



PROPORTIONAL SAFETY VALVE zARMAK

PN16

Body material A (EN-GJL-250)
-10°C ÷ +300°C
Acc. to EN ISO 4126

CE 0343



240

PN16

Body material H (CuZn39Pb1AlC)
-10°C ÷ +200°C
Acc. to EN ISO 4126

CE 0343



781

PN25

Body material V (CuZn40Pb2)
-10°C ÷ +120°C
Acc. to EN ISO 4126

CE 0343



782

PN40

Body material F (GP240GH)
-40°C ÷ +450°C
Acc. to EN ISO 4126

CE 0343



240



240



270

PN40

Body material R (GX5CrNi19-10)
-196°C ÷ +300°C
Acc. to EN ISO 4126

CE 0343



240



270



Contents

PN16

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PN25

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PN40

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PN16

240

Proportional spring flanged safety valves



240

Type

01, 02, 05, 07
51, 52, 55, 57

Application

Industries



INDUSTRY



SHIPBUILDING INDUSTRY



PETROCHEMICAL
INDUSTRY



HEATING



REFRIGERATION
AND AIR
CONDITIONING



GAS



POWER
ENGINEERING

Media



DRINKING WATER



SEWAGE



GLYCOL



INDUSTRIAL WATER



STEAM



COMPRESSED AIR



NEUTRAL FLUIDS

Technical data

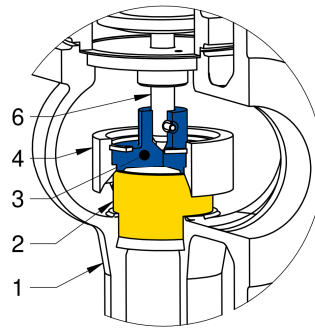
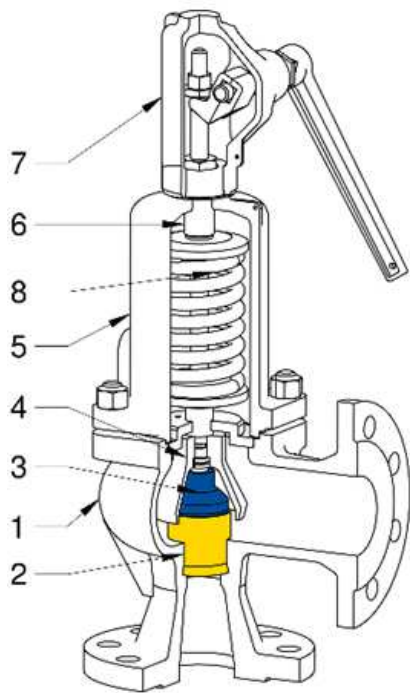
Figure	Type	Sealing	Ex	Body material		PN	DN	Temperature range	Ends	
									Inlet	Outlet
240A C	01, 02, 05, 07	-1	2501	A	EN-GJL-250	C 16/10	15x15 ÷ 200x200	-10°C ÷ +300°C		
		-2	2501.11A				25x25 ÷ 125x125	-10°C ÷ +90°C		
		-3					-10°C ÷ +120°C			
	51, 52, 55, 57	-1	-				20x20 ÷ 50x50	-10°C ÷ +300°C		
240A C EPOXY	01, 02	-1, -3	-				32x32 ÷ 125x125	-10°C ÷ +80°C		

End types	Type	Sealing
 Flange ends	01 Standard type for steam, gases and liquids	-1 metal-metal
	02 Gastight type for steam, gases and liquids	-2 NBR
	05 Marine type for steam, gases and liquids	-3 EPDM
	07 Marine gastight type for steam, gases and liquids	
	51 Standard type, with extended seat, for steam, gases and liquids	
	52 Gastight type, with extended seat, for steam, gases and liquids	
	55 Marine type, with extended seat, for steam, gases and liquids	
	57 Marine gastight type, with extended seat, for steam, gases and liquids	

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Materials



240
Type 51, 52, 55, 57

No.	Body material →			A	
	Part	Type		240A C	240A C (EPOXY) **
1	Body	01-07	-1, -2, -3	EN-GJL-250 5.1301	EN-GJL-250 / EPOXY 5.1301
		51-57	-1	EN-GJL-250 5.1301	-
2	Seat	01-07	-1, -2, -3	X39CrMo17-1 / X17CrNi16-2 1.4122 / 1.4057	
		51-57	-1	X39CrMo17-1 / X17CrNi16-2 1.4122 / 1.4057	-
3	Disc	01-07	-1	X39CrMo17-1 / X17CrNi16-2 1.4122 / 1.4057	
		51-57	-1	X39CrMo17-1 / X17CrNi16-2 1.4122 / 1.4057	-
		01-07	-2	X6CrNiTi18-10/NBR 1.4541/NBR	-
		01-07	-3	X6CrNiTi18-10/EPDM 1.4541/EPDM	
4	Bell	01-07	-1, -2, -3	EN-GJS-400-15 / X20Cr13 5.3106 / 1.4021	
		51-57	-1	X20Cr13 1.4021	--
5	Bonnet	01-07	-1, -2, -3	EN-GJL-250 / EN-GJS-400-15 5.1301 / 5.3106	EN-GJL-250 / EN-GJS-400-15 / EPOXY 5.1301 / 5.3106
		51-57	-1	EN-GJL-250 / EN-GJS-400-15 5.1301 / 5.3106	-
6	Stem	01, 02	-1, -2, -3	X20Cr13 1.4021	
		51, 52	-1	X20Cr13 1.4021	-
		05, 07 55, 57	-1, -2, -3	X17CrNi16-2 1.4057	-
7	Cap	01-07	-1, -2, -3	EN-GJL-250 / EN-GJS-400-15 5.1301 / 5.3106	EN-GJL-250 / EN-GJS-400-15 / EPOXY 5.1301 / 5.3106
		51-57	-1	EN-GJL-250 / EN-GJS-400-15 5.1301 / 5.3106	-
8	Spring	01-07 51-57	-1, -2, -3	51CrV4 / FDSiCr * 1.8159 / -	

* Springs with wire diameter $\Phi 6$, of patented wire, max. operating temperature then is 250°C (details in the table: Pressure ranges)

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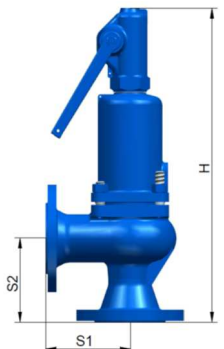
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Dimensions

Body material: A		d ₁ x d ₂											
		240											
		15x15	20x20	25x25	32x32	40x40	50x50	65x65	80x80	100x100	125x125	150x150	200x200
d ₀ (mm)	01-07	12	12	16	20	25	32	40	50	63	77	93	110
	51-57	12	12	16	20	25	32						
A (mm ²)	01-07	113	113	201	314	491	804	1257	1964	3117	4657	6793	9503
	51-57	113	113	201	314	491	804						
S ₁ (mm)	01-07 51-57	90	95	100	105	115	125	145	155	175	200	225	225
S ₂ (mm)		90	95	100	105	115	125	145	155	175	200	225	250
H (mm)		330	335	350	390	420	485	540	655	705	810	850	980



Set pressure

Body material: A			15x15	20x20	25x25	32x32	40x40	50x50	65x65	80x80	100x100	125x125	150x150	200x200
P _{min} (bar)	01, 02, 05, 07	-1	0,45											
	01, 02, 05, 07	-2, -3	1											
	51, 52, 55, 57	-1	0,45											
P _{max} (bar)	01, 02, 05, 07	-1	16											
	01, 02, 05, 07	-2, -3	16											
	51, 52, 55, 57	-1	16											

Flange drilling

240A C		15x15	20x20	25x25	32x32	40x40	50x50	65x65	80x80	100x100	125x125	150x150	200x200
Inlet	Standard	PN16											
	Optional PN*	PN10											
	Optional ANSI*	Class150							Class150**		Class150		
Outlet	Standard	PN10											
	Optional PN	PN16											
	Optional ANSI	Class150						Class150**			Class150		

* After agreement with the manufacturer, if the setting pressure allows

** Possibility of type except for the flange thickness (thickness as for the standard flange according to EN-1092-2)

Standard and optional PN flanges drilled acc. EN 1092-2.

Discharge coefficients

			Steam and gases (S/G)											
			DN (d ₁ x d ₂)											
Figure	Type	Pressure	15x15	20x20	25x25	32x32	40x40	50x50	65x65	80x80	100x100	125x125	150x150	200x200
240A C	01, 02, 05, 07	b ₁ = 0,1 bar for p ≤ 1 bar b ₁ = 10% for p > 1 bar	0,25											
	51, 52, 55, 57	b ₁ = 0,1 bar for p ≤ 1 bar b ₁ = 10% for p > 1 bar	0,4											

b₁ – overpressure

			Liquids (L)											
			DN (d ₁ x d ₂)											
Figure	Type	Pressure	15x15	20x20	25x25	32x32	40x40	50x50	65x65	80x80	100x100	125x125	150x150	200x200
240A C	01, 02, 05, 07	b ₁ = 0,1 bar for p ≤ 1 bar b ₁ = 10% for p > 1 bar	0,25											
	51, 52, 55, 57	b ₁ = 0,1 bar for p ≤ 1 bar b ₁ = 10% for p > 1 bar	0,3											

b₁ – overpressure

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Pressure-temperature ratings

	PN		-10°C	RT	50 °C	100 °C	150 °C	200 °C	250 °C	300 °C
EN-GJL-250	16	bar	16	16	16	16	14,4	12,8	11,2	9,6

781

Proportional spring safety valves with threaded ends



781

Type

01 - 08

Application

Industries



INDUSTRY



SHIPBUILDING
INDUSTRY



HEATING



REFRIGERATION AND
AIR CONDITIONING



POWER
ENGINEERING



GAS



PETROCHEMICAL
INDUSTRY

Media



DRINKING WATER



GLYCOL



INDUSTRIAL WATER



STEAM



COMPRESSED AIR



NEUTRAL FLUIDS

Technical data

Figure	Type	Sealing	Ex	Body material		PN	DN	Temperature range	Ends	
									Inlet	Outlet
781	01, 02, 05, 07	-1	781	H	CuZn39Pb1AlC	C 16/10	10x15 ÷ 25x25	-10°C ÷ +200°C		
		-2	781.11A					-10°C ÷ +90°C		
		-3	781.11A					-10°C ÷ +120°C		
	03, 04, 06, 08	-1	781C				20x20 ÷ 25x25	-10°C ÷ +200°C		
		-2	781C.11A					-10°C ÷ +90°C		
		-3	781C.11A					-10°C ÷ +120°C		

End types		Type		Sealing	
	Threaded ends	01	Standard type for steam, gases and liquids	-1	metal-metal
		02	Gastight type for steam, gases and liquids	-2	NBR
		03	Type with reduced lift for liquids	-3	EPDM
		04	Type with reduced lift, gas-tight for liquids		
		05	Marine type for steam, gases for liquids		
		06	Marine type with reduced lift for liquids		
		07	Marine gastight type for steam, gases and liquids		
		08	Marine type with reduced lift, gas-tight for liquids		

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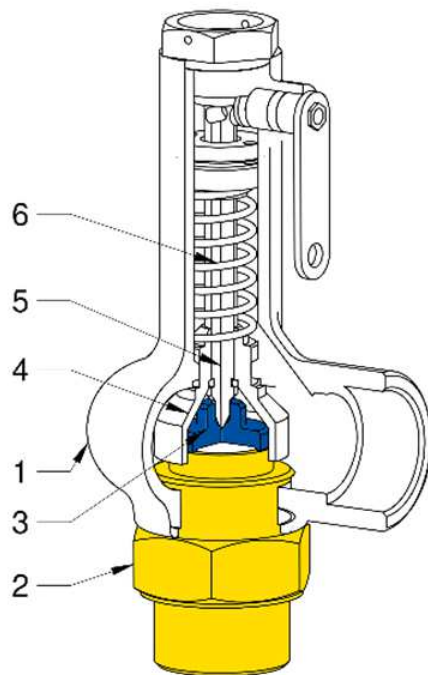
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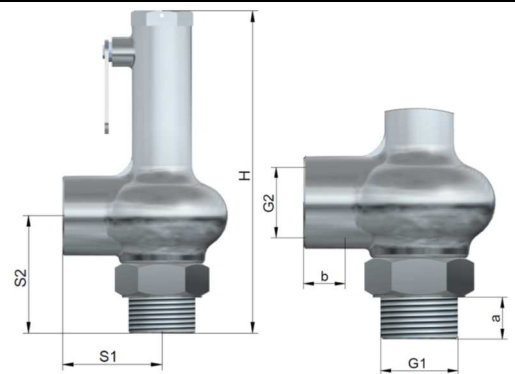
Materials



