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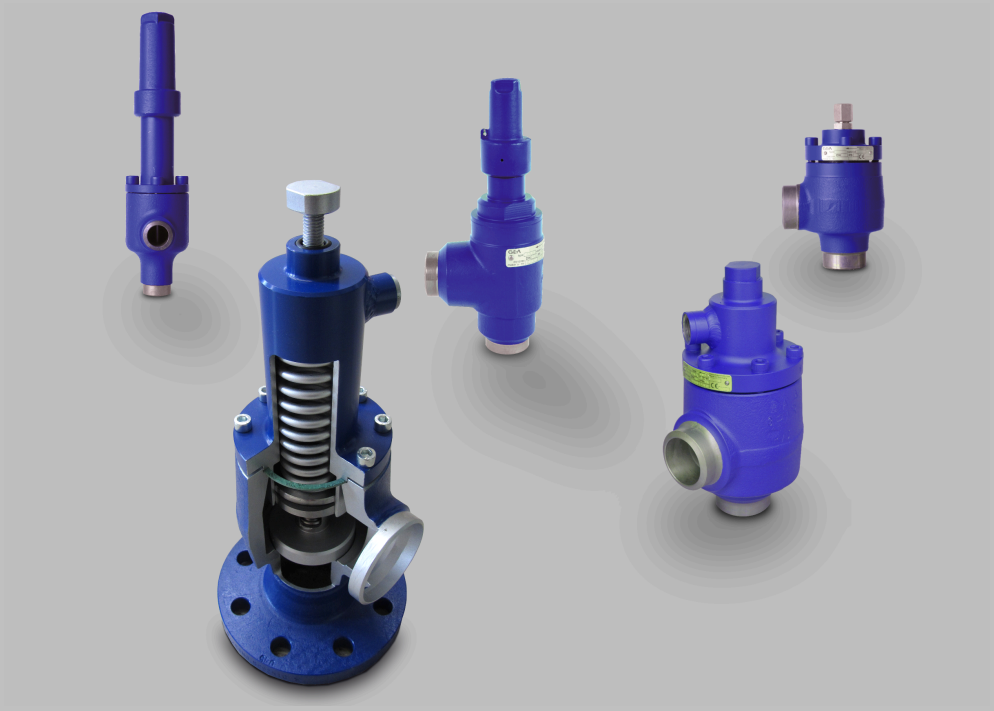
OVERFLOW VALVES FOR REFRIGERATION

UVA, RVD, RVR, UVR, UVRK, GPV

05.02.2026



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1 UVA / RVD / RVR / UVR / UVRK / GPV

UVA: Overflow valve - back-pressure dependent

UVA	Connection	Form	Material	Valve type
UVA	Materials			
UVAA/B PS25 / PS40 / PS63	Welding ends		St	UVAA/B AE
			NIRO	UVAA/B AE NIRO
	Flanged ends		St	UVAA/B FL
			NIRO	UVAA/B FL NIRO
	Soldering ends		St	UVAA/B LE
			NIRO	UVAA/B LE NIRO
	Screwed ends		St	UVAA/B SE
			NIRO	UVAA/B SE NIRO

RVD: Pressure-maintaining valve

RVD	Connection	Form	Material	Valve type
RVD	Materials			
RVD	Welding ends	Angle	St	RVD E AE
PS25 / PS40 / PS63	Flanged ends	Angle	St	RVD E FL

RVR: Pressure-maintaining valve with check function

RVR	Connection	Form	Material	Valve type
RVR	Materials			
RVR	Welding ends	Angle	St	RVR E AE
PS25 / PS40 / PS63	Flanged ends	Angle	St	RVR E FL
			NIRO	RVR E FL IRO

UVR: Overflow valve - back-pressure dependent - for hot-gas defrosting

UVR	Connection	Form	Material	Valve type
UVR	Materials			
UVR PS25 / PS40	Welding ends	Straight-way	St	UVR D AE
			NIRO	UVR D AE NIRO
		Angle	St	UVR E AE
			NIRO	UVR E AE NIRO
	Flanged ends	Straight-way	St	UVR D FL
		Angle	St	UVR E FL

St = steel , SS = stainless steel

2 UVA / RVD / UVR / UVRK / GPV

UVRK: Overflow valve - back-pressure dependent - with regulating cone - for hot-gas defrosting

UVRK	Connection	Form	Material	Valve type
UVRK	Materials			
UVRK PS25 / PS40	Welding ends	Straight-way	St	UVRK D AE
			NIRO	UVRK D AE NIRO
		Angle	St	UVRK E AE
			NIRO	UVRK E AE NIRO
	Flanged ends	Straight-way	St	UVRK D FL
		Angle	St	UVRK E FL

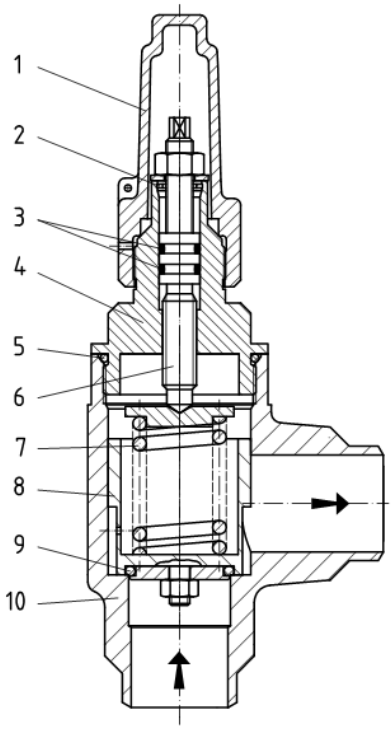
GPV: Pressure-controlled valve – application in the oil return line

GPV	Connection	Form	Material	Valve type
GPV	Materials			
GPV PS25 / PS40	Welding ends	Straight-way	St	GPV D AE
			NIRO	GPV D AE NIRO
		Angle	St	GPV E AE
			NIRO	GPV E AE NIRO
	Flanged ends	Straight-way	St	GPV D FL
		Angle	St	GPV E FL
Information	Valve stem sealing system			
	UV UM + ST screwed ends			
	Pressure range springs			
	Comparison of European/American materials			
	Coding of connections for small and service valves			
	DIN-FL welding neck flanges - DIN			
	EN-FL welding neck flanges - EN			
	ANSI-FL welding neck flanges - smooth			
	AWP-FL welding neck flanges - AWP			
	Legal notices			

St = steel SS = stainless steel

3 UVA materials

Designation and materials
UVA - overflow valve

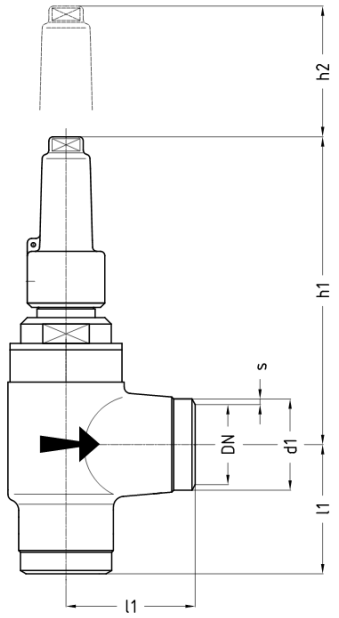


	Part	Material for steel valves	Material for stainless steel valves
1	Cap	Aluminium AlSi10Mg	Aluminium AlSi10Mg
2	Retaining ring	DH, SM / DM	DH, SM / DM
3	Valve stem O-ring	CR, HNBR, EPDM*	CR, HNBR, EPDM*
4	Bonnet	S355J2 1.0577	X8CrNiS18-9 1.4305
5	Bonnet O-ring	CR, HNBR, EPDM*	CR, HNBR, EPDM*
6	Stem	X8CrNiS18-9 1.4305	X8CrNiS18-9 1.4305
7	Tongue	SH	SH
8	Sealing piston	X8CrNiS18-9 1.4305	X8CrNiS18-9 1.4305
9	Valve disc O-ring	CR, NBR, HNBR, EPDM, PTFE*	CR, NBR, HNBR, EPDM, PTFE*
10	Body	S355J2 1.0577	X5CrNi18-10 1.4301

* depending on the refrigerant used

4 UVAA AE / UVAB AE

O: PTFE seat seal, **B:**elastomer seat seal,**AE:** Welding ends
UVA steel overflow valve - back-pressure dependent for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1



Application: The tight closing of the valve after response is guaranteed at temperatures above -35°C.
Note: DN40-50 please select ORVA.
Pressure / temperature operating limits:
PS: Max. permissible operating pressure in bar
TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)
PN: Nominal pressure rating

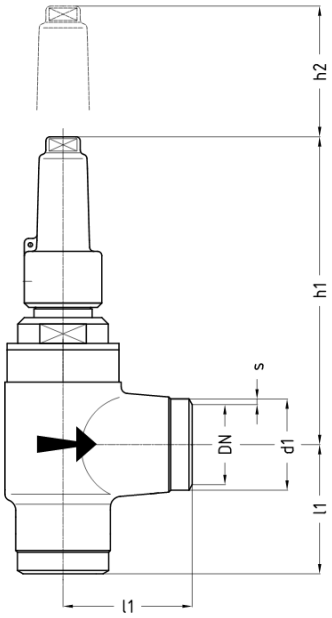
DN / INCH UVAA	PN	-60	-10	+50	+180	TS [°C]
DN / INCH UVAB	PN	-50	-10	+50	+110	TS [°C]
UVAA/UVAB DN 10...32 3/8"...1 1/4"	PN25	18.7	25	25	25	PS [bar]
	PN40	30	40	40	40	PS [bar]
	PN63	47.2	63	63	63	PS [bar]

Nominal size:	Welding ends acc. to:											
		ISO Series 1			ISO Series 2		ANSI Sched 40					Opening pressure range
DN	INCH	d1	s1)	s2)	d1	s	d1	s	l1	h1	h2	bar
10	3/8"	17.2	1.8	1.8	15	2.5	17.1	2.3	40	138	50	1-25
15	1/2"	21.3	2.0	2.0	20	2.5	21.3	2.8	40	138	50	1-25
20	3/4"	26.9	2.3	2.6	25	2.5	26.7	2.9	60	143	50	1-25
25	1"	33.7	2.6	2.6	32	3.0	33.4	3.4	60	143	50	1-25
32	1 1/4"	42.4	2.6	2.9	38	3.0	42.2	3.6	60	143	50	1-25

Table 1: Dimensions
1) PN25 / PN40 2) PN63 h2 = dismantling dimension

5 UVAA AE NIRO / UVAB AE NIRO

O: PTFE seat seal, **B:**elastomer seat seal,**AE:** Welding ends
UVA stainless steel overflow valve - back-pressure dependent for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1



Application: The tight closing of the valve after response is guaranteed at temperatures above -35°C.
Pressure / temperature operating limits:
PS: Max. permissible operating pressure in bar
TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)
PN: Nominal pressure rating

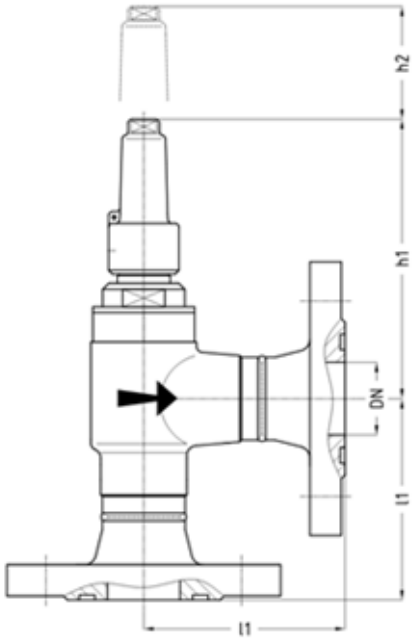
DN / INCH UVAA	PN	-60	-10	+50	+180	TS [°C]
DN / INCH UVAB	PN	-50	-10	+50	+110	TS [°C]
UVAA/UVAB	PN25	25	25	25	25	PS [bar]
DN 10...32 3/8"...1 1/4"	PN40	40	40	40	40	PS [bar]
	PN63	63	63	63	63	PS [bar]

Nominal size:		Welding ends acc. to:										
		ISO Series 1			ISO Series 2		ANSI Sched 40					Opening pressure range
DN	INCH	d1	s1)	s2)	d1	s	d1	s	l1	h1	h2	bar
10	3/8"	17.2	1.8	1.8	15	2.5	17.1	2.3	40	138	50	1-25
15	1/2"	21.3	2.0	2.0	20	2.5	21.3	2.8	40	138	50	1-25
20	3/4"	26.9	2.3	2.6	25	2.5	26.7	2.9	60	143	50	1-25
25	1"	33.7	2.6	2.6	32	3.0	33.4	3.4	60	143	50	1-25
32	1 1/4"	42.4	2.6	2.9	38	3.0	42.2	3.6	60	143	50	1-25

Table 2: Dimensions
1) PN25 / PN40 2) PN63 h2 = dismantling dimension

6 UVAA FL / UVAB FL

O: PTFE seat seal, **B:**elastomer seat seal,**FL:** Flanged ends
UVA steel overflow valve - back-pressure dependent for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1



Application: The tight closing of the valve after response is guaranteed at temperatures above -35°C.
Note: DN40-50 please select ORVA.
Pressure / temperature operating limits:
PS: Max. permissible operating pressure in bar
TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)
PN: Nominal pressure rating

DN / INCH UVAA	PN	-60	-10	+50	+180	TS [°C]
DN / INCH UVAB	PN	-50	-10	+50	+110	TS [°C]
UVAA/UVAB DN 10...32 3/8"...1 1/4"	PN25	18.7	25	25	25	PS [bar]
	PN40	30	40	40	40	PS [bar]
	PN63	47.2	63	63	63	PS [bar]

Nominal size:		Flanged ends acc. to:								
		AWP DN10-20 PN25 DN25-32 PN40	PN25 DIN 2634 EN1092-1	PN40 DIN 2635 EN1092-1	PN63 DIN 2636 EN1092-1	ANSI 150 RF	ANSI 300 RF			Opening pressure range
DN	INCH	l1	l1	l1	l1		l1	h1	h2	bar
10	3/8"	72	76	76	86			138	50	1-25
15	1/2"	72	79	79	86	88	93	138	50	1-25
20	3/4"	92	101	101	109	113	118	143	50	1-25
25	1"	105	101	101	119	117	123	143	50	1-25

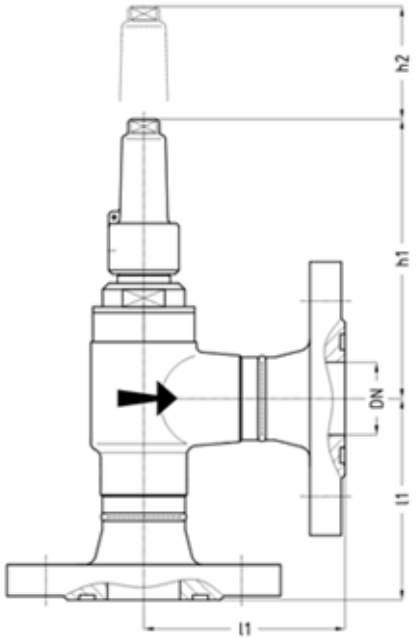
Nominal size:		Flanged ends acc. to:								
32	1 1/4"	105	103	103	121	118	126	143	50	1-25

