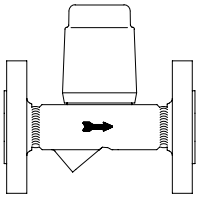
Liquid drainer
PN16 / PN40

- with flanges (Fig. 665....1)
- with screwed sockets (Fig. 665....2)
- with socket weld ends (Fig. 665....3)
- with butt weld ends (Fig. 665....4)
- union with butt weld ends (Fig. 665....5)

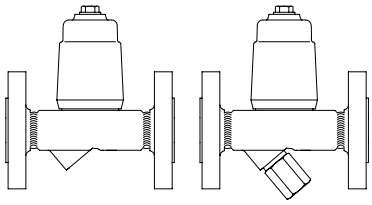


Grey cast iron
Forged steel
Fig. 665 Page 2

Fig. 665....1

Condensate discharge temperature limiter
PN40

- with flanges (Fig. 645/647....1)
- with screwed sockets (Fig. 645/647....2)
- with socket weld ends (Fig. 645/647....3)
- with butt weld ends (Fig. 645/647....4)

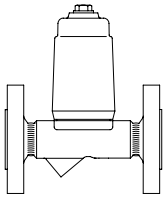


Forged steel
Fig. 645/647 (Y) Page 4

Fig. 647....1

Return temperature limiter
PN40

- with flanges (Fig. 650....1)
- with screwed sockets (Fig. 650....2)
- with socket weld ends (Fig. 650....3)
- with butt weld ends (Fig. 650....4)

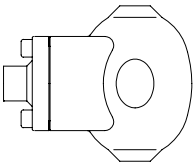


Forged steel
Fig. 650 Page 6

Fig. 650....1

Automatic air vent for liquid systems
PN16 / PN25 / PN40

- with flanges (Fig. 656....1)
- with screwed sockets (Fig. 656....2)
- with socket weld ends (Fig. 656....3)
- with butt weld ends (Fig. 656....4)

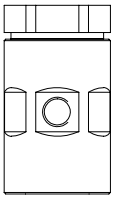


Grey cast iron
SG iron
Stainless steel
Fig. 656 Page 10

Fig. 656....1

Vacuum breaker
PN16 / PN40

- with screwed sockets (Fig. 655....2)



Stainless steel
Fig. 655 Page 12

Fig. 655....2

Liquid drainer (Grey cast iron, Forged steel)

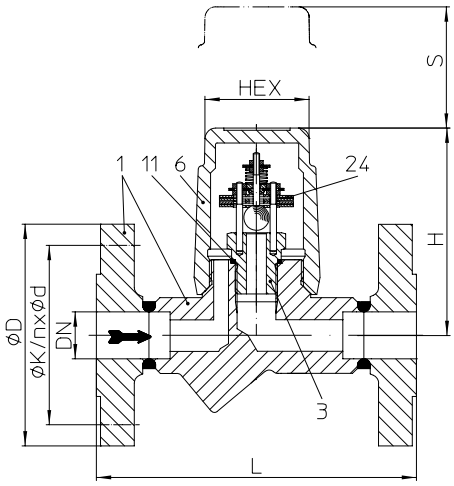


Fig. 665....1 with flanges

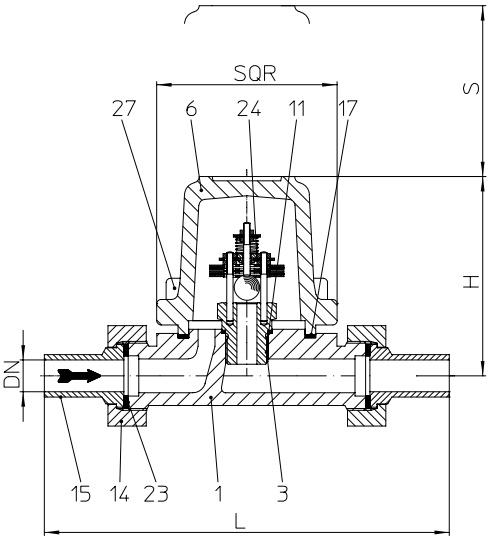


Fig. 665.... Union with butt weld ends (only PN16)

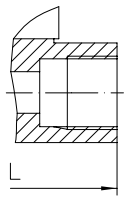


Fig. 665....2
with screwed sockets

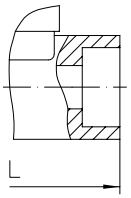


Fig. 665....3
with socket weld ends

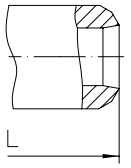


Fig. 665....4
with butt weld ends

Figure	Nominal pressure	Material	Nominal diam. / NPS	Operating pressure PS	Inlet temperature TS	Allow. differential pressure ΔPMX
12.665	PN16	EN-JL1040	15 - 25 / 1/2" - 1"	12,8 barg	200 °C	1,5 bar (Closing pressure, Factory setting)
				9,6 barg	300 °C	
45.665	PN40	1.0460	15 - 25 / 1/2" - 1"	32 barg	250 °C	
				22 barg	385 °C	
				14,5 barg	450 °C	
1.4541 on request.						
For ANSI versions refer to data sheet CONA®Components-ANSI						

Types of connection	Other types of connection on request.
• Flanges 1	acc. to DIN EN 1092-2 (PN16) / DIN EN 1092-1 (PN40)
• Screwed sockets 2	Rp thread acc. to DIN EN 10226-1 or NPT thread acc. to ANSI B1.20.1
• Socket weld ends 3	acc. to DIN EN 12760
• Butt weld ends 4	Weld preparation acc. to EN ISO 9692 identification No. 1.3 and 1.5 (Note restriction on operating pressure / inlet temperature depending to design!)
• Union with butt weld ends 5	acc. to data sheet resp. customer request

Features

- Automatic condensate-discharge during start-up and shut down
- On unpressurized system the liquid drainer will be opened by a compression spring inside of the controller
- On factory setting the liquid drainer will be closed at a differential pressure of ≥1,5 bar. Other factory settings between 0,5 bar and 2 bar possible.
- Bimetallic elements will achieve that the closing pressure is constant
- Installation in any position (if a frost resistant execution is required please inquire)

Selection criteria		**Example for order data**
Closing pressure	Material	For the condensate discharge from a steam pipe, ΔP=3 bar, max. flow 700 kg/h, flange connection, PN16, DN25
Nominal diameter / pressure	Place of service	**=> Liquid drainer, Fig. 665, PN16, DN25, EN-JL1040, Face-to-face dimension 160 mm, with flanges**
Type of connection		

