

Security device

Non return valve

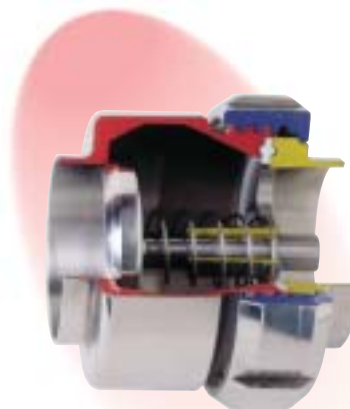
Design

The DEFINOX non-return valve is made of 316L stainless steel with a surface finish of $Ra = 0.8 \mu m$. To disassemble, a fitting is required upstream.

This valve uses a guided plug with spring return. It is designed to recover full bore and thereby guarantee that the pressure drop is kept to a minimum in the direction of flow. It can easily be removed thanks to an SMS nut which assembles the two main parts: the body and the plug guide. A seal is provided between these two parts. The plug has a (FKM) fluorated elastomer seal which held in its seat by a stainless steel return

spring. It is available with a butt weld end or standard connections (SMS, DIN, clamp). It is advisable to mount the non return valve vertically in order to avoid fluid retention and improve tightness. On request, this device can be fitted with an EPDM or PFA seal.

A variant with a metal-on-metal seal is also available; this arrangement requiring component pairing (plug bedding on seat).

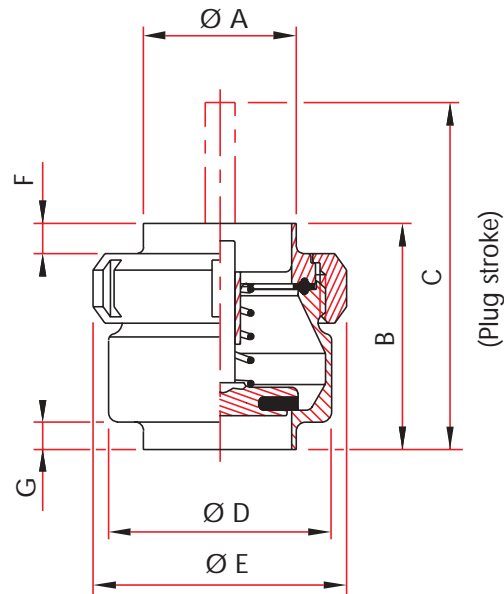


Working conditions

FOR ALL DIAMETERS OF NON RETURN VALVE		
Maximum temperature: +120 °C	Minimum temperature: 0 °C	Maximum working pressure: 10 Bar

Security device Non return valve

Dimensions



DN			Ø A	B	C	Ø D	Ø E	F	G	Weight in kg
SMS	DIN	US								
		1/2"	12,7	48,5	71	40	49,5	6	5	0,28
		3/4"	19,05	48,5	71	40	49,5	6	5	0,27
25		1"	25,4	74,5	107	59,5	70	13	9	0,65
	25		29	74,5	107	59,5	70	13	9	0,60
32			32	70,5	107	59,5	70	9	9	0,55
38		1"1/2	38,1	70,5	107	59,5	70	9	9	0,82
	40		40	65,5	102	59,5	70	9	9	1
51		2"	50,8	74,5	115	74	84	10	9	1,09
	50		53	74,5	115	74	84	10	9	1,05
63		2"1/2	63,5	108,5	158	110	114	14	10	2,66
	65		70	104,5	158	110	114	10	10	2,63
76		3"	76,2	104,5	158	110	114	10	10	2,31
	80		85,5	127,5	201	148	148	15	11	3,82
		4"	101,6	123,5	201	148	148	11	11	4,43
104	100		104	123,5	201	148	148	11	11	4,40
	125		130	141,5	229	178	178	9	11	5,60

Security device

Vacuum pressure relief valve

Design

DEFINOX offers two models of pressure/vacuum valve:

- a compact valve with a 2" or 2"1/2 clamp connection or DIN 50 socket,
- a 4" valve with a clamp connection. This model is equipped with a manual forced opening device.

These valves are available in the following pressure/vacuum ranges:

- vacuum: 30 mbar,
- pressure: 0.05 to 2 bar, depending on the spring.

They are made of 316L stainless steel and equipped with a PTFE plug and silicone seal to avoid sticking. The discharge from these valves is not channelled.