Table 3: Dimensions

h2 = dismantling dimension, DIN/EN flange facings as standard: groove DIN 2512

7 UVAA FL NIRO / UVAB FL NIRO

O: PTFE seat seal, **B:**elastomer seat seal,**FL:** Flanged ends
UVA stainless steel overflow valve - back-pressure dependent for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1



Application: The tight closing of the valve after response is guaranteed at temperatures above -35°C.
Pressure / temperature operating limits:
PS: Max. permissible operating pressure in bar
TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)
PN: Nominal pressure rating

DN / INCH UVAA	PN	-60	-10	+50	+180	TS [°C]
DN / INCH UVAB	PN	-50	-10	+50	+110	TS [°C]
UVAA/UVAB DN 10...32 3/8"...1 1/4"	PN25	25	25	25	25	PS [bar]
	PN40	40	40	40	40	PS [bar]
	PN63	63	63	63	63	PS [bar]

Nominal size:		Flanged ends acc. to:								
		AWP DN10-20 PN25 DN25-32 PN40	PN25 DIN 2634 EN1092-1	PN40 DIN 2635 EN1092-1	PN63 DIN 2636 EN1092-1	ANSI 150 RF	ANSI 300 RF			Opening pressure range
DN	INCH	l1	l1	l1	l1	L1	l1	h1	h2	bar
10	3/8"	72	76	76	86			138	50	1-25
15	1/2"	72	79	79	86	88	93	138	50	1-25
20	3/4"	92	101	101	109	113	118	143	50	1-25
25	1"	105	101	101	119	117	123	143	50	1-25

Nominal size:			Flanged ends acc. to:							
32	1 1/4"	105	103	103	121	118	126	143	50	1-25

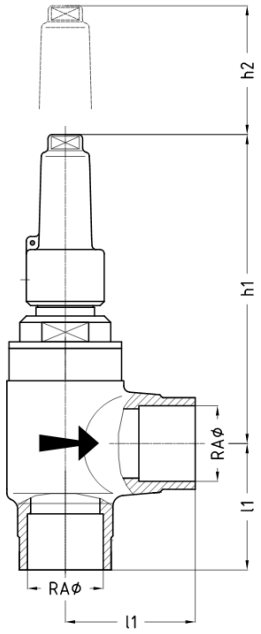
Table 4: Dimensions

h2 = dismantling dimension

DIN/EN flange facings as standard: groove DIN 2512

8 UVAA LE / UVAB LE

O: PTFE seat seal, **B:**elastomer seat seal,**LE:** Soldering ends
UVA steel overflow valve - back-pressure dependent for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1



Application: The tight closing of the valve after response is guaranteed at temperatures above -35°C.
Pressure / temperature operating limits:
PS: Max. permissible operating pressure in bar
TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)
PN: Nominal pressure rating

DN / INCH UVAA	PN	-60	-10	+50	+180	TS [°C]
DN / INCH UVAB	PN	-50	-10	+50	+110	TS [°C]
UVAA/UVAB DN 10...32	PN25	18.7	25	25	25	PS [bar]
	PN40	30	40	40	40	PS [bar]
	PN63	47.2	63	63	63	PS [bar]

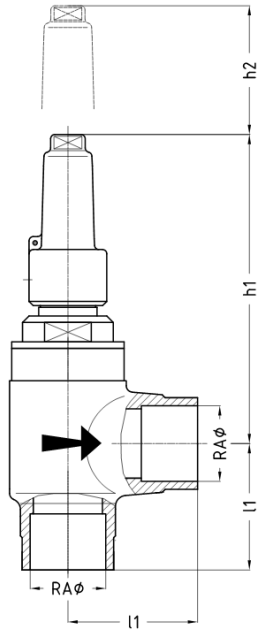
Nominal size:	Soldering ends acc. to:				
					Opening pressure range
DN	RAØ	l1	h1	h2	bar
10	12	40	138	50	1-25
15	15	40	138	50	1-25
15	18	40	138	50	1-25
20	22	60	143	50	1-25
25	28	60	143	50	1-25
32	35	60	143	50	1-25

Table 5: Dimensions
h2 = dismantling dimension

Latest revision: 05.02.2026. Subject to modifications.
The most recent version of this document is available on awpvalves.com/downloads/

9 UVAA LE NIRO / UVAB LE NIRO

O: PTFE seat seal, **B:**elastomer seat seal,**LE:** Soldering ends
UVA stainless steel overflow valve - back-pressure dependent for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1



Application: The tight closing of the valve after response is guaranteed at temperatures above -35°C.
Pressure / temperature operating limits:
PS: Max. permissible operating pressure in bar
TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)
PN: Nominal pressure rating

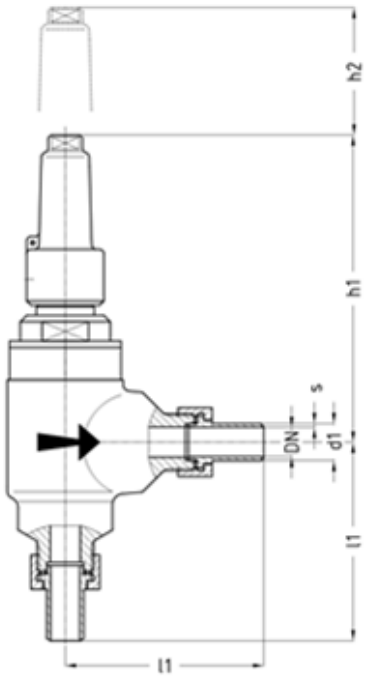
DN / INCH UVAA	PN	-60	-10	+50	+180	TS [°C]
DN / INCH UVAB	PN	-50	-10	+50	+110	TS [°C]
UVAA/UVAB DN 10...32	PN25	25	25	25	25	PS [bar]
	PN40	40	40	40	40	PS [bar]
	PN63	63	63	63	63	PS [bar]

Nominal size:	Soldering ends acc. to:				
					Opening pressure range
DN	RAØ	l1	h1	h2	bar
10	12	40	138	50	1-25
15	15	40	138	50	1-25
15	18	40	138	50	1-25
20	22	60	143	50	1-25
25	28	60	143	50	1-25
32	35	60	143	50	1-25

Table 6: Dimensions
h2 = dismantling dimension

10 UVAA SE / UVAB SE

O: PTFE seat seal, **B:**elastomer seat seal,**SE:** Screwed ends
UVA steel overflow valve - back-pressure dependent for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1



Application: The tight closing of the valve after response is guaranteed at temperatures above -35°C.
Pressure / temperature operating limits:
PS: Max. permissible operating pressure in bar
TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)
PN: Nominal pressure rating

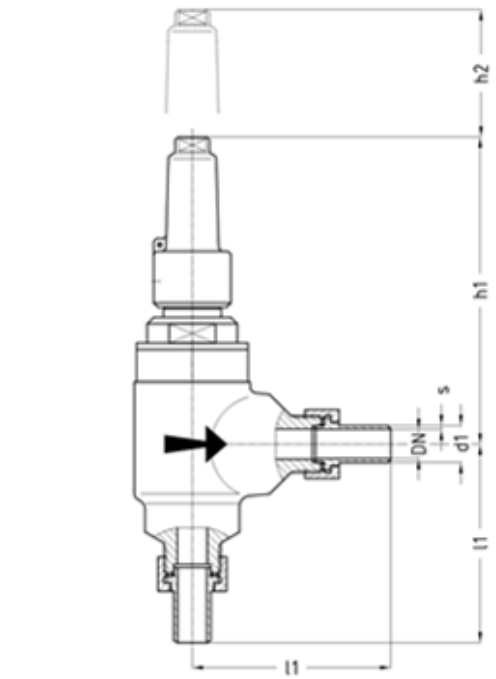
DN / INCH UVAA	PN	-60	-10	+50	+180	TS [°C]
DN / INCH UVAB	PN	-50	-10	+50	+110	TS [°C]
UVAA/UVAB DN 10...20 G3/8"...G3/4"	PN25	18.7	25	25	25	PS [bar]
	PN40	30	40	40	40	PS [bar]
	PN63	47.2	63	63	63	PS [bar]

Nominal size:	Screwed ends acc. to:						
							Opening pressure range
DN	Thread	d1	s1	l1	h1	h2	bar
6	G3/8"	10.2	1.6	72	138	50	1-25
8	G1/2"	13.5	1.8	73	138	50	1-25
10	G3/4"	17.2	1.8	93	143	50	1-25

Table 7: Dimensions
h2 = dismantling dimension

11 UVAA SE NIRO / UVAB SE NIRO

O: PTFE seat seal, **B:**elastomer seat seal,**SE:** Screwed ends
UVA stainless steel overflow valve - back-pressure dependent for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1



Application: The tight closing of the valve after response is guaranteed at temperatures above -35°C.
Pressure / temperature operating limits:
PS: Max. permissible operating pressure in bar
TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)
PN: Nominal pressure rating

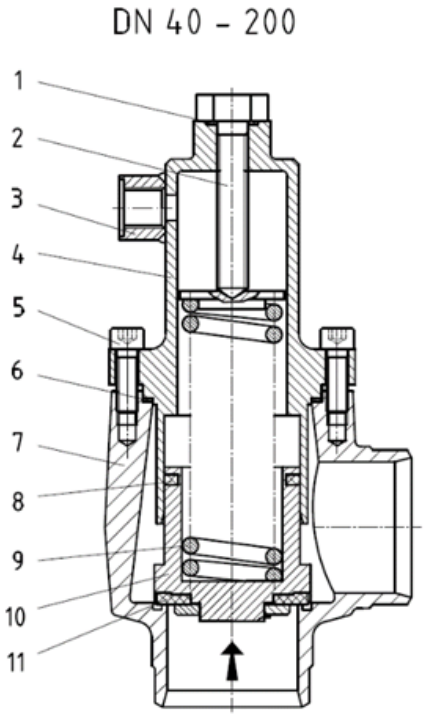
DN / INCH UVAA	PN	-60	-10	+50	+180	TS [°C]
DN / INCH UVAB	PN	-50	-10	+50	+110	TS [°C]
UVAA/UVAB DN 10...20 G3/8"...G3/4"	PN25	25	25	25	25	PS [bar]
	PN40	40	40	40	40	PS [bar]
	PN63	63	63	63	63	PS [bar]

Nominal size:	Screwed ends acc. to:						
							Opening pressure range
DN	Thread	d1	s1	l1	h1	h2	bar
6	G3/8"	10.2	1.6	72	138	50	1-25
8	G1/2"	13.5	1.8	73	138	50	1-25
10	G3/4"	17.2	1.8	93	143	50	1-25

Table 8: Dimensions
h2 = dismantling dimension

12 RVD materials

Designation and materials
RVD - pressure-maintaining valve



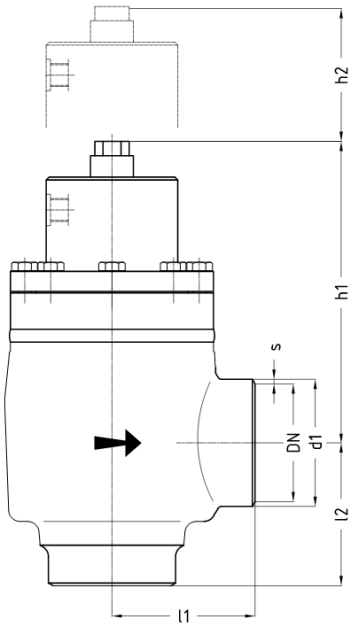
	Part	Material for steel valves	Material for stainless steel valves
1	Tensioning screw O-ring	CR, NBR, HNBR, EPDM, PTFE*	CR, NBR, HNBR, EPDM, PTFE*
2	Tensioning screw	8.8	A2-70
3	Bypass	S355J2 1.0577	X5CrNi18-10 1.4301
4	Bonnet	S355J2 1.0577	X5CrNi18-10 1.4301
5	Bonnet screw	8.8	A2-70
6	Flat sealing ring for bonnet	AFM30	AFM30
7	Body	S355J2 1.0577 P355N 1.0562	X5CrNi18-10 1.4301
8	Spring-loaded U-ring	PTFE	PTFE
9	Tongue	SH	SH
10	Valve disc	S355J2 1.0577	X8CrNiS18-9 1.4305
11	Flat sealing ring for valve disc	PTFE	PTFE

* depending on the refrigerant used

13 RVD E AE

E: Angle, **AE:** Welding ends

RVD steel pressure-maintaining valve for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1



Note: When the compressor starts up, the RVD increase the pressure on the discharge side and open when the oil circuit is secured.

Pressure / temperature operating limits:

PS: Max. permissible operating pressure in bar

TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)

PN: Nominal pressure rating

DN / INCH	PN	-35	-10	+50	+120	TS [°C]
DN 40...200	PN25	12.5	25	25	25	PS [bar]
1 1/2"...8"	PN40	20	40	40	40	PS [bar]
	PN63	31.5	63	63	63	PS [bar]

Table 9: With O-ring CR

Other operating pressures on request

DN / INCH	PN	-40	-10	+50	+150	TS [°C]
DN 40...200	PN25	12.5	25	25	25	PS [bar]
1 1/2"...8"	PN40	20	40	40	40	PS [bar]
	PN63	31.5	63	63	63	PS [bar]

Table 10: With O-ring HNBR

Other operating pressures on request

Nominal size:		Welding ends acc. to:											
		ISO Series 1			ANSI Sched 40		ANSI Sched 80						Opening pressure range
DN	INCH	d1	s1)	s2)	d1	s	d1	s	l1	l2	h1	h2	bar

Nominal size:		Welding ends acc. to:											
40	1 1/2″	48.3	2.6	2.9	48.3	3.7	48.3	5.1	70	70	139	110	1-5
40	1 1/2″	48.3	2.6	2.9	48.3	3.7	48.3	5.1	70	70	169	110	6-9
50	2″	60.3	2.9	2.9	60.3	3.9			70	70	139	110	1-5
50	2″	60.3	2.9	2.9	60.3	3.9			70	70	169	110	6-9
65	2 1/2″	76.1	2.9	3.2	73.0	5.2			85	85	170	130	1-4
65	2 1/2″	76.1	2.9	3.2	73.0	5.2			85	85	190	130	5-10
80	3″	88.9	3.2	3.6	88.9	5.5			100	100	212	150	1-10
100	4″	114.3	3.6	4.0	114.3	6.0			120	120	215	170	1-4
100	4″	114.3	3.6	4.0	114.3	6.0			120	120	270	170	5-9
125	5″	139.7	4.0	4.5	141.3	6.6			135	135	206	250	1-5
150	6″	168.3	4.5	5.6	168.3	7.1			150	150	225	280	1-3
200	8″	219.1	6.3	7.1	168.3	8.2			195	195		380	1-3

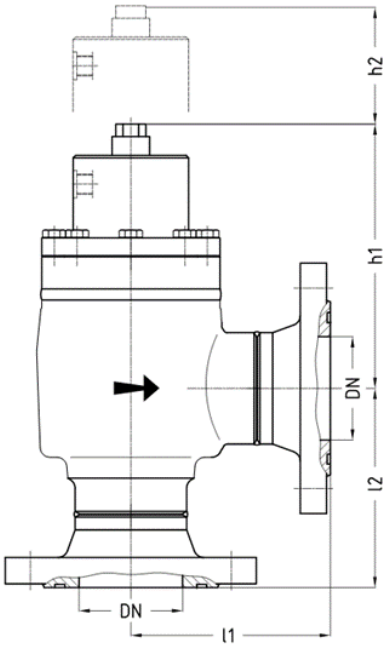
Table 11: Dimensions

1) PN25 / PN40 2) PN63 h2 = dismantling dimension

14 RVD E FL

E: Angle, **FL:** Flanged ends

RVD steel pressure-maintaining valve for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1



Note: When the compressor starts up, the RVD increase the pressure on the discharge side and open when the oil circuit is secured.

