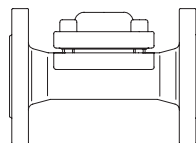


## Thermostatic steam trap

### Thermostatic steam trap

#### PN16

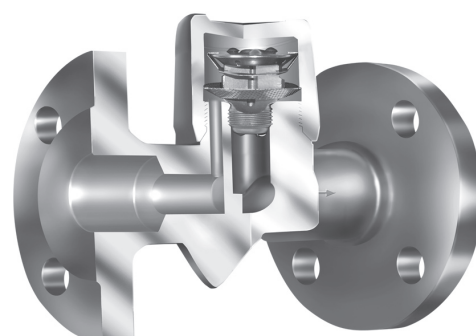
- with flanges (Fig. 610....1)
- union with butt weld ends (Fig. 610....5)



Grey cast iron

**Fig. 610**

Page 2

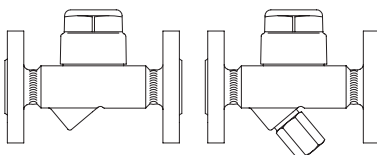


**Fig. 610....1**

### Thermostatic steam trap

#### PN40

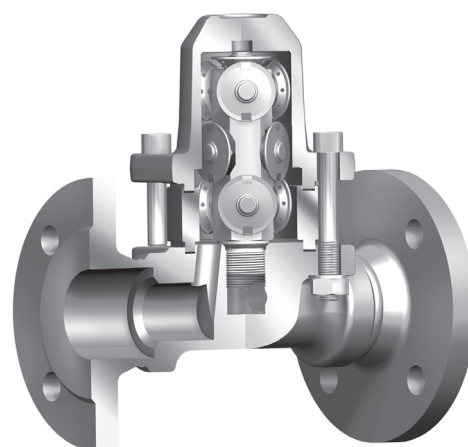
- with flanges (Fig. 610/612....1)
- with screwed sockets (Fig. 610/612....2)
- with socket weld ends (Fig. 610/612....3)
- with butt weld ends (Fig. 610/612....4)



Forged steel  
Stainless steel

**Fig. 610/612 (Y)**

Page 4



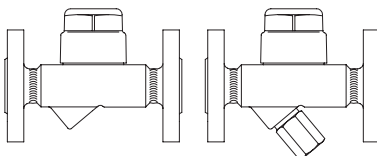
**Fig. 616....1....10K2**

### Thermostatic steam trap

#### With seat for higher flow capacity than Fig. 610/612

#### PN40

- with flanges (Fig. 611/613....1)
- with screwed sockets (Fig. 611/613....2)
- with socket weld ends (Fig. 611/613....3)
- with butt weld ends (Fig. 611/613....4)



Forged steel  
High temperature steel  
Stainless steel

**Fig. 611/613 (Y)**

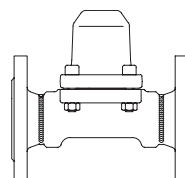
Page 6

### Thermostatic steam trap

#### pilot operated / with multi capsule for very high flow capacity

#### PN16 / PN40

- with flanges (Fig. 616....1)
- with screwed sockets (Fig. 616....2)
- with socket weld ends (Fig. 616....3)
- with butt weld ends (Fig. 616....4)



Grey cast iron  
Forged steel

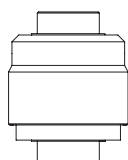
**Fig. 616**

Page  
8 + 10

### Thermostatic steam trap

#### PN16 / PN40

- with screwed sockets (Fig. 614....2)
- union with butt weld ends (Fig. 614....5)
- with screwed male / screwed socket (Fig. 614....9)
- for clamp connection (Fig. 614....a)
- with screwed sockets (Fig. 615....2)
- for clamp connection (Fig. 615....a)



Stainless steel

**Fig. 614/615**

Page  
12 + 14

### Thermostatic steam trap

#### PN40

- Wafer pattern flange (Fig. 619....6)



Stainless steel

**Fig. 619**

Page 15

#### Features:

- For discharging of slight to highly sub-cooled condensate
- Automatic air-venting during start up and operation of the plant
- High sensitivity
- Exact control characteristic
- Robust and resistant to water-hammer
- Integrated non return protection (Fig. 610/612; 611/613 (not at controller R5))
- Constructions:
  - With inside strainer
  - With outside strainer - Fig. 612 / 613 (Y)
- Optimized design for quick installation (except Fig. 610 PN16, Fig. 616)
- Gasket-free sealing of the screwed cap (PN40, DN15-25)
- Installation in any position (except cover/screwed cap downwards)
- Available types of capsule (sub-cooling from 5K to 40K)