No.	Body material →			H
	Part	Type		781H C
1	Body	01-08	-1, -2, -3	CuZn39Pb1AlC(nickel plated) CC754S
2	Nozzle	01-08	-1, -2, -3	X39CrMo17-1 1.4122
3	Disc	01-08	-1	X39CrMo17-1 1.4122
			-2	X39CrMo17-1/NBR 1.4122/NBR
			-3	X39CrMo17-1/EPDM 1.4122/EPDM
4	Bell	01-04	-1, -2, -3	CuZn40Pb2 5.3106
5	Stem	01-04	-1, -2, -3	X20Cr13 1.4021
6	Spring	01-08	-1, -2, -3	51CrV4 / FDSiCr 1.8159 / -

Dimensions

Body material: H		d ₁ x d ₂			
		781			
		10x15	15x15	20x20	25x25
d ₀ (mm)	01-08	10	12	16	20
A (mm ²)		78,5	113	201	314
G ₁ (cal)		¾	¾	¾	1
a (mm)		12	13	15	18
G ₂ (cal)		¾	¾	¾	1
b (mm)		9	9	13	14
S ₁ (mm)		35	35	40	50
S ₂ (mm)		41	44	52	59
H (mm)		144	147	155	162



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Set pressure

Body material: H			10x15	15x15	20x20	25x25
P_{min} (bar)	01-08	-1	0,3			
	01-08	-2	1			
	01-08	-3				
P_{max} (bar)	01-08	-1	16			10
	01-08	-2				
	01-08	-3				

Discharge coefficients

			Steam and gases (S/G)			
			DN ($d_1 \times d_2$)			
Figure	Type	Pressure	10x15	15x15	20x20	25x25
781H C	01, 02, 05, 07	$b_1 = 0,1$ bar for $0,3 \leq p < 0,5$ bar	0,19			
		$b_1 = 0,1$ bar for $0,5 \leq p \leq 1$ bar	0,20			
		$b_1 = 10\%$ for $1 < p < 1,5$ bar				
		$b_1 = 10\%$ for $p \geq 1,5$ bar	0,25			

b_1 – overpressure

			Liquids (L)			
			DN ($d_1 \times d_2$)			
Figure	Type	Pressure	10x15	15x15	20x20	25x25
781H C	01, 02, 05, 07	$b_1 = 0,1$ bar for $p \leq 1$ bar $b_1 = 10\%$ for $p > 1$ bar	0,01			
	03, 04, 06, 08	$b_1 = 0,1$ bar for $p \leq 1$ bar $b_1 = 10\%$ for $p > 1$ bar			0,20	0,23

b_1 – overpressure

Pressure-temperature ratings

	PN		-10°C	RT	50 °C	100 °C	150 °C	200 °C
CuZn39Pb1AlC	16	bar	16	16	16	16	16	13,5

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PN25

782

Free- release spring safety valves



782
Type
01

Application

Industries



REFRIGERATION AND
AIR CONDITIONING

Media



COMPRESSED AIR



NEUTRAL FLUIDS

Technical data

Figure	Type	Sealing	Ex	Body material		PN	DN	Temperature range	Ends	
									Inlet	Outlet
782	01	-1	782	V	CuZn40Pb2	D	10 ÷ 25	-10°C ÷ +120°C		-

End types	Type	Sealing
 Threaded ends	01 Standard type for steam and gases	-1 EPDM

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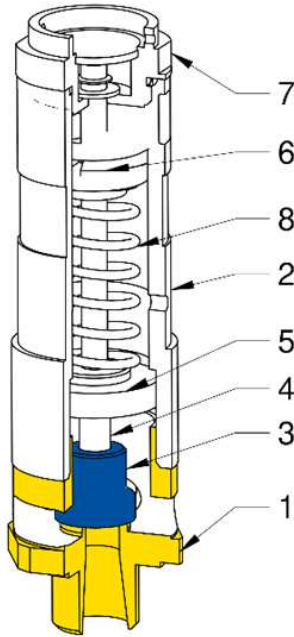
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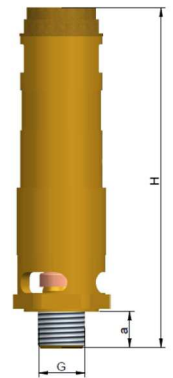
Materials



No.	Body material →		V	
	Part	Type	782V D	
1	Nozzle	01	-1	CuZn40Pb2 2.402
2	Bonnet			CuZn40Pb2 2.402
3	Disc			CuZn40Pb2/EPDM 2.402/EPDM
4	Stem			CuZn40Pb2 2.402
5	Spring plate			CuZn40Pb2 2.402
6	Adjusting screw plug			CuZn40Pb2 2.402
7	Upper screw plug			CuZn40Pb2 2.402
6	Spring			SL, SM, SH DM, DH

Dimensions

Body material: V		d ₁			
		781			
		10	15	20	25
d _o (mm)	01	10	12	16	20
A (mm ²)		78,5	113	201	314
G (cal)		⅜	½	¾	1
a (mm)		13	13	15	17
H (mm)		120	120	122	128



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Set pressure

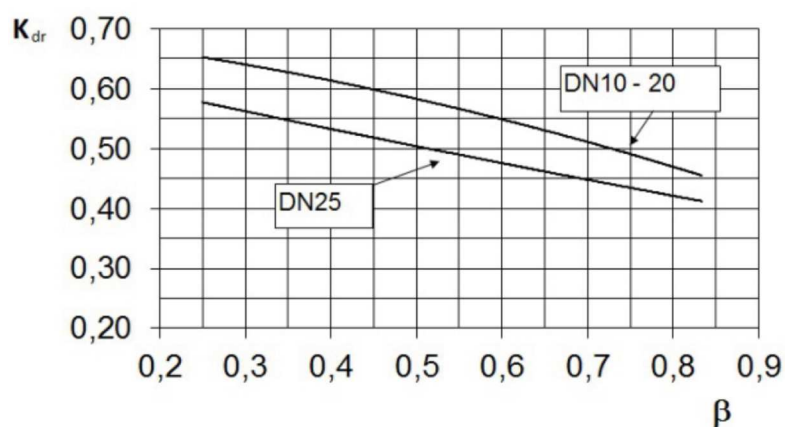
Body material: V			10	15	20	25
P_{min} (bar)	01	-1	1,1		0,7	
P_{max} (bar)			25	22	20	16

Discharge coefficients

			Steam and gases (S/G)			
			DN (d_1)			
Figure	Type	Pressure	10	15	20	25
782V D	01	$b_1 = 0,1$ bar for $p \leq 1$ bar $b_1 = 10\%$ for $p > 1$ bar	0,65*			0,57*

b_1 – overpressure

The given values concern $\beta < 0,25$. For the values $\beta \geq 0,25$ the discharge coefficient should be read from the following graph.



PN40

240

Proportional spring flanged safety valves



240
Type
01, 02, 05, 07
51, 52, 55, 57



240
Type
01
51, 52



240
Type
01
51, 52



Body material:
R

Application

Industries



INDUSTRY



SHIPBUILDING
INDUSTRY



PETROCHEMICAL
INDUSTRY



HEATING



REFRIGERATION AND
AIR CONDITIONING



GAS



POWER
ENGINEERING

Media



DRINKING WATER



SEWAGE



GLYCOL



INDUSTRIAL WATER



STEAM



COMPRESSED AIR



NEUTRAL FLUIDS

Technical data

Figure	Type	Sealing	Ex	Body material		PN	DN	Temperature range	Ends	
									Inlet	Outlet
240F E	01, 02, 05, 07	-1	2502	F	GP240GH	E 40/10	20x20 ÷ 200x200	-40°C ÷ +450°C*		
		-2	2502.11A				25x25 ÷ 125x125	-40°C ÷ +90°C		
		-3					-40°C ÷ +120°C			
	51, 52, 55, 57	-1	-				20x20 ÷ 50x50	-40°C ÷ +400°C		
240R E	02	-1	2502CrNi	R	GX5CrNi19-10		20x20 ÷ 100x100	-196°C ÷ +300°C**		
	51, 52	-1	-				20x20 ÷ 50x50			

* For the type with a closed Bonnet, max. the temperature is 400°C

** For oxygen valves, the maximum operating temperature is +200°C

End types	Type	Sealing
 Flange ends	01 Standard type for steam, gases and liquids	-1 metal-metal
	02 Gastight type for steam, gases and liquids	-2 NBR
	05 Marine type for steam, gases and liquids	-3 EPDM
	07 Marine gastight type for steam, gases and liquids	
	51 Standard type, with extended seat, for steam, gases and liquids	
	52 Gastight type, with extended seat, for steam, gases and liquids	
	55 Marine type, with extended seat, for steam, gases and liquids	
	57 Marine gastight type, with extended seat, for steam, gases and liquids	

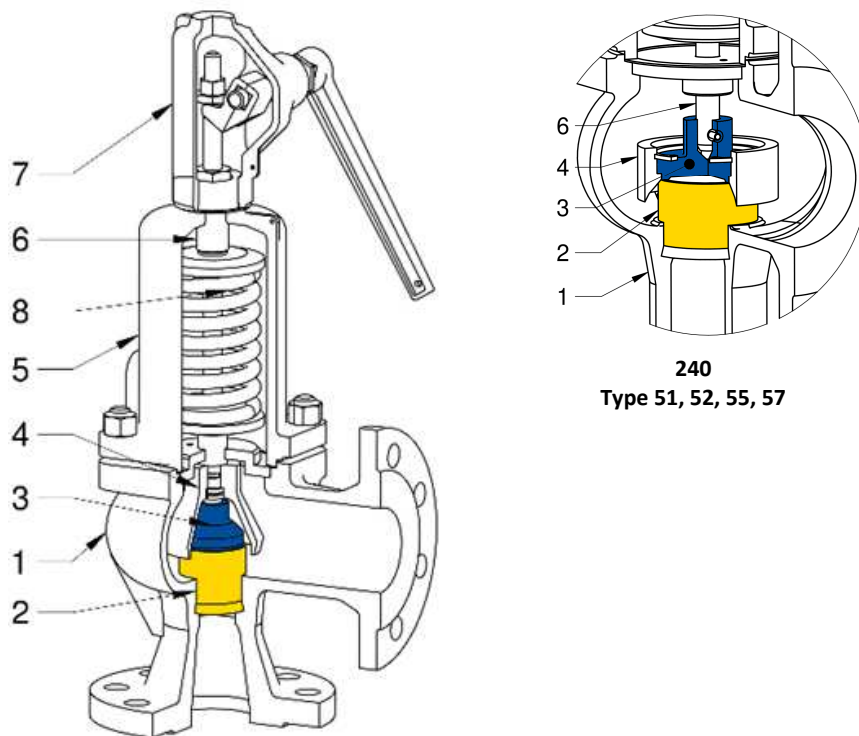
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240
Type 51, 52, 55, 57