Pressure / temperature operating limits:

PS: Max. permissible operating pressure in bar

TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)

PN: Nominal pressure rating

DN / INCH	PN	-35	-10	+50	+120	TS [°C]
DN 40...200 1 1/2"...8"	PN25	12.5	25	25	25	PS [bar]
	PN40	20	40	40	40	PS [bar]
	PN63	31.5	63	63	63	PS [bar]

Table 12: With O-ring CR

DN / INCH	PN	-40	-10	+50	+150	TS [°C]
DN 40...200 1 1/2"...8"	PN25	12.5	25	25	25	PS [bar]
	PN40	20	40	40	40	PS [bar]
	PN63	31.5	63	63	63	PS [bar]

Table 13: **With O-ring HNBR**

Other operating pressures on request

Nominal size:		Flanged ends acc. to:													
		PS25 DIN 2634 EN1092-1		PS40 DIN 2635 EN1092-1		PS63 DIN 2636 EN1092-1		ANSI 300 RF					Opening pressure range
	INCH	l1		l1		l1		l1		h1	h2		bar

Nominal size:		Flanged ends acc. to:										
			l2		l2		l2		l2			
40	1 1/2″	116	116	116	116	133	133	139	139	139	110	1-5
40	1 1/2″	116	116	116	116	133	133	139	139	169	110	6-9
50	2″	119	119	119	119	133	133	141	141	139	110	1-5
50	2″	119	119	119	119	133	133	141	141	169	110	6-9
65	2 1/2″	138	138	138	138	154	154	162	162	170	130	1-4
65	2 1/2″	138	138	138	138	154	154	162	162	190	130	5-10
80	3″	159	159	159	159	173	173	180	180	212	150	1-10
100	4″	186	186	186	186	199	199	207	207	215	170	1-4
100	4″	186	186	186	186	199	199	207	207	270	170	5-9
125	5″	204	204	204	204	224	224	235	235	206	250	1-5
150	6″	226	226	226	226	246	246	250	250	225	280	1-3
200	8″	276	276	284	284	306	306	308	308		380	1-3

Table 14: Dimensions

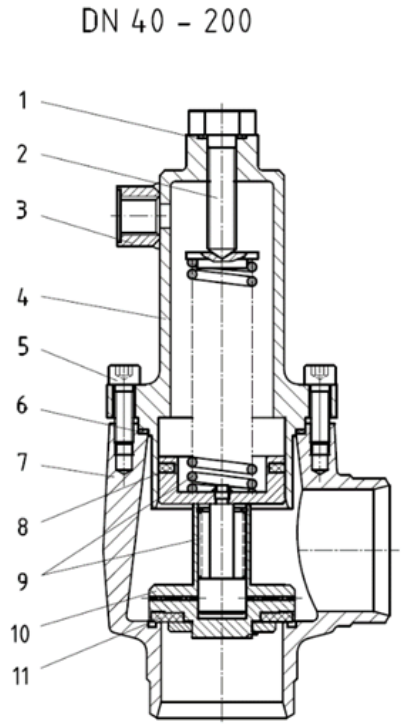
h2 = dismantling dimension

DIN/EN flange facings as standard: groove DIN 2512

15 RVR materials

Designation and materials

RVR - pressure-maintaining valve with check function



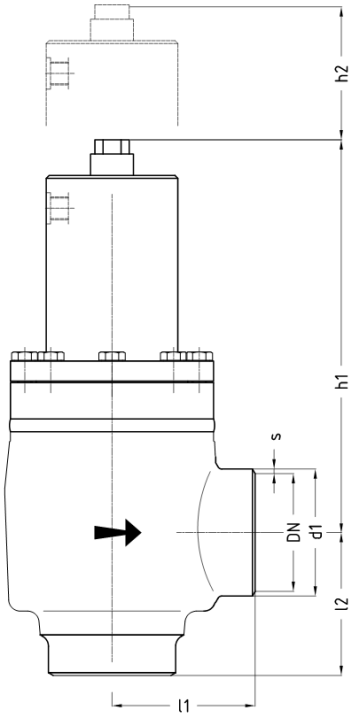
	Part	Material for steel valves	Material for stainless steel valves
1	Tensioning screw O-ring	CR, NBR, HNBR, EPDM, PTFE*	CR, NBR, HNBR, EPDM, PTFE*
2	Tensioning screw	8.8	A2-70
3	Bypass	S355J2 1.0577	X5CrNi18-10 1.4301
4	Bonnet	S355J2 1.0577	X5CrNi18-10 1.4301
5	Bonnet screw	8.8	A2-70
6	Flat sealing ring for bonnet	AFM30	AFM30
7	Body	S355J2 1.0577 P355N 1.0562	X5CrNi18-10 1.4301
8	Spring-loaded U-ring	PTFE	PTFE
9	Tongue	SH	SH
10	Valve disc	S355J2 1.0577	X8CrNiS18-9 1.4305
11	Flat sealing ring for valve disc	PTFE	PTFE

* depending on the refrigerant used

16 RVR E AE

E: Angle, **AE:** Welding ends

RVR steel pressure-maintaining valve with check function for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1



Note: When the compressor starts up, the RVD increase the pressure on the discharge side and open when the oil circuit is secured.

Pressure / temperature operating limits:

PS: Max. permissible operating pressure in bar

TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)

PN: Nominal pressure rating

DN / INCH	PN	-35	-10	+50	+120	TS [°C]
DN 40...200 1 1/2"...8"	PN25	12.5	25	25	25	PS [bar]
	PN40	20	40	40	40	PS [bar]
	PN63	31.5	63	63	63	PS [bar]

Table 15: With O-ring CR

Other operating pressures on request

DN / INCH	PN	-40	-10	+50	+150	TS [°C]
DN 40...200 1 1/2"...8"	PN25	12.5	25	25	25	PS [bar]
	PN40	20	40	40	40	PS [bar]
	PN63	31.5	63	63	63	PS [bar]

Table 16: With O-ring HNBR

Other operating pressures on request

Nominal size:		Welding ends acc. to:											
		ISO Series 1			ANSI Sched 40		ANSI Sched 80						Opening pressure range
DN	INCH	d1	s1)	s2)	d1	s	d1	s	l1	l2	h1	h2	bar

Nominal size:		Welding ends acc. to:											
40	1 1/2″	48.3	2.6	2.9	48.3	3.7	48.3	5.1	70	70	185	110	1-5
40	1 1/2″	48.3	2.6	2.9	48.3	3.7	48.3	5.1	70	70	215	110	6-9
50	2″	60.3	2.9	2.9	60.3	3.9			70	70	185	110	1-5
50	2″	60.3	2.9	2.9	60.3	3.9			70	70	215	110	6-9
65	2 1/2″	76.1	2.9	3.2	73.0	5.2			85	85	222	130	1-4
65	2 1/2″	76.1	2.9	3.2	73.0	5.2			85	85	242	130	5-10
80	3″	88.9	3.2	3.6	88.9	5.5			100	100	280	150	1-10
100	4″	114.3	3.6	4.0	114.3	6.0			120	120	288	170	1-4
100	4″	114.3	3.6	4.0	114.3	6.0			120	120	343	170	5-9
125	5″	139.7	4.0	4.5	141.3	6.6			135	135	316	250	1-5
150	6″	168.3	4.5	5.6	168.3	7.1			150	150	334	280	1-3
200	8″	219.1	6.3	7.1	168.3	8.2			195	195		380	1-3

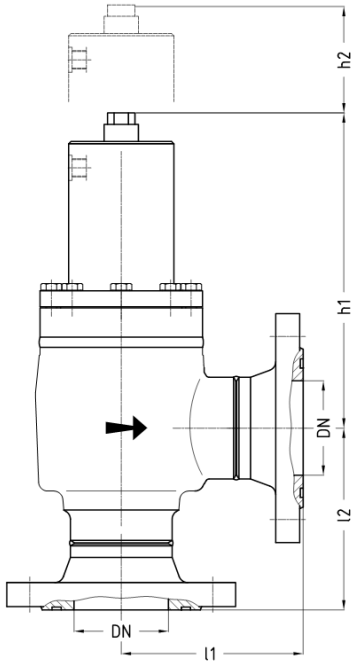
Table 17: Dimensions

1) PN25 / PN40 2) PN63 h2 = dismantling dimension

17 RVR E FL

E: Angle, **FL:** Flanged ends

RVR steel pressure-maintaining valve with check function for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1



Note: When the compressor starts up, the RVR increase the pressure on the discharge side and open when the oil circuit is secured.

Pressure / temperature operating limits:

PS: Max. permissible operating pressure in bar

TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)

PN: Nominal pressure rating

DN / INCH	PN	-35	-10	+50	+120	TS [°C]
DN 40...200 1 1/2"...8"	PN25	12.5	25	25	25	PS [bar]
	PN40	20	40	40	40	PS [bar]
	PN63	31.5	63	63	63	PS [bar]

Table 18: With O-ring CR

DN / INCH	PN	-40	-10	+50	+150	TS [°C]
DN 40...200 1 1/2"...8"	PN25	12.5	25	25	25	PS [bar]
	PN40	20	40	40	40	PS [bar]
	PN63	31.5	63	63	63	PS [bar]

Table 19: With O-ring HNBR

Other operating pressures on request

Nominal size:		Flanged ends acc. to:														
		PS25 DIN 2634 EN1092-1		PS40 DIN 2635 EN1092-1		PS63 DIN 2636 EN1092-1		ANSI 300 RF		ANSI 150 RF				Opening pressure range		
	INCH	l1		l1		l1		l1		l1		h1	h2	bar		

Nominal size:		Flanged ends acc. to:												
			l2		l2		l2		l2		l2			
40	1 1/2"	116	116	116	116	133	133	139	139	132	132	185	110	1-5
40	1 1/2"	116	116	116	116	133	133	139	139	132	132	215	110	6-9
50	2"	119	119	119	119	133	133	141	141	135	135	185	110	1-5
50	2"	119	119	119	119	133	133	141	141	135	135	215	110	6-9
65	2 1/2"	138	138	138	138	154	154	162	162	155	155	222	130	1-4
65	2 1/2"	138	138	138	138	154	154	162	162	155	155	242	130	5-10
80	3"	159	159	159	159	173	173	180	180	170	170	280	150	1-10
100	4"	186	186	186	186	199	199	207	207	198	198	288	170	1-4
100	4"	186	186	186	186	199	199	207	207	198	198	343	170	5-9
125	5"	204	204	204	204	224	224	235	235	225	225	316	250	1-5
150	6"	226	226	226	226	246	246	250	250	240	240	334	280	1-3
200	8"	276	276	284	284	306	306	308	308	298	298		380	1-3

Table 20: Dimensions

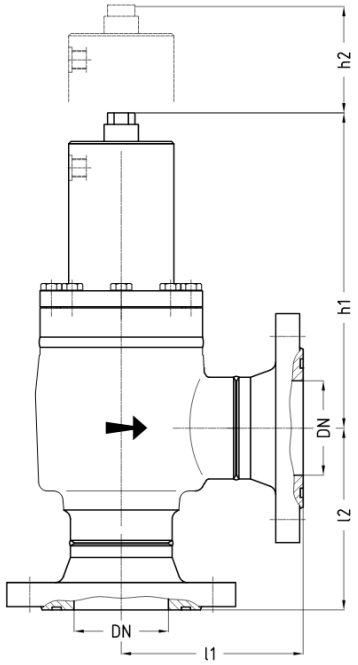
h2 = dismantling dimension

DIN/EN flange facings as standard: groove DIN 2512

18 RVR E FL NIRO

E: Angle, **FL:** Flanged ends

RVR stainless steel pressure-maintaining valve with check function for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1



Note: When the compressor starts up, the RVR increase the pressure on the discharge side and open when the oil circuit is secured.

Pressure / temperature operating limits:

PS: Max. permissible operating pressure in bar

TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)

PN: Nominal pressure rating

DN / INCH	PN	-35	-10	+50	+120	TS [°C]
DN 40...200 1 1/2"...8"	PN25	25	25	25	25	PS [bar]
	PN40	40	40	40	40	PS [bar]
	PN63	63	63	63	63	PS [bar]

Table 21: With O-ring CR

DN / INCH	PN	-40	-10	+50	+150	TS [°C]
DN 40...200 1 1/2"...8"	PN25	25	25	25	25	PS [bar]
	PN40	40	40	40	40	PS [bar]
	PN63	63	63	63	63	PS [bar]

Table 22: With O-ring HNBR

Other operating pressures on request

Nominal size:		Flanged ends acc. to:															
		PS25 DIN 2634 EN1092-1		PS40 DIN 2635 EN1092-1		PS63 DIN 2636 EN1092-1		ANSI 300		ANSI 150 RF				Opening pressure range			
	INCH	l1		l1		l1		l1		l1		h1	h2	bar			

Nominal size:		Flanged ends acc. to:												
			l2		l2		l2		l2		l2			
40	1 1/2"	116	116	116	116	133	133	139	139	132	132	185	110	1-5
40	1 1/2"	116	116	116	116	133	133	139	139	132	132	215	110	6-9
50	2"	119	119	119	119	133	133	141	141	135	135	185	110	1-5
50	2"	119	119	119	119	133	133	141	141	135	135	215	110	6-9
65	2 1/2"	138	138	138	138	154	154	162	162	155	155	222	130	1-4
65	2 1/2"	138	138	138	138	154	154	162	162	155	155	242	130	5-10
80	3"	159	159	159	159	173	173	180	180	170	170	280	150	1-10
100	4"	186	186	186	186	199	199	207	207	198	198	288	170	1-4
100	4"	186	186	186	186	199	199	207	207	198	198	343	170	5-9
125	5"	204	204	204	204	224	224	235	235	225	225	316	250	1-5
150	6"	226	226	226	226	246	246	250	250	240	240	334	280	1-3
200	8"	276	276	284	284	306	306	308	308	298	298		380	1-3