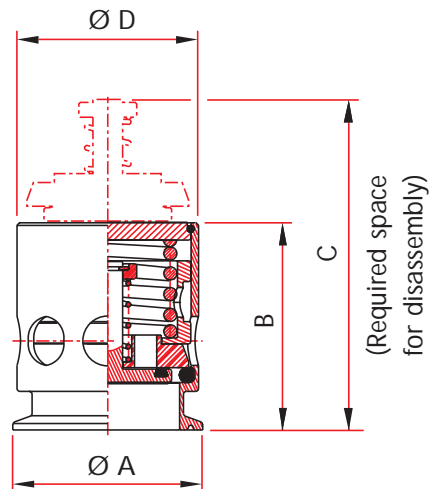
List of vacuum pressure relief valve springs

Pressure		Vacuum pressure relief valve	
in bar	in psi	2" & 2"1/2 clamp - DN 50 DIN	4" clamp
0,2	2,8		7007824
0,5	7		7601117
0,7	9,8	7007816	
1	14	7007817	7007808
1,2	16,8		
1,3	18,2		7007803
1,4	19,6	7007818	
1,7	23,8		7007794
1,8	25,2	7007819	
2	28		7007789
2,5	35	7007820	
2,75	38,5		7007829
3	42		
Vacuum			
0,03	0,42	7007729	7007814

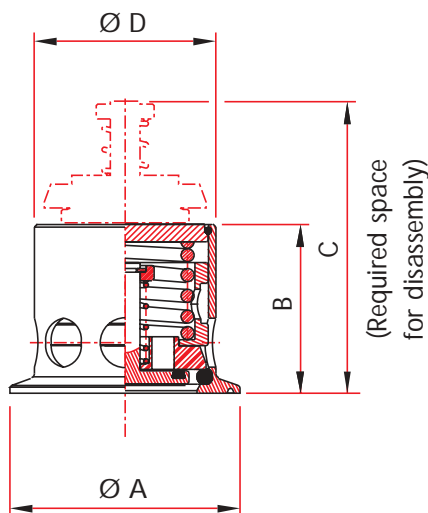
Security device Vacuum pressure relief valve

Dimensions

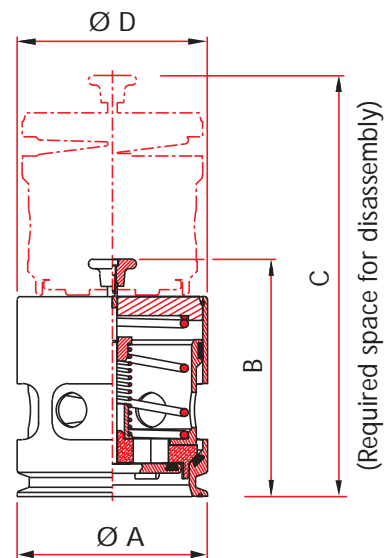
2" clamp valve



2" 1/2 clamp valve



4" clamp valve



DN		Ø A	B	C	Ø D	Weight in kg
DIN	US					
	2"	64	70	112	61	0,58
50		68	57	106	61	0,73
	2"1/2	77,5	57	99	61	0,53
	4"	119	151	270	119	4,07

Working conditions

FOR ALL DIAMETERS OF VACUUM PRESSURE RELIEF VALVE	
Maximum temperature: +80 °C	Minimum temperature: 0 °C

Security device

Safety valve

Design

This valve is available in DN 38 and 50 and with an L configuration.

It is composed of three main parts:

- a 316L stainless steel L body which can be fitted with a pressure gauge as an option. It is available with a butt weld end or SMS, DIN or clamp fitting,
- a 316L stainless steel plug with (FKM) fluorated elastomer seal (EPDM optional),
- an adjustable device with a variety of springs to cover a calibration range of 0 to 13 bar.

The adjustment device consists of a removable stainless steel handle mounted on top of the valve. It can be replaced by a cover to protect the pre-adjusted setting (lead seal possible).

The valve is disassembled by an SMS nut which allows the calibration device to be separated from the body.



