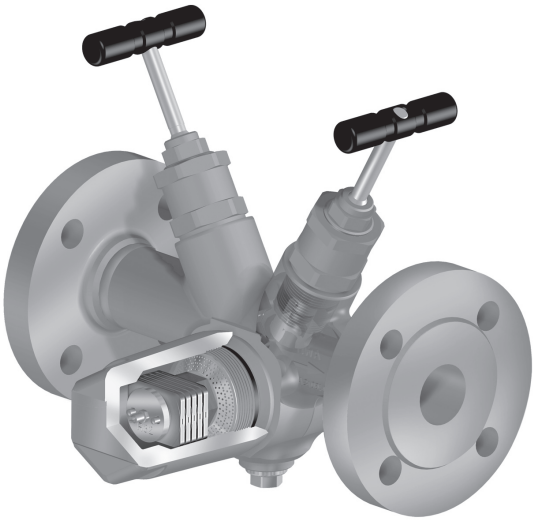
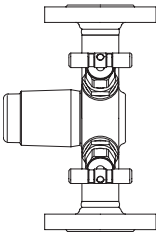
CONA® All-in-one - Steam traps with integrated stop valves for inlet and outlet



CONA®B All-in-one

CONA®B All-in-one
Bimetallic steam trap
PN40

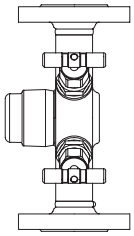
- with flanges	(BR 60A....1)
- with screwed sockets	(BR 60A....2)
- with socket weld ends	(BR 60A....3)
- with butt weld ends	(BR 60A....4)



Forged steel
Stainless steel
BR 60A **Page 2**

CONA®M All-in-one
Thermostatic steam trap
PN40

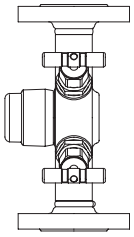
- with flanges	(BR 61A....1)
- with screwed sockets	(BR 61A....2)
- with socket weld ends	(BR 61A....3)
- with butt weld ends	(BR 61A....4)



Forged steel
Stainless steel
BR 61A **Page 4**

CONA®TD All-in-one
Thermodynamic steam trap
PN40

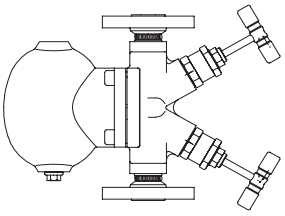
- with flanges	(BR 64A....1)
- with screwed sockets	(BR 64A....2)
- with socket weld ends	(BR 64A....3)
- with butt weld ends	(BR 64A....4)



Forged steel
Stainless steel
BR 64A **Page 6**

CONA®SC All-in-one
Ball float steam trap
PN40

- with flanges	(BR 63A....1)
- with screwed sockets	(BR 63A....2)
- with socket weld ends	(BR 63A....3)
- with butt weld ends	(BR 63A....4)



Forged steel
Stainless steel
BR 63A **Page 10**

Features:

- Robust and insensitive to waterhammer
- Integrated non-return protection
- Installation in horizontal and vertical position
- The exchange of the controller is possible without disturbing the pipe connections

CONA®B/M/TD All-in-one:

- For the discharge of condensate sub-cooled up to 30K
- With inside strainer
- Optimized design for quick installation
- Gasketless sealing of the screw cap

CONA®S All-in-one:

- Backpressure-free condensate discharge
- Rapid system start-up due to thermostatic control element

CONA®B All-in-one - Bimetallic steam trap with integrated stop valves for inlet and outlet (Forged steel, Stainless steel)

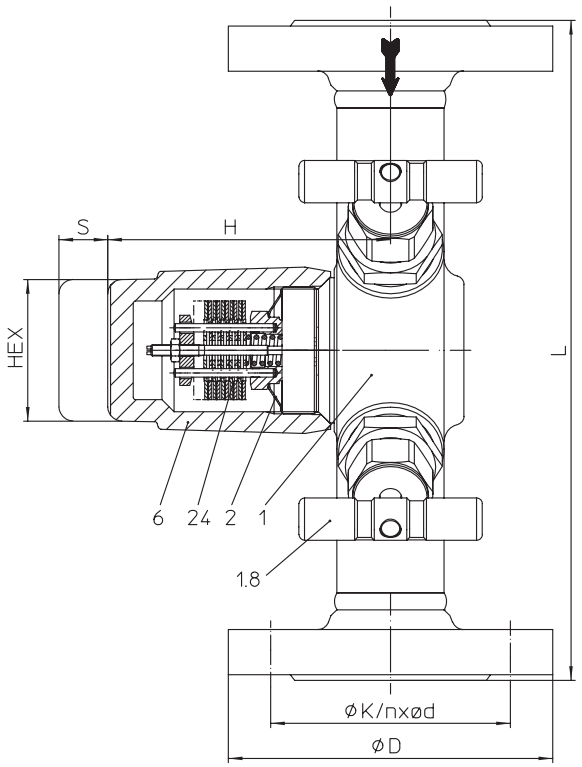


Fig. 60A....1 with flanges

- Thermostatic steam trap with corrosion resistant and water hammer proof bimetallic controller
- Standard installation position: - vertical
- Special installation position: - horizontal with inlet from right or left (Please indicate when ordering).
- User-friendly handling, easy and quick access to the controller
- Automatic ventilation during start up and operation of the plant
- Non return protection
- With inside strainer
- Subcooling of condensate is continuously adjustable (observe the operation instructions)
- Service advantage thanks to screw cap without sealing
- The exchange of the controller is possible without disturbing the pipe
- Controller für Einsatzbereich wählbar:

  Controller R13 - to 13 bar inlet pressure
  Controller R22 - to 22 bar inlet pressure
  Controller R32 - to 32 bar inlet pressure

Options: - Drain valve (Pos. 51)
- Ball valve for blow down (Pos. 56)
- Stop valve with bellows seal (Pos. 8)

Operating limits

Fig. 45.60A	PN40 - 1.0460		
Operating pressure PS (bar-g)	32	22	14,5
Operating temperature TS (°C)	250	385	450
allowable differential pressure ΔPMX (bar):	32	22	13
for controller:	R32	R22	R13

Fig. 55.60A	PN40 - 1.4541		
Operating pressure PS (bar-g)	32	22	
Operating temperature TS (°C)	350	400	
allowable differential pressure ΔPMX (bar):	32	22	13
for controller:	R32	R22	R13

Types of connection

Flanges 1	PN40 acc. to DIN2501
Screwed sockets 2	R- and NPT-thread acc. to DIN EN 10226-1
Socket weld ends 3	acc. to DIN EN 12760
Butt weld ends 4	acc. to DIN EN 12627

Other types of connection on request.

For ANSI versions refer to data sheet CONA®All-in-one-ANSI

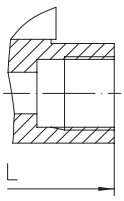


Fig. 60A....2
with screwed sockets

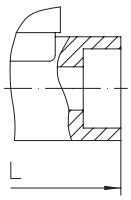


Fig. 60A....3
with socket weld ends

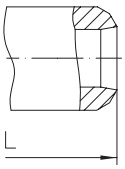


Fig. 60A....4
with butt weld ends

Dimensions and Weights		Types of connection								
		Flanges			Screwed sockets Socket weld ends			Butt weld ends		
Nominal diameter	(mm) (inch)	15 1/2	20 3/4	25 1	15 1/2	20 3/4	25 1	15 1/2	20 3/4	25 1
L*	(mm)	210	210	230	150	150	230	160	160	160
H	(mm)	100	100	100	100	100	100	100	100	100
S	(mm)	70	70	70	70	70	70	70	70	70
HEX	(mm)	50	50	50	50	50	50	50	50	50
Weight	(kg)	5,6	6,1	6,6	4,1	4	6,6	4,1	4	3,9
Flange dimensions refer to page 12.										

* Face-to-face acc. to data sheet resp. customer request

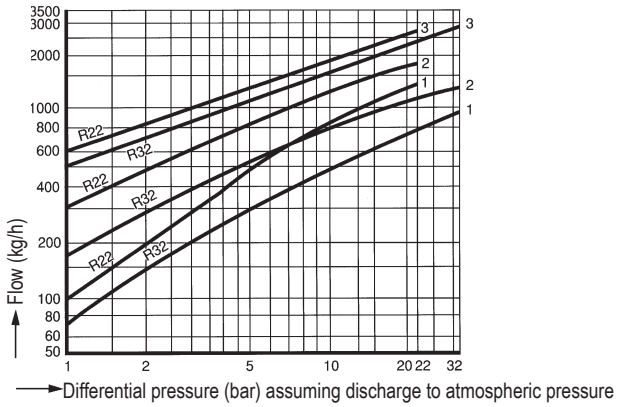
Parts

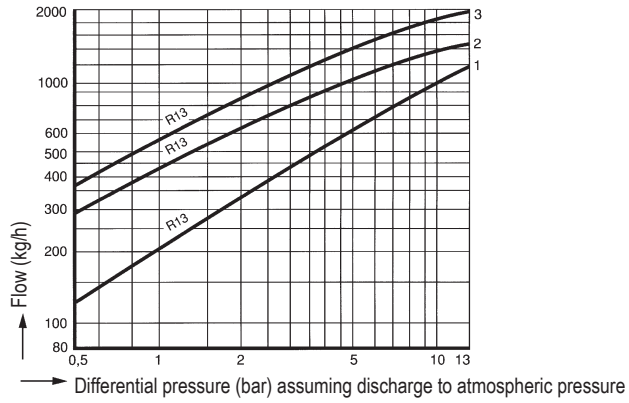
Pos.	Description	Fig. 45.60A	Fig. 55.60A
1	Body	P250 GH, 1.0460	X6CrNiTi18-10, 1.4541
1.8	Unit Stop valve, cpl. *	X6CrNiMoTi17-12-2, 1.4571	
2	Strainer *	X5CrNi18-10, 1.4301	
6	Screw cap	P250 GH, 1.0460	X6CrNiTi18-10, 1.4541
24	Controller *	TB 102 / 85 (corrosion resistant bimetal)	
49	Sealing ring *	X6CrNiTi18-10, 1.4541	
50	Plug (M14x1,5) *	X6CrNiTi18-10, 1.4541	
51	Drain valve *	X8CrNiS18-9, 1.4305	
56	Ball valve for blow down *	GX5CrNiMo19-11-2, 1.4408	
*** Spare part**			

Information / restriction of technical rules to be observed!

Operating instructions can be ordered on request by phone +49 (0)5207 / 994-0 or fax +49 (0)5207 / 994-158 or -159.

Capacity chart





Capacity chart: The capacity chart shows for controller R13, R22 and R32 the maximum flow at factory setting.

