AWPVALVES.com

OIL MANAGEMENT VALVES FOR REFRIGERATION

SSO, UVU, ORV, OF, DOF, TR, TRplus

17.02.2026

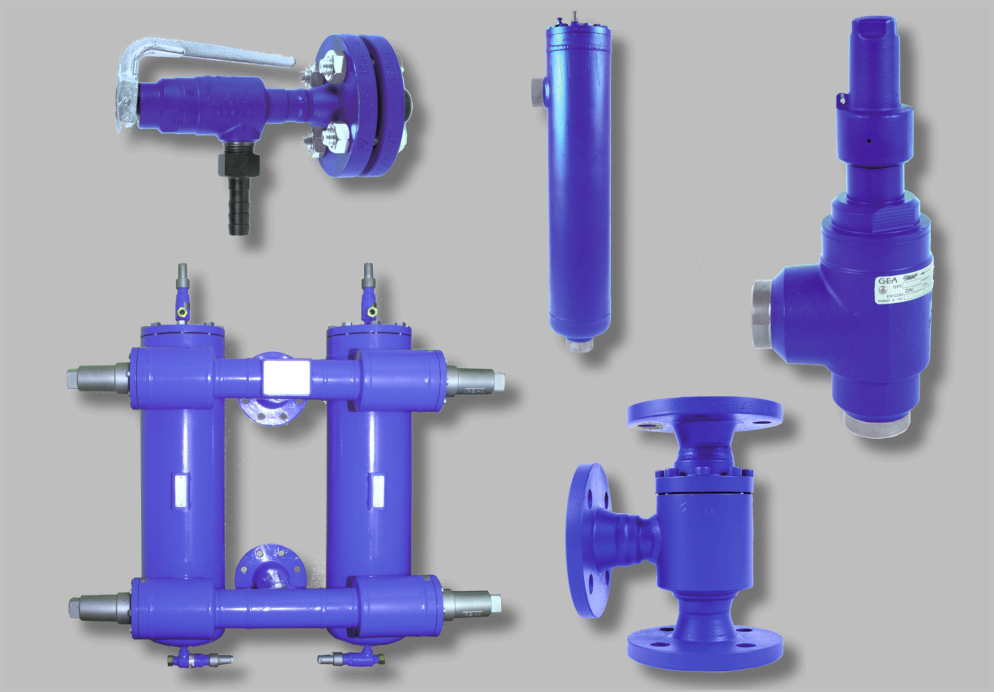


Table of contents

1 SSO / UVU / ORV / OF / DOF / TR

SSO: Quick-closing valve for oil drainage

SSO	Connection	Form	Material	Valve type
SSO	Materials			
SSO PS25 / PS40 / PS63	Welding ends		St	SSO AE
			NIRO	SSO AE NIRO
	Flanged ends		St	SSO FL
SSO-AVR PS25 / PS40 / PS63	Welding ends	Straight-way	St	SSO-AVR D AE / DV
			NIRO	SSO-AVR D AE / DV NIRO
		Angle	St	SSO-AVR E AE / DV
			NIRO	SSO-AVR E AE / DV NIRO
	Flanged ends	Straight-way	St	SSO-AVR D FL / DV
		Angle	St	SSO-AVR E FL / DV

UVU: Overflow valve - back-pressure independent

UVU	Connection	Form	Material	Valve type
UVU	Materials			
UVU PS25 / PS40 / PS63	Welding ends		St	UVUA/B AE
			NIRO	UVUA/B AE NIRO
	Flanged ends		St	UVUA/B FL
			NIRO	UVUA/B FL NIRO
	Solder End		St	UVUA/B LE
			NIRO	UVUA/B LE NIRO
	Screwed ends		St	UVUA/B SE
			NIRO	UVUA/B SE NIRO

ORV: Oil pressure-regulating valve

ORV	Connection	Form	Material	Valve type
ORV	Materials			
ORV PS25 / PS40	Welding ends		St	ORVA AE
	Flanged ends		St	ORVA FL

OF: Oil filter

OF	Connection	Form	Material	Valve type
OF	Materials			
OF PS25 / PS40	Welding ends		St	OF AE
	Flanged ends		St	OF FL
	Soldering ends		St	OF LE

DV = optional bonnet extension, St = steel NIRO = stainless steel

2 SSO / UVU / ORV / OF / DOF / TR

DOF: Double oil filter

DOF	Connection	Form	Material	Valve type
DOF	Materials			
DOF FL PS25 / PS40	Flanged ends		St	DOF FL / EPE

TR: Temperature regulator

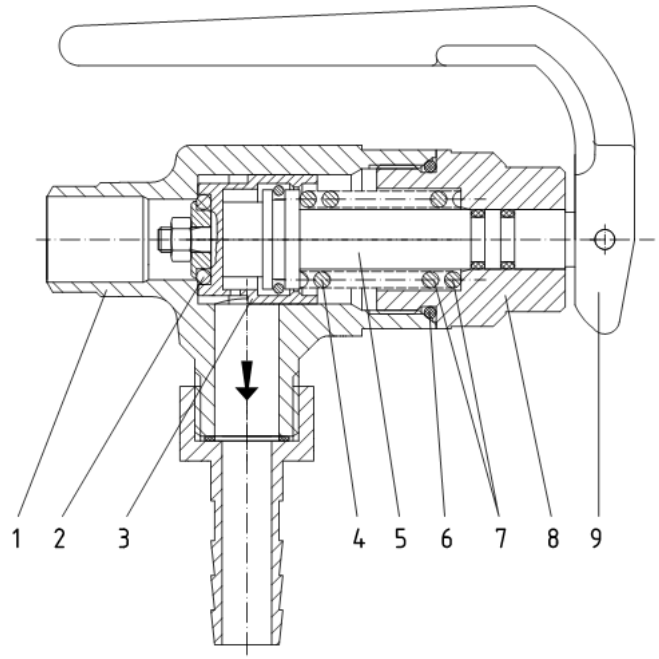
TR	Connection	Form	Material	Valve type
TR	Materials			
TR PS25 / PS40 / PS63	Welding ends		St	TR AE / NH3
	Welding ends		NIRO	TR AE / NH3 NIRO
	Flanged ends		St	TR FL / NH3
	Flanged ends		NIRO	TR FL / NH3 NIRO
TRplus	Materials			
TRplus PS25 / PS40 / PS63	Welding ends		St	TRplus AE / NH3
	Welding ends		NIRO	TRplus AE / NH3 NIRO
	Flanged ends		St	TRplus FL / NH3
	Flanged ends		NIRO	TRplus FL / NH3 NIRO
Information	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 SSO materials

Designation and materials

SSO - quick-closing valve for oil drainage



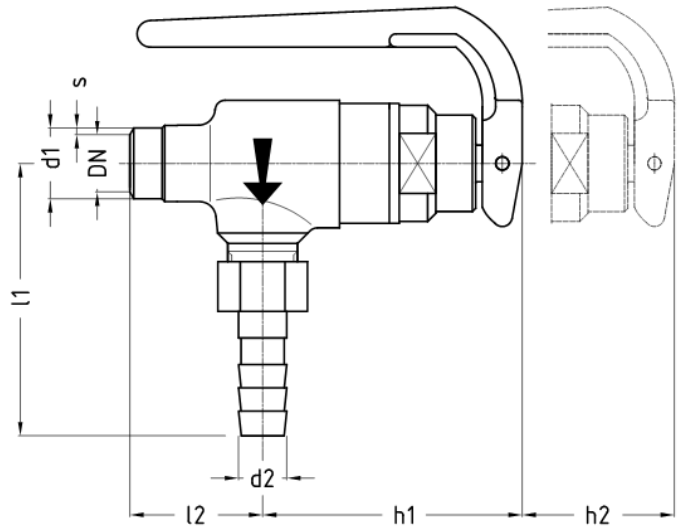
	Part	Material for steel valves	Material for stainless steel valves
1	Body	S355J2 1.0577	X5CrNi18-10 1.4301
2	Valve disc O-ring	CR, NBR, HNBR, EPDM, FPM*	CR, NBR, HNBR, EPDM, FPM*
3	Sealing piston	X8CrNiS18-9 1.4305	X8CrNiS18-9 1.4305
4	Tongue	SH	SH
5	Stem	X8CrNiS18-9 1.4305	X8CrNiS18-9 1.4305
6	Bonnet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

* depending on the refrigerant used

4 SSO AE

AE: Welding ends

SSO steel quick-closing valve for oil drainage for refrigeration machine oils containing proportions of natural refrigerants according to EN 378-1



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 15 1/2″	PN25	18.7	25	25	25	PS [bar]
	PN40	30	40	40	40	PS [bar]
	PN63	47.2	63	63	63	PS [bar]

Table 1: With O-ring CR

DN / INCH	PN	-40	-10	+50	+150	TS [°C]
DN 15 1/2″	PN25	18.7	25	25	25	PS [bar]
	PN40	30	40	40	40	PS [bar]
	PN63	47.2	63	63	63	PS [bar]

Table 2: With O-ring HNBR

DN / INCH	Opening pressure [bar]	
DN 15	26 - 28	
½″	46 - 50	(customer-spec. solution)

Table 3: Opening pressure

Nominal size:		Welding ends acc. to:									
		ISO Series 1			ANSI Sched 40						
DN	INCH	d1	s1)	s2)	d1	s	l1	l2	d2	h1	h2
15	1/2″	21.3	2.0	2.0	21.3	2.8	82	40	14.5	78	40

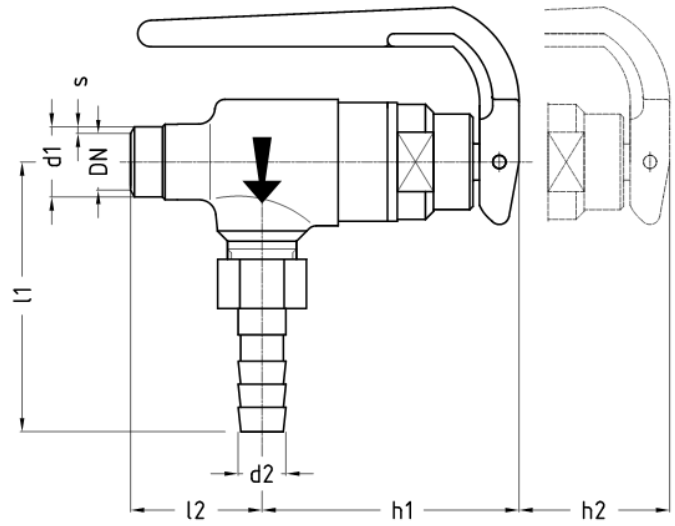
Table 4: Dimensions

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

5 SSO AE NIRO

AE: Welding ends

SSO stainless steel quick-closing valve for oil drainage for refrigeration machine oils containing proportions of natural refrigerants according to EN 378-1



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 15 1/2"	PN25	25	25	25	25	PS [bar]
	PN40	40	40	40	40	PS [bar]
	PN63	63	63	63	63	PS [bar]

Table 5: With O-ring CR

DN / INCH	PN	-40	-10	+50	+150	TS [°C]
DN 15 1/2"	PN25	25	25	25	25	PS [bar]
	PN40	40	40	40	40	PS [bar]
	PN63	63	63	63	63	PS [bar]

Table 6: With O-ring HNBR

DN / INCH	Opening pressure [bar]	
DN 15	26 - 28	
½"	46 - 50	(customer-spec. solution)

Table 7: Opening pressure

Nominal size:		Welding ends acc. to:									
		ISO Series 1			ANSI Sched 40						
DN	INCH	d1	s1)	s2)	d1	s	l1	l2	d2	h1	h2
15	1/2"	21.3	2.0	2.0	21.3	2.8	82	40	14.5	78	40

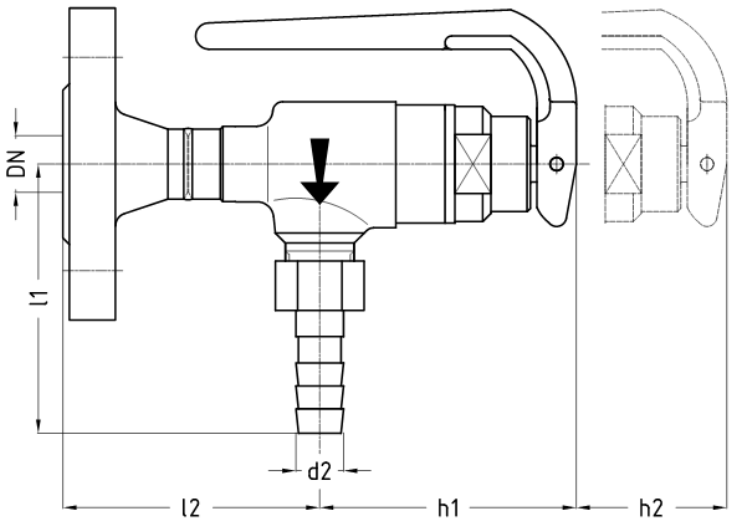
Table 8: Dimensions

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

6 SSO FL

FL: Flanged ends

SSO steel quick-closing valve for oil drainage for refrigeration machine oils containing proportions of natural refrigerants according to EN 378-1



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 15 1/2″	PN25	18.7	25	25	25	PS [bar]
	PN40	30	40	40	40	PS [bar]
	PN63	47.2	63	63	63	PS [bar]

Table 9: With O-ring CR

DN / INCH	PN	-40	-10	+50	+150	TS [°C]
DN 15 1/2″	PN25	18.7	25	25	25	PS [bar]
	PN40	30	40	40	40	PS [bar]
	PN63	47.2	63	63	63	PS [bar]

Table 10: With O-ring HNBR

DN / INCH	Opening pressure [bar]	
DN 15	26 - 28	
½″	46 - 50	(customer-spec. solution)

Table 11: Opening pressure

Nominal size:			Flanged ends acc. to:							
		AWP DN15 PN25	PN25 DIN 2634 EN1092-1	PN40 DIN 2635 EN1092-1	PN63 DIN 2636 EN1092-1	ANSI 300 RF				
DN	INCH	l2	l2	l2	l2	l2	l1	d2	h1	h2

Nominal size:			Flanged ends acc. to:							
15	1/2“	72.5	79	79	86	94	82	14.5	78	40

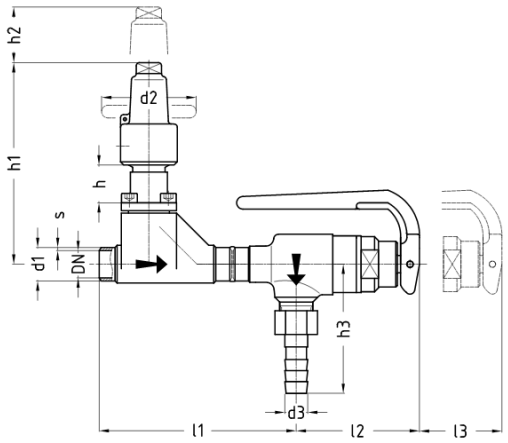
Table 12: Dimensions

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

7 SSO-AVR D AE / SSO-AVR D AE DV

D: Straight-way, **AE:** Welding ends, **DV:** Bonnet extension
SSO-AVR steel quick-closing valve for oil drainage - with shut-off valve for refrigeration machine oils containing proportions of natural refrigerants according to EN 378-1

! AVR um 90° gedreht gezeichnet !
! AVR drawing turn in 90° !



