

Chemical seals for hygienic pressure applications DAXx series

All stainless steel, flush diaphragm

Rapid assembly and disassembly

Sterilization in place (SIP), cleaning in place (CIP)

Fluid temperature up to 150°C depending on pressure, measuring device or mounting.

3-A approval (N°1118) (DANC, DAEF, DAEL, DADF, DADL with pressure gauges MEX, MIX, MMX, MEP)

In compliance with FDA recommendations

Wetted surface roughness: arithmetic average surface RA ≤ 20 µ inch

Electropolishing option: housing and diaphragm arithmetic average surface roughness ≤ 0.4, laser weld ≤ 20 µ inch

Diaphragm material : 1.4435 - Hastelloy option C276/2.4819

Hygienic seals are designed for systems needing contact surfaces that are rigorously clean and totally safe. The function of the chemical seal is to isolate the pressure gauge from the process fluid, preventing bacteria developing inside the pressure gauge's sensing element.

The fluid pressure being measured acts on the diaphragm and is transmitted to the pressure gauge by a neutral transmitting liquid.

The quick release coupling and flush diaphragm facilitate easy cleaning.

The following connection systems are offered :

CLAMP system to NF E 29521, ISO 2852 and DIN 32676 standards

NUT system to SMS 1145 standard

NUT system to DIN 11 851 standard

NUT system according to BS 4825 (RTJ-IDF)



Specifications

Compatibility table of hygienic seals with pressure gauges (direct mounting)

Range in bar according to the temperature	Fluid temperature: -20 +100°C		
	Ambient temperature: -10/+50°C		
	MEX2 (Ø50) - MEX3 (Ø63)	MEX35 (Ø100)**	MEX5 (Ø100)
DN25 (DANC/DADL/DAEL)	0+4 ... 0+25	0+4 ... 0+25	Not available
DN32 - DN38 - DN40	0+2.5 ... 0+40	0+2.5 ... 0+4	0+6 ... 0+40
DN50 - DN51	0+1 ... 0+40	0+1 (*)	0+1.6 ... 0+40
DN25 ⁽¹⁾	-1+3 ... -1+24	-1+3 ... -1+24	Not available
DN32 - DN38 - DN40	-1+3 ... -1+39	-1+3	-1+5 ... -1+39
DN50 - DN51	-1+1.5 ... -1+39	-1+1.5	-1+3 ... -1+39

(*) class 2.5

(1) Fluid : -10°C + 100°C

Range in bar according to the temperature	Fluid temperature: -20 +150°C		
	Ambient temperature: -10/+70°C		
	MEX2 (Ø50) - MEX3 (Ø63)	MEX35 (Ø100)**	MEX5 (Ø100)
DN25 (DANC/DADL/DAEL)	0+6 ... 0+25	0+6 ... 0+25	Not available
DN32 - DN38 - DN40	0+4 ... 0+40	0+4 ... 0+6	0+10 ... 0+40
DN50 - DN51	0+1.6 ... 0+40	0+1.6	0+2.5 ... 0+40
DN25 ⁽²⁾	-1+5 ... -1+24	-1+5 ... -1+24	Not available
DN32 - DN38 - DN40	-1+5 ... -1+39	-1+5	-1+9 ... -1+39
DN50 - DN51	-1+3 ... -1+39	Not available	-1+3 ... -1+39

(2) Fluid : -10°C + 120°C

Note:** The MEX35 is a pressure gauge DN100 stainless steel, class 1.6 specially designed to be mounted on seal only in the range above. D type and G½ connection exclusively. This pressure gauge is not available separately.

Pressure gauge accuracy (20°C)

MEX2 (Ø50) - MEX3 (Ø63) : class 1.6
 MEX35 (Ø100) : class 1.6 except 0+1 bar (class 2.5)
 (the MEX35 has an MEX3 tube and block mounted in an MEX5 case)
 MEX5 (Ø100) : class 1