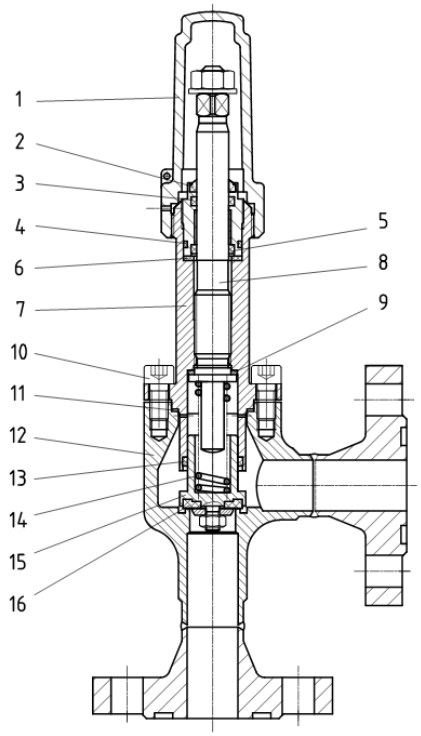
Table 23: Dimensions

h2 = dismantling dimension

DIN/EN flange facings as standard: groove DIN 2512

19 UVR materials

Designation and materials
UVR – overflow valve for hot-gas defrosting

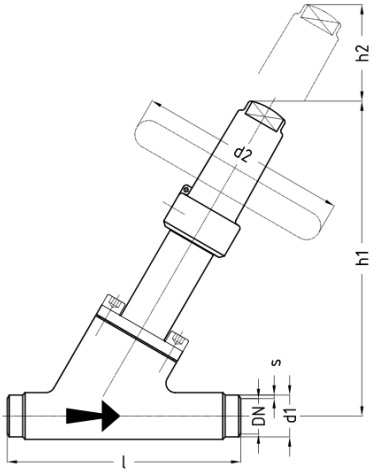


	Part	Material for steel valves	Material for stainless steel valves
1	Cap	Aluminium AlSi10Mg	Aluminium AlSi10Mg
2	Wiper ring	NBR	NBR
3	O-ring A	CR, NBR, HNBR, EPDM*	CR, NBR, HNBR, EPDM*
4	O-ring B	CR, NBR, HNBR, EPDM*	CR, NBR, HNBR, EPDM*
5	Spring-loaded U-ring	PTFE	PTFE
6	Flat sealing ring for threaded bush	AFM30	AFM30
7	Bonnet	S355J2 1.0577	X8CrNiS18-9 1.4305
8	Stem	X8CrNiS18-9 1.4305	X8CrNiS18-9 1.4305
9	Back seal	PTFE	PTFE
10	Bonnet screw	8.8	A2-70
11	Flat sealing ring for bonnet	AFM30	AFM30
12	Body	S355J2 1.0577 P235GH 1.0345	X5CrNi18-10 1.4301
13	Spring-loaded U-ring	PTFE	PTFE
14	Tongue	SH	SH
15	Valve disc	S355J2 1.0577	X8CrNiS18-9 1.4305
16	Flat sealing ring for valve disc	PTFE	PTFE

* depending on the refrigerant used

20 UVR D AE

D: Straight-way, **AE:** Welding ends
UVR steel overflow valve - back-pressure dependent - for hot-gas defrosting for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1



Application: This valve has three functions in one and combines overflow, check and shut-off valve.
Pressure / temperature operating limits:
PS: Max. permissible operating pressure in bar
TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)
PN: Nominal pressure rating

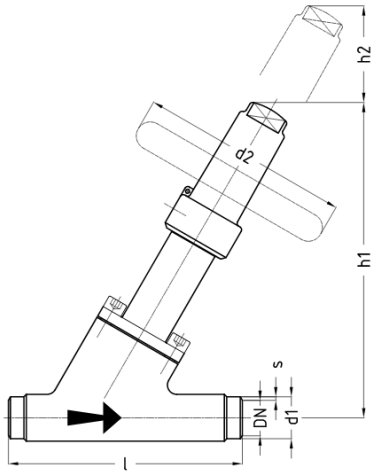
DN / INCH	PN	-60	-40	-25	-10	+50	+150	TS [°C]
DN 20 3/4"	PN25	6.25	12.5	18.7	25	25	25	PS [bar]
	PN40	10	20	30	40	40	40	PS [bar]

Nominal size:		Welding ends acc. to:												
		ISO Series 1		ISO Series 2		ANSI Sched 40		ANSI Sched 80						
DN	INCH	d1	s	d1	s	d1	s	d1	s	l	h1	h2	d2	bar
20	3/4"	26.9	2.3	25.0	2.5	26.7	2.9	26.7	3.9	150	202	55	140	2-8

Table 24: Dimensions
h2 = dismantling dimension

21 UVR D AE NIRO

D: Straight-way, **AE:** Welding ends
UVR stainless steel overflow valve - back-pressure dependent - for hot-gas defrosting for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1



Application: This valve has three functions in one and combines overflow, check and shut-off valve.
Pressure / temperature operating limits:
PS: Max. permissible operating pressure in bar
TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)
PN: Nominal pressure rating

DN / INCH	PN	-60	-10	+50	+150	TS [°C]
DN 20 3/4"	PN25	25	25	25	25	PS [bar]
	PN40	40	40	40	40	PS [bar]

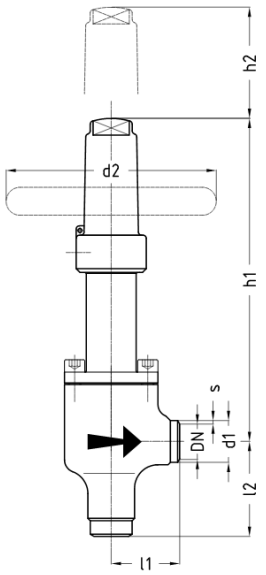
Nominal size:		Welding ends acc. to:												
		ISO Series 1		ISO Series 2		ANSI Sched 40		ANSI Sched 80						
DN	INCH	d1	s	d1	s	d1	s	d1	s	l	h1	h2	d2	bar
20	3/4"	26.9	2.3	25.0	2.5	26.7	2.9	26.7	3.9	150	202	55	140	2-8

Table 25: Dimensions
h2 = dismantling dimension

Latest revision: 05.02.2026. Subject to modifications.
The most recent version of this document is available on awpvalves.com/downloads/

22 UVR E AE

E: Angle, **AE:** Welding ends
UVR steel overflow valve - back-pressure dependent - for hot-gas defrosting for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1



Application: This valve has three functions in one and combines overflow, check and shut-off valve.
Pressure / temperature operating limits:
PS: Max. permissible operating pressure in bar
TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)
PN: Nominal pressure rating

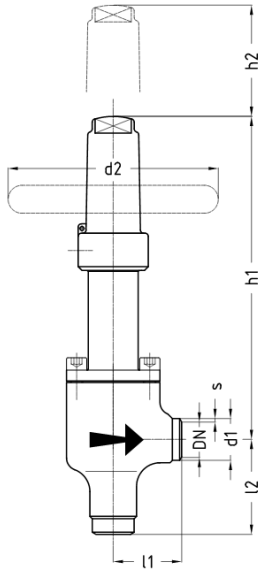
DN / INCH	PN	-60	-40	-25	-10	+50	+150	TS [°C]
DN 20 3/4"	PN25	6.25	12.5	18.7	25	25	25	PS [bar]
	PN40	10	20	30	40	40	40	PS [bar]

Nominal size:		Welding ends acc. to:													
		ISO Series 1		ISO Series 2		ANSI Sched 40		ANSI Sched 80							Setting range
DN	INCH	d1	s	d1	s	d1	s	d1	s	l1	l2	h1	h2	d2	bar
20	3/4"	26.9	2.3	25.0	2.5	26.7	2.9	26.7	3.9	44	61	208	85	140	2-8

Table 26: Dimensions
h2 = dismantling dimension

23 UVR E AE NIRO

E: Angle, **AE:** Welding ends
UVR stainless steel overflow valve - back-pressure dependent - for hot-gas defrosting for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1



Application: This valve has three functions in one and combines overflow, check and shut-off valve.
Pressure / temperature operating limits:
PS: Max. permissible operating pressure in bar
TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)
PN: Nominal pressure rating

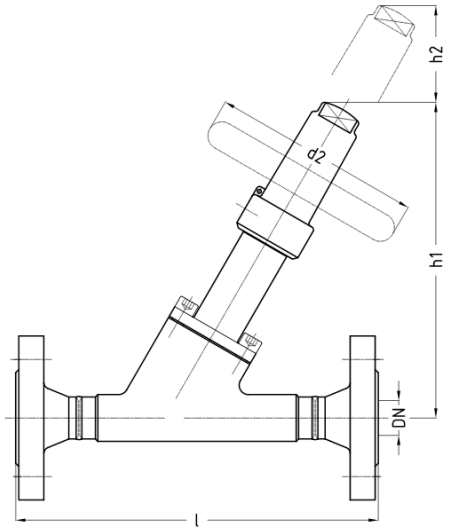
DN / INCH	PN	-60	-10	+50	+150	TS [°C]
DN 20 3/4"	PN25	25	25	25	25	PS [bar]
	PN40	40	40	40	40	PS [bar]

Nominal size:		Welding ends acc. to													
		ISO Series 1		ISO Series 2		ANSI Sched 40		ANSI Sched 80							
DN	INCH	d1	s	d1	s	d1	s	d1	s	l1	l2	h1	h2	d2	bar
20	3/4"	26.9	2.3	25.0	2.5	26.7	2.9	26.7	3.9	44	61	208	85	140	2-8

Table 27: Dimensions
h2 = dismantling dimension

24 UVR D FL

D: Straight-way, **FL:** Flanged ends
UVR steel overflow valve - back-pressure dependent - for hot-gas defrosting for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1



Application: This valve has three functions in one and combines overflow, check and shut-off valve.
Pressure / temperature operating limits:
PS: Max. permissible operating pressure in bar
TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)
PN: Nominal pressure rating

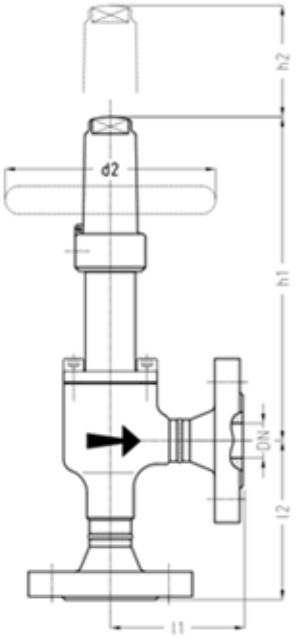
DN / INCH	PN	-60	-40	-25	-10	+50	+150	TS [°C]
DN 20 3/4"	PN25	6.25	12.5	18.7	25	25	25	PS [bar]
	PN40	10	20	30	40	40	40	PS [bar]

Nominal size:		Flanged ends acc. to:							
		AWP DN20 PN25	PN25 DIN 2634 EN1092-1	PN40 DIN 2635 EN1092-1	ANSI 300 RF				Setting range
DN	INCH	l	l	l	l	h1	h2	d2	bar
20	3/4"	216	232	232	266	202	55	140	2-8

Table 28: Dimensions
h2 = dismantling dimension
DIN/EN flange facings as standard: groove DIN 2512

25 UVR E FL

E: Angle, **FL:** Flanged ends
UVR steel overflow valve - back-pressure dependent - for hot-gas defrosting for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1



Application: This valve has three functions in one and combines overflow, check and shut-off valve.
Pressure / temperature operating limits:
PS: Max. permissible operating pressure in bar
TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)
PN: Nominal pressure rating

DN / INCH	PN	-60	-40	-25	-10	+50	+150	TS [°C]
DN 20 3/4"	PN25	6.25	12.5	18.7	25	25	25	PS [bar]
	PN40	10	20	30	40	40	40	PS [bar]

Nominal size:		Flanged ends acc. to:											
		AWP DN20 PN25		PN25 DIN 2634 EN1092-1		PN40 DIN 2635 EN1092-1		ANSI 300 RF					Setting range
DN	INCH	l1	l2	l1	l2	l1	l2	l1	l2	h1	h2	d2	bar
20	3/4"	77	94	85	102	85	102	102	119	208	85	140	2-8

Table 29: Dimensions
h2 = dismantling dimension
DIN/EN flange facings as standard: tongue/groove DIN 2512

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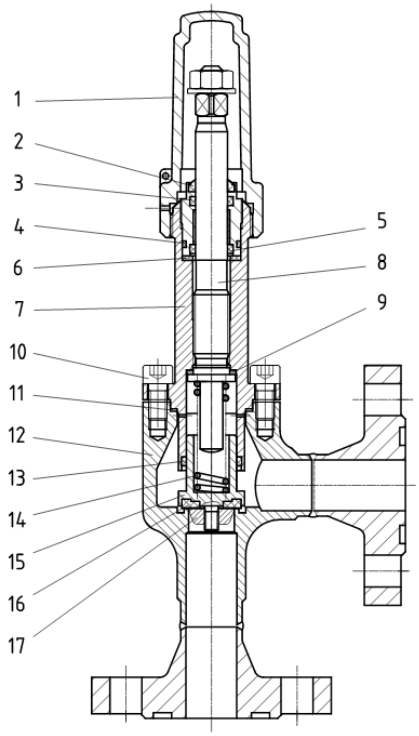
26 UVRK materials

Designation and materials

UVRK - overflow valve with regulating cone for hot-gas defrosting

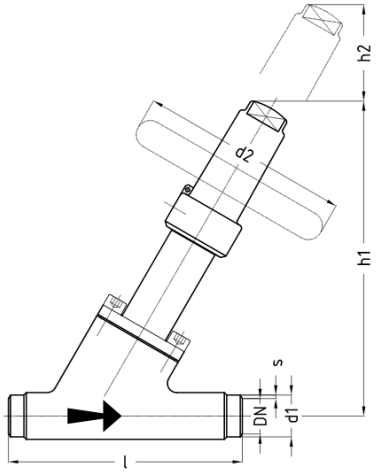


	Part	Material for steel valves	Material for stainless steel valves
1	Cap	Aluminium AlSi10Mg	Aluminium AlSi10Mg
2	Wiper ring	NBR	NBR
3	O-ring A	CR, NBR / HNBR /EPDM*	CR, FKM, HNBR, EPDM*
4	O-ring B	CR, NBR / HNBR /EPDM*	CR, FKM, HNBR, EPDM*
5	Spring-loaded U-ring	PTFE	PTFE
6	Flat sealing ring for threaded bush	AFM30	AFM30
7	Bonnet	S355J2 1.0577	X8CrNiS18-9 1.4305
8	Stem	X8CrNiS18-9 1.4305	X8CrNiS18-9 1.4305
9	Back seal	AFM30	AFM30
10	Bonnet screw	8.8	A2-70
11	Flat sealing ring for bonnet	AFM30	AFM30
12	Body	S355J2 1.0577	X5CrNi18-10 1.4301
13	Spring-loaded U-ring	PTFE	PTFE
14	Tongue	SH	SH
15	Valve disc	S355J2 1.0577	X8CrNiS18-9 1.4305
16	Flat sealing ring for valve disc	PTFE	PTFE
17	Regulating cone	S355J2 1.0577	X8CrNiS18-9 1.4305

* depending on the refrigerant used

27 UVRK D AE

D: Straight-way, **AE:** Welding ends
UVRK steel overflow valve - back-pressure dependent - with regulating cone - for hot-gas defrosting for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1