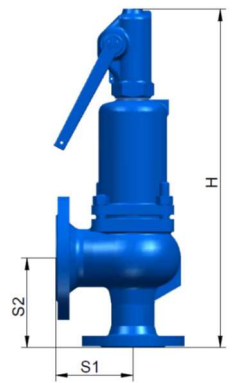
No.	Body material →			F	R
	Part	Type		240F E	240R E
1	Body	01-07 51-57	-1, -2, -3	GP240GH 1.0619	GX5CrNi19-10 1.4308
2	Seat	01-07 51-57	-1, -2, -3	X39CrMo17-1 / X17CrNi16-2 1.4122 / 1.4057	X6CrNiTi18-10 1.4541
3	Disc	01, 02 51-57	-1	X39CrMo17-1 / X17CrNi16-2 1.4122 / 1.4057	X6CrNiTi18-10 1.4541
		05, 07	-2	X6CrNiTi18-10/NBR 1.4541/NBR	
		05, 07	-3	X6CrNiTi18-10/EPDM 1.4541/EPDM	
4	Bell	01-07	-1, -2, -3	EN-GJS-400-15 / X20Cr13 5.3106 / 1.4021	X6CrNiTi18-10 1.4541
		51-57	-1	X20Cr13 1.4021	X6CrNiTi18-10 1.4541
5	Bonnet	01-07 51-57	-1	GP240GH 1.0619	GX5CrNi19-10 1.4308
		01-07	-2, -3	EN-GJS-400-15 5.3106	
6	Stem	01, 02 51, 52	-1, -2, -3	X20Cr13 1.4021	X6CrNiTi18-10 1.4541
		05, 07 55, 57		X17CrNi16-2 1.4057	
7	Cap	01-07 51-57	-1, -2, -3	EN-GJS-400-15 5.3106	GX5CrNi19-10 1.4308
8	Spring	01-07	-1, -2, -3	51CrV4 / FDSiCr * 1.8159 / -	X10CrNi18-10 1.4310
		51-57	-1		51CrV4 / FDSiCr *,** 1.8159 / -
9	Insert	01-07	-1	P245GH / 13CrMo4-5 1.0352 / 1.7335	

* Springs with wire diameter $\Phi 6$, of patented wire, max. operating temperature then is 250°C (details in the table: Pressure ranges)

** Spring for type 51, 52 valves 240R E – nickel plated

Dimensions

Body material: F, R		d ₁ x d ₂										
		240										
		F, R								F		
		20x20	25x25	32x32	40x40	50x50	65x65	80x80	100x100	125x125	150x150	200x200
d _o (mm)	01-07	12	16	20	25	32	40	50	63	77	93	110
	51-57	12	16	20	25	32						
A (mm ²)	01-07	113	201	314	491	804	1257	1964	3117	4657	6793	9503
	51-57	113	201	314	491	804						
S ₁ (mm)	01-07 51-57	95	100	105	115	125	145	155	175	200	225	225
S ₂ (mm)		95	100	105	115	125	145	155	175	200	225	250
H (mm)		335	350	390	420	485	540	655	705	810	850	980



Set pressure

Body material: F			20x20	25x25	32x32	40x40	50x50	65x65	80x80	100x100	125x125	150x150	200x200	
P _{min} (bar)	01, 02, 05, 07	-1	0,45											
	01, 02, 05, 07	-2, -3		1										
	51, 52, 55, 57	-1	0,45											
P _{max} (bar)	01, 02, 05, 07	-1	40									25	16	
	01, 02, 05, 07	-2, -3		40										
	51, 52, 55, 57	-1	40											

Body material: R			20x20	25x25	32x32	40x40	50x50	65x65	80x80	100x100
P _{min} (bar)	02	-1	0,2							
	51, 52	-1	40							
P _{max} (bar)	02	-1	0,45							
	51, 52	-1	40							

Flange drilling

240F E; 240R E			20x20	25x25	32x32	40x40	50x50	65x65	80x80	100x100	125x125	150x150	200x200
Inlet	Standard		PN40										PN25
	Optional PN*		PN16, PN10										
	Optional ANSI*		class150										
Outlet	Standard		PN10										
	Optional PN		PN16										
	Optional ANSI		class150						class150**			class150**	

* After agreement with the manufacturer, if the setting pressure allows

** Possibility of type except for the flange thickness (thickness as for the standard flange according to EN-1092-2)

Standard and optional PN flanges drilled acc. EN 1092-2.

Discharge coefficients

			Steam and gases (S/G)										
			DN (d ₁ x d ₂)										
Figure	Type	Pressure	20x20	25x25	32x32	40x40	50x50	65x65	80x80	100x100	125x125	150x150	200x200
240F E 240R E	01, 02, 05, 07	b ₁ = 0,1 bar for p ≤ 1 bar b ₁ = 10% for p > 1 bar	0,25										
	51, 52, 55, 57	b ₁ = 0,1 bar for p ≤ 1 bar b ₁ = 10% for p > 1 bar	0,4										

b₁ – overpressure

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			Liquids (L)										
			DN (d ₁ x d ₂)										
Figure	Type	Pressure	20x20	25x25	32x32	40x40	50x50	65x65	80x80	100x100	125x125	150x150	200x200
240F E 240R E	01, 02, 05, 07	b ₁ = 0,1 bar for p ≤ 1 bar b ₁ = 10% for p >1 bar	0,25										
	51, 52, 55, 57	b ₁ = 0,1 bar for p ≤ 1 bar b ₁ = 10% for p >1 bar	0,3										

b₁ – overpressure

Pressure-temperature ratings

	PN		-40°C	RT	50 °C	100 °C	150 °C	200 °C	250 °C	300 °C	350 °C	400 °C	450 °C
GP240GH	40	bar	30	40	40	40	38,1	35	32	28	25,7	23,8	18,0
GX5CrNi19-10			38	37,6	35,6	27,6	24,9	22,6	21	19,6			

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270

Proportional spring safety valves with threaded ends



270

Type

01, 02, 02, 07

51, 52, 55, 57



Body material:

R

Application

Industries



INDUSTRY



SHIPBUILDING
INDUSTRY



PETROCHEMICAL
INDUSTRY



HEATING



REFRIGERATION AND
AIR CONDITIONING



GAS



POWER
ENGINEERING

Media



DRINKING WATER



SEWAGE



GLYCOL



INDUSTRIAL WATER



STEAM



COMPRESSED AIR



NEUTRAL FLUIDS

Technical data

Figure	Type	Sealing	Ex	Body material		PN	DN	Temperature range	Ends	
									Inlet	Outlet
270F E	01, 02, 05, 07	-1	2502.01	F	GP240GH	E 40/10	20x20 ÷ 50x50	-40°C ÷ +400°C		
		-2	2502.01.11A				25x25 ÷ 50x50	-40°C ÷ +90°C		
		-3	-					-40°C ÷ +120°C		
270R E	01, 02	-1	2502CrNi.01	R	GX5CrNi19-10	E 40/10	20x20 ÷ 50x50	-40°C ÷ +400°C		
			-					-196°C ÷ +300°C*		
			-							

* For oxygen valves, the maximum operating temperature is +200°C

End types	Type	Sealing
 Threaded ends	01 Standard type for steam, gases and liquids	-1 metal-metal
	02 Gastight type for steam, gases and liquids	-2 NBR
	05 Marine type for steam, gases and liquids	-3 EPDM
	07 Marine gastight type for steam, gases and liquids	
	51 Standard type, with extended seat, for steam, gases and liquids	
	52 Gastight type, with extended seat, for steam, gases and liquids	
	55 Marine type, with extended seat, for steam, gases and liquids	
	57 Marine gastight type, with extended seat, for steam, gases and liquids	

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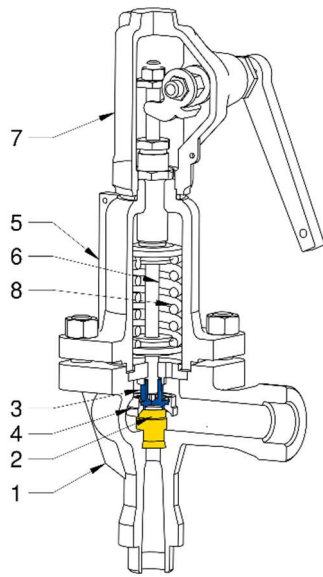
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Materials



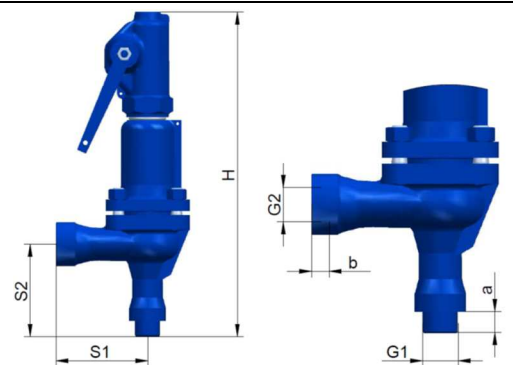
No	Body material →			F	R
	Part	Type		270F E	270R E
1	Body	51-57	-1	GP240GH 1.0619	GX5CrNi19-10 1.4308
2	Seat	51-57	-1	X39CrMo17-1 / X17CrNi16-2 1.4122 / 1.4057	X6CrNiTi18-10 1.4541
3	Disc	51-57	-1	X39CrMo17-1 / X17CrNi16-2 1.4122 / 1.4057	X6CrNiTi18-10 1.4541
4	Bell	51-57	-1	X20Cr13 1.4021	X6CrNiTi18-10 1.4541
5	Bonnet	51-57	-1	GP240GH 1.0619	GX5CrNi19-10 1.4308
6	Stem	51, 52	-1	X20Cr13 1.4021	X6CrNiTi18-10 1.4541
		55, 57		X17CrNi16-2 1.4057	
7	Cap	51-57		EN-GJS-400-15 5.3106	GX5CrNi19-10 1.4308
8	Spring	51-57	-1	51CrV4 / FDSiCr * 1.8159 / -	51CrV4 / FDSiCr *,** 1.8159 / -

* Springs with wire diameter $\Phi 6$, of patented wire, max. operating temperature then is 250°C (details in the table: Pressure ranges)

** Spring for type 51, 52 valves 240R E – nickle plated

Dimensions

Body material: F, R		d ₁ x d ₂				
		270				
		20x20	25x25	32x32	40x40	50x50
d ₀ (mm)	01-07 51-57	12	16	20	25	32
A (mm ²)		113	201	314	491	804
S ₁ (mm)		95	100	105	115	125
S ₂ (mm)		95	100	105	115	125
G ₁ (cal)		¾	1	1¼	2	2¼
a (mm)		13	16	22	23	24
G ₂ (cal)		¾	1	1¼	1½	2
b (mm)		13	16	22	18	23
H (mm)		335	350	390	420	485



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Pressure set

Body material: F			20x20	25x25	32x32	40x40	50x50
p _{min} (bar)	01, 02, 05, 07	-1	0,45				
		-2, -3		1			
	51, 52, 55, 57	-1	0,45				
p _{max} (bar)	01, 02, 05, 07	-1	40				
		-2, -3		40			
	51, 52, 55, 57	-1	40				

Body material: R			20x20	25x25	32x32	40x40	50x50
P _{min} (bar)	02	-1	0,2				
	51, 52	-1	0,45				
P _{max} (bar)	02	-1	40				
	51, 52	-1					

Discharge coefficients

			Steam and gases (S/G)				
			DN (d ₁ x d ₂)				
Figure	Type	Pressure	20x20	25x25	32x32	40x40	50x50
270F E	01, 02, 05, 07	b ₁ = 0,1 bar for p ≤ 1 bar b ₁ = 10% for p > 1 bar	0,25				
270R E	51, 52, 55, 57		0,4				

b₁ – overpressure

			Liquids (L)				
			DN (d ₁ x d ₂)				
Figure	Type	Pressure	20x20	25x25	32x32	40x40	50x50
270F E	01, 02, 05, 07	b ₁ = 0,1 bar for p ≤ 1 bar b ₁ = 10% for p > 1 bar	0,25				
270R E	51, 52, 55, 57		0,3				

b₁ – overpressure

Pressure-temperature ratings

	PN		-40°C	RT	50 °C	100 °C	150 °C	200 °C	250 °C	300 °C	350 °C	400 °C
GP240GH	40	bar	30	40	40	40	38,1	35	32	28	25,7	23,8
GX5CrNi19-10			38	37,6	35,6	27,6	24,9	22,6	21	19,6		