Types of connection		PN16			PN40								
		Flanges	Union with butt weld ends		Flanges			Screwed sockets Socket weld ends			Butt weld ends		
DN		25	15	20	15	20	25	15	20	25	15	20	25
NPS		1"	1/2"	3/4"	1/2"	3/4"	1"	1/2"	3/4"	1"	1/2"	3/4"	1"
Face-to-face acc. to data sheet resp. customer request													
L	(mm)	160	190	190	150	150	160	95	95	95	250	250	250
Dimensions													Standard-flange dimensions refer to page 14.
H	(mm)	100	100	100	98	98	98	98	98	103	98	98	98
S	(mm)	70	70	70	70	70	70	70	70	70	70	70	70
HEX	(mm)	50	50	50	50	50	50	50	50	50	50	50	50
SQR	(mm)	85	85	85	85	85	85	85	85	85	85	85	85
Weights													
Fig. 665 (approx.)	(kg)	4,5	2,6	2,3	5,4	2,6	2,3	2,2	2,3	2,4	2,9	2,8	2,6

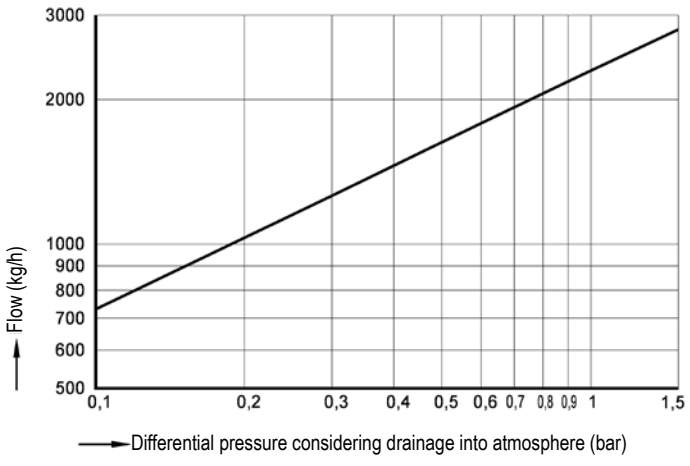
Parts				
Pos.	**Sp.p.**	**Description**	**Fig. 12.665**	**Fig. 45.665**
1		Body	EN-GJL-250, EN-JL1040	P250GH, 1.0460
6		Cover	EN-GJL-250, EN-JL1040	--
6		Cap	--	P250GH, 1.0460
11	x	Sealing ring	CU	A4
14		Union nut	11SMn30+C, 1.0715+C	--
15		Welding end	C15, 1.0401	--
17	x	Gasket	Pure graphite (CrNi laminated with graphite)	--
23	x	Sealing ring	Novapress MULTI	--
24	x	Controller, cpl.	TB 102 / 85 (corrosion resistant bimetal)	
27		Cheese head screw	A2-70	--
	└ Spare parts			

Information / restriction of technical rules need to be observed!

Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview and Resistance list).

Operating and installation instructions can be downloaded at www.ari-armaturen.com.

Capacity chart



The capacity chart shows the maximum flow quantities of cold condensate at about 20°C.

Condensate discharge temperature limiter (Forged steel)

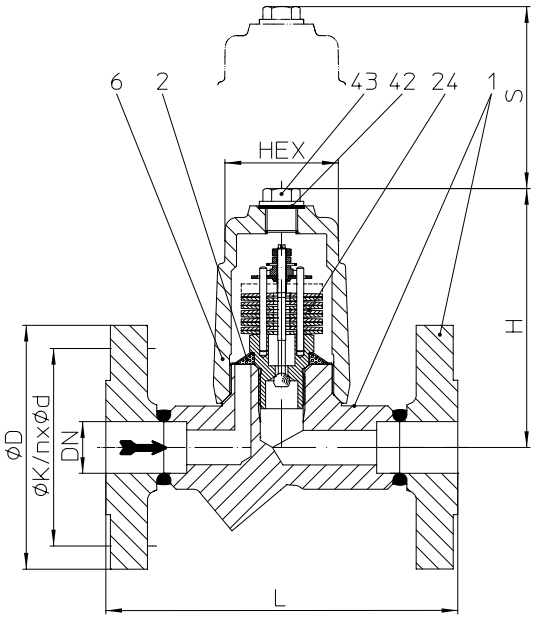


Fig. 645....1 with flanges

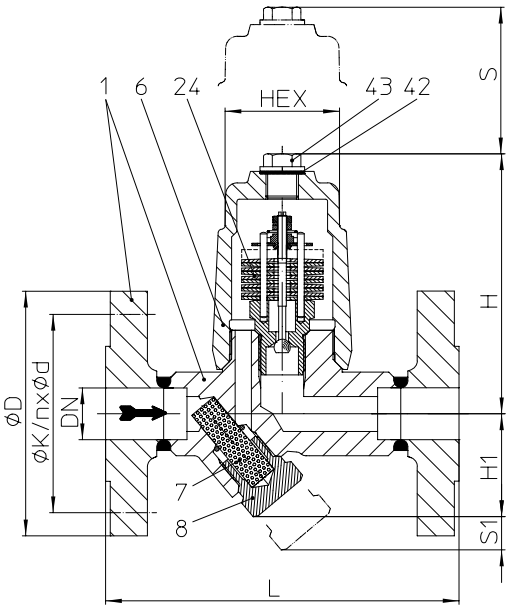


Fig. 647.... with flanges

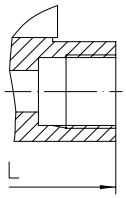


Fig. 645/647....2
with screwed sockets

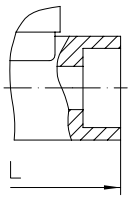


Fig. 645/647....3
with socket weld ends

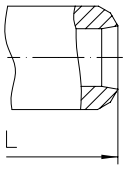


Fig. 645/647....4
with butt weld ends

Figure	Nominal pressure	Material	Nominal diam. / NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure ΔPMX	for controller
45.645 45.647 (Y)	PN40	1.0460	15 - 25 / 1/2" - 1"	32 barg	250 °C	32 bar	R32
				22 barg	385 °C		
				14,5 barg	450 °C		
For ANSI versions refer to data sheet CONA®Components-ANSI							

Types of connection	Other types of connection on request.
• Flanges 1	acc. to DIN EN 1092-1 (PN40)
• Screwed sockets 2	Rp thread acc. to DIN EN 10226-1 or NPT thread acc. to ANSI B1.20.1
• Socket weld ends 3	acc. to DIN EN 12760
• Butt weld ends 4	Weld preparation acc. to EN ISO 9692 identification No. 1.3 and 1.5 (Note restriction on operating pressure / inlet temperature depending to design!)