Application: This valve has three functions in one and combines overflow, check and shut-off valve.
Pressure / temperature operating limits:
PS: Max. permissible operating pressure in bar
TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)
PN: Nominal pressure rating

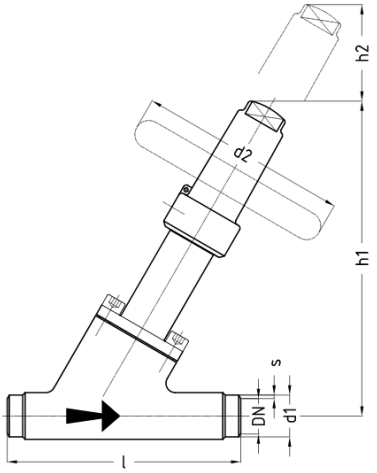
DN / INCH	PN	-60	-40	-25	-10	+50	+150	TS [°C]
DN 20 3/4"	PN25	6.25	12.5	18.7	25	25	25	PS [bar]
	PN40	10	20	30	40	40	40	PS [bar]

Nominal size:		Welding ends acc. to:												
		ISO Series 1		ISO Series 2		ANSI Sched 40		ANSI Sched 80						Setting range
DN	INCH	d1	s	d1	s	d1	s	d1	s	l	h1	h2	d2	bar
20	3/4"	26.9	2.3	25.0	2.5	26.7	2.9	26.7	3.9	150	202	55	140	2-8

Table 30: Dimensions
h2 = dismantling dimension

28 UVRK D AE NIRO

D: Straight-way, **AE:** Welding ends
UVRK stainless steel overflow valve - back-pressure dependent - with regulating cone - for hot-gas defrosting for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1



Application: This valve has three functions in one and combines overflow, check and shut-off valve.
Pressure / temperature operating limits:
PS: Max. permissible operating pressure in bar
TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)
PN: Nominal pressure rating

DN / INCH	PN	-60	-10	+50	+150	TS [°C]
DN 20 3/4"	PN25	25	25	25	25	PS [bar]
	PN40	40	40	40	40	PS [bar]

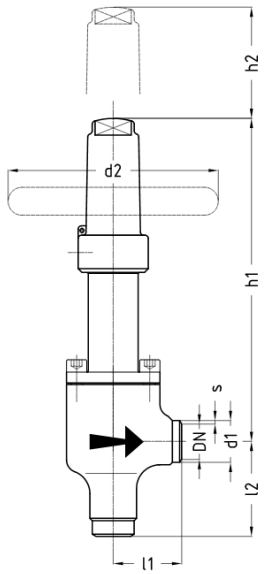
Nominal size:		Welding ends acc. to:												
		ISO Series 1		ISO Series 2		ANSI Sched 40		ANSI Sched 80						
DN	INCH	d1	s	d1	s	d1	s	d1	s	l	h1	h2	d2	bar
20	3/4"	26.9	2.3	25.0	2.5	26.7	2.9	26.7	3.9	150	202	55	140	2-8

Table 31: Dimensions
h2 = dismantling dimension

29 UVRK E AE

E: Angle, **AE:** Welding ends

UVRK steel overflow valve - back-pressure dependent - with regulating cone - for hot-gas defrosting for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1



Application: This valve has three functions in one and combines overflow, check and shut-off valve.

Pressure / temperature operating limits:

PS: Max. permissible operating pressure in bar

TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)

PN: Nominal pressure rating

DN / INCH	PN	-60	-40	-25	-10	+50	+150	TS [°C]
DN 20 3/4"	PN25	6.25	12.5	18.7	25	25	25	PS [bar]
	PN40	10	20	30	40	40	40	PS [bar]

Nominal size:		Welding ends acc. to:													
		ISO Series 1		ISO Series 2		ANSI Sched 40		ANSI Sched 80							Setting range
DN	INCH	d1	s	d1	s	d1	s	d1	s	l1	l2	h1	h2	d2	bar
20	3/4"	26.9	2.3	25	2.5	26.7	2.9	26.7	3.9	44	61	208	85	140	2-8

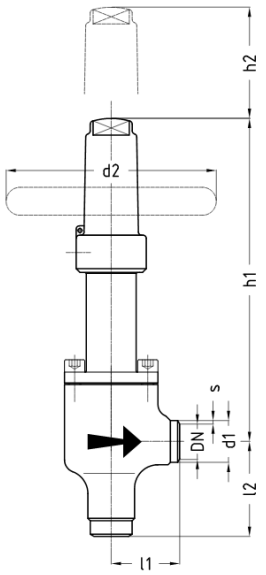
Table 32: Dimensions

h2 = dismantling dimension

30 UVRK E AE NIRO

E: Angle, **AE:** Welding ends

UVRK stainless steel overflow valve - back-pressure dependent - with regulating cone - for hot-gas defrosting for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1



Application: This valve has three functions in one and combines overflow, check and shut-off valve.

Pressure / temperature operating limits:

PS: Max. permissible operating pressure in bar

TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)

PN: Nominal pressure rating

DN / INCH	PN	-60	-10	+50	+150	TS [°C]
DN 20	PN25	25	25	25	25	PS [bar]
	PN40	40	40	40	40	PS [bar]
3/4"						

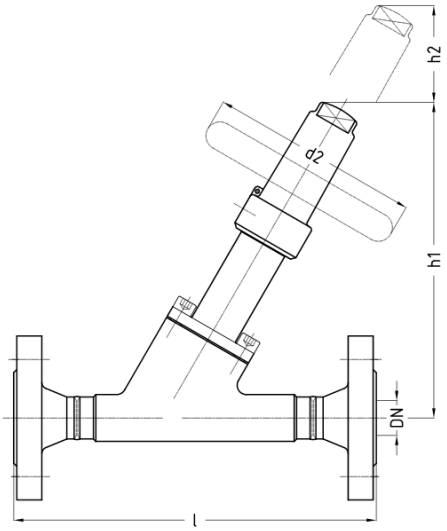
Nominal size:		Welding ends acc. to:													
		ISO Series 1		ISO Series 2		ANSI Sched 40		ANSI Sched 80							Setting range
DN	INCH	d1	s	d1	s	d1	s	d1	s	l1	l2	h1	h2	d2	bar
20	3/4"	26.9	2.3	25.0	2.5	26.7	2.9	26.7	3.9	44	61	208	85	140	2-8

Table 33: Dimensions

h2 = dismantling dimension

31 UVRK D FL

D: Straight-way, **FL:** Flanged ends
UVRK steel overflow valve - back-pressure dependent - with regulating cone - for hot-gas defrosting for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1



Application: This valve has three functions in one and combines overflow, check and shut-off valve.
Pressure / temperature operating limits:
PS: Max. permissible operating pressure in bar
TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)
PN: Nominal pressure rating

DN / INCH	PN	-60	-40	-25	-10	+50	+150	TS [°C]
DN 20 3/4"	PN25	6.25	12.5	18.7	25	25	25	PS [bar]
	PN40	10	20	30	40	40	40	PS [bar]

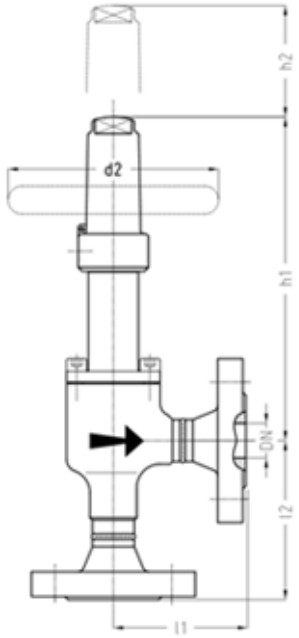
Nominal size:		Flanged ends acc. to:							
		AWP DN20 PN25	PN25 DIN 2634 EN1092-1	PN40 DIN 2635 EN1092-1	ANSI 300 RF				Setting range
DN	INCH	l	l	l	l	h1	h2	d2	bar
20	3/4"	216	232	232	266	202	55	140	2-8

Table 34: Dimensions
h2 = dismantling dimension
DIN/EN flange facings as standard: groove DIN 2512

32 UVRK E FL

E: Angle, **FL:** Flanged ends

UVRK steel overflow valve - back-pressure dependent - with regulating cone - for hot-gas defrosting for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1



Application: This valve has three functions in one and combines overflow, check and shut-off valve.

Pressure / temperature operating limits:

PS: Max. permissible operating pressure in bar

TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)

PN: Nominal pressure rating

DN / INCH	PN	-60	-40	-25	-10	+50	+150	TS [°C]
DN 20 3/4"	PN25	6.25	12.5	18.7	25	25	25	PS [bar]
	PN40	10	20	30	40	40	40	PS [bar]

Nominal size:		Flanged ends acc. to:											
		AWP DN20 PN25		PN25 DIN 2634 EN1092-1		PN40 DIN 2635 EN1092-1		ANSI 300 RF					Setting range
DN	INCH	l1	l2	l1	l2	l1	l2	l1	l2	h1	h2	d2	bar
20	3/4"	77	94	85	102	85	102	102	119	208	85	140	2-8

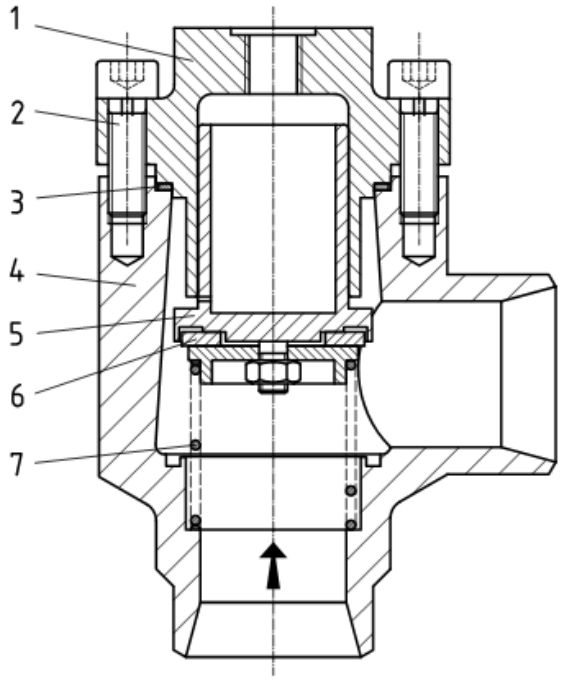
Table 35: Dimensions

h2 = dismantling dimension

DIN/EN flange facings as standard: groove DIN 2512

33 GPV materials

Designation and materials
GPV – pressure-controlled valve



	Part	Material for steel valves	Material for stainless steel valves
1	Bonnet	S355J2 1.0577	X8CrNiS18-9 1.4305
2	Bonnet screw	8.8	A2-70
3	Flat sealing ring for bonnet	AFM30	AFM30
4	Body	S355J2 1.0577	X5CrNi18-10 1.4301
5	Valve disc	S355J2 1.0577	X8CrNiS18-9 1.4305
6	Flat sealing ring for valve disc	PTFE	PTFE
7	Tongue	X10CrNi18-8 1.4310	X10CrNi18-8 1.4310

* depending on the refrigerant used

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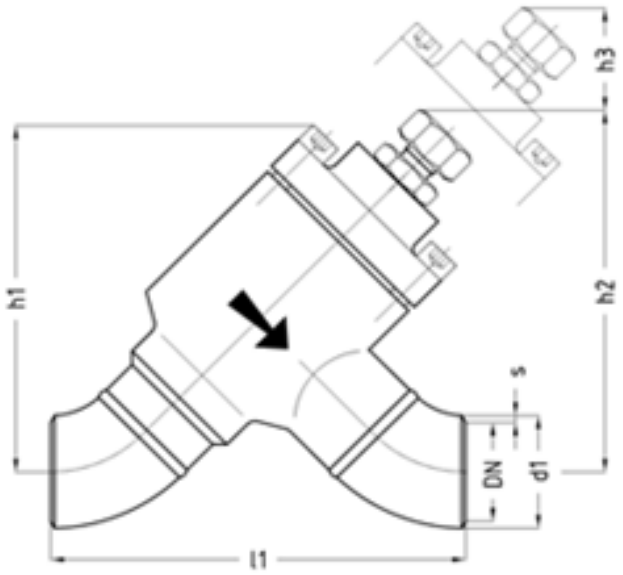
34 GPV D AE

D: Straight-way, **AE:** Welding ends
GPV steel pressure-controlled valve



Application: GPVs are installed in the oil return line between the lowest point of the flooded evaporator and the compressor. The valves are functionally open so that the oil/refrigerant mixture flows into the oil collection vessel. If this is filled, the GPV are closed with hot gas and at the same time the pressure on the collected oil is increased by means of an overflow bore to lead it back to the compressor.
Pressure / temperature operating limits:
PS: Max. permissible operating pressure in bar
TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)
PN: Nominal pressure rating

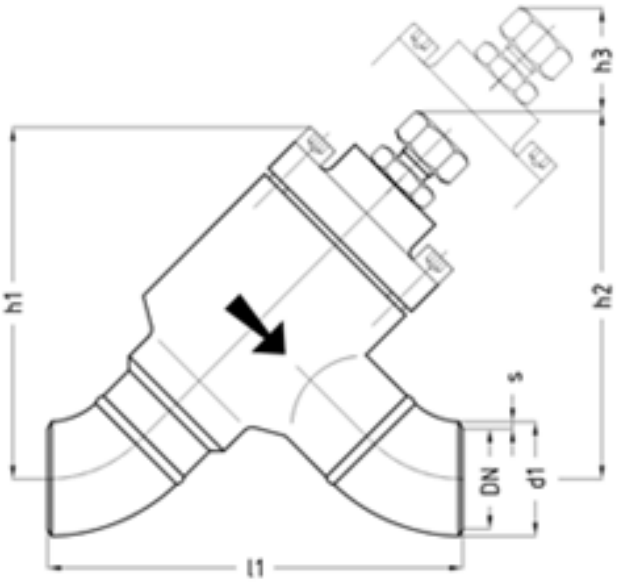
DN / INCH	PN	-60	-40	-25	-10	+50	+150	TS [°C]
DN 25...32 1"...1 1/4"	PN25	6.25	12.5	25	25	25	25	PS [bar]
	PN40	10	20	30	40	40	40	PS [bar]
	PN63	15.75	31.5	63	63	63	63	PS [bar]

Nominal size:		Welding ends acc. to:									
		ISO Series 1		ISO Series 2		ANSI Sched 40					
DN	INCH	d1	s	d1	s	d1	s	l1	h1	h2	h3
25	1"	33.7	2.6	32	3.0	33.4	3.4	140	127	133	35
32	1 1/4"	42.4	2.6	38	3.0	42.2	3.6	154	130	136	35

Table 36: Dimensions
h3 = dismantling dimension

35 GPV D AE NIRO

D: Straight-way, **AE:** Welding ends
GPV stainless steel pressure-controlled valve



Application: GPVs are installed in the oil return line between the lowest point of the flooded evaporator and the compressor. The valves are functionally open so that the oil/refrigerant mixture flows into the oil collection vessel. If this is filled, the GPV are closed with hot gas and at the same time the pressure on the collected oil is increased by means of an overflow bore to lead it back to the compressor.
Pressure / temperature operating limits:
PS: Max. permissible operating pressure in bar
TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)
PN: Nominal pressure rating