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Common information

Capacity tables

240, 270

Capacity tables for safety valves PN16, PN40

Type 01, 02, 05, 07 Sealing: -1, -2, -3

DNxDN PN16, PN40 Type AC, FE, RE	15x15	20x20	25x25	32x32	40x40	50x50	65x65	80x80	100x100	125x125	150x150	200x200
A - flow area[mm ²]	113	113	201	314	491	804	1 257	1 964	3 117	4 657	6 793	9 503
Pressure at the beginning of bar opening (g)	Air 20°C [kg/h] in accordance with EN-ISO 4126-7:2013											
0,45	36,1	36,1	64,2	100	157	257	401	627	995	1487	2168	3034
0,50	37,6	37,6	66,9	105	163	268	418	654	1038	1550	2261	3163
0,55	39,1	39,1	69,5	109	170	278	435	679	1078	1611	2349	3287
0,60	40,5	40,5	72,0	113	176	288	450	704	1117	1669	2434	3405
0,65	41,8	41,8	74,4	116	182	298	465	727	1154	1724	2515	3519
0,70	43,1	43,1	76,7	120	187	307	480	750	1190	1778	2594	3628
0,75	44,4	44,4	79,0	123	193	316	494	772	1225	1830	2669	3734
0,80	45,6	45,6	81,1	127	198	325	507	793	1258	1880	2742	3836
0,90	48,0	48,0	85,4	133	209	342	534	835	1325	1979	2887	4038
1,00	50,4	50,4	89,7	140	219	359	561	876	1391	2078	3031	4240
1,10	53,1	53,1	94,4	147	231	378	590	922	1464	2187	3190	4462
1,20	55,7	55,7	99,1	155	242	396	620	968	1536	2296	3349	4684
1,30	58,3	58,3	104	162	254	415	649	1014	1609	2404	3507	4906
1,40	61,0	61,0	108	169	265	434	678	1060	1682	2513	3666	5129
1,50	63,6	63,6	113	177	276	453	708	1106	1755	2622	3825	5351
1,60	66,3	66,3	118	184	288	471	737	1152	1828	2731	3984	5573
1,80	71,5	71,5	127	199	311	509	796	1244	1974	2949	4301	6017
2,00	76,8	76,8	137	213	334	547	855	1335	2119	3166	4619	6461
2,20	82,1	82,1	146	228	357	584	913	1427	2265	3384	4936	6905
2,40	87,4	87,4	155	243	380	622	972	1519	2411	3602	5254	7350
2,60	92,7	92,7	165	258	403	659	1031	1611	2556	3819	5571	7794
3,00	103	103	184	287	449	735	1148	1794	2848	4255	6206	8682
3,50	116	116	207	324	506	829	1295	2024	3212	4799	7000	9793
4,00	130	130	231	360	563	922	1442	2253	3576	5343	7794	10903
4,50	142,9	142,9	254,1	397	621	1016	1589	2483	3941	5887	8588	12014
5,00	156,1	156,1	277,6	434	678	1110	1736	2712	4305	6432	9382	13124
5,50	169,3	169,3	301,1	470	735	1204	1883	2942	4669	6976	10175	14235
6,00	182,5	182,5	324,6	507	793	1298	2030	3171	5033	7520	10969	15345
6,50	195,7	195,7	348,1	544	850	1392	2177	3401	5398	8064	11763	16456
7,00	208,9	208,9	371,6	580	908	1486	2324	3630	5762	8609	12557	17566
8,00	235,3	235,3	418,5	654	1022	1674	2617	4090	6490	9697	14145	19787
9,00	261,7	261,7	465,5	727	1137	1862	2911	4549	7219	10785	15732	22008
10,00	288,1	288,1	512,5	801	1252	2050	3205	5008	7947	11874	17320	24230
11,00	314,5	314,5	559,5	874	1367	2238	3499	5467	8676	12962	18908	26451
12,00	340,9	340,9	606,4	947	1481	2426	3793	5926	9404	14051	20495	28672
13,00	367,3	367,3	653	1021	1596	2614	4086	6385	10133	15139	22083	30893
14,00	393,8	393,8	700	1094	1711	2802	4380	6844	10861	16228	23671	33114
15,00	420,2	420,2	747	1168	1826	2989	4674	7303	11590	17316	25258	35335
16,00	446,6	446,6	794	1241	1940	3177	4968	7762	12318	18404	26846	37556
18,00		499,4	888	1388	2170	3553	5555	8680	13775	20581	30021	
20,00		552,2	982	1534	2399	3929	6143	9598	15232	22758	33197	
22,00		605,0	1076	1681	2629	4305	6730	10516	16689	24935	36372	
24,00		657,9	1170	1828	2858	4681	7318	11434	18146	27112	39547	
25,00		684,3	1217	1901	2973	4869	7612	11893	18875	28200	41135	
28,00		763	1358	2122	3318	5432	8493	13270	21060	31466		
30,00		816	1452	2268	3547	5808	9081	14188	22517	33642		
32,00		869	1546	2415	3777	6184	9668	15106	23974	35819		
35,00		948	1687	2635	4121	6748	10550	16483	26160	39085		
40,00		1080	1922	3002	4695	7687	12019	18778	29802	44527		

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240, 270

Capacity tables for safety valves PN16, PN40

Type 01, 02, 05, 07

Sealing: -1, -2, -3

DNxDN PN16, PN40 Typ AC, FE, RE	15x15	20x20	25x25	32x32	40x40	50x50	65x65	80x80	100x100	125x125	150x150	200x200
A - flow area[mm ²]	113	113	201	314	491	804	1 257	1 964	3 117	4 657	6 793	9 503
Pressure at the beginning of bar opening [g]	Saturated steam [kg/h] in accordance with EN-ISO 4126-7:2013											
0,45	22,5	22,5	40,0	62,5	97,8	160	250	391	621	928	1353	1893
0,50	23,4	23,4	41,6	65,0	102	166	260	407	645	964	1406	1967
0,55	24,3	24,3	43,1	67,4	105	173	270	422	669	1000	1458	2040
0,60	25,1	25,1	44,7	69,8	109	179	279	436	693	1035	1509	2111
0,65	26,0	26,0	46,2	72,1	113	185	289	451	716	1070	1560	2183
0,70	26,8	26,8	47,7	74,5	117	191	298	466	740	1106	1613	2256
0,75	27,7	27,7	49,3	77,1	121	197	309	482	765	1143	1668	2333
0,80	28,7	28,7	51,0	79,7	125	204	319	499	792	1183	1725	2413
0,90	30,8	30,8	54,7	85,5	134	219	342	535	849	1268	1849	2587
1,00	32,0	32,0	57,0	89,0	139	228	356	557	884	1320	1926	2694
1,10	33,5	33,5	59,5	93,0	145	238	372	582	923	1379	2012	2815
1,20	34,9	34,9	62,2	97,1	152	249	389	607	964	1440	2101	2939
1,30	36,5	36,5	64,9	101	159	260	406	634	1006	1504	2193	3068
1,40	38,1	38,1	67,7	106	165	271	424	662	1050	1569	2289	3202
1,50	39,7	39,7	70,7	110	173	283	442	691	1096	1637	2389	3341
1,60	41,5	41,5	73,8	115	180	295	461	721	1144	1709	2493	3487
1,80	45,2	45,2	80,4	126	196	322	503	786	1247	1863	2718	3802
2,00	48,2	48,2	85,8	134	210	343	536	838	1330	1988	2899	4056
2,20	51,3	51,3	91,2	143	223	365	570	891	1415	2113	3083	4313
2,40	54,5	54,5	97,0	151	237	388	606	947	1504	2247	3277	4584
2,60	57,9	57,9	103	161	252	412	645	1007	1598	2388	3483	4873
3,00	64,3	64,3	114	179	280	458	716	1118	1775	2652	3868	5411
3,50	72,5	72,5	129	201	315	516	806	1259	1999	2986	4356	6094
4,00	80,4	80,4	143	223	349	572	894	1397	2217	3313	4832	6760
4,50	88,6	88,6	158	246	385	630	986	1540	2444	3652	5327	7452
5,00	96,4	96,4	171	268	419	686	1072	1675	2658	3971	5792	8103
5,50	104	104	186	290	454	744	1162	1816	2882	4307	6282	8788
6,00	112	112	200	312	488	798	1248	1951	3096	4625	6746	9438
6,50	120	120	214	334	522	856	1338	2090	3317	4956	7228	10112
7,00	128	128	228	356	556	911	1425	2226	3532	5278	7699	10770
8,00	144	144	256	400	625	1024	1600	2500	3968	5929	8648	12098
9,00	160	160	284	444	694	1136	1776	2775	4404	6581	9599	13428
10,00	175	175	312	487	762	1248	1952	3049	4839	7230	10546	14754
11,00	191	191	340	531	830	1359	2125	3321	5271	7875	11486	16069
12,00	207	207	368	574	898	1471	2299	3592	5701	8518	12424	17381
13,00	222	222	395	618	966	1582	2473	3863	6132	9161	13363	18694
14,00	238	238	423	661	1034	1693	2647	4137	6565	9809	14307	20015
15,00	254	254	451	705	1102	1805	2821	4408	6996	10453	15248	21331
16,00	269	269	479	748	1170	1915	2995	4679	7426	11095	16184	22640
18,00		300	535	835	1306	2138	3343	5223	8289	12384	18064	
20,00		332	590	922	1442	2361	3691	5768	9153	13676	19949	
22,00		363	645	1008	1576	2581	4036	6306	10008	14952	21810	
24,00		394	701	1095	1712	2804	4384	6850	10871	16242	23692	
25,00		410	729	1139	1781	2916	4559	7123	11305	16891	24638	
28,00		457	813	1270	1986	3252	5084	7944	12607	18836		
30,00		488	869	1357	2122	3475	5434	8490	13474	20131		
32,00		520	924	1444	2258	3698	5782	9033	14337	21420		
35,00		566	1008	1574	2461	4030	6301	9845	15624	23344		
40,00		646	1148	1794	2805	4593	7181	11220	17808	26606		

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Capacity tables for safety valves PN16, PN40
Type 01, 02, 05, 07 Sealing: -1, -2, -3