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 15 1/2″	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 CR

DN / INCH	PN	-40	-10	+50	+150	TS [°C]
DN 15 1/2″	PN25	12.5	25	25	25	PS [bar]
	PN40	20	40	40	40	PS [bar]
	PN63	31.5	63	63	63	PS [bar]

Table 14: With O-ring HNBR

DN / INCH	Opening pressure [bar]	
DN 15	26 - 28	
½″	46 - 50	(customer-spec. solution)

Table 15: Opening pressure

Nominal size:	Welding ends acc. to:													
		ISO Series 1	ANSI Sched 40											

Nominal size:		Welding ends acc. to:																
DN	INCH	PN	d1	s1)	s2)	d1	s	l1	l2	l3	h	h*)	h1	h1*)	h2	h3	d3	d2
15	1/2“	25	21.3	2.0		21.3	2.8	125	78	40	22	54	128	160	35	82	14.5	60
		40		2.0				125	78	40	22	54	128	160	35	82	14.5	60
		63			2.0			151	78	40	31	68	148	185	45	82	14.5	60

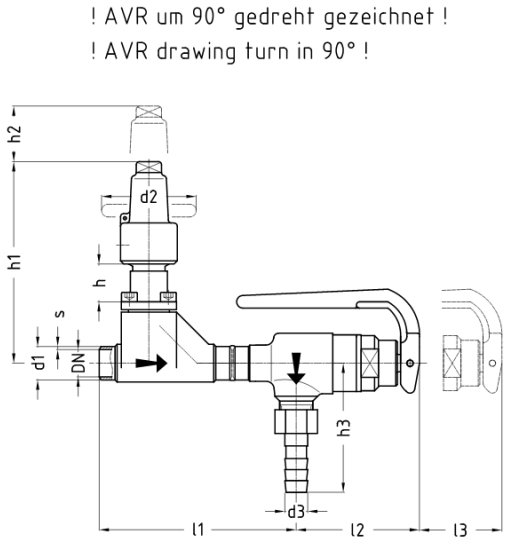
Table 16: Dimensions

*) = for valves with bonnet extension, l3 + h2 = dismantling dimension

1) PN25 / PN40 2) PN63

8 SSO-AVR D AE NIRO / SSO-AVR D AE DV NIRO

D: Straight-way, **AE:** Welding ends, **DV:** Bonnet extension
SSO-AVR stainless steel quick-closing valve for oil drainage - with shut-off valve for refrigeration machine oils containing proportions of natural refrigerants according to EN 378-1



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 15 1/2″	PN25	25	25	25	25	PS [bar]
	PN40	40	40	40	40	PS [bar]
	PN63	63	63	63	63	PS [bar]

Table 17: With O-ring CR

DN / INCH	PN	-40	-10	+50	+150	TS [°C]
DN 15 1/2″	PN25	25	25	25	25	PS [bar]
	PN40	40	40	40	40	PS [bar]
	PN63	63	63	63	63	PS [bar]

Table 18: With O-ring CR

DN / INCH	Opening pressure [bar]	
DN 15	26 - 28	
½″	46 - 50	(customer-spec. solution)

Table 19: Opening pressure

Nominal size:	Welding ends acc. to:													
		ISO Series 1	ANSI Sched 40											

Nominal size:		Welding ends acc. to:																
DN	INCH	PN	d1	s1)	s2)	d1	s	l1	l2	l3	h	h*)	h1	h1*)	h2	h3	d3	d2
15	1/2“	25	21.3	2.0		21.3	2.8	125	78	40	22	54	128	160	35	82	14.5	60
		40		2.0				151	78	40	31	68	148	185	45	82	14.5	60
		63			2.0			151	78	40	31	68	148	185	45	82	14.5	60

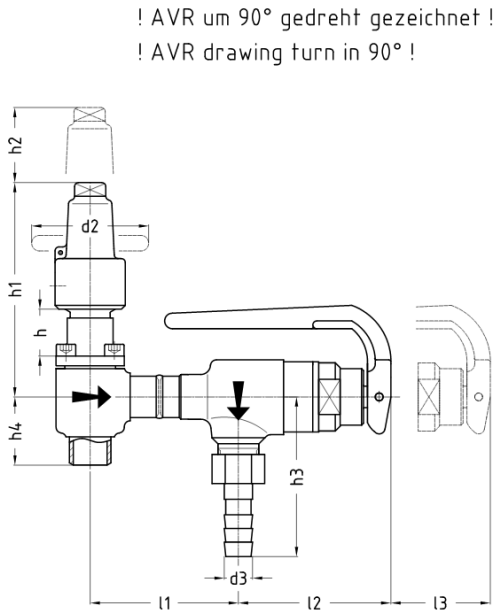
Table 20: Dimensions

*) = for valves with bonnet extension, l3 + h2 = dismantling dimension

1) PN25 / PN40 2) PN63

9 SSO-AVR E AE / SSO-AVR E AE DV

E: Angle, **AE:** Welding ends, **DV:** Bonnet extension
SSO-AVR steel quick-closing valve for oil drainage - with shut-off valve for refrigeration machine oils containing proportions of natural refrigerants according to EN 378-1



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 15 1/2″	PN25	12.5	25	25	25	PS [bar]
	PN40	20	40	40	40	PS [bar]
	PN63	31.5	63	63	63	PS [bar]

Table 21: With O-ring CR

DN / INCH	PN	-40	-10	+50	+150	TS [°C]
DN 15 1/2″	PN25	12.5	25	25	25	PS [bar]
	PN40	20	40	40	40	PS [bar]
	PN63	31.5	63	63	63	PS [bar]

Table 22: With O-ring HNBR

DN / INCH	Opening pressure [bar]	
DN 15	26 - 28	
½″	46 - 50	(customer-spec. solution)

Table 23: Opening pressure

Nominal size:	Welding ends acc. to:													
		ISO Series 1	ANSI Sched 40											

Nominal size:		Welding ends acc. to:																
DN	INCH	PN	d1	s1)	s2)	d1	s	l1	l2	l3	h	h*)	h1	h1*)	h2	h3	d3	d2
15	1/2“	25	21.3	2.0		21.3	2.8	76	78	40	22	54	110	143	35	82	14.5	60
		40		2.0				76	78	40	22	54	110	143	35	82	14.5	60
		63			2.0			82	78	40	31	68	125	162	45	82	14.5	60

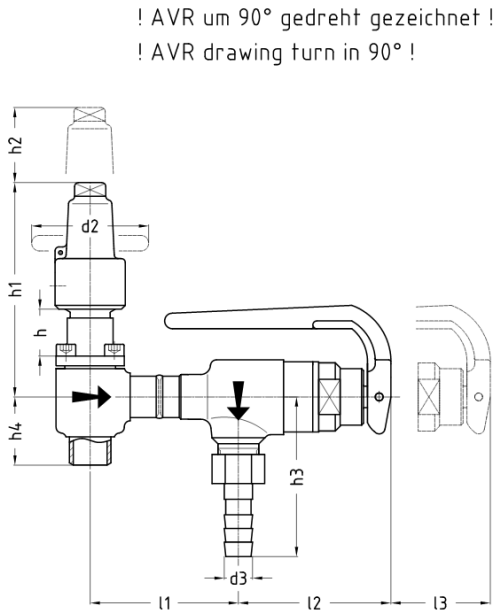
Table 24: Dimensions

l3 + h2 = dismantling dimension, *) = for valves with bonnet extension

1) PN25 / PN40 2) PN63

10 SSO-AVR E AE NIRO / SSO-AVR E AE DV NIRO

E: Angle, **AE:** Welding ends, **DV:** Bonnet extension
SSO-AVR stainless steel quick-closing valve for oil drainage - with shut-off valve for refrigeration machine oils containing proportions of natural refrigerants according to EN 378-1



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 15 1/2"	PN25	18.3	25	25	25	PS [bar]
	PN40	29.4	40	40	40	PS [bar]
	PN63	46.3	63	63	63	PS [bar]

Table 25: With O-ring CR

DN / INCH	PN	-40	-10	+50	+150	TS [°C]
DN 15 1/2"	PN25	18.3	25	25	25	PS [bar]
	PN40	29.4	40	40	40	PS [bar]
	PN63	46.3	63	63	63	PS [bar]

Table 26: With O-ring HNBR

DN / INCH	Opening pressure [bar]	
DN 15	26 - 28	
½"	46 - 50	(customer-spec. solution)

Table 27: Opening pressure

Nominal size:		Welding ends acc. to:																
			ISO Series 1			ANSI Sched 40												
DN	INCH	PN	d1	s1)	s2)	d1	s	l1	l2	l3	h	h*)	h1	h1*)	h2	h3	d3	d2
15	1/2“	25	21.3	2.0		21.3	2.8	76	78	40	22	54	110	143	35	82	14.5	60
		40		2.0				82	78	40	31	68	125	162	45	82	14.5	60
		63			2.0			82	78	40	31	68	125	162	45	82	14.5	60

Table 28: Dimensions

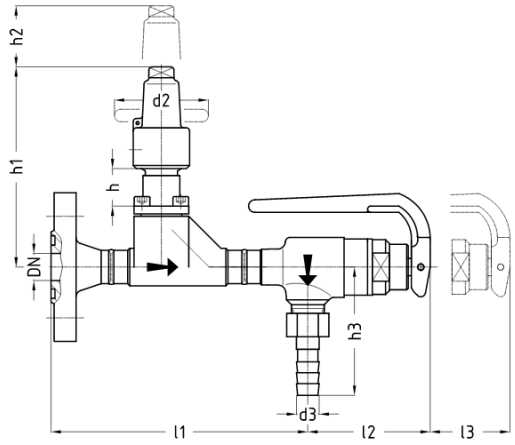
*) = for valves with bonnet extension, l3 + h2 = dismantling dimension

1) PN25 / PN40 2) PN63

11 SSO-AVR D FL / SSO-AVR D FL DV

AVR: Shut-off valve, **D:** Straight-way, **FL:** Flanged ends, **DV:** Bonnet extension
SSO steel quick-closing valve for oil drainage with shut-off valve - stem seal with resilient PTFE ring for refrigeration machine oils containing proportions of natural refrigerants according to EN 378-1

! AVR um 90° gedreht gezeichnet !
! AVR drawing turn in 90° !



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 15 1/2"	PN25	12.5	25	25	25	PS [bar]
	PN40	20	40	40	40	PS [bar]
	PN63	31.5	63	63	63	PS [bar]

Table 29: With O-ring CR

DN / INCH	PN	-40	-10	+50	+150	TS [°C]
DN 15 1/2"	PN25	12.5	25	25	25	PS [bar]
	PN40	20	40	40	40	PS [bar]
	PN63	31.5	63	63	63	PS [bar]

Table 30: With O-ring HNBR

DN / INCH	Opening pressure [bar]	
DN 15	26 - 28	
½"	46 - 50	(customer-spec. solution)

Table 31: Opening pressure

Nominal size:		Welding ends acc. to:															
			AWP DN15 PN25	PN25 DIN 2634 EN1092-1	PN40 DIN 2635 EN1092-1	PN63 DIN 2636 EN1092-1	ANSI 300 RF										
DN	INCH	PN	l1	l1	l1	l1	l1	l2	l3	h	h*)	h1	h1*)	h2	h3	d3	d2
15	1/2“	25	158	164	164	---	179	78	40	22	54	128	160	35	82	14.5	60
		40	---	164	164	---	179	78	40	22	54	128	160	35	82	14.5	60
		63	---	---	---	197	205	78	40	31	68	148	185	45	82	14.5	60