DN / INCH	PN	-60	-10	+50	+150	TS [°C]
DN 25...32 1"...1 1/4"	PN25	25	25	25	25	PS [bar]
	PN40	40	40	40	40	PS [bar]
	PN63	63	63	63	63	PS [bar]

Nominal size:		Welding ends acc. to:									
		ISO Series 1		ISO Series 2		ANSI Sched 40					
DN	INCH	d1	s	d1	s	d1	s	l1	h1	h2	h3
25	1"	33.7	2.6	32	3.0	33.4	3.4	140	127	133	35
32	1 1/4"	42.4	2.6	38	3.0	42.2	3.6	154	130	136	35

Table 37: Dimensions
h3 = dismantling dimension

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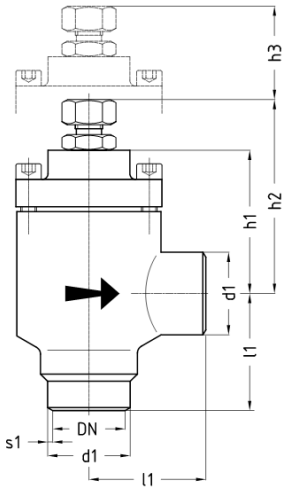
36 GPV E AE

E: Angle, **AE:** Welding ends
GPV steel pressure-controlled valve



Application: GPVs are installed in the oil return line between the lowest point of the flooded evaporator and the compressor. The valves are functionally open so that the oil/refrigerant mixture flows into the oil collection vessel. If this is filled, the GPV are closed with hot gas and at the same time the pressure on the collected oil is increased by means of an overflow bore to lead it back to the compressor.
Pressure / temperature operating limits:
PS: Max. permissible operating pressure in bar
TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)
PN: Nominal pressure rating

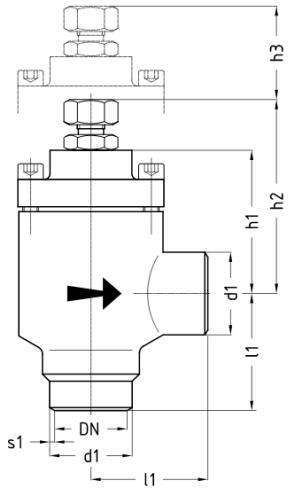
DN / INCH	PN	-60	-40	-25	-10	+50	+150	TS [°C]
DN 25...32 1"...1 1/4"	PN25	6.25	12.5	25	25	25	25	PS [bar]
	PN40	10	20	30	40	40	40	PS [bar]
	PN63	15.75	31.5	63	63	63	63	PS [bar]

Nominal size:		Welding ends acc. to:									
		ISO Series 1		ISO Series 2		ANSI Sched 40					
DN	INCH	d1	s	d1	s	d1	s	l1	h1	h2	h3
25	1"	33.7	2.6	32	3.0	33.4	3.4	60	74	100	45
32	1 1/4"	42.4	2.6	38	3.0	42.2	3.6	60	74	100	45

Table 38: Dimensions
h3 = dismantling dimension

37 GPV E AE NIRO

E: Angle, **AE:** Welding ends
GPV stainless steel pressure-controlled valve



Application: GPVs are installed in the oil return line between the lowest point of the flooded evaporator and the compressor. The valves are functionally open so that the oil/refrigerant mixture flows into the oil collection vessel. If this is filled, the GPV are closed with hot gas and at the same time the pressure on the collected oil is increased by means of an overflow bore to lead it back to the compressor.
Pressure / temperature operating limits:
PS: Max. permissible operating pressure in bar
TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)
PN: Nominal pressure rating

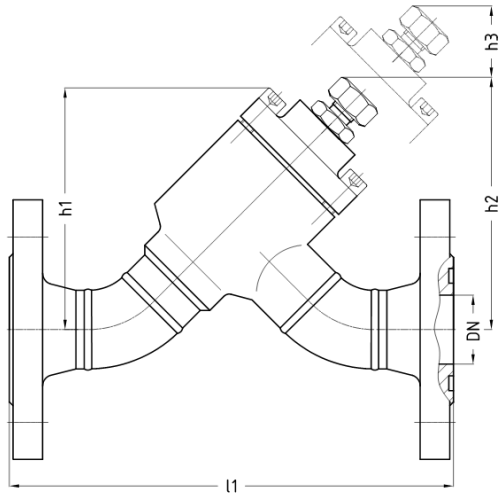
DN / INCH	PN	-60	-10	+50	+150	TS [°C]
DN 25...32 1"...1 1/4"	PN25	25	25	25	25	PS [bar]
	PN40	40	40	40	40	PS [bar]
	PN63	63	63	63	63	PS [bar]

Nominal size:		Welding ends acc. to:									
		ISO Series 1		ISO Series 2		ANSI Sched 40					
DN	INCH	d1	s	d1	s	d1	s	l1	h1	h2	h3
25	1"	33.7	2.6	32	3.0	33.4	3.4	60	74	100	45
32	1 1/4"	42.4	2.6	38	3.0	42.2	3.6	60	74	100	45

Table 39: Dimensions
h3 = dismantling dimension

38 GPV D FL

D: Straight-way, **FL:** Flanged ends
GPV steel pressure-controlled valve



Application: GPVs are installed in the oil return line between the lowest point of the flooded evaporator and the compressor. The valves are functionally open so that the oil/refrigerant mixture flows into the oil collection vessel. If this is filled, the GPV are closed with hot gas and at the same time the pressure on the collected oil is increased by means of an overflow bore to lead it back to the compressor.
Pressure / temperature operating limits:
PS: Max. permissible operating pressure in bar
TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)
PN: Nominal pressure rating

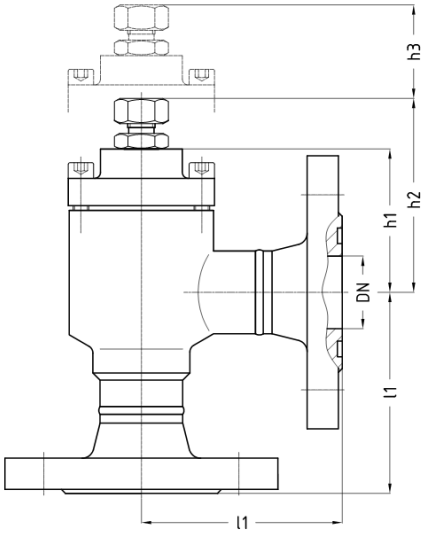
DN / INCH	PN	-60	-40	-25	-10	+50	+150	TS [°C]
DN 25...32 1"...1 1/4"	PN25	6.25	12.5	25	25	25	25	PS [bar]
	PN40	10	20	30	40	40	40	PS [bar]
	PN63	15.75	31.5	63	63	63	63	PS [bar]

Nominal size:		Flange connection acc. to:			
		PS40 DIN 2635 EN1092-1			
DN	INCH	l1	h1	h2	h3
25	1"	222	127	133	35
32	1 1/4"	240	130	136	35

Table 40: Dimensions
h3 = dismantling dimension, DIN/EN flange facings as standard: groove DIN 2512

39 GPV E FL

E: Angle, **FL:** Flanged ends
GPV steel pressure-controlled valve



Application: GPVs are installed in the oil return line between the lowest point of the flooded evaporator and the compressor. The valves are functionally open so that the oil/refrigerant mixture flows into the oil collection vessel. If this is filled, the GPV are closed with hot gas and at the same time the pressure on the collected oil is increased by means of an overflow bore to lead it back to the compressor.
Pressure / temperature operating limits:
PS: Max. permissible operating pressure in bar
TS: Permissible operating temperature in °C associated with the permissible operating pressures (PS)
PN: Nominal pressure rating

DN / INCH	PN	-60	-40	-25	-10	+50	+150	TS [°C]
DN 25...32 1"...1 1/4"	PN25	6.25	12.5	25	25	25	25	PS [bar]
	PN40	10	20	30	40	40	40	PS [bar]
	PN63	15.75	31.5	63	63	63	63	PS [bar]

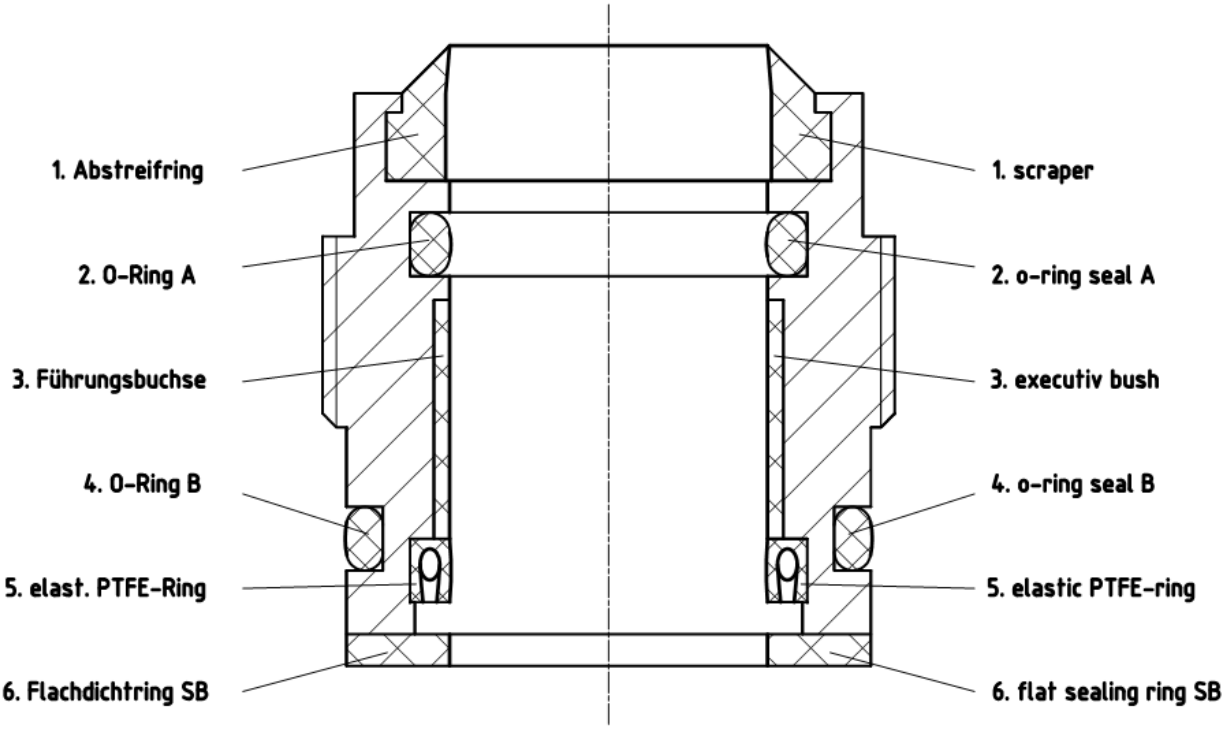
Nominal size:		Flange connection acc. to:			
		PS40 DIN 2635 EN1092-1			
DN	INCH	l1	h1	h2	h3
25	1"	101	127	133	35
32	1 1/4"	103	130	136	35

Table 41: Dimensions
h3 = dismantling dimension, DIN/EN flange facings as standard: groove DIN 2512

40 Appendix

41 Valve stem sealing system

The valve stem sealing system is maintenance-free.
The sealing system consists of the following components:



1. Wiper ring

   The wiper ring prevents the ingress of dirt and water from the outside.

2. O-ring A

   O-ring A makes the valve vacuum-tight. (Valve operation in the vacuum range at low temperatures)

3. Guide bush

   The guide bush prevents damage to the stem.

4. O-ring B

   O-ring B seals the outer part of the sealing system in addition to the flat sealing ring SB.

5. Resilient PTFE ring

   The resilient PTFE ring is the primary seal of the sealing system. It consists of a high-performance PTFE compound with a wound stainless steel spring. This seal seals the valve to the atmosphere.

6. Flat sealing ring SB

   The flat sealing ring SB seals the outer part of the sealing system.

Note: GEA AWP valves have a back seal. Therefore, the removal and replacement of the sealing system is possible during operation of the plant. Please observe the instructions in our operating regulations regarding this.

42 Accessories

UV UM + ST screwed ends

GEA AWP – valves with screwed ends can be ordered with a variety of screw connections to meet the respective requirements. The list below shows accessories / valve combinations that are currently manufactured.

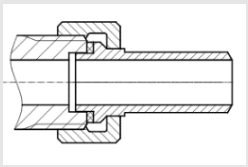
Accessory group	Valve designation	Code fittings	Connections	
UM+ST union nut with welding nipple				
UM + ST 	UVAA SE G3/8'' / G3/8''	00060F07A5A0AK01	I:	G 3/8'' with UM + ST 10.2x1.6 mm
	UVAB SE G3/8'' / G3/8''		O:	
	UVAA SE G1/2'' / G1/2''	00060F07A5A0A101	I:	G 1/2'' mit UM + ST 13.5x1.8 mm
	UVAB SE G1/2'' / G1/2''		O:	
	UVAA SE G3/4'' / G3/4''	00060F07A5A0AE01	I:	G 3/4'' mit UM + ST 17,2x2.0 mm
	UVAB SE G3/4'' / G3/4''		O:	
	UVUA SE G1/2" / G1/2"	00060F07A5A0A101	I:	G1/2" with UM + ST 13.5 x 1.8 mm
	UVUB SE G1/2" / G1/2"		O:	
	UVUA SE G1/2" / G1"	00060F07A5A0A101	I:	G1/2" with UM + ST 13.5 x 1.8 mm
	UVUB SE G1/2" / G1"	00060F07A5A0B601	O:	G1" with UM + ST 21.3 x 2.0 mm

Table 42: Accessories overflow valves

I: = inlet/ O: = outlet

43 Set pressure ranges of springs for overflow valves and oil pressure-regulating valves

	Valve type UVAA / UVAB		Valve type UVUA / UVUB	Valve type UVUB (installation length F)	Valve type UVR/UVRK	Valve type ORVA	
PS	DN 6/15	DN 20/32	all DN	Replacement ORVA	DN 20	DN40/65	DN 50/65
25	1-1.9	1-1.9	4-7.9 (bar)	1-6	2-8	1-6	1-6
	2-4.9	2-4.9	8-11.9				
	5-7.9	5-9.9	12-19.9				
	8-13.9	10-15.9	20-25.0				
	14-19.9	16-19.9					
	20-25	20-25					
40			20-27.9				
			28-35.9				
			36-40.0				
63			36-44.9				
			45-63				

Table 43: Response pressure range in bar

44 Comparison of European / American materials

GEA AWP valves contain individual parts in different materials. The following table contains all materials that GEA AWP uses for pressure-retaining parts and lists the equivalent American materials.