Features

- Steam trap for the discharge of condensate without re-evaporation at adjustable condensate temperatures (temperature range from 60°C up to 140°C).
- With corrosion- and waterhammer resistant bimetallic controller
- Automatic air-venting during start-up and operation of the installation
- Installation in any position, except cap upside down
- Integrated non return protection
- With inside strainer - Fig. 645 / with outside strainer - Fig. 647 (Y)
- Subcooling of condensate is continuously adjustable (observe the operation instructions)
- The exchange of the controller is possible without disturbing the pipe connections
- For the utilization in warm water and hot water plants

Options (Design refer to page 5)

- with blow down valve, cpl. (Pos. 46)
- with thermometer insert (Pos. 47 and 48) (only with inside strainer)

Selection criteria		**Example for order data**
• Inlet pressure	• Type of connection	For the condensate discharge from a steam pipe, Operating pressure P1 = 4 bar(g), max. Flow 50 kg/h, Opening temperature 80°C, with flanges, PN40, DN25
• Back pressure	• Material	**=> Condensate discharge temperature limiter, Fig. 647, PN40, DN25, 1.0460, Face-to-face dimension 160 mm, with flanges, with thermometer.**
• Quantity of condensate	• Options	
• Nominal diameter / pressure		

Dimensions and weights	Types of connection								
	Flanges			Screwed sockets Socket weld ends			Butt weld ends		
DN	15	20	25	15	20	25	15	20	25
NPS	1/2"	3/4"	1"	1/2"	3/4"	1"	1/2"	3/4"	1"

Face-to-face acc. to data sheet resp. customer request										
L	(mm)	150	150	160	95	95	95	250	250	250

Dimensions										Standard-flange dimensions refer to page 14.
H	(mm)	112	112	112	112	112	121	112	112	112
H1	(mm)	65	65	65	65	65	58	65	65	65
S	(mm)	80	80	80	80	80	80	80	80	80
S1	(mm)	30	30	30	30	30	30	30	30	30
HEX	(mm)	50	50	50	50	50	50	50	50	50

Weights										
Fig. 645/647 (approx.)	(kg)	3,6	4,3	5,6	2	2,4	2,4	2,2	2	2

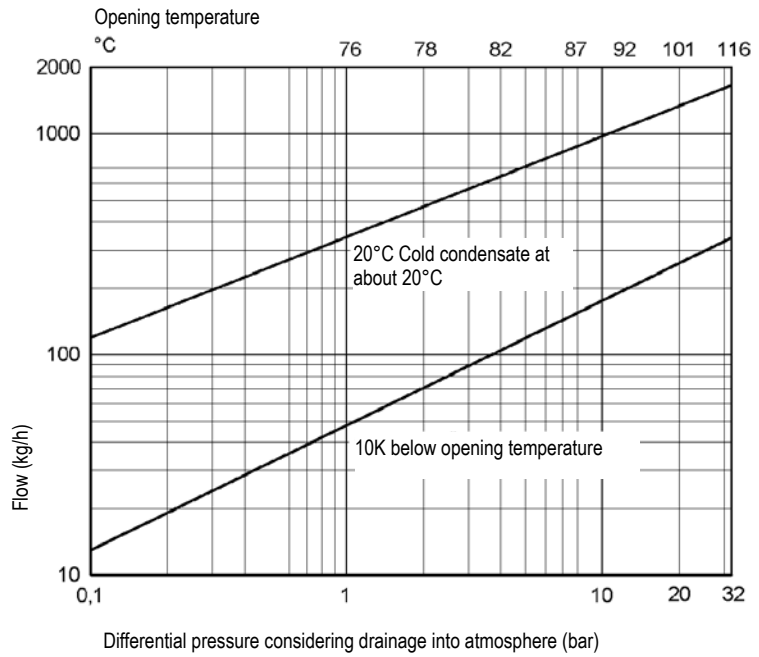
Parts				
Pos.	Sp.p.	Description	Fig. 45.645	Fig. 45.647
1		Body	P250 GH, 1.0460	
2	x	Strainer	X5CrNi18-10, 1.4301	--
6		Cap	P250 GH, 1.0460	
7	x	Strainer	--	X5CrNi18-10, 1.4301
8	x	Strainer plug	--	X6CrNiTi18-10, 1.4541
24	x	Controller, cpl.	TB 102 / 85 (corrosion resistant bimetal)	
42	x	Sealing ring	A4	
43	x	Screw plug	C35E, 1.1181	
46	x	Blow down valve, cpl.	X6CrNiTi18-10, 1.4541	
47	x	Thermometer adapter	X6CrNiTi18-10, 1.4541	
48	x	Thermometer	X8CrNiS18-9, 1.4305	
		└ Spare parts		

Information / restriction of technical rules need to be observed!

Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview and Resistance list).

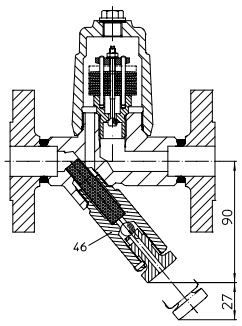
Operating and installation instructions can be downloaded at www.ari-armaturen.com.

Capacity chart

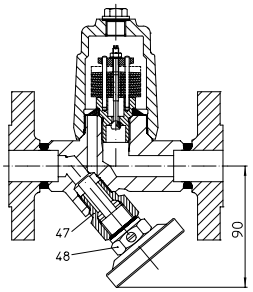


The capacity chart shows the maximum flow quantities of cold condensate at about 20°C and condensate at 10K below the opening temperature based on the factory setting.