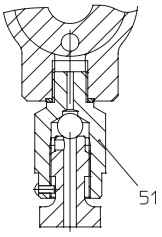
Curve 1
Maximum flow quantity of hot condensate at approx. 10 K below boiling temperature..

Curve 2
Maximum flow of sub-cooled condensate at approx. 30 K below boiling temperature (through back up of condensate).

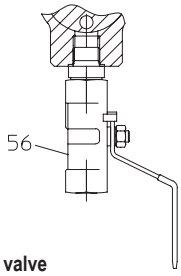
Curve 3
Maximum flow quantity of cold condensate at about 20°C (during start-up of a cold installation).

The condensate-temperature determines the aperture of the controller.
The capacity is increasing with the sub-cooling temperature of the condensate.

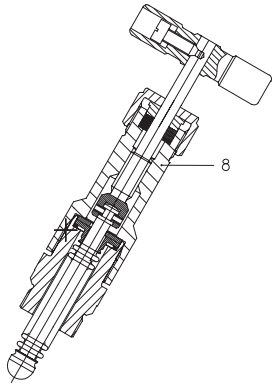
Options



Drain valve



Ball valve



Stop valve with bellows seal

CONA®M All-in-one - Thermostatic steam trap with integrated stop valves for inlet and outlet (Forged steel, Stainless steel)

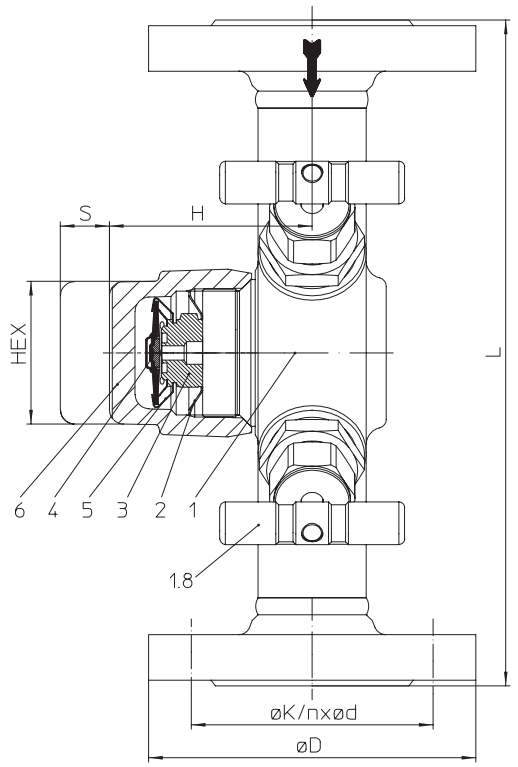


Fig. 61A....1 with flanges

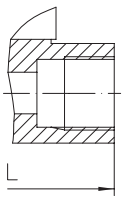


Fig. 61A....2
with screwed sockets

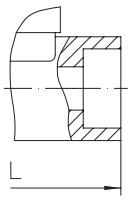


Fig. 61A....3
with socket weld ends

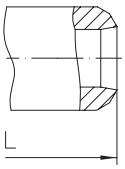


Fig. 61A....4
with butt weld ends

- Thermostatic steam trap with corrosion resistant and water hammer proofed capsule
- Standard installation position: - vertical
- Special installation position: - horizontal with inlet from right or left (Please indicate when ordering).
- User-friendly handling, easy and quick access to the controller
- Non return protection
- With inside strainer
- Optimal filter effect at horizontal installation
- Optimized design for quick installation
- Service advantage thanks to screw cap without sealing
- The exchange of the controller is possible without disturbing the pipe
- Available types of capsule:

  Capsule No. 1 - for condensate discharge at boiling temperature (only on request)

  Capsule No. 2 - for condensate sub-cooling about approx. 10K (Standard)

  Capsule No. 3 - for condensate sub-cooling about approx. 30K

- Options: - Drain valve (Pos. 51)
  - Ball valve for blow down (Pos. 56)
  - Stop valve with bellows seal (Pos. 8)

Operating limits

Fig. 45.61A	PN40 - 1.0460		
Operating pressure PS (bar-g)	32	22	14,5
Operating temperature TS (°C)	250	385	450
allowable differential pressure ΔPMX (bar):	32		
for controller:	R32		

Fig. 55.61A	PN40 - 1.4541	
Operating pressure PS (bar-g)	32	22
Operating temperature TS (°C)	350	400
allowable differential pressure ΔPMX (bar):	32	
for controller:	R32	

Types of connection

Flanges 1	PN40 acc. to DIN2501
Screwed sockets 2	R- and NPT-thread acc. to DIN EN 10226-1
Socket weld ends 3	acc. to DIN EN 12760
Butt weld ends 4	acc. to DIN EN 12627

Other types of connection on request.

For ANSI versions refer to data sheet CONA®All-in-one-ANSI

Dimensions and Weights		Types of connection								
		Flanges			Screwed sockets Socket weld ends			Butt weld ends		
Nominal diameter	(mm) (inch)	15 1/2	20 3/4	25 1	15 1/2	20 3/4	25 1	15 1/2	20 3/4	25 1
L*	(mm)	210	210	230	150	150	230	160	160	160
H	(mm)	70	70	70	70	70	70	70	70	70
S	(mm)	40	40	40	40	40	40	40	40	40
HEX	(mm)	50	50	50	50	50	50	50	50	50
Weight	(kg)	4,8	5,3	5,8	3,3	3,2	5,8	3,4	3,3	3,2
Flange dimensions refer to page 12.										