European material			American equivalent material	
Material number	Short name	Standard	Material standard	Grade Grade
Valves made of carbon steel				
1.0345	P235GH, TC1 +N	DIN EN 10216-2	ASTM A106	A + B
1.0038	S235JR +N	DIN EN 10025-2	ASTM A570	36
1.0425	P265GH	DIN EN 10028-2	ASTM A516	60
1.0577	S355J2 +N	DIN EN 10025-2	ASTM A516	65
1.0562	P355N	DIN EN 10028-3		
1.6220	G20Mn5 +QT	DIN EN 10213	ASTM A352	LCC
1.0460	C22.8	VdTÜV 350/3	ASTM A105	-
Valves made of low-temperature steel				
1.0451	P215NL +N	DIN EN 10216-4	ASTM A333	6
1.0452	P255QL +QT	DIN EN 10216-4		
1.0566	P355NL1 +N	DIN EN 10028-3 DIN 17103 VdTÜV 354/3	ASTM A662 ASTM A420 ASTM A350	B WPL6 LF2
1.0488	TStE 285	DIN 17103 VdTÜV 352/3	ASTM A662 ASTM A350	A LF2
1.6220	G20Mn5 +QT	DIN EN 10213	ASTM A352	LCC
Valves made of stainless steel				
1.4301	X5CrNi18-10	DIN EN 10216-5 DIN EN 10028-7 DIN EN 10222-5 DIN EN 1092-1	ASTM A312 ASTM A240 ASTM A182	TP304 304 F304
1.4581	GX5CrNiMoNb19-11-2	DIN EN 10213	ASTM A351	CF10M

Straight-way valves in non-standard design (e.g. deviating materials, third-party inspection) are only available in angle-seat form.

45 Coding of connections for small and service valves

GEA AWP valves can be manufactured with a variety of connection variants:

DN	Thread	Code	Welding ends		Dimensions	Code
DN8	M12x1.5 RA6	AL	DN6	R1	Ø10.2x1.6	C0
DN8	M12x1.5-taper	AY		ANSI 40	Ø1/8"x1.7	C1
DN8	M14x1.5 RA8	A4		ANSI 80	Ø1/8"x2.4	C2
DN8	M16x1.5 RA8	A5				
DN8	M16x1.5 RA10	A6	DN8	R1	Ø13.5x1.8	D0
DN8	M16x1.5-i	AZ		ANSI 40	Ø1/4"x2.2	D1
DN8	M16x1.5-taper	AC		ANSI 80	Ø1/4"x3.0	D2
DN8	M18x1.5 RA10	A7		12x2	Ø12x2.0	D3
DN8	M18x1.5 RA12	A8		12x3	Ø12x3.0	D4
DN8	M20x1.5 RA12	A9		R1 ext. L2=130 Niro	Ø13.5x1.8	D5
DN8	M22x1.5 RA14	AA		R1 ext. L2=130 C-St.	Ø13.5x1.8	D6
DN8	M22x1.5 RA15	AB				
DN8	M22x1.5	A0	DN10	R1	Ø17.2x1.8	E0
DN8	M22x1.5-taper	AD		ANSI 40	Ø3/8"x2.3	E1
DN20	M26x1.5 RA18	AS		ANSI 80	Ø3/8"x3.2	E2
DN20	M30x2 RA22	AT		R2	Ø15x2.5	E3
DN8	G1/4"	AF		18x3	Ø18x3.0	E4
DN8	G1/4"-taper	AG		R1 ext. L2=130 Niro	Ø17.2x1.8	E5
DN8	G1/4"-i	AH		R1 ext. L2=130 C-St.	Ø17.2x1.8	E6
DN8	G3/8"	AK		16x4 ext.L2=130 NIRO	Ø16x4.0	E7
DN8	G3/8"-i	AM		17,2x2	Ø17.2x2.0	E8
DN8	G3/8" RA10	AJ		R1 ext. L2=120 C-St.	Ø17.2x1.8	E9
DN8	G1/2"	A1		R1 ext. L2=140 Niro	Ø17.2x1.8	EA
DN8	G1/2"-LH	A2		R1 ext. L2=140 C-St.	Ø17.2x1.8	EB
DN8	G1/2" RA12	AN		R1 ext. L2=60 Niro	Ø17.2x1.8	EC
DN8	G1/2"-i	AU		R1 ext. L2=60 C-St.	Ø17.2x1.8	ED
DN8	G1/2" UM *)	AV		18x4 ext.L2=140 Niro	Ø18x4.0	EE
DN8	G1/2" **)	AW		18x4 ext.L2=140C-St	Ø18x4.0	EF
DN8	G1/2"-taper	AX		18x4 ext.L2=60 Niro	Ø18x4.0	EG
DN20	G3/4"	AE		18x4 ext.L2=60 C-St.	Ø18x4.0	EH
DN20	G3/4" RA18	AP				
DN8	1/4"NPT-male	A3	DN15	R1	Ø21.3x2.0	F0
DN8	1/4"NPT-female	AR		ANSI 40	Ø1/2"x2.8	F1
DN8	3/8"NPT-male	AI		ANSI 80	Ø1/2"x3.7	F2
DN8	3/8"NPT-female	B2		R2	Ø20x2.5	F3
DN8	1/2"NPT-male	B0		R1 ext. L2=130 Niro	Ø21.3x2.0	F5
DN8	1/2"NPT-female	B1		R1 ext. L2=130 C-St.	Ø21.3x2.0	F6
DN20	3/4''NPT-male	B3		R1 ext. L2=180 NIRO	Ø21.3x2.0	F7

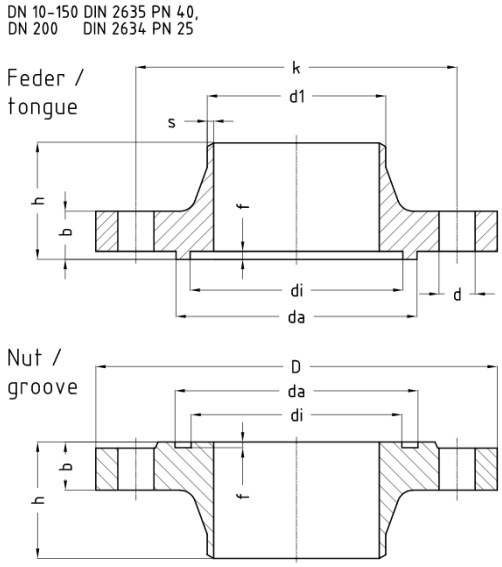
DN	Thread	Code	Welding ends		Dimensions	Code
DN8	M10-a	B4		ANSI 80 L2=130 C-St	Ø21.3x3.7	F8
DN20	G1“	B6	*) rotatable, welded to body /			
DN8	G3/8'' BSPT-male	B7	rotatable, welded to body			
DN8	G3/8'' BSPT-female	B8	**) for one-piece blind nut			
DN8	3/8-18 NPTF-male	B9				
DN8	R3/8''-taper	BA				

i = female thread, a = male thread
These connections can be equipped with accessories.

	Accessories	Short designation	Code
UM+ST	Union nut with welding nipple	UM+ST	1
BM	Blind nut	BM	2
DM	Double nut left/right	DM	3
UM+SKB	Union nut with weld ball nipple	UM+SKB	4
UM+SR	Union nut with cutting ring	UM+SR	5
UM+SLT	Union nut with hose nipple	UM+SLT	6
DM+adapter	Double nut with adapter G1/2"-a/ G1/4"-i	DM+adapter	7
UM+KKR	Union nut with clamping ring	UM+KKR	9

46 Welding neck flanges - DIN 2634/2635

- DIN-FL
- DIN-FL N
- DIN-FL F
- DIN-FL C
- DIN-FL D
- FL - flange
- Form N - groove, DIN 2512
- Form F - tongue, DIN 2512
- Form C - smooth flange facing, (Rz 160) DIN 2526
- Form D - smooth flange facing (Rz 40) DIN 2526



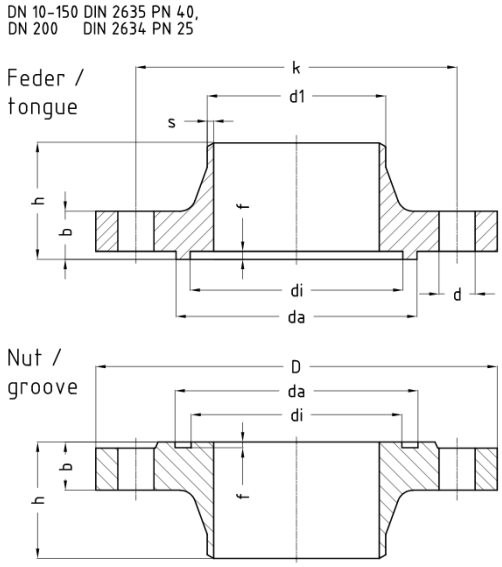
DIN2634 PN25 DN10-150 / DIN 2635 PN40 DN10-400																				
	Welding ends									Flange facing design						Screws DIN 931			Sealing ring DIN 2691	
	Series 1		Series 2							Groove			Tongue							
DN	d1	s	d1	s	b	k	h	d	D	di	da	f	di	da	f	Quant-ity	Thread	Length	di	da
10	17.2	1.8	15.0	2.5	16	60	35	14	90	23	35	2.5	24	34	4.0	4	M 12	45	24	34
15	21.3	2.0	20.0	2.5	16	65	38	14	95	28	40	2.5	29	39	4.0	4	M 12	45	29	39
20	26.9	2.3	25.0	2.5	18	75	40	14	105	35	51	2.5	36	50	4.0	4	M 12	50	36	50
25	33.7	2.6	32.0	3.0	18	85	40	14	115	42	58	2.5	43	57	4.0	4	M 12	50	43	57

DIN2634 PN25 DN10-150 / DIN 2635 PN40 DN10-400																			
32	42.4	2.6	38.0	3.0	18	100	42	18	140	50	66	2.5	51	65	4.0	4	M 16	55	51	65
40	48.3	2.6	45.0	3.0	18	110	45	18	150	60	76	2.5	61	75	4.0	4	M 16	55	61	75
50	60.3	2.9	57.0	3.2	20	125	48	18	165	72	88	2.5	73	87	4.0	4	M 16	60	73	87
65	76.1	2.9	76.1	3.6	22	145	52	18	185	94	110	2.5	95	109	4.0	8	M 16	60	95	109
80	88.9	3.2	88.9	4.0	24	160	58	18	200	105	121	2.5	106	120	4.0	8	M 16	65	106	120
100	114.3	3.6	108.0	4.0	24	190	65	22	235	128	150	3.0	129	149	4.5	8	M 20	70	129	149
125	139.7	4.0	133.0	4.0	26	220	68	26	270	154	176	3.0	155	175	4.5	8	M 24	80	155	175
150	168.3	4.5	159.0	4.5	28	250	75	26	300	182	204	3.0	183	203	4.5	8	M 24	80	183	203
200	219.1	6.3			34	320	88	30	375	238	260	3.0	239	259	4.5	12	M 27	100	239	259
250	273.0	7.1			38	385	105	33	450	291	313	3.0	292	312	4.5	12	M 30	110	292	312
300	323.9	8.0			42	450	115	33	515	342	364	3.0	343	363	4.5	16	M 30	120	343	363
350	355.6	8.8			46	510	125	36	580	394	422	3.5	395	421	5.0	16	M 33	130	395	421
400	406.4	11.0			50	585	135	39	660	446	474	3.5	447	473	5.0	16	M 36	140	447	473

Table 44: Installation lengths

47 Welding neck flanges - DIN 2634/2636/2637

- DIN-FL
- DIN-FL N
- DIN-FL F
- DIN-FL C
- DIN-FL D
- FL - flange
- Form N - groove, DIN 2512
- Form F - tongue, DIN 2512
- Form C - smooth flange facing, (Rz 160) DIN 2526
- Form D - smooth flange facing (Rz 40) DIN 2526



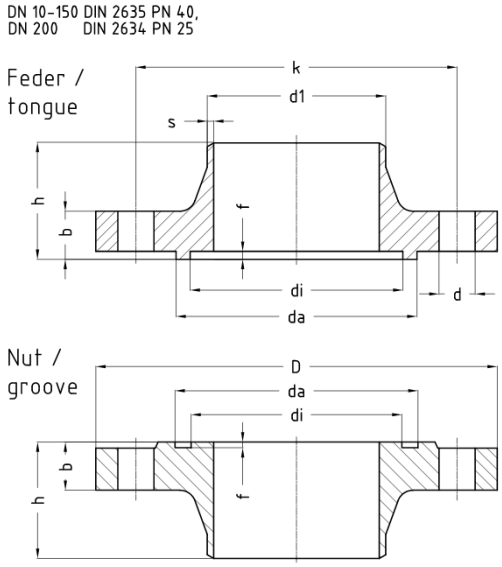
DIN 2634 PN25 DN200-500																		
	Welding ends							Flange facing design						Screws DIN 931			Sealing ring DIN 2691	
	Series 1							Groove			Tongue							
DN	d1	s	b	k	h	d	D	di	da	f	di	da	f	Quant-ity	Thread	Length	di	da
200	219.1	6.3	30	310	80	26	360	238	260	3.0	239	259	4.5	12	M 24	90	239	259
250	273.0	7.1	32	370	88	30	425	291	313	3.0	292	312	4.5	12	M 27	90	292	312
300	323.9	8.0	34	430	92	30	485	342	364	3.0	343	363	4.5	16	M 27	100	343	363
350	355.6	8.0	38	490	100	33	555	394	422	3.5	395	421	5.0	16	M 30	110	395	421

DIN 2634 PN25 DN200-500																		
400	406.4	8.8	40	550	110	36	620	446	474	3.5	447	473	5.0	16	M 33	120	447	473
500	508.0	10.0	44	660	125	36	730	548	576	3.5	549	575	5.0	20	M 33	130	549	575
DIN2636 PN63 DN10-40 / DIN 2637 PN100 DN10-40																		
DN	d1	s	b	k	h	d	D	di	da	f	di	da	f	Quant-ity	Thread	Length	di	Da
10	17.2	2.0	20	70	45	14	100	23	35	2.5	24	34	4.0	4	M 12	55	24	34
15	21.3	2.0	20	75	45	14	105	28	40	2.5	29	39	4.0	4	M 12	55	29	39
20	26.9	2.6	22	90	48	18	130	35	51	2.5	36	50	4.0	4	M 16	60	36	50
25	33.7	2.6	24	100	58	18	140	42	58	2.5	43	57	4.0	4	M 16	65	43	57
32	42.4	2.9	24	110	60	22	155	50	66	2.5	51	65	4.0	4	M 20	70	51	65
40	48.3	2.9	26	125	62	22	170	60	76	2.5	61	75	4.0	4	M 20	70	61	75
DIN 2636 PN63 DN50-125																		
DN	d1	S	b	k	h	d	D	di	da	f	di	da	f	Quant-ity	Thread	Length	di	da
50	60.3	2.9	26	135	62	22	180	72	88	2.5	73	87	4.0	4	M 20	75	73	87
65	76.1	3.2	26	160	68	22	205	94	110	2.5	95	109	4.0	8	M 20	75	95	109
80	88.9	3.6	28	170	72	22	215	105	121	2.5	106	120	4.0	8	M 20	75	106	120
100	114.3	4.0	30	200	78	26	250	128	150	3.0	129	149	4.5	8	M 24	90	129	149
125	139.7	4.5	34	240	88	30	295	154	176	3.0	155	175	4.5	8	M 27	100	155	175