Options



Outside strainer with blow down valve



Thermometer insert with adapter
(Indicating range: 0°C up to 160°C) standard,
(up to 250°C on request)

Return temperature limiter (Forged steel)

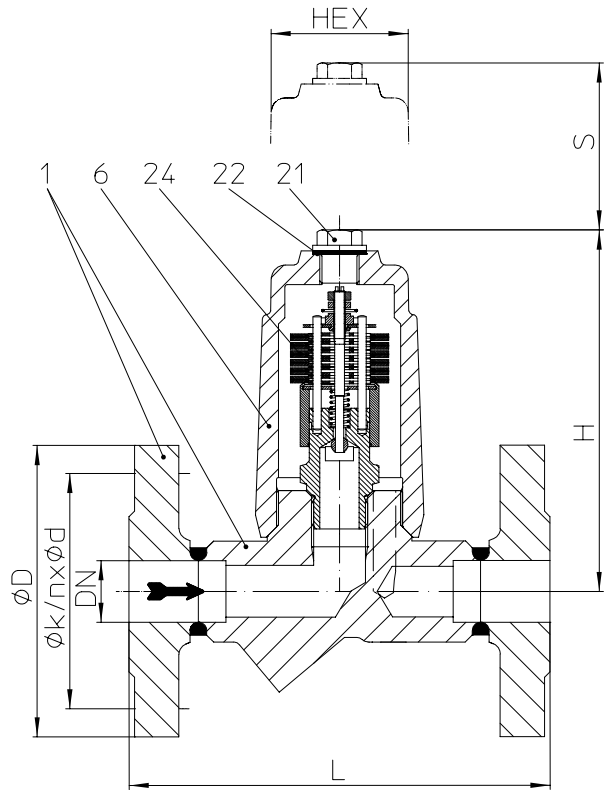


Fig. 650....1 with flanges

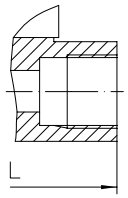


Fig. 650....2
with screwed sockets

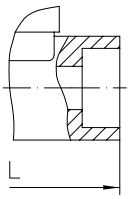


Fig. 650....3
with socket weld ends

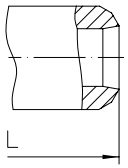


Fig. 650....4
with butt weld ends

Figure	Nominal pressure	Material	Nominal diam. / NPS	Operating pressure PS	Inlet temperature TS	Allow. differential pressure ΔPMX	for controller
45.650	PN40	1.0460	15 - 25 / 1/2" - 1"	22 barg	180 °C	6 bar	R22
For ANSI versions refer to data sheet CONA®Components-ANSI							

Types of connection — Other types of connection on request.

- Flanges ....1 _____ acc. to DIN EN 1092-1 (PN40)
- Screwed sockets ....2 _____ Rp thread acc. to DIN EN 10226-1 or NPT thread acc. to ANSI B1.20.1
- Socket weld ends ....3 _____ acc. to DIN EN 12760
- Butt weld ends ....4 _____ Weld preparation acc. to EN ISO 9692 identification No. 1.3 and 1.5
  (Note restriction on operating pressure / inlet temperature depending to design!)

Features

- Liquid return temperature limiter is applied for the return of hot water or other suitable liquids in heating systems.
  Temperature guided but operating from the pressure, it is providing a consumption oriented supply of hot water to heating systems.
  Energy saving by using reduced flow return temperatures.
- With corrosion- and waterhammer resistant bimetallic controller
- The controller has a stroke-limitation at 130 °C thus even in case of an incorrect setting the function is performed
- Scope range of closing temperature from: 60° to 130 °C
- The exchange of the controller is possible without disturbing the pipe connections
- Optimized design for quick installation
- Maintenance simplified due to screwed cap without sealing
- Installation: horizontal installation position is preferred, inclined installation position of the screwed cap is possible

Options — (Design refer to page 7)

- with thermometer insert (Pos. 47 and 48)
- with external adjustment device (pos. 44) and extended setting range, with factory setting at 180°C

Selection criteria

- Closing pressure
- Operating pressure
- Back pressure/Differential pressure
- Flow quantity
- Upstream temperature
- Required closing temperature
- Nominal diameter / pressure
- Type of connection
- Material

Example for order data

Return temperature limitation for a pipe tracing system. Inlet pressure 4 bar (g), closing temperature 90 °C, flange connection, PN40, DN15, 1.0460, face-to-face dimension 150 mm.

=>Liquid return temperature limiter, Fig. 650, PN40, DN15, 1.0460, face-to-face dimension 150 mm, T=90°C, flange connection

Types of connection		Flanges			Screwed sockets Socket weld ends			Butt weld ends		
DN		15	20	25	15	20	25	15	20	25
NPS		1/2"	3/4"	1"	1/2"	3/4"	1"	1/2"	3/4"	1"
Face-to-face acc. to data sheet resp. customer request										
L	(mm)	150	150	160	95	95	95	250	250	250
Dimensions										Standard-flange dimensions refer to page 14 / Larger nominal diameters refer to page 8.
H	(mm)	130	130	130	130	130	135	130	130	130
H1	(mm)	152	152	152	152	152	152	152	152	152
S	(mm)	90	90	90	90	90	90	90	90	90
HEX	(mm)	50	50	50	50	50	50	50	50	50
Weights										
Fig. 650 (approx.)	(kg)	3,4	4	4,4	2,1	2	2,5	2,6	2,7	2,8

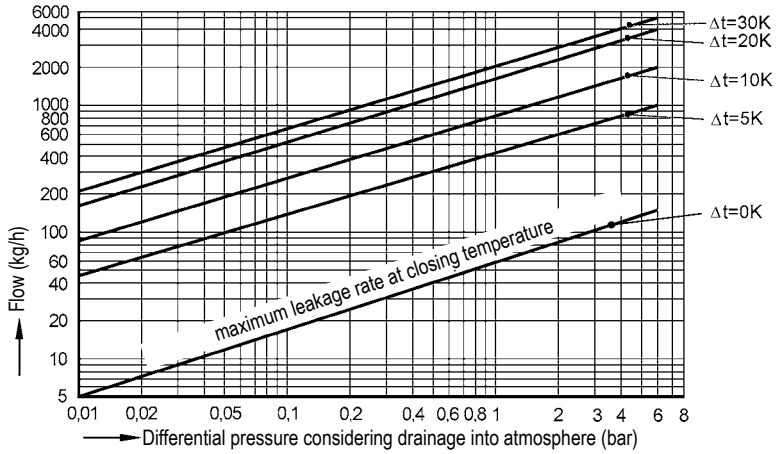
Parts			
Pos.	**Sp.p.**	**Description**	**Fig. 45.650**
1		Body	P250 GH, 1.0460
6		Cap	P250 GH, 1.0460
21	x	Screw plug	C35E, 1.1181
22	x	Sealing ring	A4
24	x	Controller, cpl.	TB 102 / 85 (corrosion resistant bimetal)
44		Cylinder screw HSE (Manual adjustment device)	X8CrNiS18-9, 1.4305
47	x	Thermometer adapter	X6CrNiTi18-10, 1.4541
48	x	Thermometer	X6CrMoTi17-12-2, 1.4571
		└ Spare parts	

Information / restriction of technical rules need to be observed!

Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview and Resistance list).

Operating and installation instructions can be downloaded at www.ari-armaturen.com.

Capacity chart



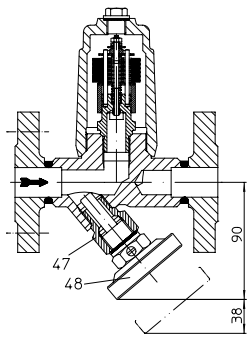
The capacity chart shows the maximum capacity at factory setting (90°C).

The water-temperature determines the degree of opening of the controller. The lower temperature of the water the higher the flow quantity.

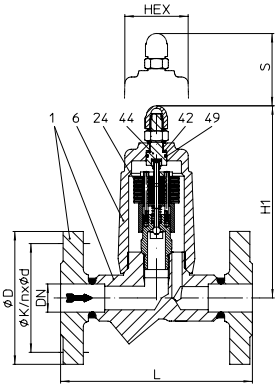
Change of the factory setting

After opening the cap in pressureless mode, an adjustment of the closing temperature can be done. A half turn of the screw clockwise results in an increase of temperature by about 10K.

Options



Thermometer insert with adapter
(Anzeigebereich: 0°C to 160°C) standard, (to 250°C acc. to customer request)



External adjustment

Return temperature limiter (Forged steel)

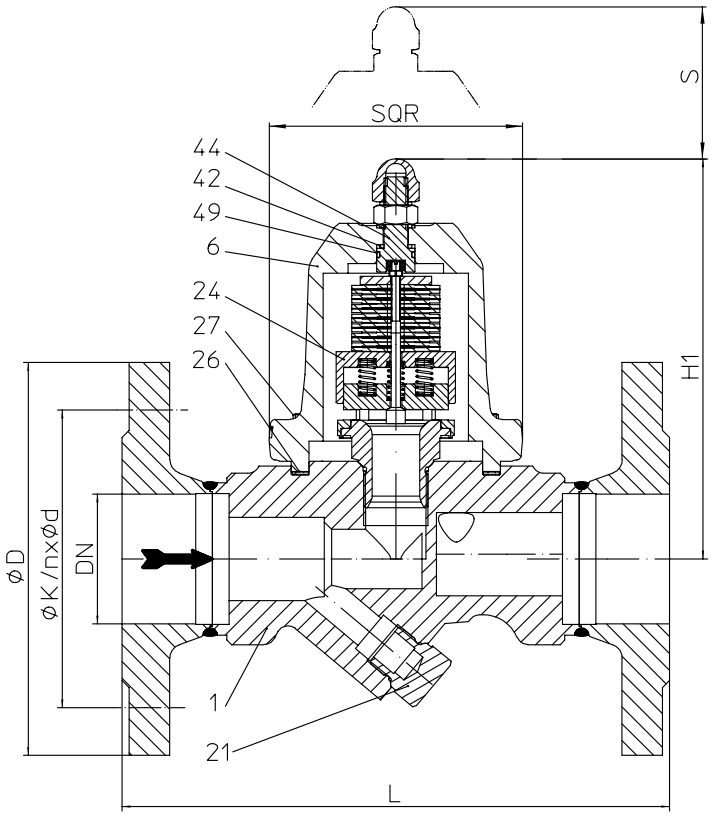


Fig. 650....1 with flanges

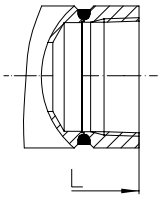


Fig. 650....2
with screwed sockets

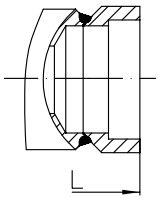


Fig. 650....3
with socket weld ends

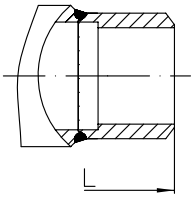


Fig. 650....4
with butt weld ends

Figure	Nominal pressure	Material	Nominal diameter / NPS	Operating pressure PS	Inlet temperature TS	Allow. differential pressure ΔPMX
45.650	PN40	1.0460	40 - 50 / 1 1/2" - 2"	22 barg	180 °C	6 bar
For ANSI versions refer to data sheet CONA®Components-ANSI						

Types of connection — Other types of connection on request.

- Flanges ....1 _____ acc. to DIN EN 1092-1 (PN40)
- Screwed sockets ....2 _____ Rp thread acc. to DIN EN 10226-1 or NPT thread acc. to ANSI B1.20.1
- Socket weld ends ....3 _____ acc. to DIN EN 12760
- Butt weld ends ....4 _____ Weld preparation acc. to EN ISO 9692 identification No. 1.3 and 1.5
  (Note restriction on operating pressure / inlet temperature depending to design!)

Features

- Liquid return temperature limiter is applied for the return of hot water or other suitable liquids in heating systems.
  Temperature guided but operating from the pressure, it is providing a consumption oriented supply of hot water to heating systems.
  Energy saving by using reduced flow return temperatures.
- With corrosion- and waterhammer resistant bimetallic controller
- Scope range of closing temperature from up to 180 °C
- With external adjustment device (pos. 44) and extended setting range
- With factory setting 90°C
- The exchange of the controller is possible without disturbing the pipe connections

Options — (Design refer to page 9)

- with thermometer insert (Pos. 47 and 48)

Selection criteria

- Closing pressure
- Operating pressure
- Back pressure/Differential pressure
- Flow quantity
- Upstream temperature
- Required closing temperature
- Nominal diameter / pressure
- Type of connection
- Material

Example for order data

Return temperature limitation for a pipe tracing system.. Inlet pressure 4bar(ü), closing temperature 90°C, flange connection, PN40, DN40, 1.0460,
Face-to-face dimension 230mm.