* Face-to-face acc. to data sheet resp. customer request

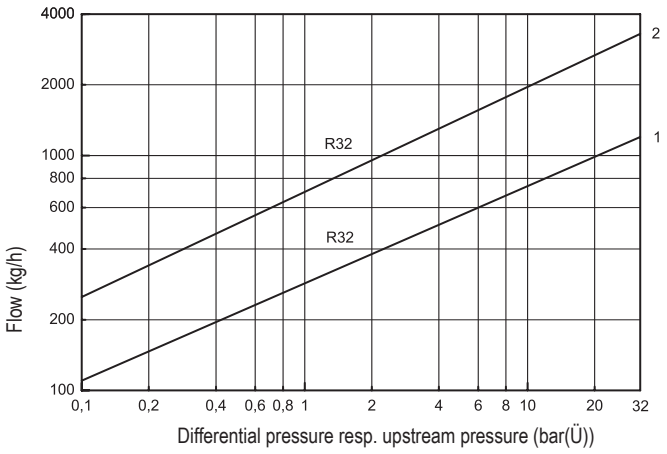
Parts

Pos.	Description	Fig. 45.61A	Fig. 55.61A
1	Body	P250 GH, 1.0460	X6CrNiTi18-10, 1.4541
1.8	Unit Stop valve, cpl. *	X6CrNiMoTi17-12-2, 1.4571	
2	Strainer *	X5CrNi18-10, 1.4301	
3	Sltz *	X8CrNiS18-9, 1.4305	
4	Capsule (Diaphragm / Kapsel) *	Hastelloy / X5CrNi18-10, 1.4301	
5	Spring actuated clip *	X10CrNi18-8, 1.4310	
6	Screw cap	P250 GH, 1.0460	X6CrNiTi18-10, 1.4541
49	Sealing ring *	X6CrNiTi18-10, 1.4541	
50	Plug (M14x1,5) *	X6CrNiTi18-10, 1.4541	
51	Drain valve *	X8CrNiS18-9, 1.4305	
56	Ball valve for blow down *	GX5CrNiMo19-11-2, 1.4408	
57	Non return protection	X5CrNi18-10, 1.4301	
* Spare part			

Information / restriction of technical rules to be observed!

Operating instructions can be ordered on request by phone +49 (0)5207 / 994-0 or fax +49 (0)5207 / 994-158 or -159.

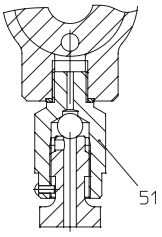
Capacity chart



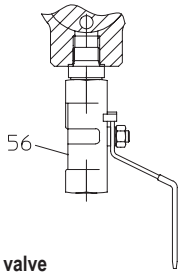
Curve 1
Maximum flow of hot condensate for capsule No 1, 2, and 3.

Curve 2
Maximum flow at cold condensate at about 20°C.

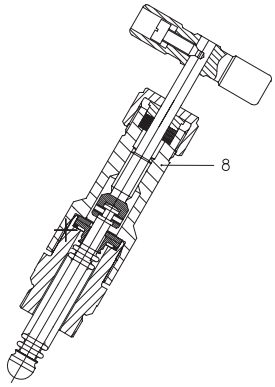
Options



Drain valve



Ball valve



Stop valve with bellows seal

CONA®TD All-in-one - Thermodynamic steam trap with integrated stop valves for inlet and outlet (Forged steel, Stainless steel)

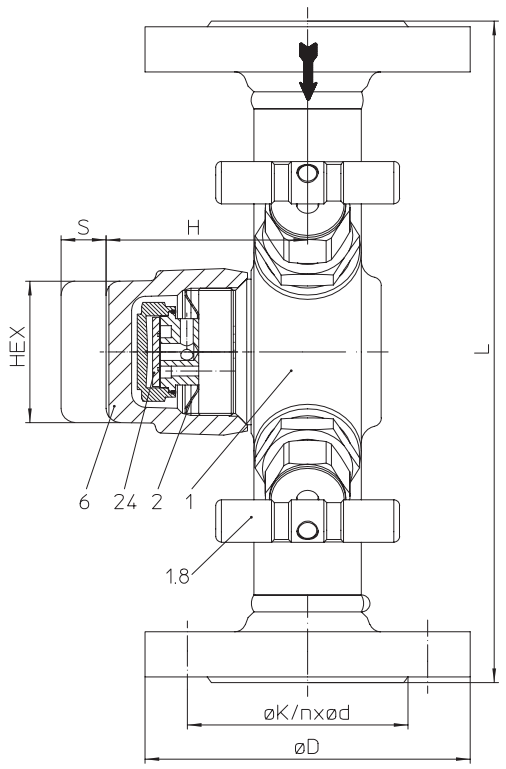


Fig. 64A....1 with flanges

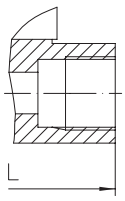


Fig. 64A....2
with screwed sockets

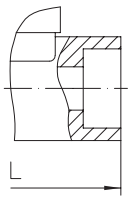


Fig. 64A....3
with socket weld ends

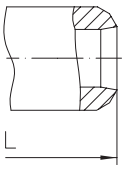


Fig. 64A....4
with butt weld ends

- Thermodynamic steam trap with replaceable controller-unit and cap with heat chamber which minimizes the effects from the weather conditions to the function of the trap such as low ambient temperatures, rain, wind etc..
- Standard installation position: - vertical
- Special installation position: - horizontal with inlet from right or left (Please indicate when ordering).
- User-friendly handling, easy and quick access to the controller
- Intermittent mode of operation
- Cap with heat chamber minimizes the effect from ambient conditions
- Robust water hammer proof design
- Integrated non return protection
- With inside strainer
- Optimized design for quick installation
- Service advantage thanks to screw cap without sealing
- The exchange of the controller is possible without disturbing the pipe
- Options: - Drain valve (Pos. 51)
  - Ball valve for blow down (Pos. 56)
  - Stop valve with bellows seal (Pos. 8)