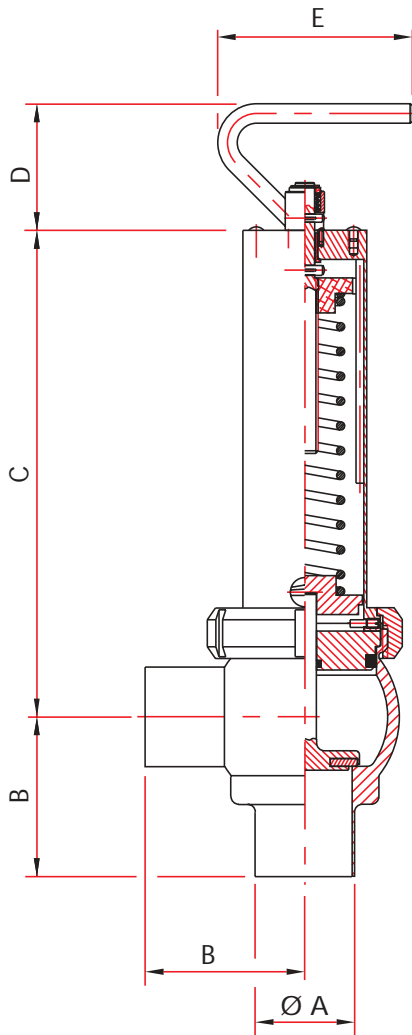
Working conditions

FOR ALL DIAMETERS OF SAFETY VALVE	
Maximum temperature: +120 °C	Minimum temperature: 0 °C

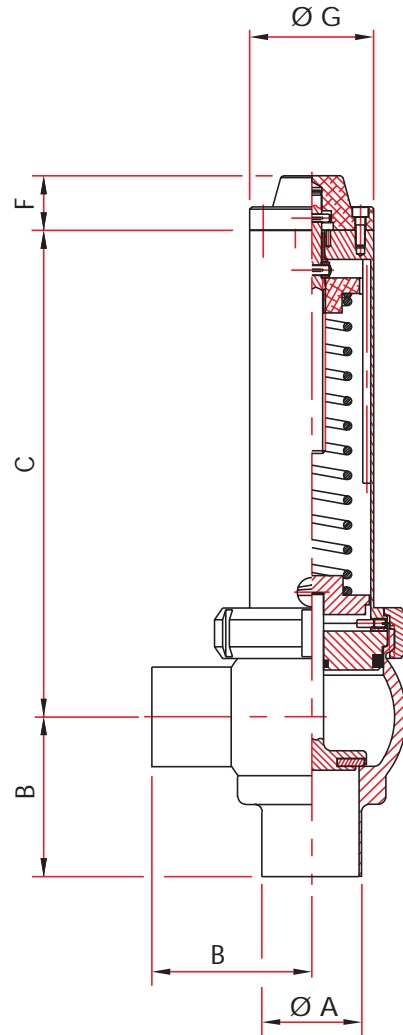
Security device Safety valve

Dimensions

Valve with adjustable handle



Calibrated valve



DN	Ø A	B	C	D	E	F	Ø G	Weight in kg
SMS								
38	38,1 x 1,65	70	180	65	100	28	53	2,7
51	50,8 x 1,65	82	250	65	100	28	63,5	3,9

Security device Sight glass

Design

DEFINOX markets two types of sight glass:

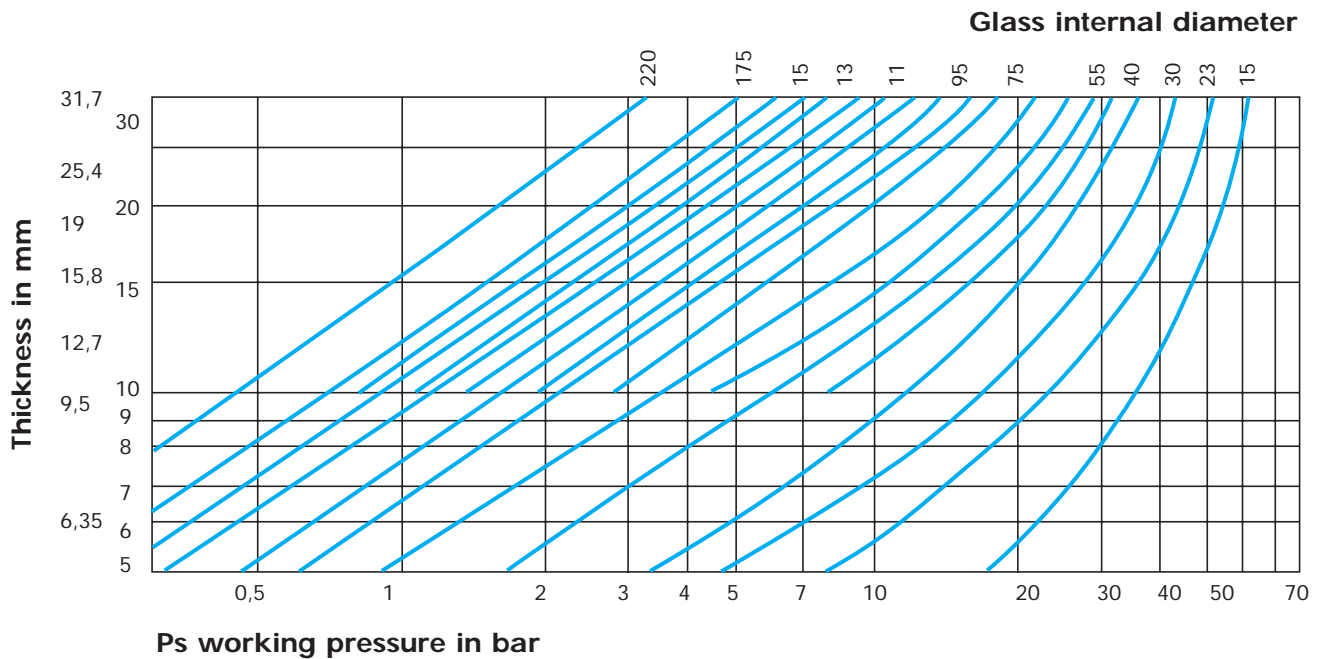
- the first is fabricated in 316L stainless steel (T or cross body) with glass retaining flanges,
- the second is machined from a solid bar (cross body only); in addition to the mechanical strength of this design, the glass mounting is more flush.

Both models are fitted with Pyrex glass, the thickness of which depends on pressure levels in the line (refer to the table).

Halogen lighting can be supplied on demand.