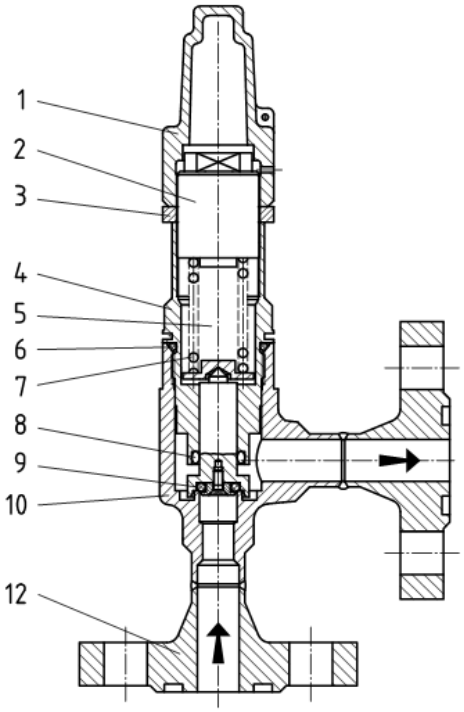
Table 32: Dimensions

*) for valves with bonnet extension, l3/h2 = dismantling dimension

DIN/EN flange facings with DIN 2512 groove as standard

12 UVU materials

Designation and materials
UVU - overflow valves



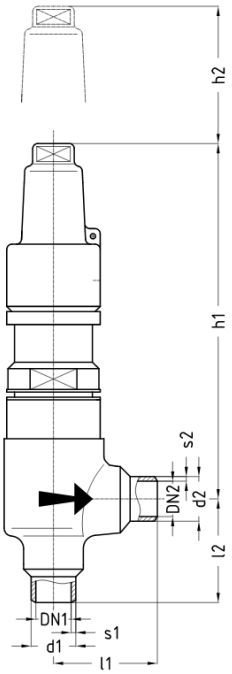
	Part	Material for steel valves	Material for stainless steel valves
1	Cap	Aluminium AlSi10Mg	Aluminium AlSi10Mg
2	Adjustment screw	X8CrNiS18-9 1.4305	X8CrNiS18-9 1.4305
3	Bonnet	S355J2 1.0577	X8CrNiS18-9 1.4305
4	Tongue	SH	SH
8	Valve disc O-ring	CR, NBR, HNBR, EPDM, PTFE*	CR, NBR, HNBR, EPDM, PTFE*
9	Body	X5CrNi18-10 1.4301	X5CrNi18-10 1.4301
12	Flange	P250GH 1.0460	X6CrNiTi18-10 1.4541
14	Bonnet O-ring	CR, NBR, HNBR, EPDM, FPM*	CR, NBR, HNBR, EPDM, FPM*
15	Spring-loaded U-ring	PTFE	PTFE

* depending on the refrigerant used

Latest revision: 17.02.2026. Subject to modifications.
The most recent version of this document is available on awpvalves.com/downloads/

13 UVUA AE / UVUB AE

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



Note: The UVU is an overflow valve that has also proven itself excellently in the oil circuit.
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

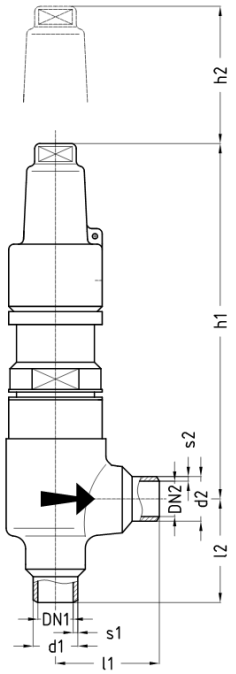
DN / INCH UVUA	PN	-60	-10	+50	+180	TS [°C]
DN / INCH UVUB	PN	-50	-10	+50	+110	TS [°C]
UVUA/UVUB DN 8...15	PN25	18.7	25	25	25	PS [bar]
	PN40	30	40	40	40	PS [bar]
	PN63	47.2	63	63	63	PS [bar]

Nominal size:		Welding ends acc. to:																Response pressure range
		ISO Series 1						ANSI Sched 40										h1*) for
DN1	DN2	d1	s11)	s12)	d2	s21)	s22)	d1	s1	d2	s2	l1	l2	h1	h1*)	h2	bar	bar
8	8	13.5	1.8	1.8	13.5	1.8	1.8	13.7	2.2	13.7	2.2	40	40	148	175	32	4-63	28-63
10	10	17.2	1.8	1.8	17.2	1.8	1.8	17.1	2.3	17.1	2.3	40	40	148	175	32	4-63	28-63
15	15	21.3	2.0	2.0	21.3	2.0	2.0	21.3	2.8	21.3	2.8	40	40	148	175	32	4-63	28-63

Table 33: Dimensions
1) PN25 / PN40 2) PN63 h1*) = only for response pressures 28-63 bar h2 = dismantling dimension

14 UVUA AE NIRO / UVUB AE NIRO

O: PTFE seat seal, **B:**elastomer seat seal,**AE:** Welding ends
UVU stainless steel overflow valve - back-pressure independent for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1 as well as refrigeration machine oils



Note: The UVU is an overflow valve that has also proven itself excellently in the oil circuit.
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 UVUA	PN	-60	-10	+50	+180	TS [°C]
DN / INCH UVUB	PN	-50	-10	+50	+110	TS [°C]
UVUA/UVUB DN 8...15	PN25	25	25	25	25	PS [bar]
	PN40	40	40	40	40	PS [bar]
	PN63	63	63	63	63	PS [bar]

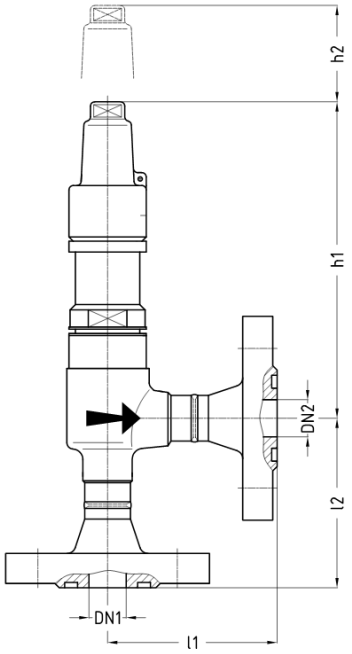
Nominal size:		Welding ends acc. to:															Response pressure range	
		ISO Series 1						ANSI Sched 40										h1*) for
DN1	DN2	d1	s11)	s12)	d2	s21)	s22)	d1	s1	d2	s2	l1	l2	h1	h1*)	h2	bar	bar
8	8	13.5	1.8	1.8	13.5	1.8	1.8	13.7	2.2	13.7	2.2	40	40	148	175	32	4-63	28-63
10	10	17.2	1.8	1.8	17.2	1.8	1.8	17.1	2.3	17.1	2.3	40	40	148	175	32	4-63	28-63
15	15	21.3	2.0	2.0	21.3	2.0	2.0	21.3	2.8	21.3	2.8	40	40	148	175	32	4-63	28-63

Table 34: Dimensions
1) PN25 / PN40 2) PN63 h1*) = only for response pressures 28-63 bar h2 = dismantling dimension

Latest revision: 17.02.2026. Subject to modifications.
The most recent version of this document is available on awpvalves.com/downloads/

15 UVUA FL / UVUB FL

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



Note: The UVU is an overflow valve that has also proven itself excellently in the oil circuit.
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

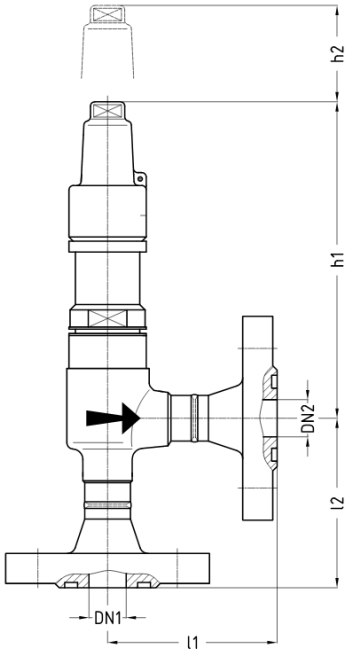
DN / INCH UVUA	PN	-60	-10	+50	+180	TS [°C]
DN / INCH UVUB	PN	-50	-10	+50	+110	TS [°C]
UVUA/UVUB DN 10...15	PN25	18.7	25	25	25	PS [bar]
	PN40	30	40	40	40	PS [bar]
	PN63	47.2	63	63	63	PS [bar]

Nominal size:		Flanged ends acc. to:														Response pressure range
		AWP DN10-15 PN25		PN25 DIN 2634 EN1092-1		PN40 DIN 2635 EN1092-1		PN63 DIN 2636 EN1092-1		ANSI 300 RF						h1*) for
DN1	DN2	l1	l2	l1	l2	l1	l2	l1	l2	l1	l2	h1	h1*)	h2	bar	bar
10	10	72	72	76	76	76	76	86	86			148	175	32	4-63	28-63
15	15	72	72	79	79	79	79	86	86	93	93	148	175	32	4-63	28-63

Table 35: Dimensions
h1*) only for response pressures 28-63 bar, h2 = dismantling dimension
DIN/EN flange facings with DIN 2512 groove as standard

16 UVUA FL NIRO / UVUB FL NIRO

O: PTFE seat seal, **B:**elastomer seat seal,**FL:** Flanged ends
UVU stainless steel overflow valve - back-pressure independent for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1 as well as refrigeration machine oils



Note: The UVU is an overflow valve that has also proven itself excellently in the oil circuit.
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

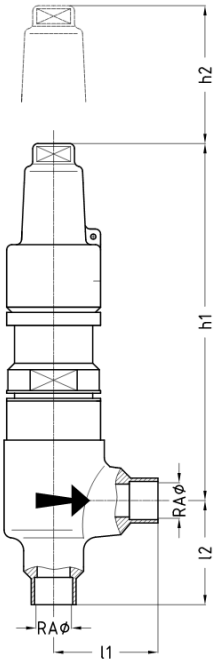
DN / INCH UVUA	PN	-60	-10	+50	+180	TS [°C]
DN / INCH UVUB	PN	-50	-10	+50	+110	TS [°C]
UVUA/UVUB DN 10...15	PN25	25	25	25	25	PS [bar]
	PN40	40	40	40	40	PS [bar]
	PN63	63	63	63	63	PS [bar]

Nominal size:		Flanged ends acc. to:													Response pressure range	
		AWP DN10-15 PN25		PN25 DIN 2634 EN1092-1		PN40 DIN 2635 EN1092-1		PN63 DIN 2636 EN1092-1		ANSI 300 RF						h1*) for
DN1	DN2	l1	l2	l1	l2	l1	l2	l1	l2	l1	l2	h1	h1*)	h2	bar	bar
10	10	72	72	76	76	76	76	86	86			148	175	32	4-63	28-63
15	15	72	72	79	79	79	79	86	86	93	93	148	175	32	4-63	28-63

Table 36: Dimensions
h1*) only for response pressures 28-63 bar, h2 = dismantling dimension
DIN/EN flange facings with DIN 2512 groove as standard

17 UVUA LE / UVUB LE

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



Note: The UVU is an overflow valve that has also proven itself excellently in the oil circuit.
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

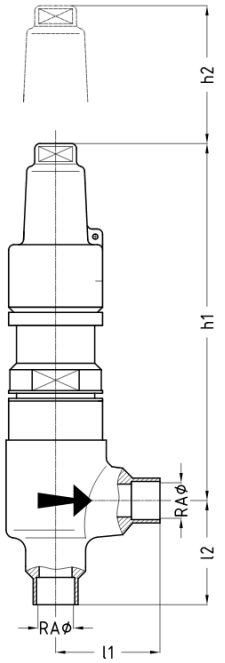
DN / INCH UVUA	PN	-60	-10	+50	+180	TS [°C]
DN / INCH UVUB	PN	-50	-10	+50	+110	TS [°C]
UVUA/UVUB DN 10...15	PN25	18.7	25	25	25	PS [bar]
	PN40	30	40	40	40	PS [bar]
	PN63	47.2	63	63	63	PS [bar]

Nominal size:		Soldering ends acc. to:						Response pressure range	
									h1*) for
DN1	DN2	RAØ	l1	l2	h1	h1*)	h2	bar	bar
10	10	12	40	40	148	175	32	4-63	28-63
15	15	15	40	40	148	175	32	4-63	28-63
15	15	18	40	40	148	175	32	4-63	28-63

Table 37: Dimensions
h1*) = only for response pressures 28-63 bar, h2 = dismantling dimension

18 UVUA LE NIRO / UVUB LE NIRO

O: PTFE seat seal, **B:**elastomer seat seal,**LE:** Soldering ends
UVU stainless steel overflow valve - back-pressure independent for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1 as well as refrigeration machine oils



Note: The UVU is an overflow valve that has also proven itself excellently in the oil circuit.
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 UVUA	PN	-60	-10	+50	+180	TS [°C]
DN / INCH UVUB	PN	-50	-10	+50	+110	TS [°C]
UVUA/UVUB DN 10...15	PN25	25	25	25	25	PS [bar]
	PN40	40	40	40	40	PS [bar]
	PN63	63	63	63	63	PS [bar]

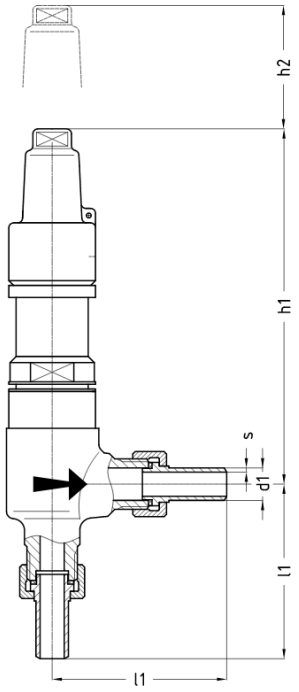
Nominal size:		Soldering ends acc. to:						Response pressure range	
									h1*) for
DN1	DN2	RAØ	l1	l2	h1	h1*)	h2	bar	bar
10	10	12	40	40	148	175	32	4-63	28-63
15	15	15	40	40	148	175	32	4-63	28-63
15	15	18	40	40	148	175	32	4-63	28-63

Table 38: Dimensions
h1*) = only for response pressures 28-63 bar, h2 = dismantling dimension

Latest revision: 17.02.2026. Subject to modifications.
The most recent version of this document is available on awpvalves.com/downloads/

19 UVUA SE / UVUB SE

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



Note: The UVU is an overflow valve that has also proven itself excellently in the oil circuit.
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