Operating limits

Fig. 45.64A	PN40 - 1.0460		
Operating pressure PS (bar-g)	32	22	14,5
Operating temperature TS (°C)	250	385	450
allowable differential pressure ΔPMX (bar):	32		
permissible pressure ratio (barü):	Back pressure / Inlet pressure ≤ 0,8		

Fig. 55.64A	PN40 - 1.4541	
Operating pressure PS (bar-g)	32	22
Operating temperature TS (°C)	350	400
allowable differential pressure ΔPMX (bar):	32	
permissible pressure ratio (barü):	Back pressure / Inlet pressure ≤ 0,8	

Types of connection

Flanges 1	PN40 acc. to DIN2501
Screwed sockets 2	R- and NPT-thread acc. to DIN EN 10226-1
Socket weld ends 3	acc. to DIN EN 12760
Butt weld ends 4	acc. to DIN EN 12627

Other types of connection on request.

For ANSI versions refer to data sheet CONA®All-in-one-ANSI

Dimensions and Weights		Types of connection								
		Flanges			Screwed sockets Socket weld ends			Butt weld ends		
Nominal diameter	(mm) (inch)	15 1/2	20 3/4	25 1	15 1/2	20 3/4	25 1	15 1/2	20 3/4	25 1
L*	(mm)	210	210	230	150	150	230	160	160	160
H	(mm)	70	70	70	70	70	70	70	70	70
S	(mm)	40	40	40	40	40	40	40	40	40
HEX	(mm)	50	50	50	50	50	50	50	50	50
Weight	(kg)	4,8	5,3	5,8	3,3	3,2	5,8	3,4	3,3	3,2
Flange dimensions refer to page 12.										

* Face-to-face acc. to data sheet resp. customer request

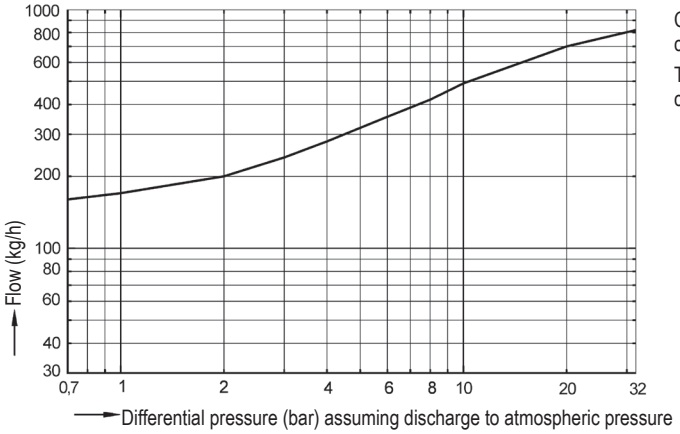
Parts

Pos.	Description	Fig. 45.64A	Fig. 55.64A
1	Body	P250 GH, 1.0460	X6CrNiTi18-10, 1.4541
1.8	Unit Stop valve, cpl. *	X6CrNiMoTi17-12-2, 1.4571	
2	Strainer *	X5CrNi18-10, 1.4301	
6	Screw cap	P250 GH, 1.0460	X6CrNiTi18-10, 1.4541
24	Controller *	X39CrMo17-1+QT, 1.4122+QT	
49	Sealing ring *	X6CrNiTi18-10, 1.4541	
50	Plug (M14x1,5) *	X6CrNiTi18-10, 1.4541	
51	Drain valve *	X8CrNiS18-9, 1.4305	
56	Ball valve for blow down *	GX5CrNiMo19-11-2, 1.4408	
* Spare part			

Information / restriction of technical rules to be observed!

Operating instructions can be ordered on request by phone +49 (0)5207 / 994-0 or fax +49 (0)5207 / 994-158 or -159.

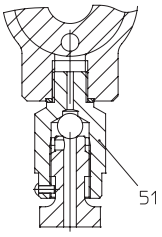
Capacity chart



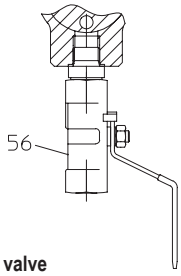
Capacity chart: The capacity chart shows the maximum flow quantities of hot condensate for the standard controller..

The flow quantity of cold condensate at 20°C is about 1,5 times the quantity of hot condensate.