Table 45: Installation lengths

48 Welding neck flanges - DIN EN 1092-1

- DIN EN-FL
- DIN EN-FL D
- DIN EN-FL C
- DIN EN-FL B1
- DIN EN-FL B2
- FL - flange
- Form D - groove, DIN EN 1092-1
- Form C - tongue, DIN EN 1092-1
- Form B1 - raised face (Rz 50) DIN EN 1092-1
- Form B2 - raised face (Rz 12.5) DIN EN 1092-1



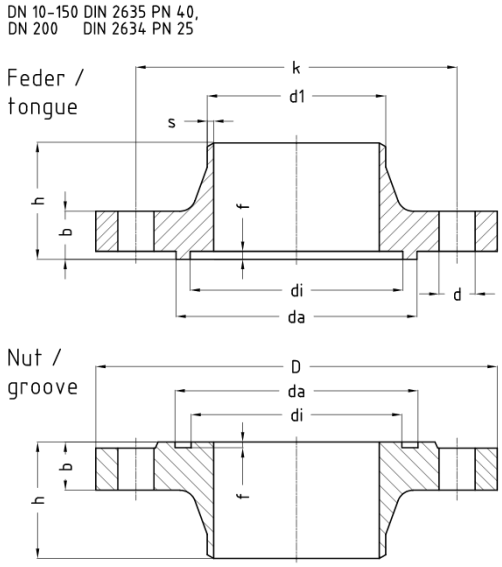
DIN EN 1092-1 PN25 DN10-150 / PN40 DN10-400																				
	Welding ends									Flange facing design						Screws DIN 931			Sealing ring DIN 2691	
	Series 1		Series 2							Groove			Tongue							
DN	d1	s	d1	s	b	k	h	d	D	di	da	f	di	da	f	Quant-ity	Thread	Length	di	da
10	17.2	1.8	15.0	2.5	16	60	35	14	90	23	35	4.0	24	34	4.5	4	M 12	45	24	34
15	21.3	2.0	20.0	2.5	16	65	38	14	95	28	40	4.0	29	39	4.5	4	M 12	45	29	39
20	26.9	2.3	25.0	2.5	18	75	40	14	105	35	51	4.0	36	50	4.5	4	M 12	50	36	50
25	33.7	2.6	32.0	3.0	18	85	40	14	115	42	58	4.0	43	57	4.5	4	M 12	50	43	57

DIN EN 1092-1 PN25 DN10-150 / PN40 DN10-400																			
32	42.4	2.6	38.0	3.0	18	100	42	18	140	50	66	4.0	51	65	4.5	4	M 16	55	51	65
40	48.3	2.6	45.0	3.0	18	110	45	18	150	60	76	4.0	61	75	4.5	4	M 16	55	61	75
50	60.3	2.9	57.0	3.2	20	125	48	18	165	72	88	4.0	73	87	4.5	4	M 16	60	73	87
65	76.1	2.9	76.1	3.6	22	145	52	18	185	94	110	4.0	95	109	4.5	8	M 16	60	95	109
80	88.9	3.2	88.9	4.0	24	160	58	18	200	105	121	4.0	106	120	4.5	8	M 16	65	106	120
100	114.3	3.6	108.0	4.0	24	190	65	22	235	128	150	4.5	129	149	5.0	8	M 20	70	129	149
125	139.7	4.0	133.0	4.0	26	220	68	26	270	154	176	4.5	155	175	5.0	8	M 24	80	155	175
150	168.3	4.5	159.0	4.5	28	250	75	26	300	182	204	4.5	183	203	5.0	8	M 24	80	183	203
200	219.1	6.3			34	320	88	30	375	238	260	4.5	239	259	5.0	12	M 27	100	239	259
250	273.0	7.1			38	385	105	33	450	291	313	4.5	292	312	5.0	12	M 30	110	292	312
300	323.9	8.0			42	450	115	33	515	342	364	4.5	343	363	5.0	16	M 30	120	343	363
350	355.6	8.8			46	510	125	36	580	394	422	5.0	395	421	5.5	16	M 33	130	395	421
400	406.4	11.0			50	585	135	39	660	446	474	5.0	447	473	5.5	16	M 36	140	447	473

Table 46: Installation lengths

49 Welding neck flanges - DIN EN 1092-1

- DIN EN-FL
- DIN EN-FL D
- DIN EN-FL C
- DIN EN-FL B1
- DIN EN-FL B2
- FL - flange
- Form D - groove, DIN EN 1092-1
- Form C - tongue, DIN EN 1092-1
- Form B1 - raised face (Rz 50) DIN EN 1092-1
- Form B2 - raised face (Rz 12.5) DIN EN 1092-1



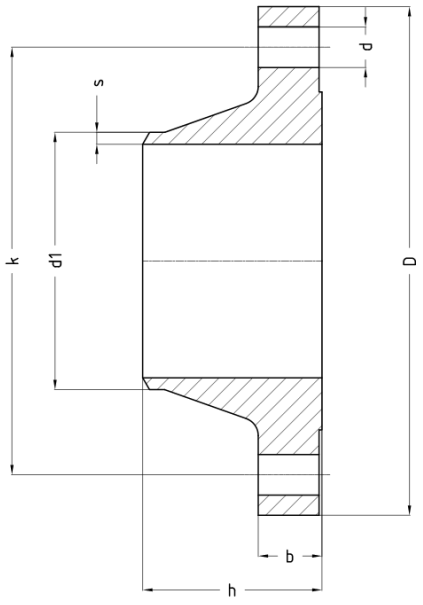
DIN EN 1092-1 PN25 DN200-500																		
	Welding ends							Flange facing design						Screws DIN 931			Sealing ring DIN 2691	
	Series 1							Groove			Tongue							
DN	d1	s	b	k	h	d	D	di	da	f	di	da	f	Quantity	Thread	Length	di	da
200	219.1	6.3	30	310	80	26	360	238	260	4.5	239	259	5.0	12	M 24	90	239	259
250	273.0	7.1	32	370	88	30	425	291	313	4.5	292	312	5.0	12	M 27	90	292	312
300	323.9	8.0	34	430	92	30	485	342	364	4.5	343	363	5.0	16	M 27	100	343	363
350	355.6	8.0	38	490	100	33	555	394	422	5.0	395	421	5.5	16	M 30	110	395	421

DIN EN 1092-1 PN25 DN200-500																		
400	406.4	8.8	40	550	110	36	620	446	474	5.0	447	473	5.5	16	M 33	120	447	473
500	508.0	10.0	44	660	125	36	730	548	576	5.0	549	575	5.5	20	M 33	130	549	575
DIN EN 1092-1 PN63 DN10-40 / PN100 DN10-40																		
DN	d1	s	b	k	h	d	D	di	da	F	di	da	f	Quantity	Thread	Length	di	Da
10	17.2	2.0	20	70	45	14	100	23	35	4.0	24	34	4.5	4	M 12	55	24	34
15	21.3	2.0	20	75	45	14	105	28	40	4.0	29	39	4.5	4	M 12	55	29	39
20	26.9	2.6	22	90	48	18	130	35	51	4.0	36	50	4.5	4	M 16	60	36	50
25	33.7	2.6	24	100	58	18	140	42	58	4.0	43	57	4.5	4	M 16	65	43	57
32	42.4	2.9	24	110	60	22	155	50	66	4.0	51	65	4.5	4	M 20	70	51	65
40	48.3	2.9	26	125	62	22	170	60	76	4.0	61	75	4.5	4	M 20	70	61	75
DIN EN 1092-1 PN63 DN50-125																		
DN	d1	S	b	k	h	d	D	di	da	f	di	da	F	Quantity	Thread	Length	di	da
50	60.3	2.9	26	135	62	22	180	72	88	4.0	73	87	4.5	4	M 20	75	73	87
65	76.1	3.2	26	160	68	22	205	94	110	4.0	95	109	4.5	8	M 20	75	95	109
80	88.9	3.6	28	170	72	22	215	105	121	4.0	106	120	4.5	8	M 20	75	106	120
100	114.3	4.0	30	200	78	26	250	128	150	4.5	129	149	5.0	8	M 24	90	129	149
125	139.7	4.5	34	240	88	30	295	154	176	4.5	155	175	5.0	8	M 27	100	155	175

Table 47: Installation lengths

50 Welding neck flanges - ANSI B16.5 raised face

- ANSI-FL
- ANSI-FL 150lbs RF
- ANSI-FL 300lbs RF
- FL - flange
- Facing with large and small male / female
- Facing with large and small tongue / groove according to ANSI B16.5



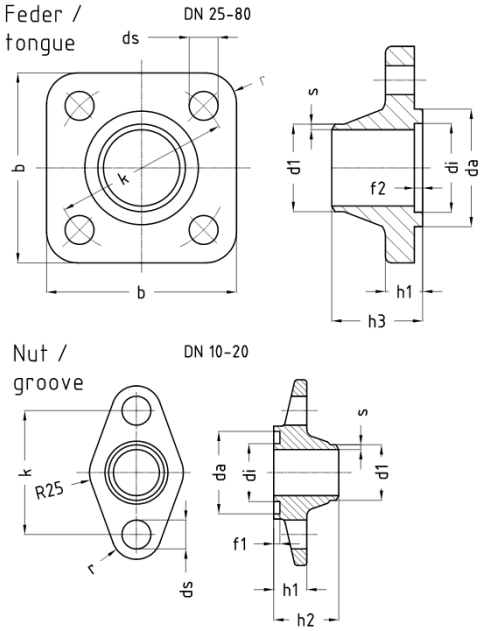
Nominal size		Welding ends acc. to:													
		ANSI		ANSI-FL 150lbs RF / sq. in					Screws DIN 931	ANSI-FL 300lbs RF / sq. in					Screws DIN 931
DN	INCH	d1	s	b	k	h	d	D	Quantity	b	k	h	d	D	Quantity
15	1/2"	21.3	2.8	11.2	60.5	47.8	15.7	88.9	4	14.2	66.5	52.3	15.7	95.2	4
20	3/4"	26.7	2.9	12.7	69.9	52.3	15.7	98.6	4	15.7	82.5	57.1	19.0	117.3	4
25	1"	33.4	3.4	14.2	79.2	55.6	15.7	108.0	4	17.5	88.9	62.0	19.0	123.9	4
32	1 1/4"	42.2	3.6	15.7	88.9	57.2	15.7	117.3	4	19.0	98.5	65.0	19.0	133.3	4
40	1 1/2"	48.3	3.7	17.5	98.6	62.0	15.7	127.0	4	20.6	114.3	68.3	22.3	155.4	4
50	2"	60.3	3.9	19.1	120.7	63.5	19.1	152.4	4	22.3	127.0	69.8	19.0	165.1	6
65	2 1/2"	73.0	5.2	22.4	139.7	69.9	19.1	177.8	4	25.4	149.3	76.2	22.3	190.5	8
80	3"	88.9	5.5	23.9	152.4	69.9	19.1	190.5	4	28.4	168.1	79.2	22.3	209.5	8
100	4"	114.3	6.0	23.9	190.5	76.2	19.1	228.6	8	31.7	200.1	85.8	22.3	254.0	8
125	5"	141.3	6.6	23.9	215.9	88.9	22.4	254.0	8	35.0	234.9	98.5	22.3	279.4	8
150	6"	168.3	7.1	25.4	241.3	88.9	22.4	279.4	8	36.5	269.7	98.5	22.3	317.5	12
200	8"	219.1	8.2	28.4	298.5	101.6	22.4	342.9	8	41.1	330.2	111.2	25.4	381.0	12
250	10"	273.0	9.3	30.2	362.0	101.6	25.4	406.4	12	47.7	387.3	117.3	28.4	444.5	16

Nominal size		Welding ends acc. to:													
300	12“	323.8	10.3	31.8	431.8	114.3	25.4	482.6	12	50.8	450.8	130.0	31.7	520.7	16
350	14“	355.6	11.1	35.1	476.3	127.0	28.4	533.4	12	53.8	514.3	142.7	31.7	584.2	20
400	16“	406.4	12.7	36.6	539.8	127.0	28.4	596.9	16	57.1	571.5	146.0	35.0	647.7	20

Table 48: Installation lengths

51 Welding neck flanges - AWP

- AWP-FL
- AWP-FL N
- AWP-FL F
- FL - flange
- N - groove
- F - tongue



AWP-FL PN25 DN10-20 / PN40 DN25-80																									
	Welding ends											Flange facing design								Screws DIN 931			Sealing ring DIN 2691	
	Series 1		Series 2		ANSI							Groove				Tongue				Quant-ity	Thread	Length		
DN	d1	s	d1	s	d1	s	b	k	r	h1	ds	di	da	f1	h2	di	da	f2	h3				di	da
10	17.2	1.8	15.0	2.5	17.1	2.3	88	60	13	16	14	28	40	3	31.5	29	39	4	32.0	2	M 12	45	29	39
15	21.3	2.0	20.0	2.5	21.3	2.8	88	60	13	16	14	28	40	3	31.5	29	39	4	32.0	2	M 12	45	29	39
20	26.9	2.3	25.0	2.5	26.7	2.9	88	60	13	16	14	28	40	3	31.5	29	39	4	32.0	2	M 12	45	29	39
25	33.7	2.6	32.0	3.0	33.4	3.4	92	85	15	18	14	42	58	3	44.0	43	57	4	44.0	4	M 12	50	43	57
32	42.4	2.6	38.0	3.0	42.2	3.6	92	85	15	18	14	42	58	3	44.0	43	57	4	44.0	4	M 12	50	43	57
40	48.3	2.6	45.0	3.0	48.3	3.7	92	85	15	18	14	42	58	3	38.5	43	57	4	38.5	4	M 12	50	43	57

AWP-FL PN25 DN10-20 / PN40 DN25-80																						
50	60.3	2.9	57.0	3.2	60.3	3.9	132	135	20	28	18	84	96	3	43.0	85	95	4	43.0	4	M 16	75	A85x95*
65	76.1	2.9	76.1	3.6	73.0	5.2	132	135	20	28	18	84	96	3	53.5	85	95	4	53.5	4	M 16	75	A85x95*
80	88.9	3.2	88.9	4.0	88.9	5.5	132	135	20	28	18	84	96	3	53.5	85	95	4	53.5	4	M 16	75	A85x95*

Table 49: Installation lengths
* = acc. to DIN 7603

52 Legal notices

- GEA AWP valves must be handled in accordance with the GEA AWP operating regulations.
- The safety instructions mentioned in the operating regulations must be observed.
- A hazard analysis is available for GEA AWP valves.
- GEA AWP valves must only be handled by authorised persons.
- The instructions for the use of personal protective equipment (PPE) must be observed.
- GEA AWP valves must be used for their intended purpose.
- This catalogue has been carefully created and checked; however, it may still contain errors. The technical specifications given in the catalogue are not contractually guaranteed properties. Technical specifications are only binding if they have been confirmed by us in writing.
- We reserve the right to make technical changes.
- Further information on our declarations of conformity, operating regulations, calculation software and the general terms and conditions can be found on our website **www.awpvalves.com** under the Tools/Downloads tab.
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