=> Return temperature limiter, Fig. 650, PN40, DN40, 1.0460, face-to-face dimension 230mm, T=90°C, flange connection

Types of connection		Flanges		Screwed sockets [1] Socket weld ends		Butt weld ends	
DN		40	50	40	50	40	50
NPS		1 1/2"	2"	1 1/2"	2"	1 1/2"	2"
Face-to-face acc. to data sheet resp. customer request							
L	(mm)	230	230	130 / 160 [1]	210	250	250
Dimensions							Standard-flange dimensions refer to page 14 / Smaller nominal diameters refer to page 6.
H1	(mm)	168	168	168	168	168	168
S	(mm)	100	100	100	100	100	100
SQR	(mm)	110	110	110	110	110	110
Weights							
Fig. 650 (approx.)	(kg)	11,3	12,1	8	8	8,9	9,8

Parts

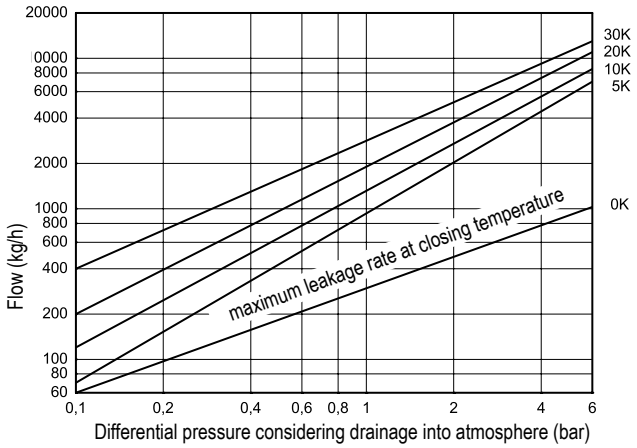
Pos.	Sp.p.	Description	Fig. 45.650
1		Body	P250 GH, 1.0460
6		Cover	P250 GH, 1.0460
21		Screw plug	X6CrNiTi18-10, 1.4541
24	x	Controller, cpl.	TB 102 / 85 (corrosion resistant bimetal)
26	x	Gasket	Graphite
27		Cheese head screw	21CrMoV 5-7, 1.7709
42	x	Sealing ring	Cu
44		Cylinder screw HSE (Manual adjustment device)	X8CrNiS18-9, 1.4305
47	x	Thermometer adapter	X6CrNiTi18-10, 1.4541
48	x	Thermometer	X6CrMoTi17-12-2, 1.4571
49	x	O-ring	FPM 80
	└ Spare parts		

Information / restriction of technical rules need to be observed!

Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview and Resistance list).

Operating and installation instructions can be downloaded at www.ari-armaturen.com.

Capacity chart



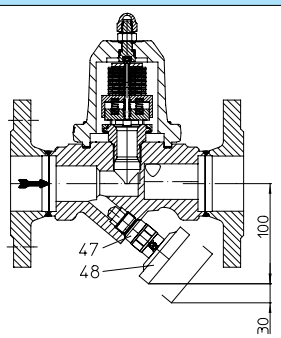
The capacity chart shows the maximum capacity at factory setting (90°C).

The water-temperature determines the degree of opening of the controller. The lower temperature of the water the higher the flow quantity.

Change of the factory setting

A half turn of the screw clockwise results in an increase of temperature by about 8K.

Options



Thermometer insert with adapter
Indicating range: 0°C to 160°C) standard, (to 250°C customer request)

Automatic air vent for liquid systems (SG iron, Cast steel, Stainless steel)

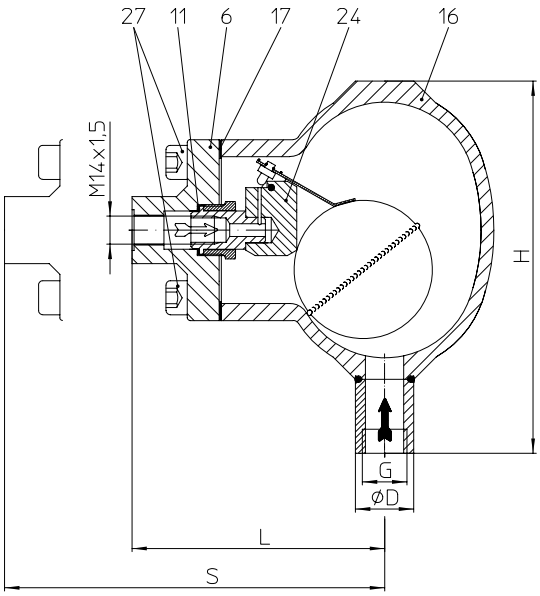


Fig. 656....2 (PN16) with screwed sockets

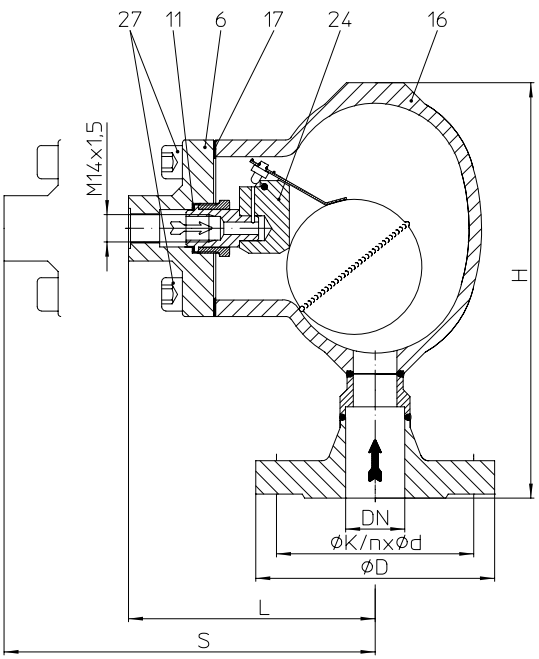


Fig. 656....1 with flange (not in EN-JS1049)

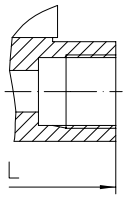


Fig. 656....2
with screwed sockets

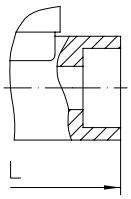


Fig. 656....3
with socket weld ends

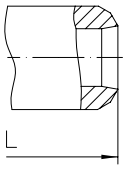


Fig. 656....4
with butt weld ends

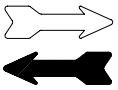


Figure	Nominal pressure	Material	Nominal diameter / NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure ΔPMX	for controller
22.656	PN16	EN-JS1049	15 - 25 / 1/2" - 1"	14 barg	300 °C	14 bar	R14
34.656	PN25	1.0619+N	15 - 25 / 1/2" - 1"	21 barg	225 °C	21 bar	R21
35.656	PN40	1.0619+N	15 - 25 / 1/2" - 1"	21 barg	400 °C	21 bar	R21
54.656	PN25	1.4308	15 - 25 / 1/2" - 1"	21 barg	300 °C	21 bar	R21
55.656	PN40	1.4308	15 - 25 / 1/2" - 1"	21 barg	300 °C	21 bar	R21
For ANSI versions refer to data sheet CONA®Components-ANSI							