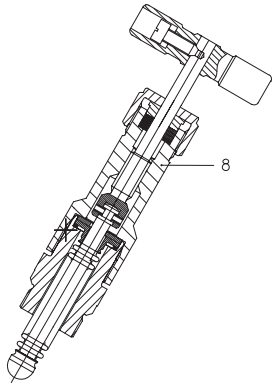
Options



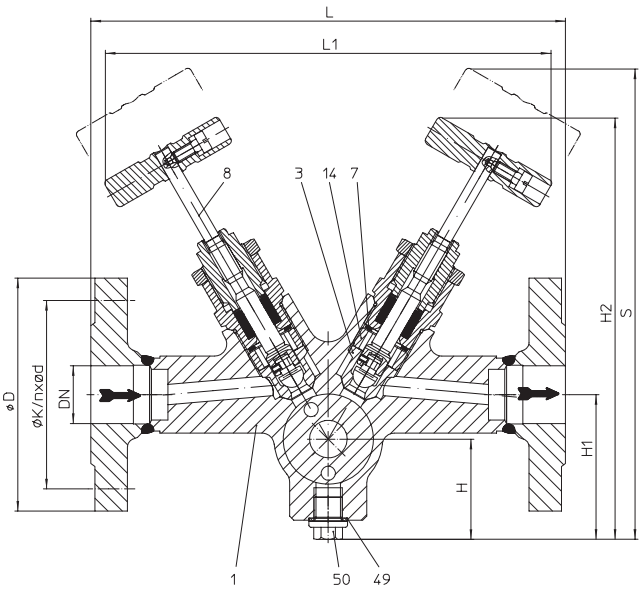
Drain valve



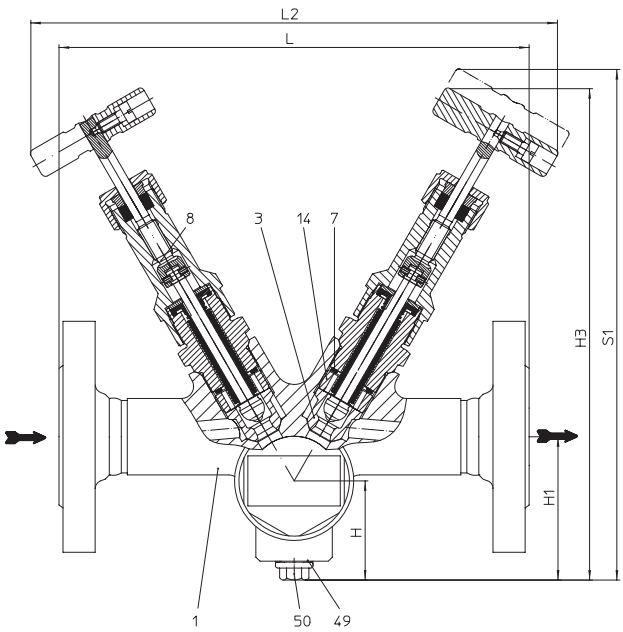
Ball valve



Stop valve with bellows seal

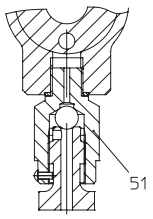


Stop valve with gland packing

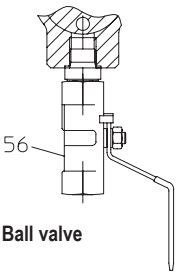


Stop vakve with bellows seal

Options



Drain valve



Ball valve

Dimensions and Weights		Types of connection								
		Flanges			Screwed sockets Socket weld ends			Butt weld ends		
Nominal diameter	**(mm) (inch)**	**15 1/2**	**20 3/4**	**25 1**	**15 1/2**	**20 3/4**	**25 1**	**15 1/2**	**20 3/4**	**25 1**
L*	(mm)	210	210	230	150	150	230	160	160	160
L1	(mm)	220	220	220	220	220	220	220	220	220
L2 (Bellows seal)	(mm)	259	259	259	259	259	259	259	259	259
H	(mm)	50	50	50	50	50	50	50	50	50
H1	(mm)	72	72	72	72	72	72	72	72	72
H2	(mm)	208	208	208	208	208	208	208	208	208
H3 (Bellows seal)	(mm)	241	241	241	241	241	241	241	241	241
S	(mm)	217	217	217	217	217	217	217	217	217
S1 (Bellows seal)	(mm)	250	250	250	250	250	250	250	250	250
Flange dimensions refer to page 12.										

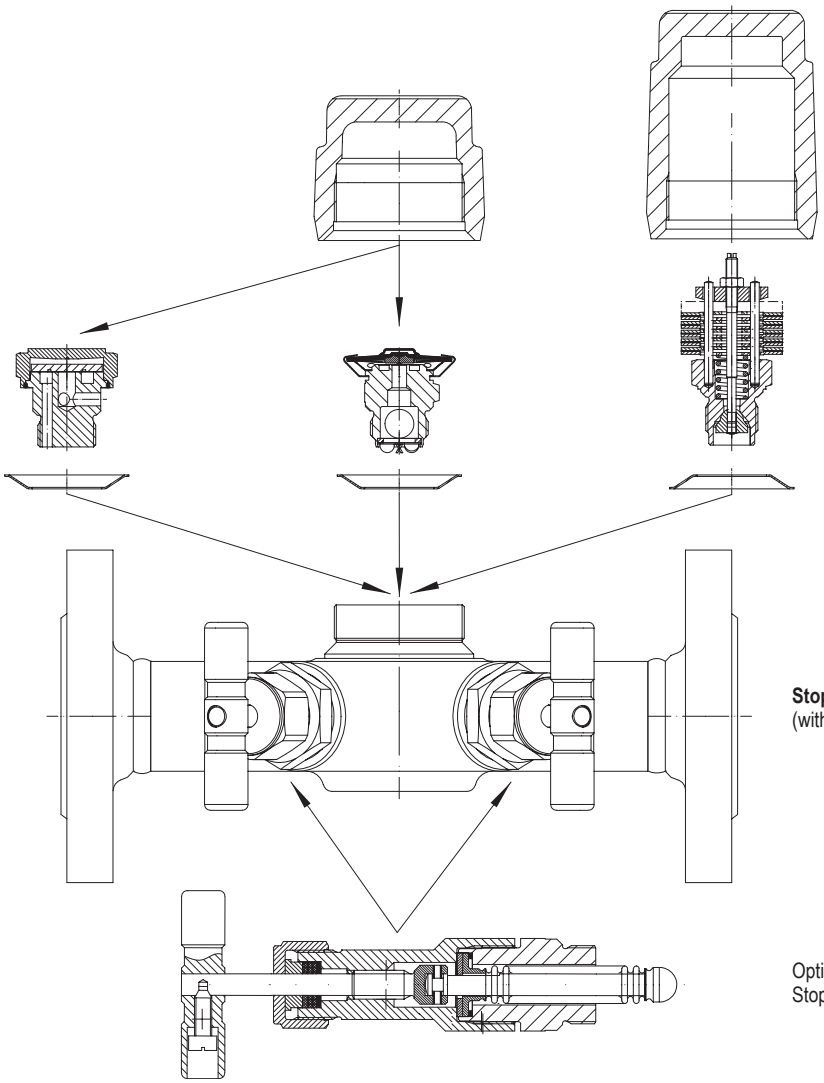
* Face-to-face acc. to data sheet resp. customer request