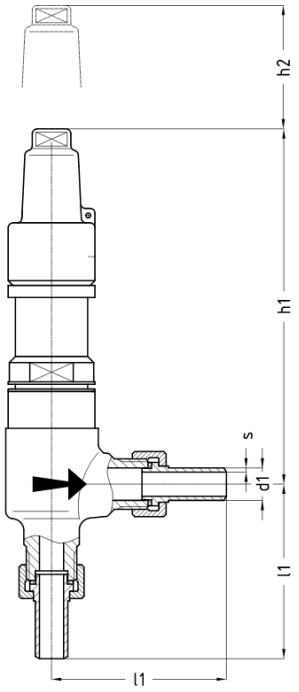
DN / INCH UVUA	PN	-60	-10	+50	+180	TS [°C]
DN / INCH UVUB	PN	-50	-10	+50	+110	TS [°C]
UVUA/UVUB DN 15	PN25	18.7	25	25	25	PS [bar]
	PN40	30	40	40	40	PS [bar]
	PN63	47.2	63	63	63	PS [bar]

Nominal size:		Soldering ends acc. to:							Response pressure range	
										h1*) for
DN	DN	Thread / pipe diameter	d1	s	l1	h1	h1*)	h2	bar	bar
15	G 1/2"	M22x1.5 RA15	15.0	2.0	73	148	175	32	4-63	28-63
15	G 1/2"/G 1"	G1/2"			40	148	175	32	4-63	28-63

Table 39: Dimensions
h1*) = only for response pressures 28-63 bar, h2 = dismantling dimension

20 UVUA SE NIRO / UVUB SE NIRO

O: PTFE seat seal, **B:**elastomer seat seal,**SE:** Screwed ends
UVU stainless steel overflow valve - back-pressure independent for natural refrigerants (NH3, CO2) and non-corrosive gases according to EN 378-1 as well as refrigeration machine oils



Note: The UVU is an overflow valve that has also proven itself excellently in the oil circuit.
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 UVUA	PN	-60	-10	+50	+180	TS [°C]
DN / INCH UVUB	PN	-50	-10	+50	+110	TS [°C]
UVUA/UVUB DN 15	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:							Response pressure range	
										h1*) for
DN	DN	Thread / pipe diameter	d1	s	l1	h1	h1*)	h2	bar	bar
15	G 1/2″	M22x1.5 RA15	15.0	2.0	73	148	175	32	4-63	28-63
15	G 1/2″/G 1″	G1/2″			40	148	175	32	4-63	28-63

Table 40: Dimensions
h1*) = only for response pressures 28-63 bar, h2 = dismantling dimension

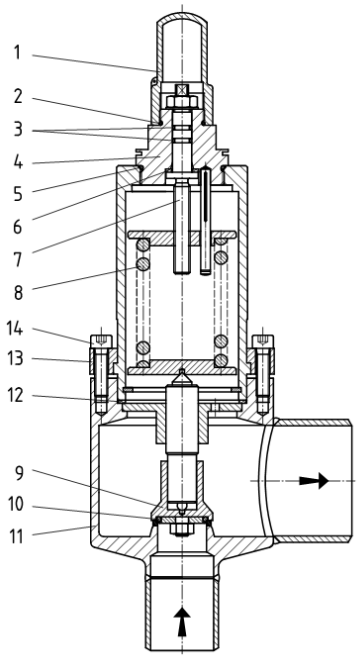
Latest revision: 17.02.2026. Subject to modifications.
The most recent version of this document is available on awpvalves.com/downloads/

21 ORV materials

Designation and materials

ORV - oil pressure-regulating valves

DN 40 – 50



	Part	Material for steel valves	Material for stainless steel valves
1	Cap	Aluminium AlSi10Mg	Aluminium AlSi10Mg
2	Valve cap O-ring	CR, NBR, HNBR, EPDM, FPM*	CR, NBR, HNBR, EPDM, FPM*
3	Valve stem O-ring	CR, NBR, HNBR, EPDM, FPM*	CR, NBR, HNBR, EPDM, FPM*
4	Bonnet	S355J2 1.0577	X8CrNiS18-9 1.4305 X5CrNi18-10 1.4301 X2CrNi19-11 1.4306
5	Bonnet O-ring	CR, NBR, HNBR, EPDM, PTFE*	CR, NBR, HNBR, EPDM, PTFE*
6	Back seal	PTFE	PTFE
7	Stem	X8CrNiS18-9 1.4305	X8CrNiS18-9 1.4305
8	Tongue	SH	SH
9	Sealing piston	X8CrNiS18-9 1.4305	X8CrNiS18-9 1.4305
10	Valve disc O-ring	CR, NBR, HNBR, EPDM, PTFE*	CR, NBR, HNBR, EPDM, PTFE*
11	Body	S355J2 1.0577 P235GH 1.0345	X5CrNi18-10 1.4301 GX5CrNiMoNb19-11-2 1.4581
12	Flat sealing ring for bonnet	AFM30	AFM30
13	Loose ring	S355J2 1.1.0570	X8CrNiS18-9 1.4305

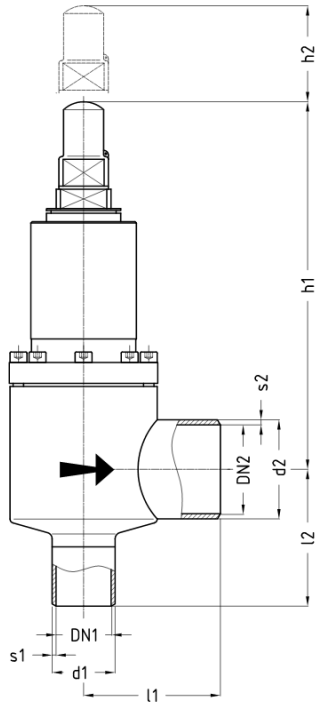
	Part	Material for steel valves	Material for stainless steel valves
14	Screws	8.8	A2-70

* depending on the refrigerant used

22 ORVA AE

O: PTFE seat seal, **AE:** Welding ends

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



Note: The ORV is a back-pressure dependent overflow valve. For DN15 – 32 select UVAB.

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 40…50 1 1/2"…2"	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				ANSI Sched 40								Setting range
DN1	DN2	d1	s1	d2	s2	d1	s1	d2	s2	l1	l2	h1	h2	bar
40	65	48.3	2.6	76.1	2.9	48.3	3.7	73	5.2	105	105	295	100	1-6
50	65	60.3	2.9	76.1	2.9	60.3	3.9	73	5.2	115	115	295	100	1-6

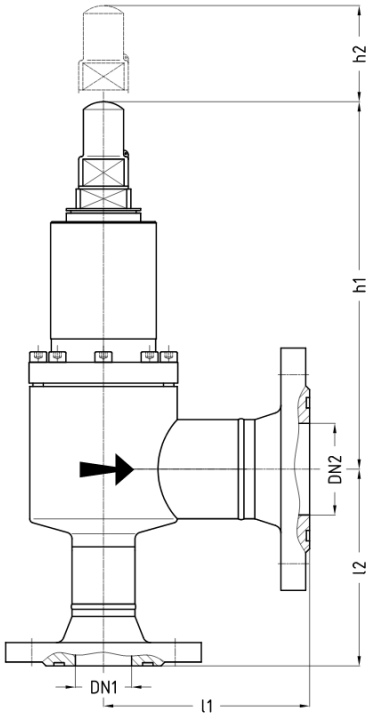
Table 41: Dimensions

h2 = dismantling dimension

23 ORVA FL

O: PTFE seat seal, **FL:** Flanged ends

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



Note: The ORV is a back-pressure dependent overflow valve. For DN15 – 32 select UVAB.

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 40...50 1 1/2"...2"	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 DN40-50 PN40		PN25 DIN 2634 EN1092-1		PN40 DIN 2635 EN1092-1		ANSI 300 RF				Setting range
DN1	DN2	l1	l2	l1	l2	l1	l2	l1	l2	h1	h2	bar
40	65	160	145	158	151	158	151	183	175	295	100	1-6
50	65	170	159	168	164	168	164	193	186	295	100	1-6

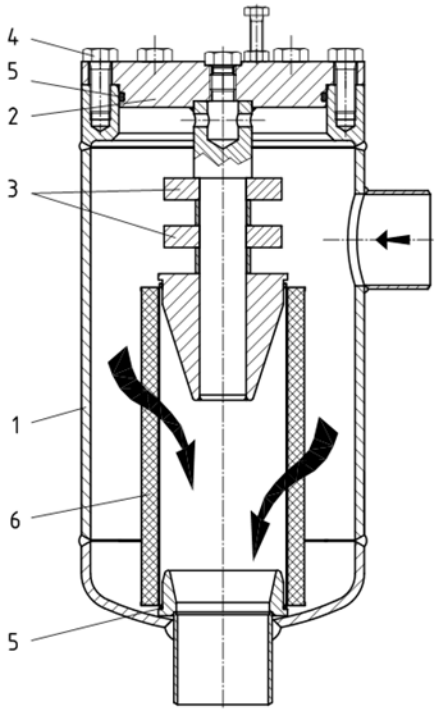
Table 42: Dimensions

h2 = dismantling dimension

DIN/EN flange facings as standard: groove DIN 2512

24 OF materials

Designation and materials
OF - oil filter



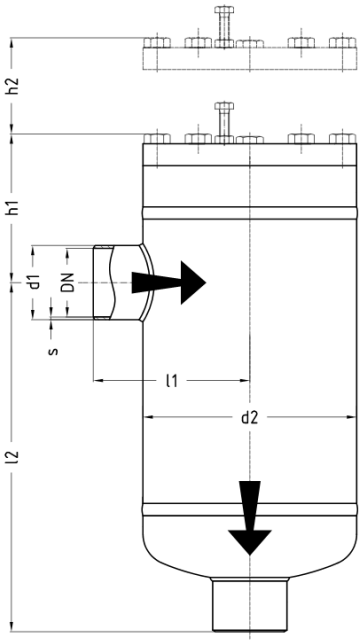
	Part	Material for steel valves	Material for stainless steel valves
1	Body	P235GH 1.0345 S355J2 1.0577 P355N 1.0562	
2	Bonnet	S355J2 1.0577	
3	Magnet	Hard ferrite Ox	
4	Screw	8.8; A2-70	
5	O-ring	CR, NBR, HNBR, EPDM, FPM*	
6	Filter	Stainless steel mesh Paper fleece	

* depending on the refrigerant used

25 OF AE

AE: Welding ends

OF steel oil filter for refrigeration machine oils containing proportions of natural refrigerants according to EN 378-1



Optional: Stainless steel mesh in 25µm or glass fibre fleece 10µm.

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	-25	-10	+50	+120	TS [°C]
DN 20...80 3/4"...3"	PN25	12.5	18.7	25	25	25	PS [bar]
	PN40	20	30	40	40	40	PS [bar]

Nominal size:		Welding ends acc. to:													
		ISO Series 1		ISO Series 2		ANSI Sched 40							Filter volume		Filter cart-ridges
DN	INCH	d1	s	d1	s	d1	s	l1	l2	h1	h2	d2	3.5l	13.8l	Type
15	1/2"	21.3	2.0	20.0	2.5	21.3	2.8	120	230	115	200	140	x		A90
20	3/4"	26.9	2.3	25.0	2.5	26.7	2.9	120	230	115	200	140	x		A90
25	1"	33.7	2.6	32.0	3.0	33.4	3.4	120	230	115	200	140	x		A90
32	1 1/4"	42.4	2.6	38.0	3.0	42.2	3.6	120	230	115	200	140	x		A90
40	1 1/2"	48.3	2.6	45.0	3.0	48.3	3.7	120	230	115	200	140	x		A90
50	2"	60.3	2.9	57.0	3.2	60.3	3.9	120	230	115	200	140	x		A90
50	2"	60.3	2.9	57.0	3.2	60.3	3.9	160	360	155	260	219		x	A160
65	2 1/2"	76.1	2.9	76.1	3.6	73.0	5.2	160	360	155	260	219		x	A160
80	3"	88.9	3.2	88.9	4.0	88.9	5.5	160	360	155	260	219		x	A160

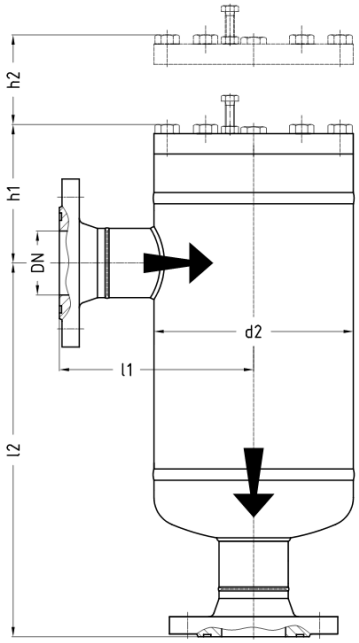
Nominal size:		Welding ends acc. to:													
100	4"	114.3	3.6	108.0	4.0	114.3	6.0	200	360	180	260	219		x	A160

Table 43: Dimensions

h2 = dismantling dimension

26 OF FL

FL: Flanged ends
OF steel oil filter for refrigeration machine oils containing proportions of natural refrigerants according to EN 378-1



Optional: Stainless steel mesh in 25µm or glass fibre fleece 10µm.
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	-25	-10	+50	+120	TS [°C]
DN 20...80 3/4"...3"	PN25	12.5	18.7	25	25	25	PS [bar]
	PN40	20	30	40	40	40	PS [bar]

Nominal size:		Flanged ends acc. to:											
		PS25 DIN 2634 EN1092-1		PS40 DIN 2635 EN1092-1		ANSI 300 RF					Filter volume		Filter cartridges
DN	INCH	l1	l2	l1	l2	l1	l2	h1	h2	d2	3.5l	13.8l	Type
15	1/2"	159	269	159	269	173	283	115	200	140	x		A90
20	3/4"	161	271	161	271	179	288	115	200	140	x		A90
25	1"	161	271	161	271	183	293	115	200	140	x		A90
32	1 1/4"	163	273	163	273	186	296	115	200	140	x		A90
40	1 1/2"	166	276	166	276	189	299	115	200	140	x		A90
50	2"	169	279	169	279	191	301	115	200	140	x		A90
50	2"	209	409	209	409	231	431	155	260	219		x	A160
65	2 1/2"	213	413	213	413	237	437	155	260	219		x	A160
80	3"	219	419	219	419	240	440	155	260	219		x	A160

Latest revision: 17.02.2026. Subject to modifications.
The most recent version of this document is available on awpvalves.com/downloads/

Nominal size:		Flanged ends acc. to:											
100	4"	266	326	266	326	282	342	180	260	219		x	A160

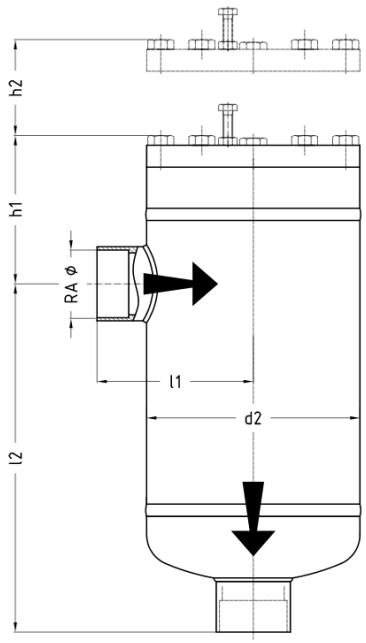
Table 44: Dimensions

h2 = dismantling dimension

27 OF LE

LE: Soldering ends

OF steel oil filter for refrigeration machine oils containing proportions of natural refrigerants according to EN 378-1



Optional: Stainless steel mesh in 25µm or glass fibre fleece 10µm.