DNxDN PN16, PN40 Typ AC, FE, RE	15x15	20x20	25x25	32x32	40x40	50x50	65x65	80x80	100x100	125x125	150x150	200x200
A - flow area[mm ²]	113	113	201	314	491	804	1 257	1 964	3 117	4 657	6 793	9 503
Pressure at the beginning of bar opening [g]	Water 20°C [kg/h] in accordance with EN-ISO 4126-7:2013											
0,45	1011	1011	1799	2810	4395	7196	11251	17579	27899	41683	60801	85057
0,50	1066	1066	1896	2963	4632	7586	11859	18530	29408	43938	64090	89658
0,55	1118	1118	1989	3107	4859	7956	12438	19434	30843	46082	67218	94035
0,60	1168	1168	2077	3245	5075	8310	12991	20298	32215	48131	70207	98216
0,65	1216	1216	2162	3378	5282	8649	13522	21127	33530	50097	73074	102226
0,70	1261	1261	2244	3505	5481	8975	14032	21925	34796	51988	75833	106085
0,75	1306	1306	2323	3628	5674	9290	14525	22694	36017	53812	78494	109809
0,80	1349	1349	2399	3747	5860	9595	15001	23439	37199	55577	81068	113410
0,90	1430	1430	2544	3975	6215	10177	15911	24860	39455	58948	85986	120289
1,00	1508	1508	2682	4190	6551	10728	16772	26205	41589	62137	90637	126796
1,10	1581	1581	2813	4394	6871	11251	17590	27484	43619	65170	95061	132985
1,20	1652	1652	2938	4590	7177	11751	18373	28706	45559	68068	99288	138898
1,30	1719	1719	3058	4777	7470	12231	19123	29878	47419	70847	103342	144570
1,40	1784	1784	3173	4957	7752	12693	19845	31006	49209	73522	107243	150027
1,50	1847	1847	3285	5131	8024	13139	20541	32095	50936	76102	111008	155293
1,60	1907	1907	3392	5299	8287	13569	21215	33147	52607	78598	114648	160386
1,80	2023	2023	3598	5621	8789	14393	22502	35158	55798	83366	121603	170115
2,00	2132	2132	3793	5925	9265	15171	23719	37060	58816	87875	128180	179317
2,20	2236	2236	3978	6214	9717	15912	24877	38869	61687	92164	134437	188069
2,40	2336	2336	4155	6491	10149	16619	25983	40597	64430	96262	140415	196432
2,60	2431	2431	4324	6756	10564	17298	27044	42255	67061	100193	146148	204453
3,00	2611	2611	4645	7257	11347	18581	29050	45389	72035	107625	156988	219617
3,50	2821	2821	5017	7838	12256	20069	31377	49025	77807	116248	169567	237214
4,00	3015	3015	5364	8379	13103	21455	33544	52410	83179	124274	181275	253592
4,50	3198	3198	5689	8888	13897	22757	35578	55590	88224	131813	192271	268975
5,00	3371	3371	5997	9368	14649	23988	37503	58596	92997	138943	202671	283525
5,50	3536	3536	6290	9826	15364	25158	39333	61457	97536	145725	212563	297363
6,00	3693	3693	6569	10262	16047	26277	41082	64189	101873	152204	222015	310586
6,50	3844	3844	6838	10681	16703	27350	42760	66810	106032	158419	231081	323268
7,00	3989	3989	7096	11085	17333	28382	44374	69332	110035	164399	239804	335471
8,00	4265	4265	7586	11850	18530	30342	47438	74119	117632	175750	256361	358634
9,00	4523	4523	8046	12569	19654	32183	50315	78615	124768	186411	271912	380388
10,00	4768	4768	8481	13249	20717	33924	53037	82868	131517	196495	286620	400964
11,00	5001	5001	8895	13895	21728	35579	55626	86913	137936	206086	300610	420535
12,00	5223	5223	9290	14513	22694	37161	58099	90777	144070	215249	313977	439235
13,00	5436	5436	9670	15106	23621	38679	60472	94484	149952	224039	326797	457170
14,00	5641	5641	10035	15676	24513	40139	62754	98051	155613	232496	339134	474428
15,00	5839	5839	10387	16226	25373	41548	64957	101492	161075	240656	351037	491079
16,00	6031	6031	10728	16758	26205	42910	67087	104821	166357	248549	362549	507184
18,00		6397	11378	17775	27795	45513	71157	111179	176449	263626	384541	
20,00		6743	11994	18737	29298	47975	75006	117193	185993	277886	405342	
22,00		7072	12579	19651	30728	50317	78667	122913	195071	291449	425126	
24,00		7386	13139	20525	32095	52554	82165	128378	203745	304409	444030	
25,00		7539	13409	20948	32756	53638	83859	131026	207947	310686	453186	
28,00		7978	14191	22169	34666	56765	88748	138665	220070	328799		
30,00		8258	14689	22948	35883	58757	91863	143532	227794	340339		
32,00		8529	15171	23700	37060	60684	94876	148239	235265	351501		
35,00		8920	15866	24786	38758	63465	99223	155032	246046	367608		
40,00		9536	16962	26497	41434	67847	106074	165736	263034	392990		

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Capacity tables for safety valves PN16, PN40

Type 51, 52, 55, 57 Sealing: -1

DNxDN PN16, PN40 Typ AC, FE, RE	15x15	20x20	25x25	32x32	40x40	50x50
A - flow area[mm ²]	113	113	201	314	491	804
Pressure at the beginning of bar opening [g]	Air 20°C [kg/h] in accordance with EN-ISO 4126-7:2013					
0,45	57,7	57,7	102,7	160	251	411
0,50	60,2	60,2	107,0	167	261	428
0,55	62,5	62,5	111,2	174	272	445
0,60	64,8	64,8	115,2	180	282	461
0,65	67,0	67,0	119,1	186	291	476
0,70	69,0	69,0	122,8	192	300	491
0,75	71,0	71,0	126,4	197	309	505
0,80	73,0	73,0	129,8	203	317	519
0,90	76,8	76,8	136,7	213	334	547
1,00	80,7	80,7	143,5	224	351	574
1,10	84,9	84,9	151,0	236	369	604
1,20	89,1	89,1	158,5	248	387	634
1,30	93,3	93,3	166	259	406	664
1,40	97,6	97,6	174	271	424	694
1,50	101,8	101,8	181	283	442	724
1,60	106,0	106,0	189	295	461	754
1,80	114,5	114,5	204	318	497	815
2,00	122,9	122,9	219	342	534	875
2,20	131,4	131,4	234	365	571	935
2,40	139,8	139,8	249	389	608	995
2,60	148,3	148,3	264	412	644	1 055
3,00	165	165	294	459	718	1 175
3,50	186	186	331	518	810	1 326
4,00	207	207	369	576	901	1 476
4,50	229	229	407	635	993	1 626
5,00	250	250	444	694	1 085	1 777
5,50	271	271	482	753	1 177	1 927
6,00	292	292	519	811	1 269	2 077
6,50	313	313	557	870	1 360	2 228
7,00	334	334	594	929	1 452	2 378
8,00	376	376	670	1 046	1 636	2 679
9,00	419	419	745	1 164	1 819	2 979
10,00	461	461	820	1 281	2 003	3 280
11,00	503	503	895	1 398	2 187	3 581
12,00	545	545	970	1 516	2 370	3 881
13,00	588	588	1 045	1 633	2 554	4 182
14,00	630	630	1 121	1 751	2 737	4 483
15,00	672	672	1 196	1 868	2 921	4 783
16,00	715	715	1 271	1 985	3 105	5 084
18,00		799	1 421	2 220	3 472	5 685
20,00		884	1 572	2 455	3 839	6 286
22,00		968	1 722	2 690	4 206	6 888
24,00		1 053	1 872	2 925	4 574	7 489
25,00		1 095	1 947	3 042	4 757	7 790
28,00		1 222	2 173	3 395	5 308	8 692
30,00		1 306	2 323	3 629	5 675	9 293
32,00		1 391	2 474	3 864	6 042	9 894
35,00		1 517	2 699	4 216	6 593	10 796
40,00		1 729	3 075	4 804	7 511	12 300

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Edition 04/2024

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Capacity tables for safety valves PN16, PN40

Type 51, 52, 55, 57 Sealing: -1

DNxDN PN16, PN40 Typ AC, FE, RE	15x15	20x20	25x25	32x32	40x40	50x50
A - flow area[mm ²]	113	113	201	314	491	804
Pressure at the beginning of bar opening [g]	Saturated steam [kg/h] in accordance with EN-ISO 4126-7:2013					
0,45	36,0	36,0	64,1	100	156	256
0,50	37,4	37,4	66,6	104	163	266
0,55	38,8	38,8	69,0	108	169	276
0,60	40,2	40,2	71,5	112	175	286
0,65	41,5	41,5	73,9	115	180	295
0,70	42,9	42,9	76,3	119	186	305
0,75	44,4	44,4	78,9	123	193	316
0,80	45,9	45,9	81,7	128	199	327
0,90	49,2	49,2	87,5	137	214	350
1,00	51,3	51,3	91,2	142	223	365
1,10	53,5	53,5	95,3	149	233	381
1,20	55,9	55,9	99,5	155	243	398
1,30	58,4	58,4	104	162	254	415
1,40	60,9	60,9	108	169	265	433
1,50	63,6	63,6	113	177	276	452
1,60	66,3	66,3	118	184	288	472
1,80	72,3	72,3	129	201	314	515
2,00	77,2	77,2	137	214	335	549
2,20	82,1	82,1	146	228	357	584
2,40	87,2	87,2	155	242	379	621
2,60	92,7	92,7	165	258	403	660
3,00	103	103	183	286	447	732
3,50	116	116	206	322	504	825
4,00	129	129	229	357	559	915
4,50	141	141	252	394	616	1 009
5,00	154	154	274	428	670	1 097
5,50	167	167	297	465	726	1 190
6,00	180	180	319	499	780	1 278
6,50	192	192	342	535	836	1 369
7,00	205	205	364	569	890	1 458
8,00	230	230	409	640	1 000	1 638
9,00	255	255	454	710	1 110	1 818
10,00	281	281	499	780	1 220	1 997
11,00	306	306	544	850	1 328	2 175
12,00	331	331	588	919	1 437	2 353
13,00	356	356	633	988	1 545	2 531
14,00	381	381	677	1 058	1 655	2 709
15,00	406	406	722	1 128	1 763	2 887
16,00	431	431	766	1 197	1 872	3 065
18,00		481	855	1 336	2 089	3 421
20,00		531	944	1 475	2 307	3 778
22,00		580	1 033	1 613	2 522	4 130
24,00		631	1 122	1 752	2 740	4 487
25,00		656	1 166	1 822	2 849	4 666
28,00		731	1 301	2 032	3 177	5 203
30,00		782	1 390	2 172	3 396	5 561
32,00		832	1 479	2 311	3 613	5 917
35,00		906	1 612	2 518	3 938	6 448
40,00		1 033	1 837	2 870	4 488	7 349

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Capacity tables for safety valves PN16, PN40

Type 51, 52, 55, 57 Sealing: -1

DNxDN PN16, PN40 Typ AC, FE, RE	15x15	20x20	25x25	32x32	40x40	50x50
A - flow area[mm ²]	113	113	201	314	491	804
Pressure at the beginning of bar opening [g]	Water 20°C [kg/h] in accordance with EN-ISO 4126-7:2013					
0,45	1 268	1 268	2 260	3 535	5 535	9 098
0,50	1 325	1 325	2 361	3 693	5 803	9 503
0,55	1 379	1 379	2 458	3 845	6 040	9 891
0,60	1 432	1 432	2 552	3 991	6 268	10 264
0,65	1 482	1 482	2 642	4 132	6 488	10 624
0,70	1 531	1 531	2 729	4 268	6 701	10 973
0,75	1 579	1 579	2 813	4 400	6 907	11 310
0,80	1 625	1 625	2 895	4 529	7 107	11 638
0,90	1 713	1 713	3 053	4 791	7 492	12 268
1,00	1 797	1 797	3 203	5 025	7 858	12 867
1,10	1 886	1 886	3 360	5 270	8 241	13 495
1,20	1 970	1 970	3 510	5 505	8 608	14 095
1,30	2 051	2 051	3 668	5 729	8 959	14 670
1,40	2 129	2 129	3 806	5 946	9 297	15 224
1,50	2 204	2 204	3 940	6 154	9 624	15 758
1,60	2 277	2 277	4 069	6 356	9 939	16 275
1,80	2 416	2 416	4 316	6 742	10 542	17 262
2,00	2 547	2 547	4 549	7 106	11 112	18 196
2,20	2 672	2 672	4 771	7 453	11 655	19 084
2,40	2 802	2 802	4 983	7 785	12 173	19 933
2,60	2 916	2 916	5 187	8 103	12 670	20 747
3,00	3 132	3 132	5 571	8 704	13 610	22 286
3,50	3 383	3 383	6 018	9 401	14 700	24 071
4,00	3 617	3 617	6 433	10 050	15 715	25 733
4,50	3836	3836	6824	10 660	16 668	27 294
5,00	4044	4044	7193	11 236	17 570	28 771
5,50	4241	4241	7544	11 785	18 428	30 175
6,00	4430	4430	7879	12 309	19 247	31 517
6,50	4610	4610	8201	12 811	20 033	32 804
7,00	4784	4784	8510	13 295	20 789	34 042
8,00	5115	5115	9098	14 213	22 225	36 392
9,00	5425	5425	9650	15 075	23 573	38 600
10,00	5719	5719	10172	15 891	24 848	40 688
11,00	5998	5998	10668	16 666	26 061	42 674
12,00	6264	6264	11143	17 407	27 220	44 571
13,00	6520	6520	11598	18 118	28 331	46 391
14,00	6766	6766	12036	18 802	29 400	48 143
15,00	7004	7004	12458	19 462	30 432	49 832
16,00	7233	7233	12867	20 100	31 430	51 467
18,00		7672	13647	21 319	33 337	54 588
20,00		8087	14385	22 473	35 140	57 541
22,00		8482	15087	23 569	36 855	60 350
24,00		8859	15758	24 618	38 494	63 033
25,00		9042	16083	25 125	39 288	64 333
28,00		9569	17021	26 590	41 579	68 084
30,00		9905	17618	27 523	43 038	70 473
32,00		10230	18196	28 426	44 449	72 785
35,00		10698	19030	29 728	46 486	76 120
40,00		11437	20344	31 781	49 696	81 376