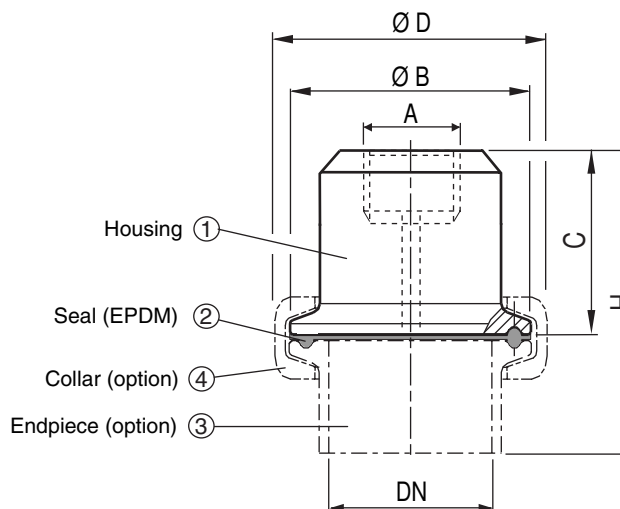
Max. range

0+40 bar or -1+39 bar except **DANC**, limited to 25 bar (or -1+24 bar)



Range of hygienic seals, dimensions

DANC (CLAMP according to NF E 29521 / ISO 2852 / DIN 32676 standards)



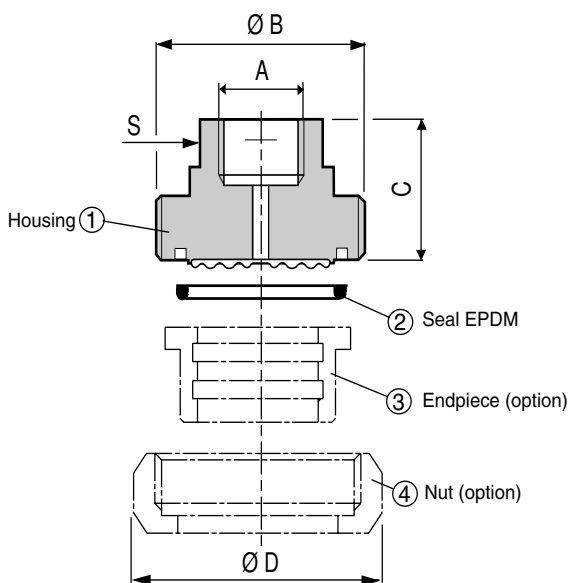
Dimensions mm

DN to NF E 29521 ISO 2852 std	DN to DIN 32676 std	A	Ø B	C	D	H	Weight Kg ①+②
DN25 & 38	DN25 & 40	G½ or G¼	50.5	32 ¹⁾	66	~60	0.200
DN51	DN50	G½ or G¼	64	32 ¹⁾	79	~65	0.320

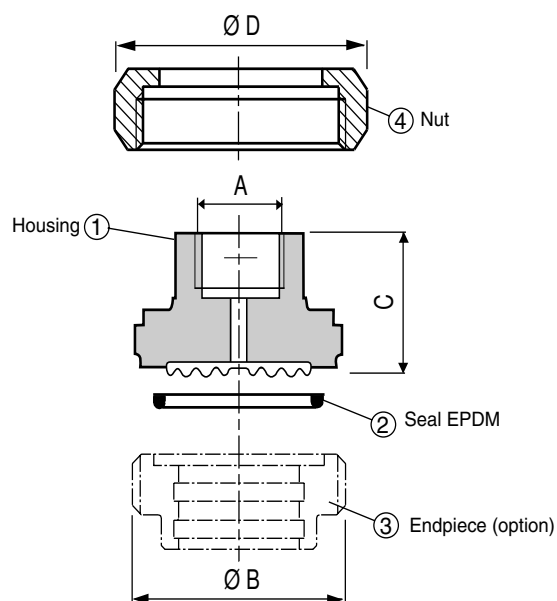
Other nominal diameters on request

¹⁾ for G¼, C = 30

DAEF (SMS 1145 with threaded housing)



DAEL (SMS 1145 with smooth housing)