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	-25	-10	+50	+120	TS [°C]
DN 20...80 3/4"...3"	PN25	12.5	18.7	25	25	25	PS [bar]
	PN40	20	30	40	40	40	PS [bar]

Nominal size:	Soldering ends acc. to:									
							Filter volume		Filter cartridges	
DN	RAØ	l1	l2	h1	h2	d2	3.5l	13.8l	Type	
15	18	120	230	115	200	140	x		A90	
20	22	120	230	115	200	140	x		A90	
25	28	120	230	115	200	140	x		A90	
32	35	120	230	115	200	140	x		A90	
40	42	120	230	115	200	140	x		A90	
50	54	120	230	115	200	140	x		A90	
50	54							x	A160	
65	64							x	A160	
65	76	on request						x	A160	
80	89							x	A160	

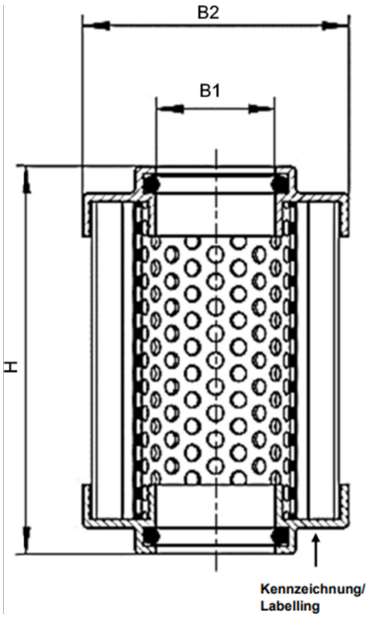
Nominal size:	Soldering ends acc. to:									
100	108							x	A160	

Table 45: Dimensions

h2 = dismantling dimension

28 OF filter elements

Filter elements for oil filters for refrigeration oils containing natural refrigerants according to EN 378-1
Stainless steel wire mesh in 25µm or glass fibre fleece 10µm.



	575001	575008	575044	575045
B1 (Ø)	95.5	42.2	42.2	95.5
B2 (Ø)	160	90	90	160
H	250	128	128	250

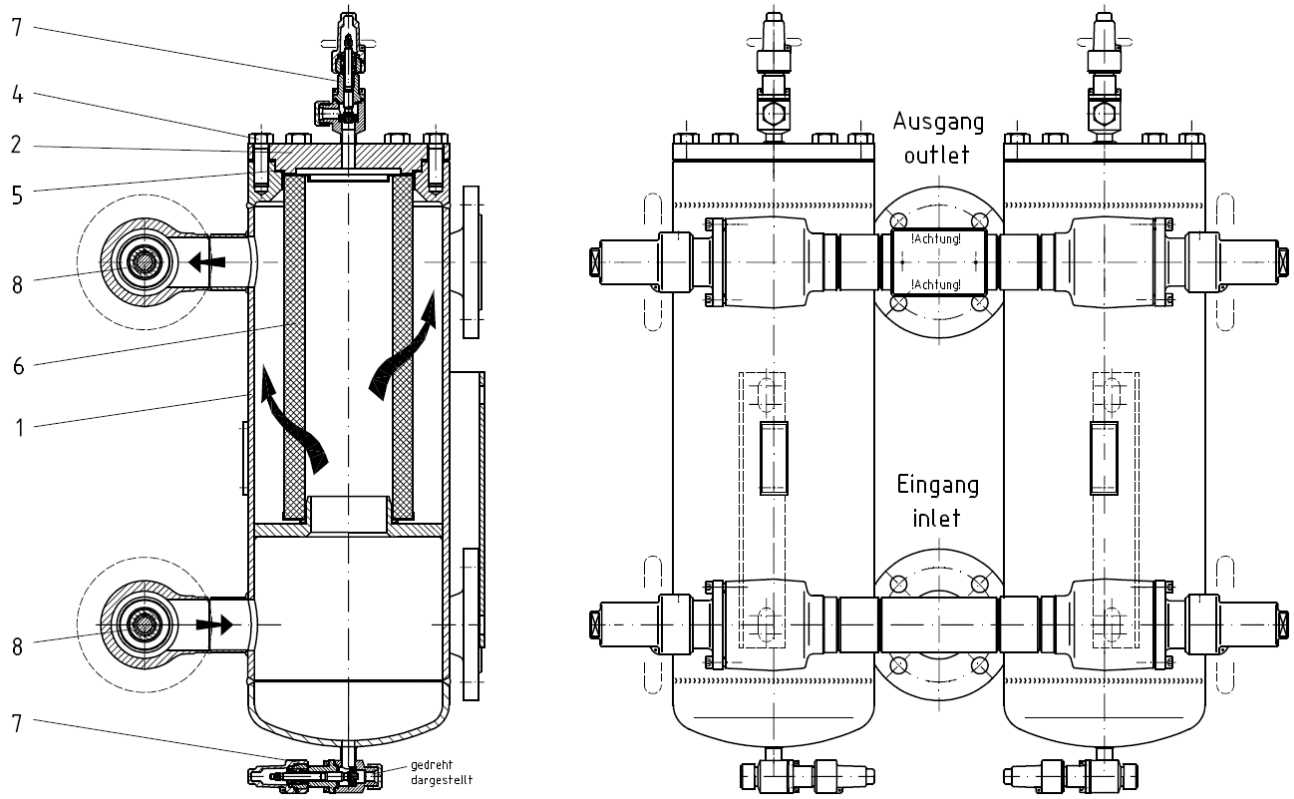
Table 46: Dimensions in mm

	575001	575008	575044	575045
Filter material	Stainless steel mesh		Multi-layered glass fibre material	
Filter area	0.93 m^2	0.22 m^2	0.22 m^2	0.93 m^2
Pressure resistance	30 bar	10 bar	10 bar	30 bar
Temperature resistance	-40 °C to +100 °C	-40 °C to +100 °C	-40 °C to +100 °C	-40 °C to +100 °C
Filtration rating	25 µm	25 µm	10 µm	10 µm
Filtration ratio	-	β10(c) ≥ 200 (ISO 16889)	β10(c) ≥ 200 (ISO 16889)	β10(c) ≥ 200 (ISO 16889)
Sealing material	Neoprene ISO3601-1-XXXA-94X5-N-CR90	Neoprene ISO3601-1-223A-40,8 7X3,53-N-CR70	Neoprene ISO3601-1-223A-40,8 7X3,53-N-CR70	Neoprene ISO3601-1-XXXA-94X5-N-CR90
Max. NH3 content	10% NH3 and 90% Reflo 68A @80°C; -40°C	10% NH3 and 90% Reflo 68A @80°C; -40°C	10% NH3 and 90% Reflo 68A @80°C; -40°C	10% NH3 and 90% Reflo 68A @80°C; -40°C
Max. water content	1000 ppm H2O in mineral oil	1000 ppm H2O in mineral oil	1000 ppm H2O in mineral oil	1000 ppm H2O in mineral oil

Table 47: Technical parameters

29 DOF materials

Designation and materials

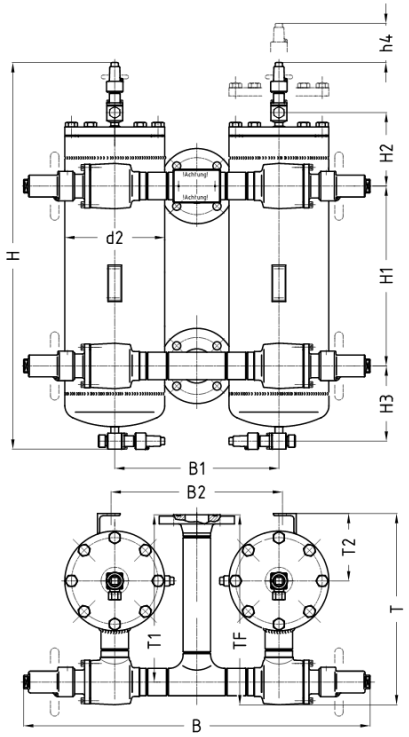


	Part	Material for steel valves	Material for stainless steel valves
1	Body	P235GH 1.0345 S355J2 1.0577 P355N 1.0562	
2	Bonnet	S355J2 1.0577	
4	Screw	8.8; A2-70	
5	Flat gasket	AFM asbestos-free	
6	Filter	Paper fleece	
7	Service valve HRS	See Chapter 1	
8	Shut-off valve AVR	See Chapter 2	

30 DOF FL / DOF FL EPE

FL: Flanged ends **EPE:** EPE elements

DOF steel double oil filter for refrigeration machine oils containing proportions of natural refrigerants according to EN 378-1



Equipment: Filter elements with glass fibre fleece 10µm.

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...80 3/4"...3"	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:																	
		PS25 DIN 2634 EN1092-1		PS40 DIN 2635 EN1092-1		ANSI 300 RF												Filter ele- ments	
DN	INCH	TF	T1	TF	T1	TF	T1	H	H1	H2	H3	h4	B	B1	B2	T	T2	d2	No.:
20	3/4"	303	273	303	273	320	290	575	235	126	135	245	580	308	340	302	122	170	EPE 361
25	1"	311	273	311	273	333	295	575	235	126	135	245	530	308	340	306	122	170	EPE 361
32	1 1/4"	311	273	311	273	334	296	575	235	126	135	245	530	308	340	306	122	170	EPE 361
40	1 1/2"	406	358	406	358	429	381	655	250	161	165	270	570	330	376	414	148	220	EPE 561

Nominal size:		Flanged ends acc. to:																	
40	1 1/2"	406	358	406	358	429	381	800	395	161	165	395	570	330	376	414	148	220	EPE 901	
50	2"	413	365	413	365	435	387	655	250	161	165	270	600	360	376	426	154	220	EPE 561	
50	2"	413	365	413	365	435	387	800	395	161	165	395	600	360	376	426	154	220	EPE 901	
65	2 1/2"	405	347	405	347	429	371	800	395	161	165	395	685	324	376	402	148	220	EPE 901	
65	2 1/2"	405	347	405	347	429	371	945	520	171	175	520	685	324	376	402	148	220	EPE 1401	
80	3"	421	350	421	350	442	371	945	520	171	175	520	745	374	376	438	156	220	EPE 1401	

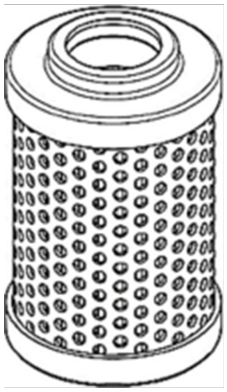
Table 48: Dimensions

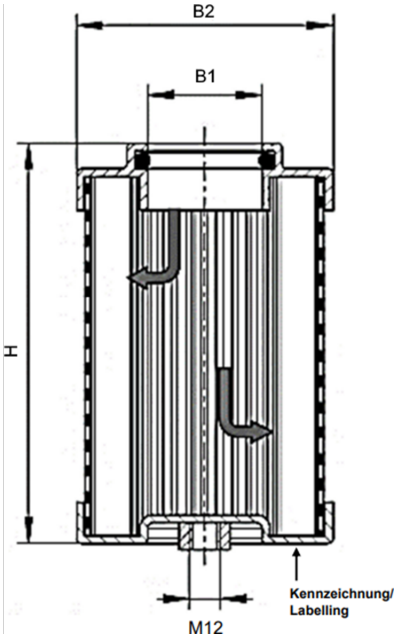
h4 = dismantling dimension

Caution! Please specify the volume flow l/min, oil viscosity, required pressure drop and the flow direction when ordering! * 2 EPE elements are required per DOF, O-ring is included in the element, bonnet gasket must be ordered separately.