Parts

Pos.	Description	Forged steel	Stainless steel
1.1	Body	P250GH, 1.0460	X2CrNiMo17-12-2, 1.4404
1.3	Seat *	X8CrNiS18-9, 1.4305	
1.7	Sealing ring	Graphit	
1.8	Unit Stop valve, cpl. *	X6CrNiMoTi17-12-2, 1.4571	
1.14	Banjo bolt	X8CrNiS18-9, 1.4305	
1.49	Sealing ring *	X6CrNiTi18-10, 1.4541	
1.50	Plug (M14x1,5) *	X6CrNiTi18-10, 1.4541	
1.51	Drain valve (M14x1,5) *	X39CrMo17-1+QT, 1.4122+QT	
1.56	Ball valve for blow down *	GX5CrNiMo19-11-2, 1.4408	
* Spare part			

Combinations

CONA®TD All-in-one **CONA®M All-in-one** **CONA®B All-in-one**



Stop valve with gland packing
(with flanges, screwed sockets, socket weld ends, butt weld ends)

Options:
Stop valve with bellows seal

CONA®SC All-in-one - Ball float steam trap with integrated stop valves for inlet and outlet (Forged steel, Stainless steel)

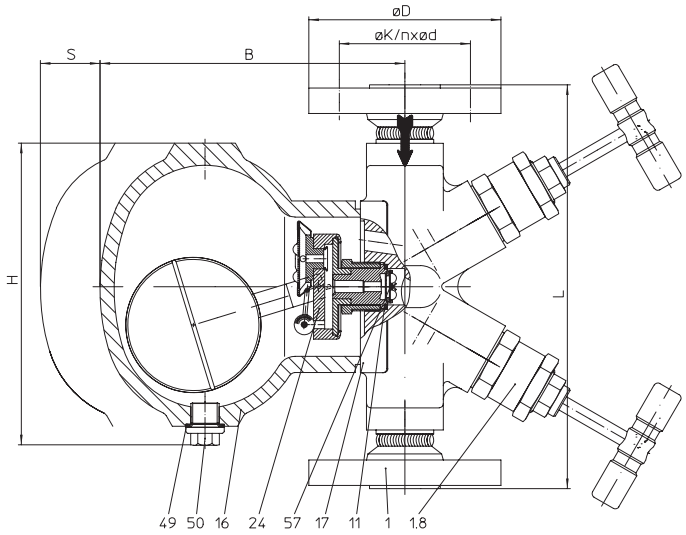


Fig. 63A....1 with flanges

- Ball float steam trap with level control for the condensate-discharge from all kinds of steam systems
- Rapid system start-up due to thermostatic control element (integrated capsule)
- Standard installation position: - vertical
- Special installation position: - horizontal with inlet from right or left (Please indicate when ordering).
- User-friendly handling, easy and quick access to the controller
- Immediate discharge of hot boiling condensat
- Discharge of great condensate quantities even at low differential pressure
- Body with flanged hood
- Non return protection
- The exchange of the controller is possible without disturbing the pipe
- On-site change of the installation position is possible according to the operating instructions
- Options: - Vent plug (Pos. 47)
  - Plug (Pos. 50)
  - Manual air vent valve (Pos. 51)
  - Ball valve for blow down (Pos. 56)
  - Stop valve with bellows seal (Pos. 8)

Operating limits

Fig. 45.63A	PN40 - Hood: 1.0619+N			
Operating pressure PS (bar-g)	4	14	21	32
Operating temperature TS (°C)	400			250
allowable differential pressure ΔPMX (bar):	4	14	21	32
for controller:	R4	R14	R21	R32

Fig. 55.63A - PN40	Hood: 1.4308			
Operating pressure PS (bar-g)	4	14	21	32
Operating temperature TS (°C)	300			250
allowable differential pressure ΔPMX (bar):	4	14	21	32
for controller:	R4	R14	R21	R32

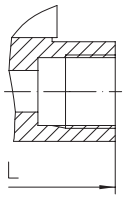


Fig. 63A....2
with screwed sockets

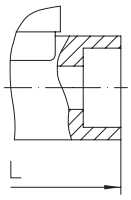


Fig. 63A....3
with socket weld ends

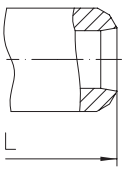


Fig. 63A....4
with butt weld ends

Types of connection

Flanges 1	PN40 acc. to DIN2501
Screwed sockets 2	R- and NPT-thread acc. to DIN EN 10226-1
Socket weld ends 3	acc. to DIN EN 12760
Butt weld ends 4	acc. to DIN EN 12627

Other types of connection on request.