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Capacity tables for safety valves PN16

Type 01, 02, 05, 07

Sealing: -1, -2, -3

DNxDN PN16	10x15	15x15	20x20	25x25
A - flow area[mm ²]	78,5	113	201	314
Pressure at the beginning of bar opening [g]	Air 20°C [kg/h] in accordance with EN-ISO 4126-7:2013			
0,30	16,3	23,5	41,8	65,3
0,35	17,3	24,9	44,3	69,1
0,40	18,2	26,2	46,6	72,8
0,45	19,0	27,4	48,8	76,2
0,50	20,9	30,1	53,5	83,6
0,55	21,7	31,3	55,6	86,9
0,60	22,5	32,4	57,6	90,0
0,65	23,3	33,5	59,5	93,0
0,70	24,0	34,5	61,4	95,9
0,75	24,7	35,5	63,2	98,7
0,80	25,4	36,5	64,9	101
0,90	26,7	38,4	68,3	107
1,00	28,0	40,3	71,7	112
1,10	29,5	42,4	75,5	118
1,20	31,0	44,6	79,3	124
1,30	32,4	46,7	83,0	130
1,50	44,2	63,6	113	177
1,60	46,0	66,3	118	184
1,80	49,7	71,5	127	199
2,00	53,4	76,8	137	213
2,20	57,0	82,1	146	228
2,40	60,7	87,4	155	243
2,60	64,4	92,7	165	258
2,80	68,1	98,0	174	272
3,00	71,7	103	184	287
3,50	80,9	116	207	324
4,00	90,1	130	231	360
4,50	99,2	143	254	397
5,00	108	156	278	434
5,50	118	169	301	470
6,00	127	182	325	507
6,50	136	196	348	544
7,00	145	209	372	580
7,50	154	222	395	617
8,00	163	235	419	654
9,00	182	262	466	727
10,00	200	288	512	801
11,00	218	315	559	
12,00	237	341	606	
13,00	255	367	653	
14,00	274	394	700	
15,00	292	420	747	
16,00	310	447	794	

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Capacity tables for safety valves PN16

Type 01, 02, 05, 07

Sealing: -1, -2, -3

DNxDN PN16	10x15	15x15	20x20	25x25
A - flow area[mm ²]	78,5	113	201	314
Pressure at the beginning of bar opening [g]	Saturated steam [kg/h] in accordance with EN-ISO 4126-7:2013			
0,30	10,4	14,9	26,5	41,5
0,35	10,9	15,7	27,9	43,6
0,40	11,4	16,4	29,2	45,6
0,45	11,9	17,1	30,4	47,5
0,50	13,0	18,7	33,3	52,0
0,55	13,5	19,4	34,5	53,9
0,60	14,0	20,1	35,7	55,8
0,65	14,4	20,8	36,9	57,7
0,70	14,9	21,5	38,2	59,6
0,75	15,4	22,2	39,5	61,7
0,80	15,9	23,0	40,8	63,8
0,90	17,1	24,6	43,8	68,4
1,00	17,8	25,6	45,6	71,2
1,10	18,6	26,8	47,6	74,4
1,20	19,4	28,0	49,7	77,7
1,30	20,3	29,2	51,9	81,1
1,50	27,6	39,7	70,7	110,4
1,60	28,8	41,5	73,8	115,2
1,80	31,4	45,2	80,4	125,6
2,00	33,5	48,2	85,8	134,0
2,20	35,6	51,3	91,2	142,5
2,40	37,9	54,5	97,0	151,5
2,60	40,3	57,9	103,1	161,0
2,80	42,6	61,3	109,1	170,4
3,00	44,7	64,3	114,4	178,8
3,50	50,3	72,5	128,9	201,4
4,00	55,8	80,4	143,0	223,4
4,50	61,6	88,6	157,6	246,2
5,00	66,9	96,4	171,4	267,7
5,50	72,6	104,5	185,9	290,4
6,00	78,0	112,2	199,6	311,8
6,50	83,5	120,2	213,9	334,1
7,00	89,0	128,1	227,8	355,9
7,50	94,5	136,0	241,9	377,9
8,00	99,9	143,9	255,9	399,7
9,00	110,9	159,7	284,0	443,7
10,00	121,9	175,4	312,1	487,5
11,00	132,7	191,1	339,9	
12,00	143,6	206,7	367,6	

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Capacity tables for safety valves PN16

Type 01, 02, 05, 07

Sealing: -1, -2, -3

DNxDN PN16	10x15	15x15	20x20	25x25
A - flow area[mm ²]	78,5	113	201	314
Pressure at the beginning of bar opening [g]	Water 20°C [kg/h] in accordance with EN-ISO 4126-7:2013			
0,30	22,7	33,1	59,9	94,5
0,35	24,2	35,3	63,7	100,4
0,40	25,6	37,3	67,3	106,1
0,45	27,0	39,2	70,7	111,5
0,50	28,2	41,0	74,0	116,6
0,55	29,4	42,8	77,2	121,6
0,60	30,6	44,5	80,2	126,3
0,65	31,8	46,1	83,1	130,9
0,70	32,9	47,7	86,0	135,3
0,75	33,9	49,3	88,7	139,6
0,80	35,0	50,8	91,4	143,8
0,90	36,9	53,6	96,5	151,9
1,00	38,8	56,4	101,4	159,5
1,10	40,8	59,2	106,5	167,5
1,20	42,7	62,0	111,4	175,2
1,30	44,6	64,6	116,1	182,6
1,50	48,0	69,6	125,0	196,5
1,60	49,6	72,0	129,2	203,1
1,80	52,8	76,5	137,3	215,7
2,00	55,7	80,8	144,9	227,7
2,20	58,6	84,8	152,2	239,1
2,40	61,3	88,7	159,1	250,0
2,60	63,9	92,5	165,8	260,4
2,80	66,3	96,1	172,2	270,5
3,00	68,8	99,5	178,4	280,2
3,50	74,4	107,7	193,1	303,1
4,00	79,8	115,4	206,7	324,5
4,50	84,7	122,6	219,6	344,6
5,00	89,5	129,4	231,7	363,6
5,50	93,9	135,9	243,3	381,7
6,00	98,2	142,1	254,3	399,0
6,50	102,4	148,0	264,9	415,5
7,00	106,3	153,7	275,1	431,5
7,50	110,1	159,2	284,9	446,9
8,00	113,9	164,6	294,5	461,8
9,00	120,9	174,8	312,7	490,3
10,00	127,6	184,4	329,9	517,2
11,00	134,0	193,6	346,3	
12,00	140,1	202,4	361,9	
13,00	145,9	210,8	377,0	
14,00	151,6	219,0	391,4	
15,00	157,0	226,8	405,4	
16,00	162,2	234,4	418,9	

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Capacity tables for safety valves PN16

Type 03, 04, 06, 08

Sealing: -1, -2, -3

DNxDN PN16	20x20	25x25
A - flow area[mm ²]	201	314
Pressure at the beginning of bar opening [g]	Water 20°C [kg/h] in accordance with EN-ISO 4126-7:2013	
0,30	1 279,4	2 305,1
0,35	1 357,7	2 446,0
0,40	1 431,8	2 579,2
0,45	1 502,2	2 706,0
0,50	1 569,6	2 827,1
0,55	1 634,2	2 943,3
0,60	1 696,3	3 055,1
0,65	1 756,3	3 163,0
0,70	1 814,4	3 267,4
0,75	1 870,6	3 368,6
0,80	1 925,2	3 466,8
0,90	2 030,1	3 655,4
1,00	2 129,9	3 834,9
1,10	2 234,6	4 023,1
1,20	2 334,6	4 203,0
1,30	2 430,5	4 375,5
1,50	2 611,9	4 718,4
1,60	2 698,1	4 873,1
1,80	2 862,8	5 168,7
2,00	3 018,5	5 448,3
2,20	3 166,7	5 714,2
2,40	3 308,3	5 968,3
2,60	3 444,1	6 212,0
2,80	3 574,8	6 446,5
3,00	3 714,3	6 672,8
3,50	4 011,9	7 207,4
4,00	4 288,9	7 705,0
4,50	4 549,0	8 172,4
5,00	4 795,1	8 614,5
5,50	5 029,2	9 035,0
6,00	5 252,8	9 436,7
6,50	5 467,3	9 822,0
7,00	5 673,7	10 192,8
7,50	5 872,8	10 550,6
8,00	6 065,4	10 896,6
9,00	6 433,3	11 557,6
10,00	6 781,3	12 182,7
11,00	7 112,3	
12,00	7 428,6	
13,00	7 731,9	
14,00	8 023,8	
15,00	8 305,4	
16,00	8 577,8	

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Capacity tables for safety valves PN25

Type 01 Sealing: -1

DN PN25	10	15	20	25
A - flow area[mm ²]	78,5	113	201	314
Pressure at the beginning of bar opening [g]	Air 20°C [kg/h] in accordance with EN-ISO 4126-7:2013			
0,7			169	230
0,75			177	237
0,8			185	248
0,9			198	267
1			212	286
1,1	88,5	127	227	307
1,2	92,9	134	238	322
1,3	98,9	142	253	344
1,4	105	151	269	366
1,5	110	158	281	382
1,6	116	167	297	405
1,7	121	174	309	421
1,8	125	180	321	437
1,9	130	187	333	462
2	135	194	344	478
2,2	146	210	374	520
2,4	155	224	398	554
2,6	165	237	422	587
2,8	174	251	446	621
3	186	268	477	654
3,5	210	303	539	738
4	234	337	600	821
4,5	258	371	661	905
5	282	406	722	989
5,5	306	440	783	1 072
6	330	474	844	1 156
6,5	353	509	905	1240
7	377	543	966	1323
7,5	401	577	1027	1407
8	425	612	1088	1491
9	473	680	1210	1658
10	520	749	1332	1825
11	568	818	1455	1993
12	616	886	1577	2160
13	663	955	1699	2327
14	711	1024	1821	2495
15	759	1092	1943	2662
16	807	1161	2065	2829
18	902	1298	2310	
19	950	1367	2432	
20	997	1436	2554	
22	1093	1537		
25	1236			