Thermostatic steam trap (Grey cast iron)

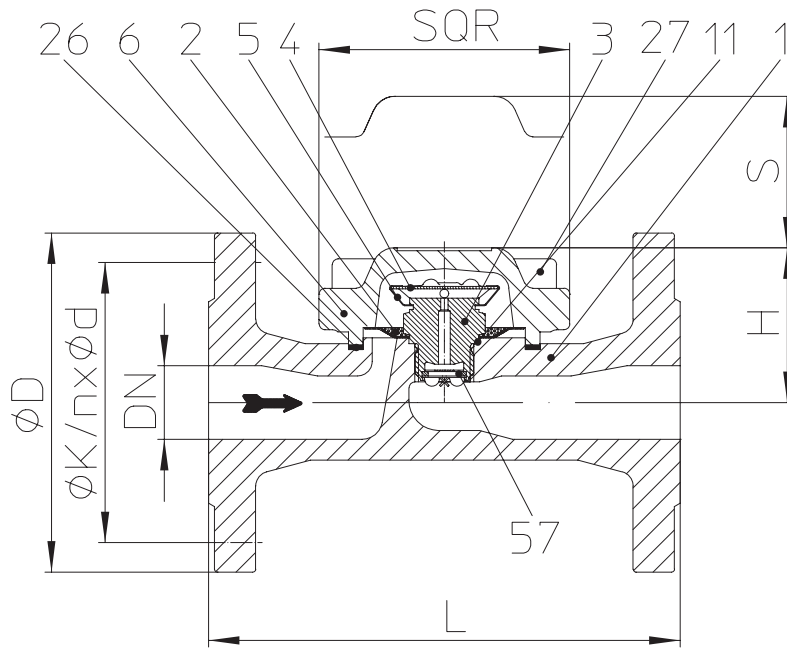


Fig. 610....1 with flanges (only DN25)

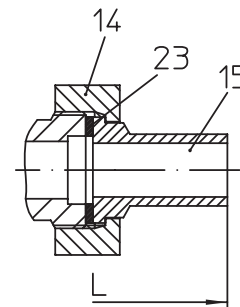


Fig. 610....5  
union with butt weld ends

Figure	Nominal pressure	Material	Nominal diameter / NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure $\Delta PMX$	for controller
12.610	PN16	EN-JL1040	DN15-50 / 1/2" - 2"	12,8 barg	200 °C	13 bar	R13
				9,6 barg	300 °C	5 bar	R5

For ANSI versions refer to data sheet CONA®M-ANSI

Types of connection	Other types of connection on request.
<ul style="list-style-type: none"> <li>Flanges ....1 _____ acc. to DIN 2533 or DIN EN 1092-2</li> <li>Union with butt weld ends ....5 _____ acc. to data sheet resp. customer request</li> </ul>	
Features	
<ul style="list-style-type: none"> <li>Thermostatic steam trap with noncorrosive and robust water hammer proofed capsule</li> <li>Non return protection (not at controller R5)</li> <li>With inside strainer</li> <li>Installation in any position</li> </ul>	
Capsule	(chooseable for operating range)
<ul style="list-style-type: none"> <li>Capsule No. 1 _____ for condensate discharge at boiling temperature - applicable up to 5 bar inlet pressure</li> <li>Capsule No. 2 _____ for condensate sub-cooling about approx. 10K (Standard)</li> <li>Capsule No. 3 _____ for condensate sub-cooling about approx. 30K</li> <li>Capsule No. 4 _____ for condensate sub-cooling about approx. 40K, especially suitable for tracing systems with low and medium pressure steam</li> </ul>	