For ANSI versions refer to data sheet CONA®All-in-one-ANSI

Dimensions and Weights		Types of connection								
		Flanges			Screwed sockets Socket weld ends			Butt weld ends		
Nominal diameter	(mm) (inch)	15 1/2	20 3/4	25 1	15 1/2	20 3/4	25 1	15 1/2	20 3/4	25 1
L*	(mm)	210	210	230	150	150	230	160	160	160
H	(mm)	150	150	150	150	150	150	150	150	150
B	(mm)	156	156	156	156	156	156	156	156	156
S	(mm)	112	112	112	112	112	112	112	112	112
Weight	(kg)	7	7,7	8,2	5,6	5,5	8,2	5,5	5,4	5,3
Flange dimensions refer to page 12.										

* Face-to-face acc. to data sheet resp. customer request

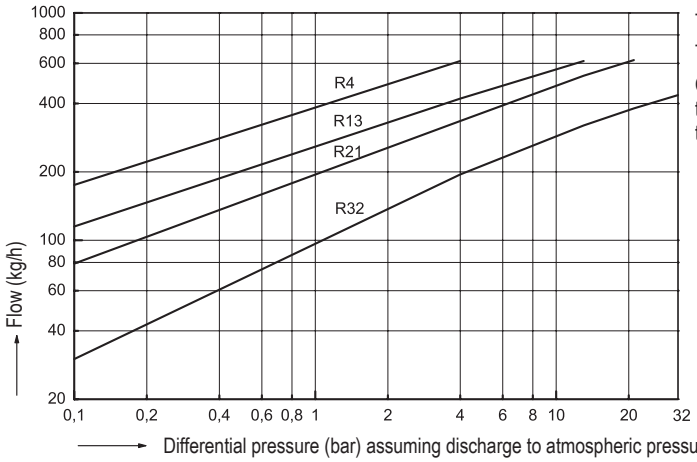
Parts

Pos.	Description	Fig. 45.63A	Fig. 55.63A
1	Body	P250 GH, 1.0460	X6CrNiTi18-10, 1.4541
1.8	Unit Stop valve, cpl. *	X6CrNiMoTi17-12-2, 1.4571	
11	Sealing ring *	R-Cu99	X6CrNiTi18-10, 1.4541
16	Hood	GP240GH+N, 1.0619+N	
17	Gasket *	GRAPHIT (CrNi laminated with graphite)	
24	Retaining ring *	X5CrNi18-10, 1.4301 / Hastelloy	
27	Cheese head screw	21CrMoV 5-7, 1.7709	X6CrNiTi18-10, 1.4541
47	Vent plug (M14x1,5)	21CrMoV 5-7, 1.7709	X6CrNiTi18-10, 1.4541
49	Sealing ring *	R-Cu99	X6CrNiTi18-10, 1.4541
50	Plug (M14x1,5) *	21CrMoV 5-7, 1.7709	X6CrNiTi18-10, 1.4541
51	Drain valve *	X8CrNiS18-9, 1.4305	
56	Ball valve for blow down *	GX5CrNiMo19-11-2, 1.4408	
57	Non return protection *	X5CrNi18-10, 1.4301	
* Spare part			

Information / restriction of technical rules to be observed!

Operating instructions can be ordered on request by phone +49 (0)5207 / 994-0 or fax +49 (0)5207 / 994-158 or -159.

Capacity chart



The capacity chart shows the maximum flow quantities of hot condensate.

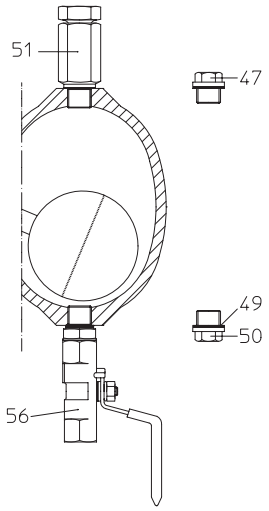
The total cold water capacity is the result of:

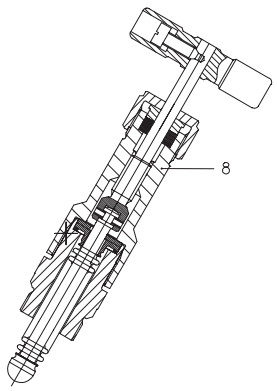
Chart value at the corresponding differential pressure is multiplied with factor 1,2 for this differential pressure plus the additional cold water start up capacity due to the termostatic element (see table below).

Additional cold water-flow quantity of the thermostatic steam trap at starting conditions

Δp in bar	1	2	3	4	5	6	8	10	21
Q (ca. 20°C) in kg/h	280	360	440	490	550	590	640	710	990

Options





Stop valve with bellows seal

Standard-flange dimensions

Flanges acc. to DIN2501

DN		(mm)	15	20	25
PN16	ØD	(mm)	95	105	115
PN16	ØK	(mm)	65	75	85
PN16	n x Ød	(mm)	4 x 14	4 x 14	4 x 14
PN40	ØD	(mm)	95	105	115
PN40	ØK	(mm)	65	75	85
PN40	n x Ød	(mm)	4 x 14	4 x 14	4 x 14

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