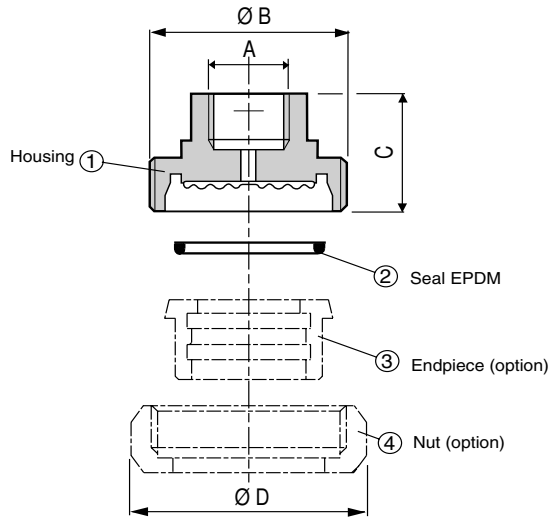
Dimensions mm

Model	DN mm or in.	A	Ø B to SMS std	C	D	dimensions ①+②+③+④	Weight Kg ①+②	Weight Kg ①+②+④	S
DAEF (SMS 1145)	DN38 (1½")	G½ or G¼	60 x 1/6	32	74	~55	0.400		27
	DN51 (2")	G½ or G¼	70 x 1/6	32	84	~55	0.480		27
DAEL (SMS 1145)	DN25 (1")	G½ or G¼	40 x 1/6	32 ¹⁾	51	~50	0.160	0.310	
	DN38 (1½")	G½ or G¼	60 x 1/6	33 ¹⁾	74	~55	0.300	0.540	
	DN51 (2")	G½ or G¼	70 x 1/6	33 ¹⁾	84	~60	0.420	0.730	

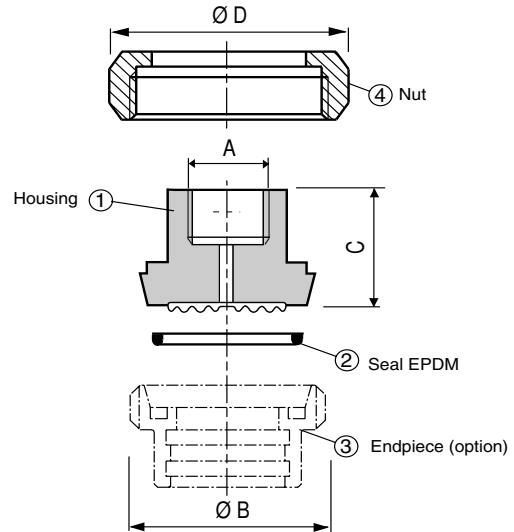
Other nominal diameters on request

¹⁾ for G¼, C = 28

DADF (DIN 11851 with threaded housing)



DADL (DIN 11851 with smooth housing)



Dimensions mm

Model	DN mm	A	Ø B to DIN std	C ³⁾	D	dimensions ①+②+③+④	Weight Kg ①+②	Weight Kg ①+②+④
DADF (DIN 11851)	DN32	G½ or G¼	58 x 1/6	40 ²⁾	70	~58	0.360	
	DN40	G½ or G¼	65 x 1/6	40 ²⁾	78	~59	0.460	
	DN50	G½ or G¼	78 x 1/6	42 ²⁾	92	~63	0.580	
DADL (DIN 11851)	DN25	G½ or G¼	52 x 1/6	37 ¹⁾	63	~59	0.230	0.420
	DN32	G½ or G¼	58 x 1/6	37 ¹⁾	70	~62	0.290	0.500
	DN40	G½ or G¼	65 x 1/6	37 ¹⁾	78	~63	0.360	0.610
	DN50	G½ or G¼	78 x 1/6	37 ¹⁾	92	~65	0.530	0.880