31 DOF filter elements

Filter elements for duplex oil filters for refrigeration oils containing natural refrigerants according to EN 378-1
Glass fibre fleece 10µm





	575048	575046	575049	575047
B1 (Ø)	93.7	60.2	93.7	93.7
B2 (Ø)	142.5	100	142.5	142.5
H	378	255	505	255

Table 49: Dimensions in mm

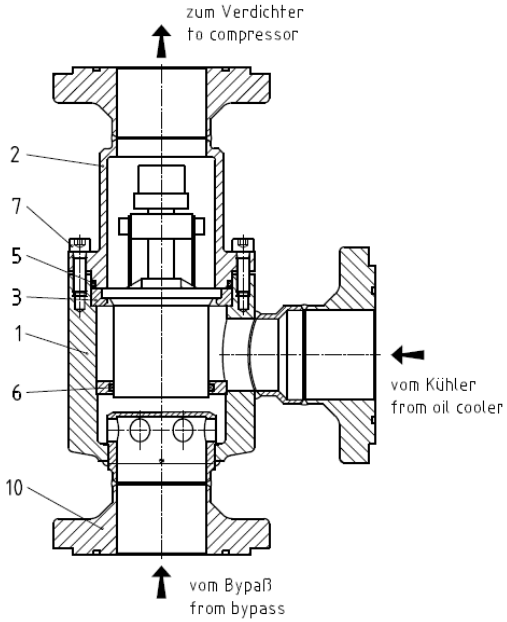
	575048	575046	575049	575047
Filter material	Multi-layered glass fibre material			
Filter area	1.03 m^2	0.39 m^2	1.38 m^2	0.54 m^2
Pressure resistance	4 bar	4 bar	4 bar	4 bar
Temperature resistance	-40 °C to +100 °C	-40 °C to +100 °C	-40 °C to +100 °C	-40 °C to +100 °C
Filtration rating	10 µm	10 µm	10 µm	10 µm
Filtration ratio	β10(c) ≥ 200 (ISO 16889)	β10(c) ≥ 200 (ISO 16889)	β10(c) ≥ 200 (ISO 16889)	β10(c) ≥ 200 (ISO 16889)
Sealing material	Neoprene ISO3601-1-XXXA-94X5-N-CR90	Neoprene ISO3601-1-XXXA-94X5-N-CR90	Neoprene ISO3601-1-XXXA-94X5-N-CR90	Neoprene ISO3601-1-XXXA-94X5-N-CR90
Max. NH3 content	10% NH3 and 90% Reflo 68A @80°C; -40°C	10% NH3 and 90% Reflo 68A @80°C; -40°C	10% NH3 and 90% Reflo 68A @80°C; -40°C	10% NH3 and 90% Reflo 68A @80°C; -40°C
Max. water content	1000 ppm H2O in mineral oil	1000 ppm H2O in mineral oil	1000 ppm H2O in mineral oil	1000 ppm H2O in mineral oil

Table 50: Technical parameters

32 TR materials

Designation and materials
TR - temperature regulator

DN 15 – 50



	Part	Material for steel valves	Material for stainless steel valves
1	Body	P235GH 1.0345 S355J2 1.0577 P355N 1.0562	X5CrNi18-10 1.4301
2	Bonnet	S355J2 1.0577 P265GH 1.0425	X5CrNi18-10 1.4301
3	Guide ring	S235JR 1.0038	X5CrNi18-10 1.4301
4	Clamping plate	S235JR 1.0038	X5CrNi18-10 1.4301
5	O-ring	CR, NBR, HNBR, EPDM, FPM*	CR, NBR, HNBR, EPDM, FPM*
6	Piston ring	PTFE	PTFE
7	Bonnet screw	8.8	A2-70
8	Bonnet flange	S355J2 1.0570	X8CrNiS18-9 1.4305
9	Bonnet nut	8	A2
10	Flange	P250GH 1.0460 P355NL1 1.0566	X6CrNiTi18-10 1.4541

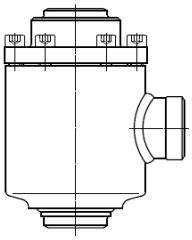
* depending on the refrigerant used

33 TR AE / TR AE NH3

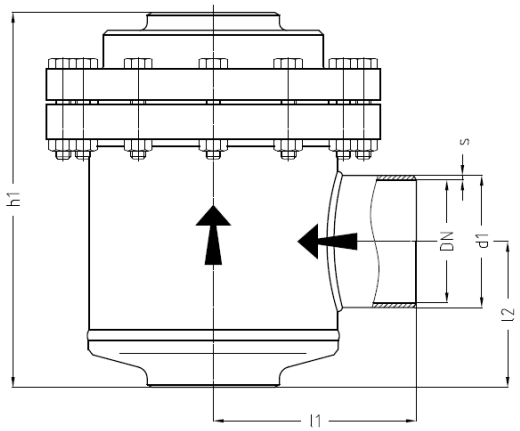
AE: Welding ends, **NH3:** Control elements

TR steel temperature regulator for refrigeration machine oils containing proportions of natural refrigerants according to EN 378-1

DN 15 – 50



DN 65 – 200



Note: State the nominal temperature when ordering!

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	-25	-10	+50	+120	TS [°C]
DN 15...150 1/2"...6"	PN25	12.5	18.7	25	25	25	PS [bar]
	PN40	20	30	40	40	40	PS [bar]
	PN63	31.5	47.2	63	63	63	PS [bar]
DN 200 8"	PN25	12.5	18.7	25	25	25	PS [bar]

Nominal size:		Welding ends acc. to:									
		ISO Series 1			ANSI Sched 40					Number of control elements	
DN	INCH	d1	s1)	s2)	d1	s	l1	l2	h1	pcs	
15	1/2"	21.3	2.0	2.0	21.3	2.77	66.0	77.0	158.0	1	
20	3/4"	26.9	2.3	2.6	26.7	2.9	66.0	77.0	158.0	1	
25	1"	33.7	2.6	2.6	33.4	3.4	66.0	80.0	161.0	1	

Nominal size:		Welding ends acc. to:									
32	1 1/4″	42.4	2.6	2.9	42.2	3.6	73.0	67.0	148.0	1	
40	1 1/2″	48.3	2.6	2.9	48.3	3.7	75.0	67.0	148.0	1	
50	2″	60.3	2.9	2.9	60.3	3.9	87.0	78.0	211.0	1	
65	2 1/2″	76.1	2.9	3.2	73.0	5.2	135.0	90.0	238.0	2	
80	3″	88.9	3.2	3.6	88.9	5.5	137.0	99.0	253.0	2	
100	4″	114.3	3.6	4.0	114.3	6.0	213.5	130.5	318.0	4	
125	5″	139.7	4.0	4.5	141.3	6.6	230.0	229.0	443.0	6	
150	6″	168.3	4.5	5.6	168.3	7.1	259.0	271.0	498.0	8	
200	8″	219.1	6.3	7.1	219.1	8.2	344.0	264.0	617.0	16	

Table 51: Dimensions

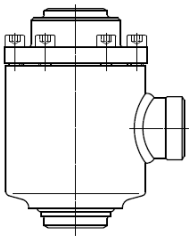
1) PN25 / PN40 2) PN63

34 TR AE NIRO / TR AE NH3 NIRO

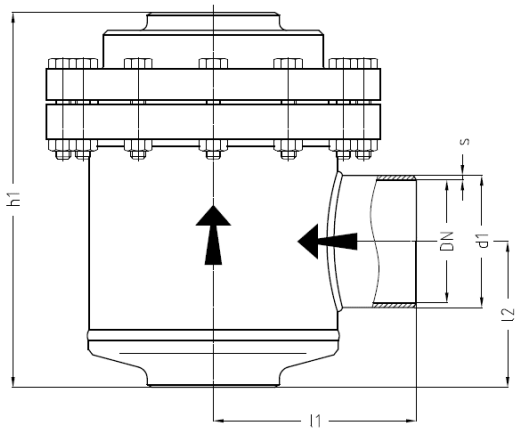
AE: Welding ends, **NH3:** Control elements

TR stainless steel temperature regulator for refrigeration machine oils containing proportions of natural refrigerants according to EN 378-1

DN 15 – 50



DN 65 – 200



Note: State the nominal temperature when ordering!

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	-25	-10	+50	+120	TS [°C]
DN 15...150 1/2"...6"	PN25	25	25	25	25	25	PS [bar]
	PN40	40	40	40	40	40	PS [bar]
	PN63	63	63	63	63	63	PS [bar]
DN 200 8"	PN25	25	25	25	25	25	PS [bar]

Nominal size:		Welding ends acc. to:									
		ISO Series 1			ANSI Sched 40					Number of control elements	
DN	INCH	d1	s1)	s2)	d1	s	l1	l2	h1	Pcs	
15	1/2"	21.3	2.0	2.0	21.3	2.77	66.0	77.0	158.0	1	
20	3/4"	26.9	2.3	2.6	26.7	2.9	66.0	77.0	158.0	1	
25	1"	33.7	2.6	2.6	33.4	3.4	66.0	80.0	161.0	1	

Nominal size:		Welding ends acc. to:									
32	1 1/4″	42.4	2.6	2.9	42.2	3.6	73.0	67.0	148.0	1	
40	1 1/2″	48.3	2.6	2.9	48.3	3.7	75.0	67.0	148.0	1	
50	2″	60.3	2.9	2.9	60.3	3.9	87.0	78.0	211.0	1	
65	2 1/2″	76.1	2.9	3.2	73.0	5.2	135.0	90.0	238.0	2	
80	3″	88.9	3.2	3.6	88.9	5.5	137.0	99.0	253.0	2	
100	4″	114.3	3.6	4.0	114.3	6.0	213.5	130.5	318.0	4	
125	5″	139.7	4.0	4.5	141.3	6.6	230.0	229.0	443.0	6	
150	6″	168.3	4.5	5.6	168.3	7.1	259.0	271.0	498.0	8	
200	8″	219.1	6.3	7.1	219.1	8.2	344.0	264.0	617.0	16	

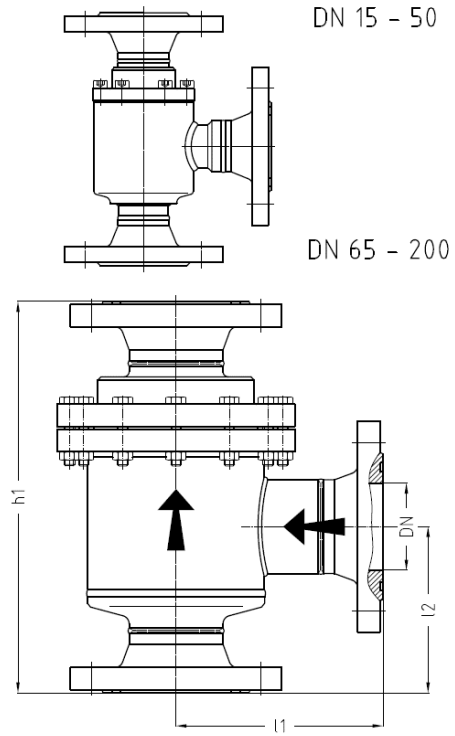
Table 52: Dimensions

1) PN25 / PN40 2) PN63

35 TR FL / TR FL NH3

FL: Flanged ends, **NH3:** Control elements

TR steel temperature regulator for refrigeration machine oils containing proportions of natural refrigerants according to EN 378-1



Note: State the nominal temperature when ordering!

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	-25	-10	+50	+120	TS [°C]
DN 15…150 1/2"…6"	PN25	12.5	18.7	25	25	25	PS [bar]
	PN40	20	30	40	40	40	PS [bar]
	PN63	31.5	47.2	63	63	63	PS [bar]
DN 200 8"	PN25	12.5	18.7	25	25	25	PS [bar]

Nominal size:		Flanged ends acc. to:														
		AWP DN15-20 PN25 DN25-80 PN40		PN25 DIN 2634 EN1092-1		PN40 DIN 2635 EN1092-1		PN63 DIN 2636 EN1092-1		ANSI 300 RF		AWP	DIN PN25 / PN40	DIN PN63	ANSI 300	Number of control elements
DN	INCH	l1	l2	l1	l2	l1	l2	l1	l2	l1	l2	h1	h1	h1	h1	Pcs
15	1/2"	98.5	91.5	105.0	98.0	105.0	98.0	112.0	105.0	120.0	113.0	205.0	218.0	232.0	248.0	1
20	3/4"	98.5	91.5	107.0	100.0	107.0	100.0	115.0	108.0	125.0	118.0	205.0	222.0	248.0	258.0	1

Nominal size:		Flanged ends acc. to:														
25	1″	111.0	104.0	107.0	100.0	107.0	100.0	125.0	118.0	129.0	122.0	230.0	222.0	258.0	266.0	1
32	1 1/4″	118.0	112.0	116.0	110.0	116.0	110.0	134.0	128.0	140.0	134.0	238.0	234.0	270.0	282.0	1
40	1 1/2″	114.5	106.5	121.0	113.0	121.0	113.0	138.0	130.0	145.0	137.0	227.0	240.0	274.0	288.0	1
50	2″	131.0	122.0	136.0	127.0	136.0	127.0	150.0	141.0	158.0	149.0	299.0	309.0	337.0	353.0	1
65	2 1/2″	189.5	144.5	188.0	143.0	188.0	143.0	204.0	159.0	213.0	168.0	347.0	344.0	376.0	394.0	2
80	3″	191.5	153.5	196.0	158.0	196.0	158.0	210.0	172.0	218.0	180.0	362.0	371.0	399.0	415.0	2
100	4″			279.5	196.5	279.5	196.5	292.5	209.5	300.5	217.5		450.0	476.0	492.0	4
125	5″			299.0	298.0	299.0	298.0	319.0	318.0	330.0	329.0		581.0	621.0	643.0	6
150	6″			336.0	348.0	336.0	348.0	356.0	368.0	360.0	372.0		652.0	692.0	700.0	8
200	8″			427.0	346.0	435.0	354.0	457.0	376.0	459.0	378.0		782.0/798.0	842.0	846.0	16

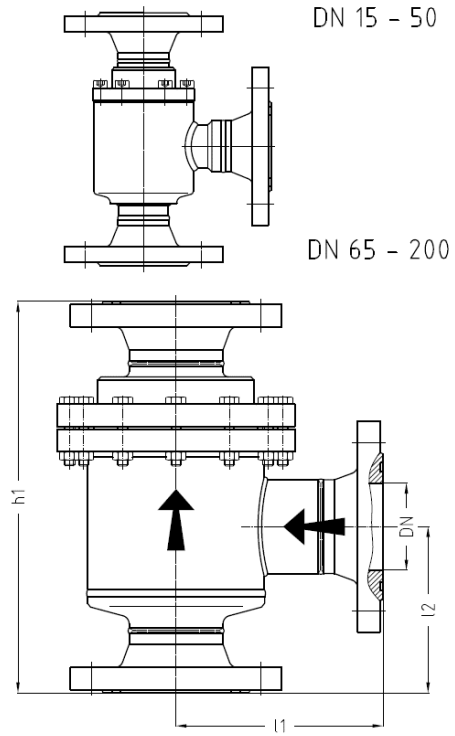
Table 53: Dimensions

DIN/EN flange facings as standard: tongue/groove DIN 2512

36 TR FL NIRO / TR FL NH3 NIRO

FL: Flanged ends, **NH3:** Control elements

TR stainless steel temperature regulator for refrigeration machine oils containing proportions of natural refrigerants according to EN 378-1



Note: State the nominal temperature when ordering!