Types of connection	Other types of connection on request.
Inlet:	• Flanges ....1 _____ acc. to DIN EN 1092-1 (PN25/40) • Screwed sockets ....2 _____ Rp thread acc. to DIN EN 10226-1 or NPT thread acc. to ANSI B1.20.1 • Socket weld ends ....3 _____ acc. to DIN EN 12760 • Butt weld ends ....4 _____ Weld preparation acc. to EN ISO 9692 identification No. 1.3 and 1.5 (Note restriction on operating pressure / inlet temperature depending to design!)
Outlet:	• M14 x 1,5 DIN 13

Features
• Automatic air vents for liquid systems
• Hood with flanged cover
• The exchange of the controller is possible without disturbing the pipe connections
• Installation: above the point being vented, inlet always at the bottom

Options	(Design refer to page 11)
• Drip pipe (Pos. 54) with Union M14x1,5 for Pipe-ø 8 mm (Pos. 53)	

Selection criteria		**Example for order data**
• Operating pressure	• Nominal diameter / pressure	Automatic air vents for liquid systems, PS = 21 barg, TS = 400°C, flange connection, PN25, DN25, Hood Cast steel / Cover Forged steel
• Back pressure/Differential pressure	• Type of connection	**=> Automatic air vent for liquid systems, Fig. 656, PN25, DN25, 1.0460/1.0619, Face-to-face dimension 119 mm, R21, flange connection**
• Operating temperature	• Material	
• Flow quantity		

Types of connection		Flanges [1]			Screwed sockets [2] Socket weld ends [1]			Butt weld ends [1]		
DN		15	20	25	15	20	25	15	20	25
NPS		1/2"	3/4"	1"	1/2"	3/4"	1"	1/2"	3/4"	1"
Face-to-face acc. to data sheet resp. customer request										
L	(mm)	119	119	119	119	119	119	119	119	119
Dimensions										
H	(mm)	196	197	200	140 [2] / 175	175	186	175	175	186
S	(mm)	238	238	238	238	238	238	238	238	238
Weights										
Fig. 656 (approx.)	(kg)	4,8	5,3	5,6	4,3	4,4	4,4	4,3	4,4	4,4

[1] not in EN-JS1049

[2] Screwed sockets: L = 140

Standard-flange dimensions refer to page 14.

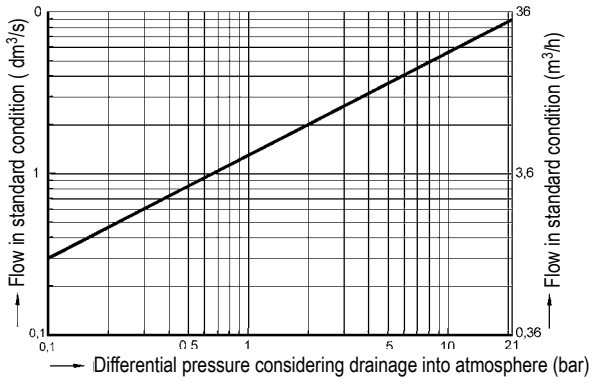
Parts							
Pos.	Sp.p.	Description	Fig. 22.656	Fig. 34.656	Fig. 35.656	Fig. 54.656	Fig. 55.656
6		Cover	P250GH, 1.0460			X6CrNiTi18-10, 1.4541	
11	x	Sealing ring	A4			A4	
16		Hood	EN-JS1049, EN-GJS-400-18U-LT	GP240GH+N, 1.0619+N		GX5CrNi19-10, 1.4308	
17	x	Gasket	Pure graphite CrNi laminated with graphite				
24	x	Controller, cpl.	X5CrNi18-10, 1.4301				
27		Cheese head screw	A2-70		21CrMoV 5-7, 1.7709	A2-70	
53	x	Union for drip pipe	X6CrNiMoTi17-12-2, 1.4571				
54	x	Drip pipe	X5CrNi18-10, 1.4301				
		└ Spare parts					

Information / restriction of technical rules need to be observed!

Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview and Resistance list).

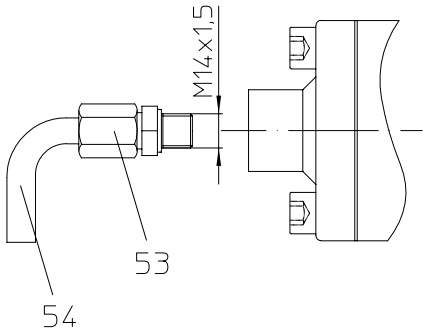
Operating and installation instructions can be downloaded at www.ari-armaturen.com.

Capacity chart



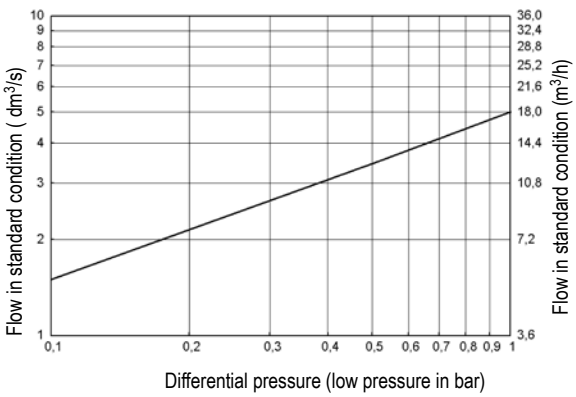
The diagram shows the maximum discharge of air at standard condition.