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Spring ranges

Valve type	240A C	240F E, 270F E	240R E, 270R E
Type	01, 02, 05, 07		
	[bar]		
15x15	0,45...0,68; 0,66...1,0; 0,95...1,4; 1,3...1,9; 1,8...2,6; 2,5...3,6; 3,5...5,0; 4,8...6,3; 6,0...8,0; 7,5...10,0; 9,5...12,5; 12,0...16,0		
20x20		0,45...0,68; 0,66...1,0; 0,95...1,4; 1,3...1,9; 1,8...2,6; 2,5...3,6; 3,5...5,0; 4,8...6,3; 6,0...8,0; 7,5...10,0; 9,5...12,5; 12,0...16,0; 15,0...20,0; 18,0...25,0; 23,0...32,0; 30,0...40,0	0,2...1,5; 1,0...5,0; 2,0...10,0; 8,0...18,0; 18,0...40,0
25x25		0,45...0,68; 0,66...1,0; 0,95...1,4; 1,3...1,9; 1,8...2,6; 2,5...3,6; 3,5...5,0; 4,8...6,3; 6,0...8,0; 7,5...10,0; 9,5...12,5; 12,0...16,0; 15,0...20,0; 18,0...25,0; 23,0...32,0; 30,0...40,0	
32x32		0,45...0,68; 0,66...1,0; 0,95...1,4; 1,3...1,9; 1,8...2,6; 2,5...3,6; 3,5...5,0; 4,8...6,3; 6,0...8,0; 7,5...10,0; 9,5...12,5; 12,0...16,0; 15,0...20,0; 18,0...25,0; 23,0...32,0; 30,0...40,0	
40x40	0,45...0,68; 0,66...1,0; 0,95...1,4; 1,3...1,9; 1,8...2,6; 2,5...3,6; 3,5...5,0; 4,8...6,3; 6,0...8,0; 7,5...10,0; 9,5...12,5; 12,0...16,0	0,45...0,68; 0,66...1,0; 0,95...1,4; 1,3...1,9; 1,8...2,6; 2,5...3,6; 3,5...5,0; 4,8...6,3; 6,0...8,0; 7,5...10,0; 9,5...12,5; 12,0...16,0; 15,0...20,0; 18,0...25,0; 23,0...32,0; 30,0...40,0	0,2...1,5; 1,0...5,0; 2,0...10,0; 8,0...18,0; 18,0...40,0
50x50	0,45...0,68; 0,66...1,0; 0,95...1,4; 1,3...1,9; 1,8...2,6; 2,5...3,6; 3,5...5,0; 4,8...6,3; 6,0...8,0; 7,5...10,0; 9,5...12,5; 12,0...16,0	0,45...0,68; 0,66...1,0; 0,95...1,4; 1,3...1,9; 1,8...2,6; 2,5...3,6; 3,5...5,0; 4,8...6,3; 6,0...8,0; 7,5...10,0; 9,5...12,5; 12,0...16,0; 15,0...20,0; 18,0...25,0; 23,0...32,0; 30,0...40,0	
65x65	0,45...0,68; 0,66...1,0; 0,95...1,4; 1,3...1,9; 1,8...2,6; 2,5...3,6; 3,5...5,0; 4,8...6,3; 6,0...8,0; 7,5...10,0; 9,5...12,5; 12,0...16,0	0,45...0,68; 0,66...1,0; 0,95...1,4; 1,3...1,9; 1,8...2,6; 2,5...3,6; 3,5...5,0; 4,8...6,3; 6,0...8,0; 7,5...10,0; 9,5...12,5; 12,0...16,0; 15,0...20,0; 18,0...25,0; 23,0...32,0; 30,0...40,0	
80x80	0,45...0,68; 0,66...1,0; 0,95...1,4; 1,3...1,9; 1,8...2,6; 2,5...3,6; 3,5...5,0; 4,8...6,3; 6,0...8,0; 7,5...10,0; 9,5...12,5; 12,0...16,0	0,45...0,68; 0,66...1,0; 0,95...1,4; 1,3...1,9; 1,8...2,6; 2,5...3,6; 3,5...5,0; 4,8...6,3; 6,0...8,0; 7,5...10,0; 9,5...12,5; 12,0...16,0; 15,0...20,0; 18,0...25,0; 23,0...32,0; 30,0...40,0	
100x100		0,45...0,68; 0,66...1,0; 0,95...1,4; 1,3...1,9; 1,8...2,6; 2,5...3,6; 3,5...5,0; 4,8...6,3; 6,0...8,0; 7,5...10,0; 9,5...12,5; 12,0...16,0; 15,0...20,0; 18,0...25,0; 23,0...32,0; 30,0...40,0	
125x125		0,45...0,68; 0,66...1,0; 0,95...1,4; 1,3...1,9; 1,8...2,6; 2,5...3,6; 3,5...5,0; 4,8...6,3; 6,0...8,0; 7,5...10,0; 9,5...12,5; 12,0...16,0; 15,0...20,0; 18,0...25,0; 23,0...32,0; 30,0...40,0	
150x150		0,45...0,68; 0,66...1,0; 0,95...1,4; 1,3...1,9; 1,8...2,6; 2,5...3,6; 3,5...5,0; 4,8...6,3; 6,0...8,0; 7,5...10,0; 9,5...12,5; 12,0...16,0; 15,0...20,0; 18,0...25,0	
200x200		0,45...0,68; 0,66...1,0; 0,95...1,4; 1,3...1,9; 1,8...2,6; 2,5...3,6; 3,5...5,0; 4,8...6,3; 6,0...8,0; 7,5...10,0; 9,5...12,5; 12,0...16,0	
Valve type	240A C	240F E, 270F E	240R E, 270R E
Type	51, 52, 55, 57		
	[bar]		
15x15	0,45...0,7; 0,65...1,0; 0,95...1,45; 1,4...2,4; 2,3...3,6; 3,4...7,0; 7,2...16,0		
20x20	0,45...0,65; 0,6...1,0; 0,9...1,8; 1,7...2,6; 2,5...5,0; 4,5...9,5; 9,0...16,0	0,45...0,65; 0,6...1,0; 0,9...1,8; 1,7...2,6; 2,5...5,0; 4,5...9,5; 9,0...17,2; 17,0...25,0; 24,0...40,0	
25x25	0,45...0,8; 0,75...1,42; 1,4...1,8; 1,7...3,2; 3,1...6,7; 6,6...9,0; 7,5...15,0; 11,5...16,0	0,45...0,8; 0,75...1,42; 1,4...1,8; 1,7...3,2; 3,1...6,7; 6,6...9,0; 7,5...15,0; 11,5...17,5; 17,4...21,2; 21,0...28,1; 28,0...34,5; 34,0...40,0	
32x32	0,45...0,7; 0,6...1,3; 1,2...2,7; 2,6...4,9; 4,8...6,7; 6,6...8,3; 8,2...11,7; 11,6...16,0	0,45...0,7; 0,6...1,3; 1,2...2,7; 2,6...4,9; 4,8...6,7; 6,6...8,3; 8,2...11,7; 11,6...18,7; 18,6...22,9; 22,8...29,5; 29,4...35,0; 34,5...40,0	
40x40	0,45...0,75; 0,7...1,4; 1,35...2,2; 2,1...3,5; 3,4...4,6; 4,5...6,5; 6,4...8,5; 8,4...12,5; 12,3...16,0	0,45...0,75; 0,7...1,4; 1,35...2,2; 2,1...3,5; 3,4...4,6; 4,5...6,5; 6,4...8,5; 8,4...12,5; 12,3...16,8; 16,5...30,0; 29,5...40,0	
50x50	0,45...0,85; 0,8...1,5; 1,4...2,0; 1,9...3,0; 2,9...5,5; 5,3...7,5; 7,3...11,0; 10,5...14,0; 13,5...16,0	0,45...0,85; 0,8...1,5; 1,4...2,0; 1,9...3,0; 2,9...5,5; 5,3...7,5; 7,3...11,0; 10,5...14,0; 13,5...18,0; 17,5...27,0; 27,5...34,0; 33,5...40,0	
65x65	0,45...0,7; 0,6...1,0; 0,8...1,6; 1,5...2,2; 2,1...2,8; 2,5...4,0; 3,0...5,0; 4,0...6,0; 5,5...8,0; 7,0...10,0; 8,0...13,5; 12,0...16,0	0,45...0,7; 0,6...1,0; 0,8...1,6; 1,5...2,2; 2,1...2,8; 2,5...4,0; 3,0...5,0; 4,0...6,0; 5,5...8,0; 7,0...10,0; 8,0...13,5; 12,0...16,0; 15,0...22,0; 20,0...30,0; 29,0...40,0	

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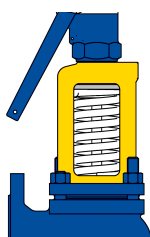
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Valve type	781H C
Type	01, 02, 03, 04, 05, 06, 07, 08
	[bar]
10x15	0,3...0,5; 0,5...1,6; 1,5...2,8; 2,7...4,7; 4,5...9,0; 8,5...16,0
15x15	0,3...0,5; 0,5...1,4; 1,2...2,5; 2,4...4,7; 4,5...16,0
20x20	0,3...0,5; 0,5...1,5; 1,4...3,3; 3,2...7,0; 6,8...16,0
25x25	0,3...0,5; 0,5...1,0; 0,9...1,6; 1,5...2,3; 2,2...3,0; 2,8...4,8; 4,5...6,0; 5,5...10,0
Valve type	781V D
Type	01
	[bar]
10	1,0...2,1; 2,0...3,2; 2,95...5,4; 5,0...8,3; 7,9...13,0; 12,9...15,9; 14,7...19,8; 18,9...25,0
15	1,0...2,1; 2,0...3,2; 3,1...5,15; 5,0...8,3; 7,8...13,5; 13,2...15,8; 14,8...19,7; 19,2...22,0
20	0,7...1,1; 0,95...1,5; 1,45...2,7; 2,5...4,1; 4,0...7,0; 6,9...10,2; 10,0...14,2; 13,5...17,8; 16,8...20,0
25	0,7...1,0; 0,95...2,0; 1,85...2,9; 2,85...4,85; 4,7...6,0; 5,9...10,0; 9,8...12,0; 11,1...16,0

Springs made of SM / SH material are marked in blue - the maximum operating temperature of the valve is 250°C

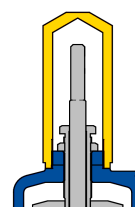
Available options



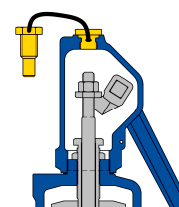
Open bonnet



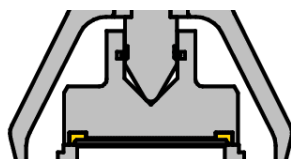
Insert



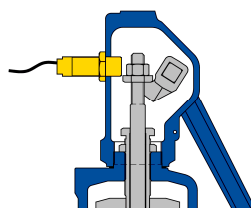
Leverless type



Type with test gag



Soft sealing type (-2, -3)



Type with inductive sensor



Designed for use with oxygen



Designed for use with hydrogen

Valve type	240			270		781	782
	A	F	R	F	R	H	V
Open bonnet	✗	✓	✗	✗	✗	✗	✗
Insert	✗	✓	✗	✗	✗	✗	✗
Leverless type	✓	✓	✓	✓	✓	✗	✗
Type with inductive sensor	✓	✓	✓	✓	✓	✗	✗
Type with test gag	✓	✓	✓	✓	✓	✗	✗
Soft sealing type	✓ ¹	✓ ¹	✗	✓ ¹	✗	✓	✓
Stellite type	✗	✓	✗	✓	✗	✗	✗
EPOXY type	✓	✗	✗	✗	✗	✗	✗
Application to oxygen ²	✗	✗	✓	✗	✓	✗	✗
Application on hydrogen ²	✗	✗	✓	✗	✓	✗	✗



Available option



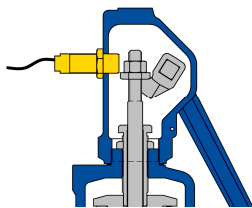
Available option – see note 1



Unavailable option

¹ Only applies to execution 01, 02, 05, 07

² When ordering oxygen or hydrogen valves, this information must be included in the order



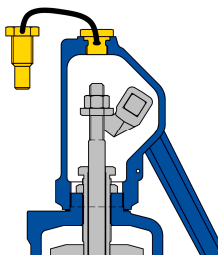
Operating range:
depending on valve type and diameter

Supply voltage:
10 ÷ 30 V [DC]

Level of protection:
IP67, IP68 (depending on sensor type)

Working temperature:
-25 ÷ 70°C
Other upon agreement with the manufacturer

Standard cable length:
2000 mm



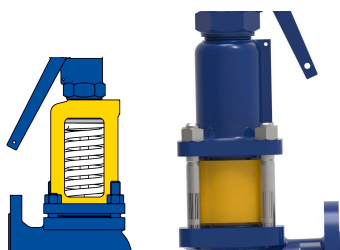
Test gag is for:

- ✓ doing pressure tests in the installation without dismantling the safety valve
- ✓ For 570 valves, it is always used to protect the closing elements during transport

It prevents the opening elements from lifting and keeps the safety valve tight when the system pressure exceeds the set pressure.



After the installation has been pressure tested, the test gag must be removed, otherwise the safety valve cannot protect the installation against unacceptable overpressure!



The type with an open bonnet is used only for gases (including steam) and is recommended for valves above 300°C.
For valves above 350°C, it is recommended to use an insulating insert (gases and liquids)

CDTP

When "cold setting" valves at operating temperatures above 100°C (e.g. on a test stand using compressed air), corrections for the operating temperature and static backpressure should be taken into account.