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	-25	-10	+50	+120	TS [°C]
DN 15...150 1/2"...6"	PN25	25	25	25	25	25	PS [bar]
	PN40	40	40	40	40	40	PS [bar]
	PN63	63	63	63	63	63	PS [bar]
DN 200 8"	PN25	25	25	25	25	25	PS [bar]

Nominal size:		Flanged ends acc. to:														
		AWP DN15-20 PN25 DN25-80 PN40		PN25 DIN 2634 EN1092-1		PN40 DIN 2635 EN1092-1		PN63 DIN 2636 EN1092-1		ANSI 300 RF		AWP	DIN PN25 / PN40	DIN PN63	ANSI 300	Number of control elements
DN	INCH	l1	l2	l1	l2	l1	l2	l1	l2	l1	l2	h1	h1	h1	h1	pcs
15	1/2"	98.5	91.5	105.0	98.0	105.0	98.0	112.0	105.0	120.0	113.0	205.0	218.0	232.0	248.0	1
20	3/4"	98.5	91.5	107.0	100.0	107.0	100.0	115.0	108.0	125.0	118.0	205.0	222.0	248.0	258.0	1

Nominal size:		Flanged ends acc. to:														
25	1″	111.0	104.0	107.0	100.0	107.0	100.0	125.0	118.0	129.0	122.0	230.0	222.0	258.0	266.0	1
32	1 1/4″	118.0	112.0	116.0	110.0	116.0	110.0	134.0	128.0	140.0	134.0	238.0	234.0	270.0	282.0	1
40	1 1/2″	114.5	106.5	121.0	113.0	121.0	113.0	138.0	130.0	145.0	137.0	227.0	240.0	274.0	288.0	1
50	2″	131.0	122.0	136.0	127.0	136.0	127.0	150.0	141.0	158.0	149.0	299.0	309.0	337.0	353.0	1
65	2 1/2″	189.5	144.5	188.0	143.0	188.0	143.0	204.0	159.0	213.0	168.0	347.0	344.0	376.0	394.0	2
80	3″	191.5	153.5	196.0	158.0	196.0	158.0	210.0	172.0	218.0	180.0	362.0	371.0	399.0	415.0	2
100	4″			279.5	196.5	279.5	196.5	292.5	209.5	300.5	217.5		450.0	476.0	492.0	4
125	5″			299.0	298.0	299.0	298.0	319.0	318.0	330.0	329.0		581.0	621.0	643.0	6
150	6″			336.0	348.0	336.0	348.0	356.0	368.0	360.0	372.0		652.0	692.0	700.0	8
200	8″			427.0	346.0	435.0	354.0	457.0	376.0	459.0	378.0		782.0/798.0	842.0	846.0	16

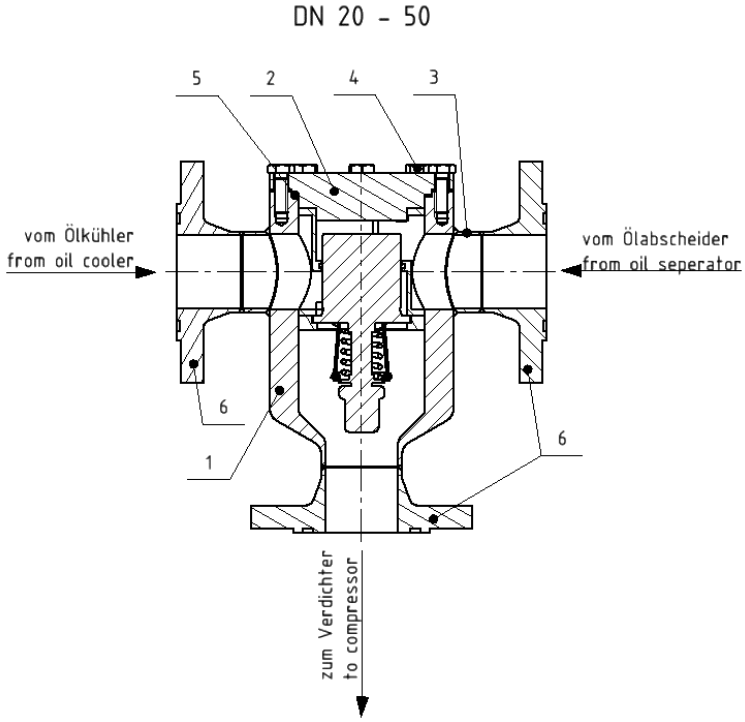
Table 54: Dimensions

DIN/EN flange facings as standard: tongue/groove DIN 2512

37 TRplus materials

Designation and materials

TRplus HT - temperature regulator



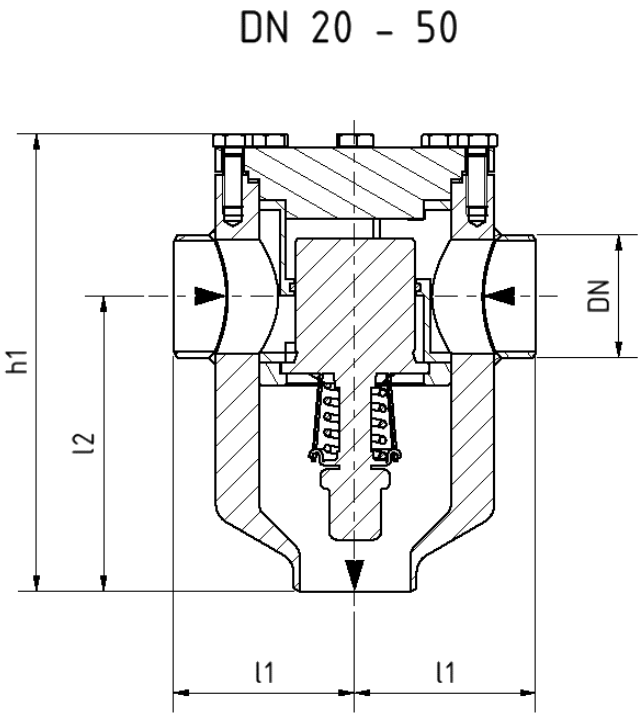
	Part	Material for steel valves	Material for stainless steel valves
1	Body	S355J2 1.0577 P235GH 1.0345	X5CrNi18-10 1.4301
2	Bonnet	S355J2 1.0577 P265GH 1.0425	X5CrNi18-10 1.4301
3	Pipe port	P235GH 1.0345	X5CrNi18-10 1.4301
4	Bonnet screw	8.8	A2-70
5	Seal	AFM	AFM
6	Flange	P250GH 1.0460 P355NL1 1.0566	X6CrNiTi18-10 1.4541

* depending on the refrigerant used

38 TRplus AE / TRplus AE NH3

AE: Welding ends, **NH3:** Control elements

TRplus steel temperature regulator for refrigeration machine oils containing proportions of natural refrigerants according to EN 378-1



Note: State the nominal temperature when ordering!

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	-10	+50	+150	TS [°C]
DN 20...50 3/4"...2"	PN25	6.3	12.5	25	25	25	PS [bar]
	PN40	10	20	40	40	40	PS [bar]
	PN63	15.8	31.5	63	63	63	PS [bar]

Nominal size:		Welding ends acc. to:								
		ISO Series 1			ANSI Sched 40					Number of control elements
DN	INCH	d1	s1)	s2)	d1	s	l1	l2	h1	pcs
20	3/4"	26.9	2.3	2.6	26.7	2.9	85	105	174	1
25	1"	33.7	2.6	2.6	33.4	3.4	85	105	174	1
32	1 1/4"	42.4	2.6	2.9	42.2	3.6	85	105	174	1
40	1 1/2"	48.3	2.6	2.9	48.3	3.7	85	105	174	1
50	2"	60.3	2.9	2.9	60.3	3.9	89	145	225	1

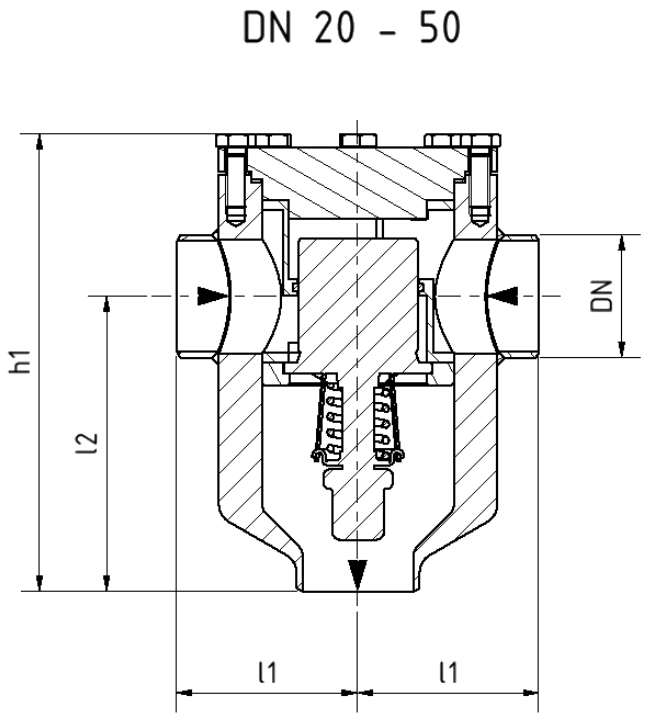
Table 55: Dimensions

1) PN25 / PN40 2) PN63

39 TRplus AE NIRO / TRplus AE NH3 NIRO

AE: Welding ends, **NH3:** Control elements

TRplus stainless steel temperature regulator for refrigeration machine oils containing proportions of natural refrigerants according to EN 378-1



Note: State the nominal temperature when ordering!

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...50 3/4"...2"	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			ANSI Sched 40					Number of control elements	
DN	INCH	d1	s1)	s2)	d1	s	l1	l2	h1	pcs	
20	3/4"	26.9	2.3	2.6	26.7	2.9	85	105	174	1	
25	1"	33.7	2.6	2.6	33.4	3.4	85	105	174	1	
32	1 1/4"	42.4	2.6	2.9	42.2	3.6	85	105	174	1	
40	1 1/2"	48.3	2.6	2.9	48.3	3.7	85	105	174	1	
50	2"	60.3	2.9	2.9	60.3	3.9	89	145	225	1	

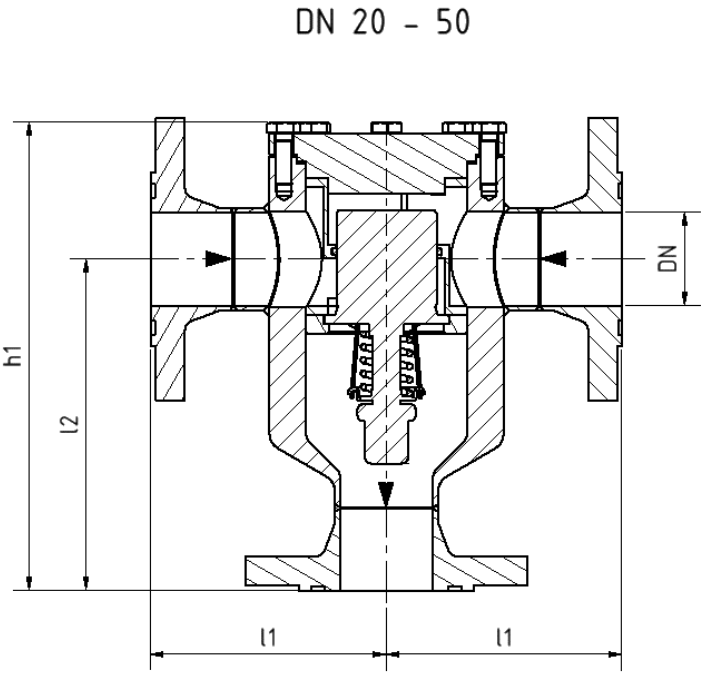
Table 56: Dimensions

1) PN25 / PN40 2) PN63

40 TRplus FL / TRplus FL NH3

FL: Flanged ends, **NH3:** Control elements

TRplus steel temperature regulator for refrigeration machine oils containing proportions of natural refrigerants according to EN 378-1



Note: State the nominal temperature when ordering!

