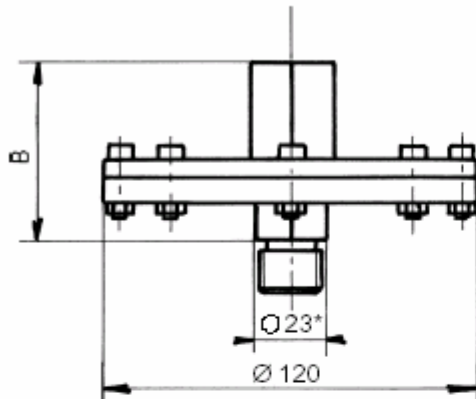
* □ 22 for monel version



Dimensions (mm)

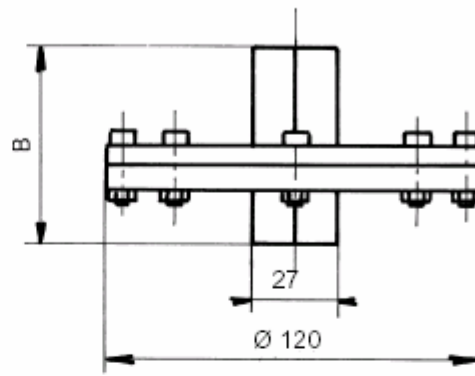
Sizes and weight

SERIE D301 to D304



Type	B	Weight kg
D301	59	1.340
D302	65	1.535
D303	73	1.810
D304	73	1.810

SERIE D311 to D314

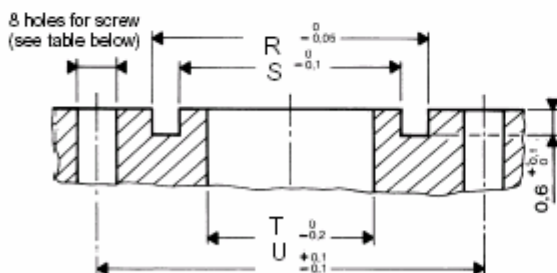


Type	B	Weight kg
D311	65	1.390
D312	71	1.585
D313	79	1.850
D314	79	1.850

* □ 22 for monel version

Process flange machining to suit D100, D200, D300, D120.

D100, D200, D120



	D100	D200	D120
R	50.1	59.1	40.1
S	46	55	36
T	45	54	35
U	65	70	65
screw	M10	M8	M10

D300