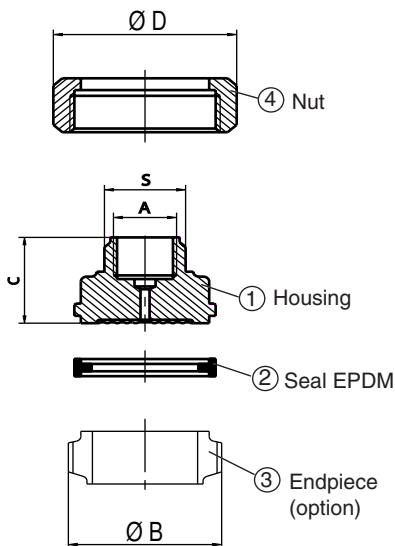
Other nominal diameters on request

¹⁾ for G¼, C = 31

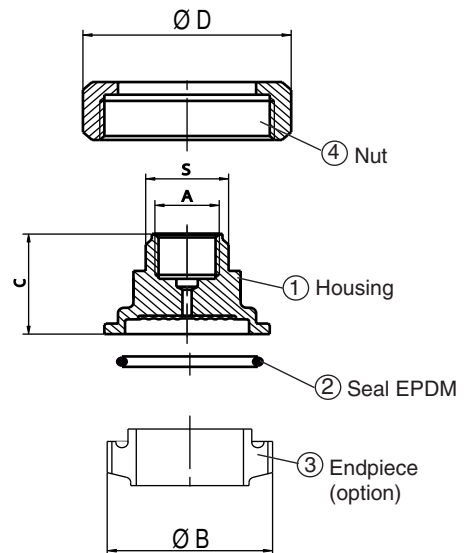
²⁾ for G¼, C = 35

³⁾ Reduced height option

DAIL (IDF according to BS 4825 part 4)



DARL (RTJ according to BS 4825 part 5)

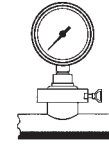


	DN	A	B	C	D Hexagonal	S /flats	Dimensions	Weight kg ① + ② + ④
DAIL (IDF)	1½"	G½ or G¼	50.7 8x1	35	60	27	60	540
	2"	G½ or G¼	64.2 8x1	27	75	27	52	700
DARL (RTJ)	1½"	G½ or G¼	58.4 8x1	38	65	27	60	440
	2"	G½ or G¼	72.7 6x1	33	79	27	55	590

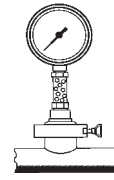
Other fields of use

Type of assembly as a function of the fluid temperature to be measured

For detailed information on compatibility of these chemical seals with pressure switches, differential pressure gauges... consult the catalogue «chemical seal». The cooling system can be used to extend the lower pressure figures given in the table page 1.



Direct mounting



Mounting with cooling system

Ordering

		DAxxxxxxx	
Family	1' ... 2' digit		
Chemical seal		DA	
Model	3' ... 4' digit		
CLAMP		NC	
SMS FF		EF	
SMS FL		EL	
DIN FF		DF	
DIN FL		DL	
IDF		IL	
RTJ		RL	
Dimensions and types of top housing	5' ... 6' digit		
DN25 according to NF E 29521 ISO2852	DANC		07
DN38 according to NF E 29521 ISO2852			01
DN51 according to NF E 29521 ISO2852			02
DN25 according to DIN 32676			08
DN40 according to DIN 32676			10
DN50 according to DIN 32676			13
DN25 according to SMS 1145	DAEF/DAEL		09
DN38 according to SMS 1145			11
DN51 according to SMS 1145			14
DN25 according to DIN 11851	DADF/DADL		06
DN32 according to DIN 11851			03
DN40 according to DIN 11851			04
DN50 according to DIN 11851			05
DN 1"1/2 IDF according to BS 4825 part 4	DAIL		15
DN 2" IDF according to BS 4825 part 4			16
DN 1"1/2 RTJ according to BS 4825 part 5	DARL		17
DN 2" RTJ according to BS 4825 part 5			18
Top housing material	7' digit		
Stainless steel 316L			2
Top housing thread	8' digit		
G1/2 female			L
G1/4 female			H
1/2 NPT female			N
1/4 NPT female			8
Diaphragm material	9' digit		
Stainless steel 316L			2
Hastelloy C276 (please refer to us)			6
Type of assembly	10' digit		
Complete assembly with collar and seal endpiece			1
Upper housing alone			2
Upper housing with seal and nut or collar			3
Complete assembly with extension			4
Electropolished upper housing			5
Electropolished upper housing with seal			6
Upper housing with seal			7

Code **	Filling fluid	
	Operating temperature	Application
LRS 0	No filling	
LRS 1	-15° + 150°C	Application food and industry CODEX (FDA approved)
LRS 2	-60° + 150°C	Other applications
LRS 3	-20° + 300°C	
LRS 4	-15° + 150°C	Oxygen-chlorinated products Max. P = 150 bar
LRS7	-20° + 80°C	Paint application No vacuum scale available Filling under vacuum
LRS10	-20° + 225°C	Food processing High temperature (FDA approved)

UK/08-2004 This data sheet may only be reproduced in full