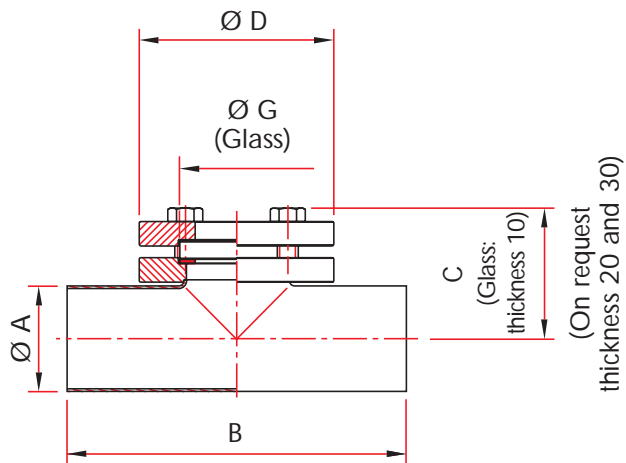
Glass dimensions



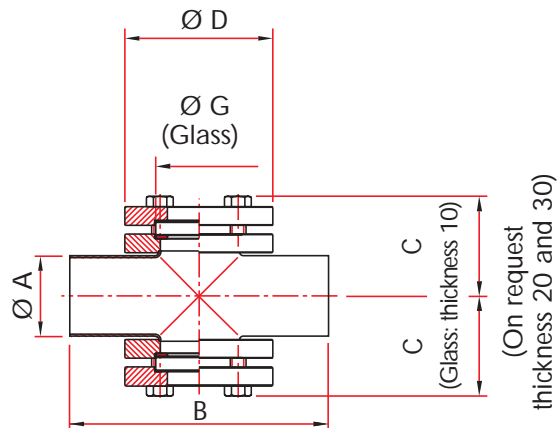
Security device Sight glass

Dimensions

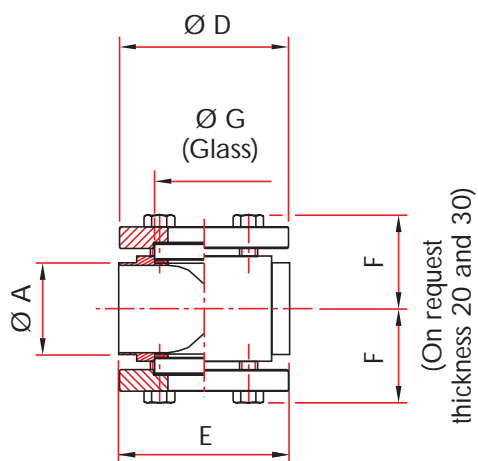
T sight glass



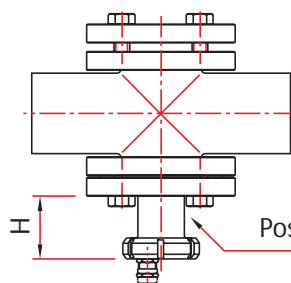
Cross sight glass



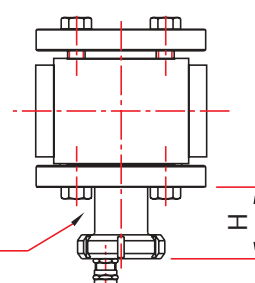
Tangential sight glass



Cross sight glass



Tangential sight glass



DN		Ø A	B	C	Ø D	E	F	Ø G	H
SMS	DIN								
25		25	110	44	69	70	36	35	70
	25	29	100	45	69	70	36	35	70
38		38	140	57	94	70	38	55	70
	40	40	134	58	94	70	44	55	70
51		51	164	64	94	95	54	55	70
	50	53	144	64	94	95	54	55	70
63		63,5	210	69	108	110	57	65	70
	65	70	170	74	124	110	59	80	70
76		76	220	77	144	110	62	93	70
	80	85	196	82	144	130	70	93	70
104		104	222	91	163	130	79	118	70

Security device Air blast valve

Design

This 316L stainless steel device, fitted with a plug and return spring, is used to inject air into the pipeline.

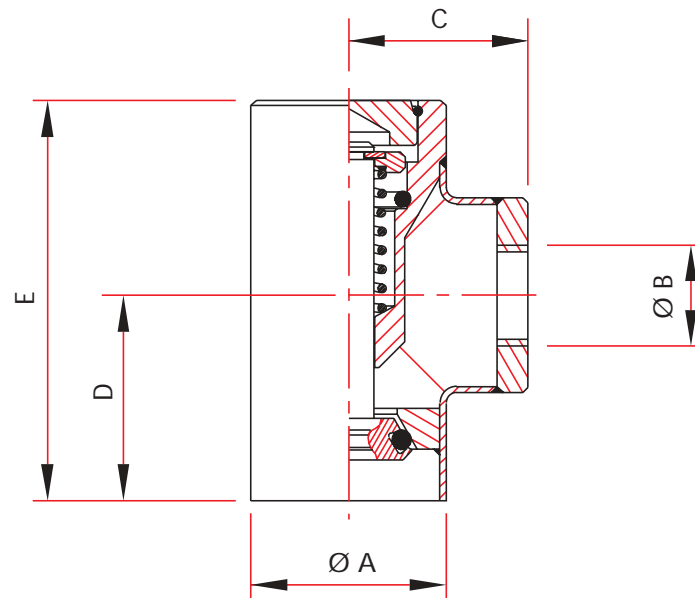


Working conditions

Maximum temperature:
+120 °C

Minimum temperature:
0 °C

Dimensions



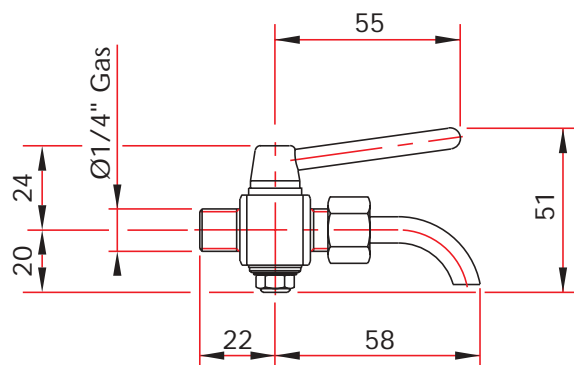
DN	Ø A	Ø B	C	D	E
SMS					
38	38	1/2" gas	35	40	78

Sampling cocks

To complement the specific diaphragm valve and microvalve range, **DEFINOX** offers a range of additional manual or automatic products: the sampling cocks.

● Sampling cock

Taper plug cock with PTFE coating, available also as an 8/13 bibcock.



● Automated sampling cock

Small single-acting, pneumatic valve used for injection or sampling. This small valve can be switched between Normally Open and Normally Closed mode by changing the piston. It has (FKM)

fluorinated elastomer seals and its sealed pressure rating is 8 bar. Its L body can be adapted for a hose connection.