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	-10	+50	+150	TS [°C]
DN 20...50 3/4"...2"	PN25	6.3	12.5	25	25	25	PS [bar]
	PN40	10	20	40	40	40	PS [bar]
	PN63	15.8	31.5	63	63	63	PS [bar]

Nominal size:		Flanged ends acc. to:														
		AWP DN15-20 PN25 DN25-80 PN40		PN25 DIN 2634 EN1092-1		PN40 DIN 2635 EN1092-1		PN63 DIN 2636 EN1092-1		ANSI 300 RF		AWP	DIN PN25 / PN40	DIN PN63	ANSI 300	Number of control elements
DN	INCH	l1	l2	l1	l2	l1	l2	l1	l2	l1	l2	h1	h1	h1	h1	pcs
20	3/4"	118	138	126	146	126	146	134	154	144	164	207	215	223	233	1
25	1"	130	150	126	146	126	146	144	164	148	168	219	215	233	237	1
32	1 1/4"	130	150	128	148	128	148	146	166	152	170	219	217	235	239	1
40	1 1/2"	124.5	144.5	131	151	131	151	148	168	155	175	213.5	220	237	244	1
50	2"	133	189	138	194	138	194	152	208	160	216	269	274	288	296	1

Table 57: Dimensions

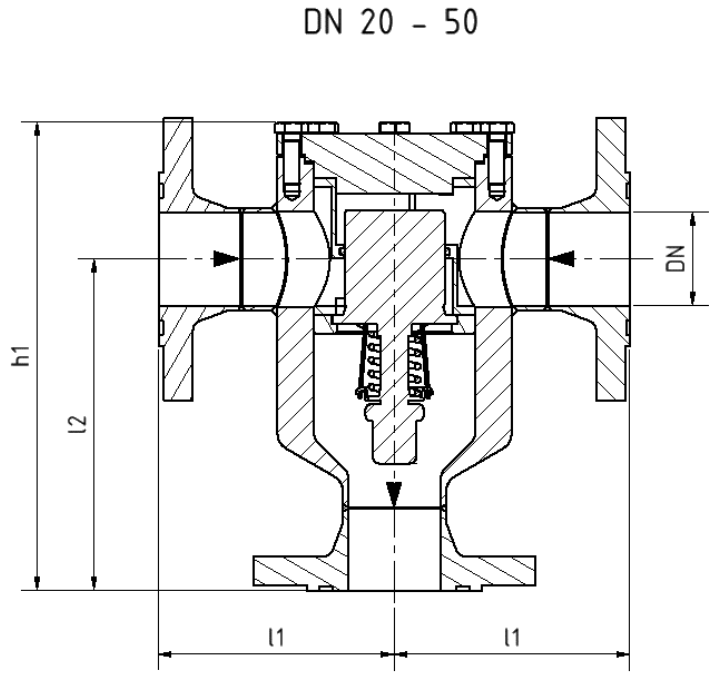
DIN/EN flange facings as standard: tongue/groove DIN 2512

Latest revision: 17.02.2026. Subject to modifications.
The most recent version of this document is available on awpvalves.com/downloads/

41 TRplus FL NIRO / TRplus FL NH3 NIRO

FL: Flanged ends, **NH3:** Control elements

TRplus stainless steel temperature regulator for refrigeration machine oils containing proportions of natural refrigerants according to EN 378-1



Note: State the nominal temperature when ordering!

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...50 3/4"...2"	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 DN15-20 PN25 DN25-80 PN40		PN25 DIN 2634 EN1092-1		PN40 DIN 2635 EN1092-1		PN63 DIN 2636 EN1092-1		ANSI 300 RF		AWP	DIN PN25 / PN40	DIN PN63	ANSI 300	Number of control elements
DN	INCH	l1	l2	l1	l2	l1	l2	l1	l2	l1	l2	h1	h1	h1	h1	pcs
20	3/4"	118	138	126	146	126	146	134	154	144	164	207	215	223	233	1
25	1"	130	150	126	146	126	146	144	164	148	168	219	215	233	237	1
32	1 1/4"	130	150	128	148	128	148	146	166	152	170	219	217	235	239	1
40	1 1/2"	124.5	144.5	131	151	131	151	148	168	155	175	213.5	220	237	244	1
50	2"	133	189	138	194	138	194	152	208	160	216	269	274	288	296	1

Table 58: Dimensions

DIN/EN flange facings as standard: tongue/groove DIN 2512

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 fittings / valve combinations that are currently manufactured.

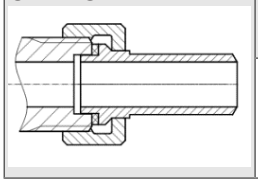
Fitting group	Valve designation	Code fittings	Connections	
UM + ST Union nut with welding nipple				
UM + ST 	UVUA SE G1/2" / G1/2" UVUB SE G1/2" / G1/2"	00060F07A5A0A101	I: O:	G1/2" with UM + ST 13.5 x 1.8 mm
	UVUA SE G1/2" / G1" UVUB SE G1/2" / G1"	00060F07A5A0A101 00060F07A5A0B601	I: O:	G1/2" with UM + ST 13.5 x 1.8 mm G1" with UM + ST 21.3 x 2.0 mm

Table 59: Fittings 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 60: 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
Valves made of carbon steel				
1.0345	P235GH, TC1 +N	DIN EN 10216-2	ASME SA-106	A + B
1.0038	S235JR +N	DIN EN 10025-2	ASME SA-570	36
1.0425	P265GH	DIN EN 10028-2	ASME SA-516	60
1.0577	S355J2 +N	DIN EN 10025-2	ASME SA-516	65
1.0562	P355N	DIN EN 10028-3		
1.0460	C22.8	VdTÜV 350/3	ASME SA-105	-
Valves made of low-temperature steel				
1.0451	P215NL +N	DIN EN 10216-4	ASME SA-333	6
1.0452	P255QL +QT	DIN EN 10216-4		
1.0566	P355NL1 +N	DIN EN 10028-3 DIN 17103 VdTÜV 354/3	ASME SA-662 ASME SA-420 ASME SA-350	B WPL6 LF2
1.0488	TStE 285	DIN 17103 VdTÜV 352/3	ASME SA-662 ASME SA-350	A LF2
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	ASME SA-312 ASME SA-240 ASME SA-182	TP304 304 F304

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

DN	Thread	Code	Welding ends		Dimensions	Code
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
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				
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

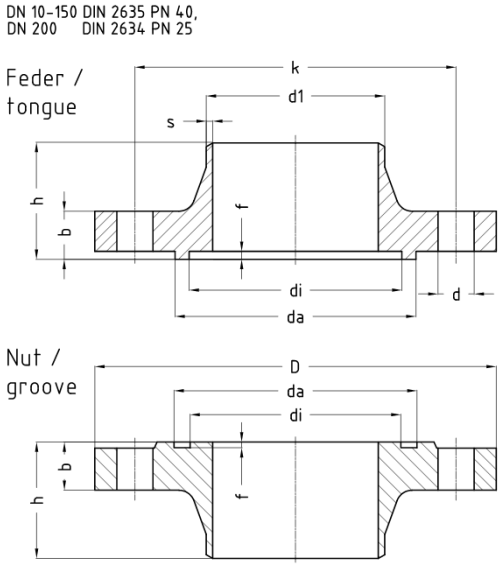
These connections can be equipped with accessories.

	Accessories	Short designation	Code
UM+ST	Union nut with welding nipple	UM+ST	1
BM	Blind nut	BM	2

	Accessories	Short designation	Code
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+ad-apter	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



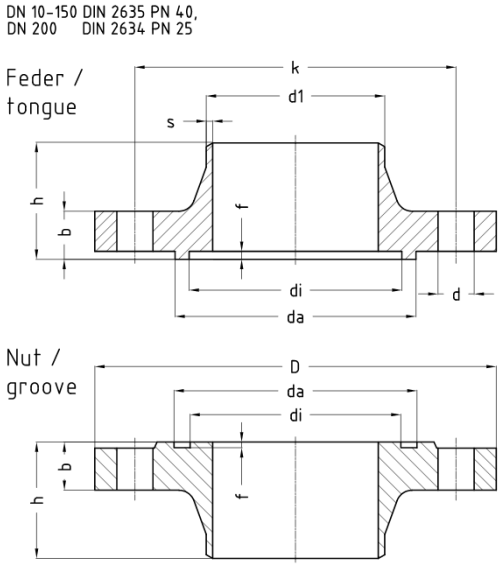
DIN2634 PN25 DN10-150 / DIN 2635 PN40 DN10-400																				
	Welding ends									Flange facing design						Screws DIN 931			Sealing ring DIN 2691	
	Series 1		Series 2							Groove			Tongue							
DN	d1	s	d1	s	b	k	h	d	D	di	da	f	di	da	f	Quant-ity	Thread	Lengt h	di	da
10	17.2	1.8	15.0	2.5	16	60	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 61: 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



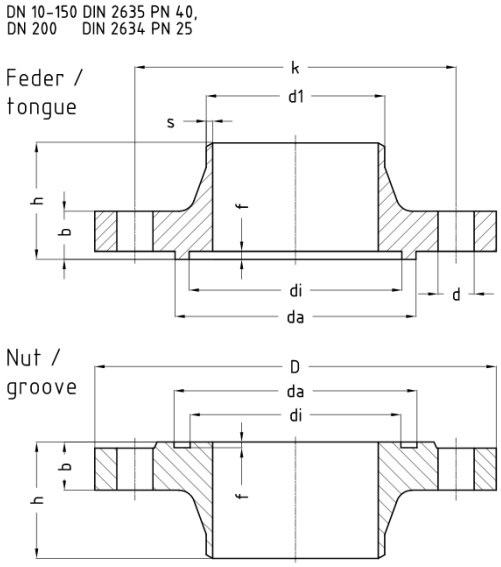
DIN 2634 PN25 DN200-500																		
	Welding ends							Flange facing design						Screws DIN 931			Sealing ring DIN 2691	
	Series 1							Groove			Tongue							
DN	d1	s	b	k	h	d	D	di	da	f	di	da	f	Quant-ity	Thread	Length	di	da
200	219.1	6.3	30	310	80	26	360	238	260	3.0	239	259	4.5	12	M 24	90	239	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 62: 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



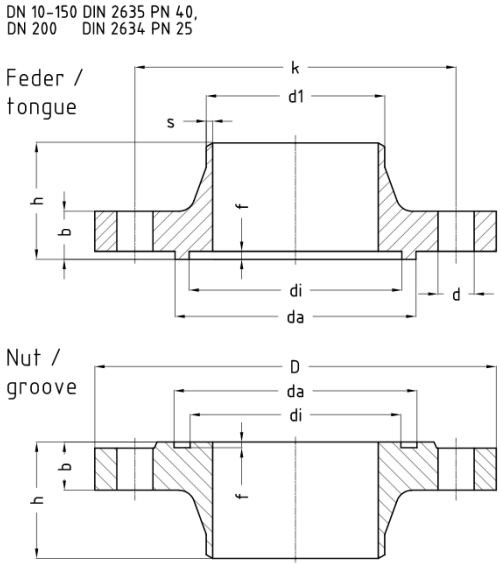
DIN EN 1092-1 PN25 DN10-150 / PN40 DN10-400																				
	Welding ends									Flange facing design						Screws DIN 931			Sealing ring DIN 2691	
	Series 1		Series 2							Groove			Tongue							
DN	d1	s	d1	s	b	k	h	d	D	di	da	f	di	da	f	Quant-ity	Thread	Lengt h	di	da
10	17.2	1.8	15.0	2.5	16	60	35	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 63: 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



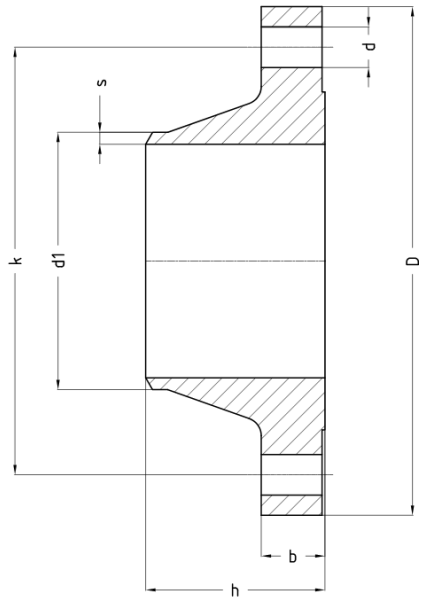
DIN EN 1092-1 PN25 DN200-500																		
	Welding ends							Flange facing design						Screws DIN 931			Sealing ring DIN 2691	
	Series 1							Groove			Tongue							
DN	d1	s	b	k	h	d	D	di	da	f	di	da	f	Quantity	Thread	Length	di	da
200	219.1	6.3	30	310	80	26	360	238	260	4.5	239	259	5.0	12	M 24	90	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 64: 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



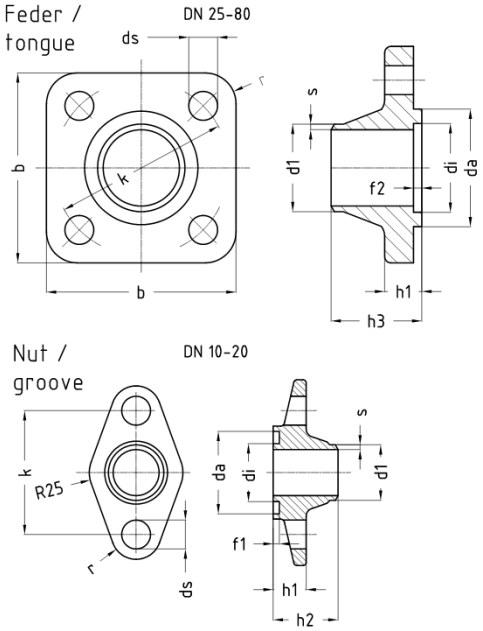
Nominal size		Welding ends acc. to:													
		ANSI		ANSI-FL 150lbs RF / sq. in					Screws DIN 931	ANSI-FL 300lbs RF / sq. in					Screws DIN 931
DN	INCH	d1	s	b	k	h	d	D	Quantity	b	k	h	d	D	Quantity
15	1/2"	21.3	2.8	11.2	60.5	47.8	15.7	88.9	4	14.2	66.5	52.3	15.7	95.2	4
20	3/4"	26.7	2.9	12.7	69.9	52.3	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 65: 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								Bolts / screws DIN 931			Sealing ring DIN 2691	
	Series 1		Series 2		ANSI							Groove				Tongue				Quant-ity/ Quant-ity	Thread/ Thread	Length/ 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

AWP-FL PN25 DN10-20 / PN40 DN25-80																							
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
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 66: 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.
- Our general terms and conditions apply.

GEA AWP GmbH
Armaturenstr. 2
17291 Prenzlau
Germany
phone: +49 3984 8559-0
fax: +49 3984 8559-18
e-mail: info@awpvalves.com

Latest revision: 17.02.2026
©All rights reserved. Subject to modifications. Printed in Germany.