Options

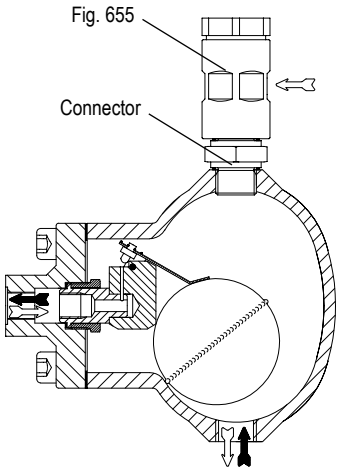


Drip pipe (angle) with union joint

For higher performance with mounted vacuum breaker (BR655)



The diagram shows the maximum discharge of air at standard conditions with mounted vacuumbreaker.



with connector and vacuum breaker (BR655)

Vacuum breaker (Stainless steel)

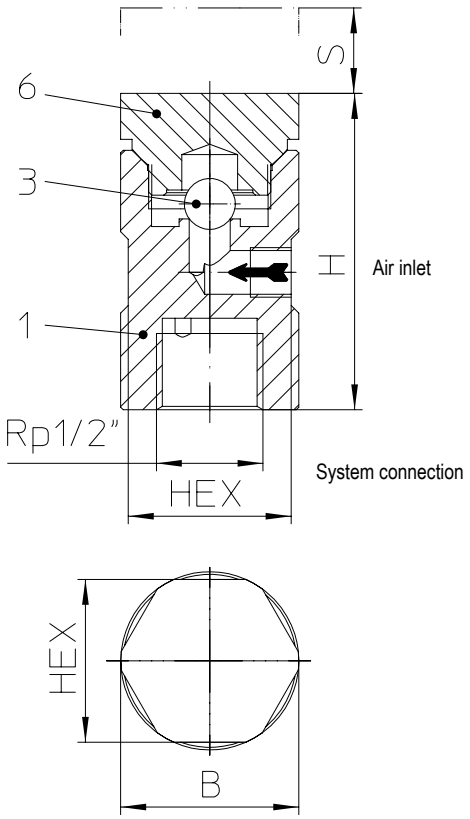


Fig. 655....2 with screwed sockets

Figure	Nominal pressure	Material	NPS	Operating pressure PS	Inlet temperature TS	Set pressure	Kvs-value
52.655	PN16	1.4301	Rp 1/2	13 barg	400 °C	7 mbar	0,55 m3/h
55.655	PN40	1.4301	Rp 1/2	13 barg	400 °C	7 mbar	0,55 m3/h
				21 barg	220 °C		
For ANSI versions refer to data sheet CONA®Components-ANSI							

Types of connection	Other types of connection on request.
• System connection ....2 _____Rp 1/2 (DIN EN10226-1) / NPT 1/2 (ANSI B1.20.1)	A dropping line can be connected. The line has to be led to an outlet.
• Air inlet _____Rp 1/8 (DIN EN10226-1) / NPT 1/8 (ANSI B1.20.1)	

Features

- Ventilation valve for pipelines, condensing vapour (steam) or liquid systems, where the system pressure should not fall below the atmospheric pressure.
- Vertical position, cap on top.
- System connection downwards.

Selection criteria		**Example for order data**
• Operating pressure	• Nominal diameter / pressure	Vacuum breaker, System connection Rp, PN 40, NPS 1/2",
• Operating temperature	• Type of connection	**=> Vacuum breaker, Fig. 655, PN 40, DN 1/2", System connection Rp.**
• Flow quantity	• Material	

Types of connection	System connection (Rp / NPT)
NPS	1/2"

Dimensions		
H	(mm)	62
B	(mm)	35
S	(mm)	10
HEX	(mm)	32

Weights		
Fig. 655 (approx.)	(kg)	0,38

Parts

Pos.	Sp.p.	Description	Fig. 52.655 / 55.655
1	x (cpl. unit)	Body	X5CrNi18-10, 1.4301
3		Valve ball	X5CrNiMo17-12-2, 1.4401
6		Cap	X17CrNi16-2, 1.4057
		└ Spare parts	

Information / restriction of technical rules need to be observed!

Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview and Resistance list).

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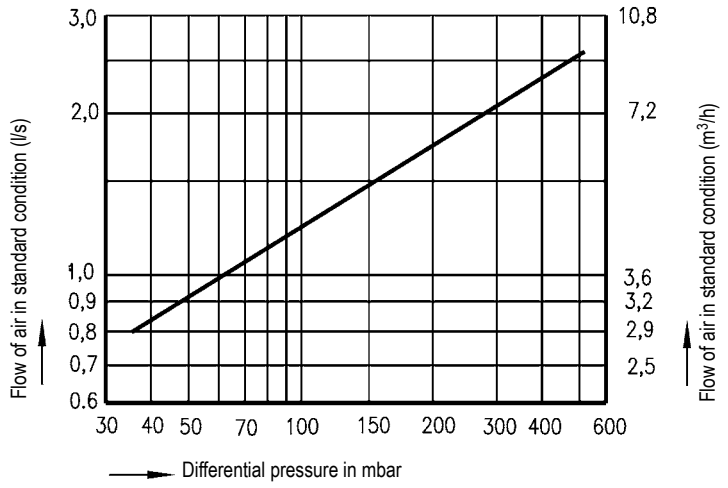
Capacity chart



The diagram shows the maximum discharge of air at standard conditions

Informations about pipe welding		
Welding groove acc. to DIN 2559		
The material used for ARI valves with butt weld ends are:	1.0619+N	GP240GH+N acc. to DIN EN 10213-2
	1.0460	P250GH acc. to DIN EN 10222-2
Note:	1.0401	C15 acc. to DIN 10277-2
Note restriction on operating pressure / inlet temperature depending to design!	1.4408	GX5CrNiMo19-11-2 acc. to DIN EN 10213-4

Due to our experience, we recommend to apply an electric welding process.

Because of the different material compositions and wall thickness of the steam traps and the pipe gas welding shall not be applied. Quenching cracks and coarse grain structure may develop.

On bimetallic steam traps face-to-face of 95 mm or less, the bimetallic controller has to be disassembled prior to welding. After the traps have cooled down to the ambient temperature the bimetallic controller shall be fitted again into the body.

Steam traps with socket-weld ends shall only be welded by arc welding (welding process 111 acc. to DIN EN 24063).

If during the time of warranty others than the manufacturer or by the manufacturer authorized persons are interfering in the product and/or the setting, the right of claim for warranty will lapse!

Standard-flange dimensions acc. to DIN EN 1092-2/ -1

DN			15	20	25	32	40	50
NPS			1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
PN16	ØD	(mm)	95	105	115	140	150	165
	ØK	(mm)	65	75	85	100	110	125
	n x Ød	(mm)	4 x 14	4 x 14	4 x 14	4 x 18	4 x 18	4 x 18
PN25	ØD	(mm)	95	105	115	140	150	165
	ØK	(mm)	65	75	85	100	110	125
	n x Ød	(mm)	4x14	4x14	4x14	4x18	4x18	4x18
PN40	ØD	(mm)	95	105	115	140	150	165
	ØK	(mm)	65	75	85	100	110	125
	n x Ød	(mm)	4 x 14	4 x 14	4 x 14	4 x 18	4 x 18	4 x 18

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