Set pressure is corrected for static backpressure based on the formula:

$$p_n = p_{po} \cdot K_1 - p_b$$

Where:

- p_n – set pressure (CDTP) – to be set on a test stand
- p_{po} – pressure at the beginning of bar opening in the operating conditions of the installation
- K_1 – temperature correction coefficient
- p_b – static back pressure

The setting should be adjusted according to the media given in the table below:

Working medium temperature °C	K_1
up to 100	1,00
100 – 250	1,02
250 - 500	1,03
over 500	1,04

Valve weight

Figure	Body material	d ₁ x d ₂												
		10x15	15x15	20x20	25x25	32x32	40x40	50x50	65x65	80x80	100x100	125x125	150x150	200x200
		Weight [kg] ³												
240	A		6,0	6,0	8,0	10,0	12,0	20,0	25,0	36,0	47,0	74,0	100,0	140,0
	F			7,0	9,0	12,0	14,0	22,0	28,0	40,0	52,0	80,0	110,0	150,0
	R													
270	F			6,5	8,0	11,0	12,5	20,0						
	R													
781	H	0,67	0,71	0,86	1,2									
782	V	0,415	0,415	0,435	0,460									

Approvals



For valve:

240AC, 240FE

Type: 02-1, 07-1, 52-1, 57-1

240RE

Type: 02-1, 52-1

270FE, 270RE

Type: 02-1, 52-1



Hygienic certificate for drinking water

For valve:

240AC, 240FE, 240RE, 270FE, 781HC

³ The given weights refer to the standard valve version. They do not include versions with an insulating insert

Ordering

Figure	Body material	Nominal diameter	Nominal pressure	Type
240	A grey cast iron EN-GJL-250	15-200 mm	C 16 bar	01-1 Standard type for steam, gases and liquids, sealing metal/metal

Order example by index

240 A 050 C 011

Proportional spring, flanged safety valves	240				
Grey cast iron EN-GJL-250		A			
Nominal diameter (mm)			050		
Nominal pressure PN16				C	
Standard type for steam, gases and liquids, sealing metal/metal					011

Types

	Type	Sealing
01	Standard type for steam, gases and liquids	-1 metal-metal
01	Standard type for steam and gases (only for figure 782)	-2 NBR
02	Gastight type for steam, gases and liquids	-3 EPDM
03	Type for liquids (only for figure 781)	
04	Gastight type for liquids (only for figure 781)	
05	Marine type for steam, gases and liquids	
06	Marine type for liquids (only for figure 781)	
07	Marine gastight type for steam, gases and liquids	
08	Marine gastight type for liquids (only for figure 781)	
51	Standard type, with extended seat, for steam, gases and liquids	
52	Gastight type, with extended seat, for steam, gases and liquids	
55	Marine type, with extended seat, for steam, gases and liquids	
57	Marine gastight type, with extended seat, for steam, gases and liquids	

Required data for valve calculations

Steam and gases S/G	Set pressure [bar], back pressure [bar], type of back pressure (constant/variable), mass flow [kg/h], Media and its data: molar mass [kg/kmol], isentropic exponent Cp/Cv, compressibility coefficient, temperature [°C]
Liquids L	Set pressure [bar], back pressure [bar], type of back pressure (constant/variable), mass flow [kg/h], Media and its data: density [kg/m ³], viscosity, temperature [°C]

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Trade markings

PN16

Material													
EN-GJL-250													
Mark													
A													
DN →	15x15	20x20	25x25	32x32	40x40	50x50	65x65	80x80	100x100	125x125	150x150	200x200	
240	01-1	240A015C011	240A020C011	240A025C011	240A032C011	240A040C011	240A050C011	240A065C011	240A080C011	240A100C011	240A125C011	240A150C011	240A200C011
	01-2			240A025C012	240A032C012	240A040C012	240A050C012	240A065C012	240A080C012	240A100C012	240A125C012		
	01-3			240A025C013	240A032C013	240A040C013	240A050C013	240A065C013	240A080C013	240A100C013	240A125C013		
	02-1	240A015C021	240A020C021	240A025C021	240A032C021	240A040C021	240A050C021	240A065C021	240A080C021	240A100C021	240A125C021	240A150C021	240A200C021
	02-2			240A025C022	240A032C022	240A040C022	240A050C022	240A065C022	240A080C022	240A100C022	240A125C022		
	02-3			240A025C023	240A032C023	240A040C023	240A050C023	240A065C023	240A080C023	240A100C023	240A125C023		
	05-1	240A015C051	240A020C051	240A025C051	240A032C051	240A040C051	240A050C051	240A065C051	240A080C051	240A100C051	240A125C051	240A150C051	240A200C051
	05-2			240A025C052	240A032C052	240A040C052	240A050C052	240A065C052	240A080C052	240A100C052	240A125C052		
	05-3			240A025C053	240A032C053	240A040C053	240A050C053	240A065C053	240A080C053	240A100C053	240A125C053		
	07-1	240A015C071	240A020C071	240A025C071	240A032C071	240A040C071	240A050C071	240A065C071	240A080C071	240A100C071	240A125C071	240A150C071	240A200C071
	07-2			240A025C072	240A032C072	240A040C072	240A050C072	240A065C072	240A080C072	240A100C072	240A125C072		
	07-3			240A025C073	240A032C073	240A040C073	240A050C073	240A065C073	240A080C073	240A100C073	240A125C073		
	51-1	240A015C511	240A020C511	240A025C511	240A032C511	240A040C511	240A050C511						
	52-1			240A025C521	240A032C521	240A040C521	240A050C521						
	55-1			240A025C551	240A032C551	240A040C551	240A050C551						
	57-1	240A015C571	240A020C571	240A025C571	240A032C571	240A040C571	240A050C571						
Material													
CuZn39Pb1AlC													
Mark													
H													
DN →		10x15		15x15		20x20		25x25					
781	01-1	781H010C011		781H015C011		781H020C011		781H025C011					
	01-2	781H010C012		781H015C012		781H020C012		781H025C012					
	01-3	781H010C013		781H015C013		781H020C013		781H025C013					
	02-1	781H010C021		781H015C021		781H020C021		781H025C021					
	02-2	781H010C022		781H015C022		781H020C022		781H025C022					
	02-3	781H010C023		781H015C023		781H020C023		781H025C023					
	03-1					781H020C031		781H025C031					
	03-2					781H020C032		781H025C032					
	03-3					781H020C033		781H025C033					
	04-1					781H020C041		781H025C041					
	04-2					781H020C042		781H025C042					
	04-3					781H020C043		781H025C043					
	05-1	781H010C051		781H015C051		781H020C051		781H025C051					
	05-2	781H010C052		781H015C052		781H020C052		781H025C052					
	05-3	781H010C053		781H015C053		781H020C053		781H025C053					
	06-1					781H020C061		781H025C061					
	06-2					781H020C062		781H025C062					
	06-3					781H020C063		781H025C063					
	07-1	781H010C071		781H015C071		781H020C071		781H025C071					
	07-2	781H010C072		781H015C072		781H020C072		781H025C072					
	07-3	781H010C073		781H015C073		781H020C073		781H025C073					
	08-1					781H020C081		781H025C081					
	08-2					781H020C082		781H025C082					
	08-3					781H020C083		781H025C083					

PN25

Material				
CuZn40Pb2				
Mark				
V				
DN →		10	15	20
782	01-1	782V010D011	782V015D011	782V020D011

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PN40													
Material		GP240GH											
Mark		F											
DN →		20x20	25x25	32x32	40x40	50x50	65x65	80x80	100x100	125x125	150x150	200x200	
240	01-1	240F020E011	240F025E011	240F032E011	240F040E011	240F050E011	240F065E011	240F080E011	240F100E011	240F125E011	240F150E011	240F200E011	
	01-2		240F025E012	240F032E012	240F040E012	240F050E012	240F065E012	240F080E012	240F100E012	240F125E012			
	01-3		240F025E013	240F032E013	240F040E013	240F050E013	240F065E013	240F080E013	240F100E013	240F125E013			
	02-1	240F020E021	240F025E021	240F032E021	240F040E021	240F050E021	240F065E021	240F080E021	240F100E021	240F125E021	240F150E021	240F200E021	
	02-2		240F025E022	240F032E022	240F040E022	240F050E022	240F065E022	240F080E022	240F100E022	240F125E022			
	02-3		240F025E023	240F032E023	240F040E023	240F050E023	240F065E023	240F080E023	240F100E023	240F125E023			
	05-1	240F020E051	240F025E051	240F032E051	240F040E051	240F050E051	240F065E051	240F080E051	240F100E051	240F125E051	240F150E051	240F200E051	
	05-2		240F025E052	240F032E052	240F040E052	240F050E052	240F065E052	240F080E052	240F100E052	240F125E052			
	05-3		240F025E053	240F032E053	240F040E053	240F050E053	240F065E053	240F080E053	240F100E053	240F125E053			
	07-1	240F020E071	240F025E071	240F032E071	240F040E071	240F050E071	240F065E071	240F080E071	240F100E071	240F125E071	240F150E071	240F200E071	
	07-2		240F025E072	240F032E072	240F040E072	240F050E072	240F065E072	240F080E072	240F100E072	240F125E072			
	07-3		240F025E073	240F032E073	240F040E073	240F050E073	240F065E073	240F080E073	240F100E073	240F125E073			
	51-1	240F020E511	240F025E511	240F032E511	240F040E511	240F050E511							
	52-1	240F020E521	240F025E521	240F032E521	240F040E521	240F050E521							
	55-1	240F020E551	240F025E551	240F032E551	240F040E551	240F050E551							
	57-1	240F020E571	240F025E571	240F032E571	240F040E571	240F050E571							
DN →		20x20	25x25	32x32	40x40	50x50	65x65	80x80	100x100	125x125	150x150	200x200	
270	01-1	270F020E011	270F025E011	270F032E011	270F040E011	270F050E011							
	01-2		270F025E012	270F032E012	270F040E012	270F050E012							
	01-3		270F025E013	270F032E013	270F040E013	270F050E013							
	02-1	270F020E021	270F025E021	270F032E021	270F040E021	270F050E021							
	02-2		270F025E022	270F032E022	270F040E022	270F050E022							
	02-3		270F025E023	270F032E023	270F040E023	270F050E023							
	05-1	270F020E051	270F025E051	270F032E051	270F040E051	270F050E051							
	05-2		270F025E052	270F032E052	270F040E052	270F050E052							
	05-3		270F025E053	270F032E053	270F040E053	270F050E053							
	07-1	270F020E071	270F025E071	270F032E071	270F040E071	270F050E071							
	07-2		270F025E072	270F032E072	270F040E072	270F050E072							
	07-3		270F025E073	270F032E073	270F040E073	270F050E073							
	51-1	270F020E511	270F025E511	270F032E511	270F040E511	270F050E511							
	52-1	270F020E521	270F025E521	270F032E521	270F040E521	270F050E521							
	55-1	270F020E551	270F025E551	270F032E551	270F040E551	270F050E551							
	57-1	270F020E571	270F025E571	270F032E571	270F040E571	270F050E571							
Material		GX5CrNi19-10											
Mark		R											
DN →		20x20	25x25	32x32	40x40	50x50	65x65	80x80	100x100				
240	01-1	240R020E011	240R025E011	240R032E011	240R040E011	240R050E011	240R065E011	240R080E011	240R100E011				
	02-1	240R020E021	240R025E021	240R032E021	240R040E021	240R050E021	240R065E021	240F080E021	240F100E021				
	51-1	240R020E511	240R025E511	240R032E511	240R040E511	240R050E511							
	52-1	240R020E521	240R025E521	240R032E521	240R040E521	240R050E521							
DN →		20x20	25x25	32x32	40x40	50x50	65x65	80x80	100x100				
270	01-1	270R020E011	270R025E011	270R032E011	270R040E011	270R050E011							
	02-1	270R020E021	270R025E021	270R032E021	270R040E021	270R050E021							
	51-1	270R020E511	270R025E511	270R032E511	270R040E511	270R050E511							
	52-1	270R020E521	270R025E521	270R032E521	270R040E521	270R050E521							

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