Types of connection	Flanges	Union with butt weld ends	
DN	25	15	20
NPS	1	1/2	3/4

Face-to-face acc. to data sheet resp. customer request			
L	(mm)	160	190

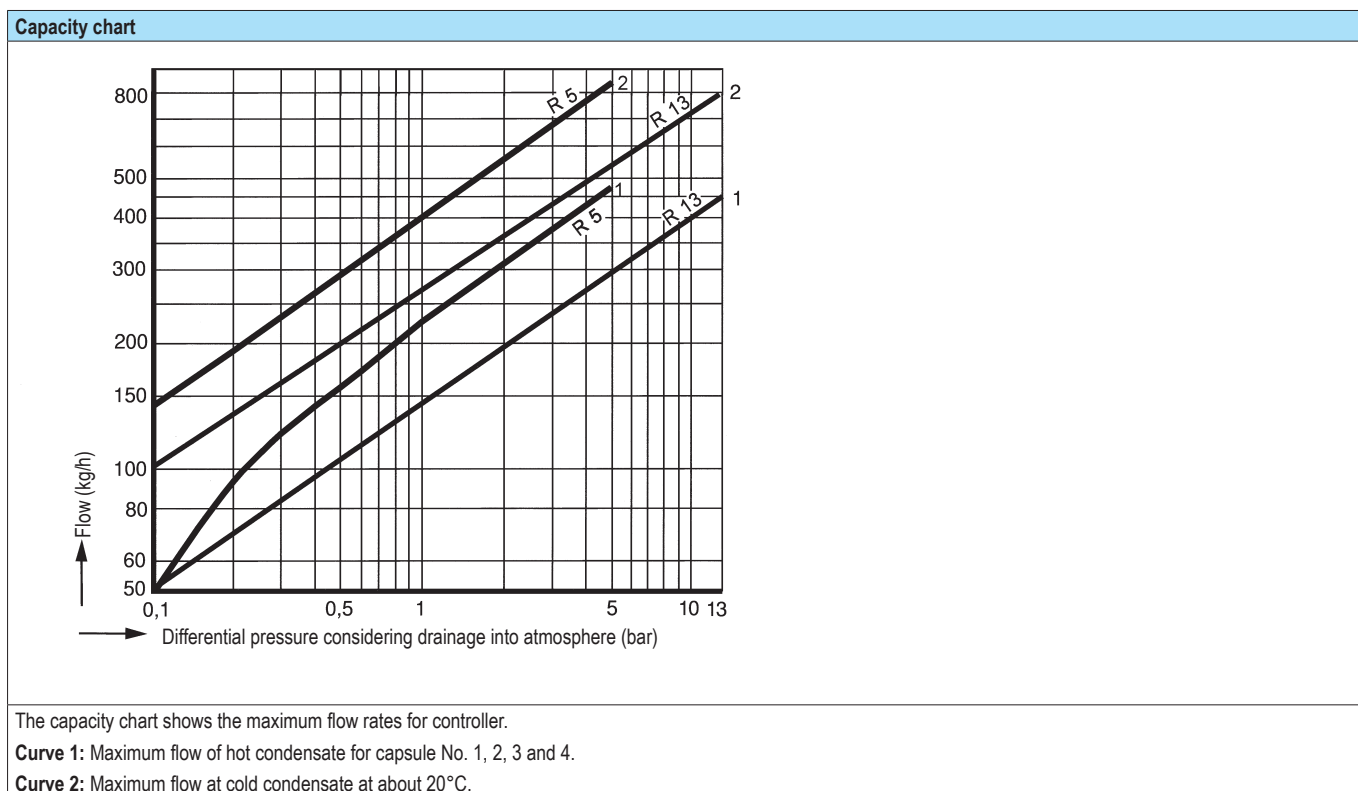
Dimensions		Standard-flange dimensions refer to page 17.		
H	(mm)	55	55	55
S	(mm)	25	25	25
SQR	(mm)	85	85	85

Weights			
Fig. 610	(approx.) (kg)	4,5	2,3

Parts			
Pos.	Sp.p.	Description	Fig. 12.610
1		Body	EN-GJL-250, EN-JL1040
2	x	Strainer	X5CrNi18-10, 1.4301
3	x	Seat	X8CrNiS18-9, 1.4305
4	x	Capsule (Diaphragm / Capsule)	Hastelloy / X5CrNi18-10, 1.4301
5	x	Spring actuated clip	X10CrNi18-8, 1.4310
6		Cover	EN-GJL-250, EN-JL1040
11	x	Sealing ring	CU
14		Union nut	11SMn30+C, 1.0715+C
15		Welding end	C15, 1.0401
23	x	Sealing ring	Novapress MULTI
26	x	Gasket	Graphite (CrNi laminated with graphite)
27		Cheese head screw	A2-70
57		Non return protection	X5CrNi18-10, 1.4301
	L Spare parts		

Information / restriction of technical rules need to be observed!

Operating and installation instructions can be downloaded at [www.ari-armaturen.com](http://www.ari-armaturen.com).



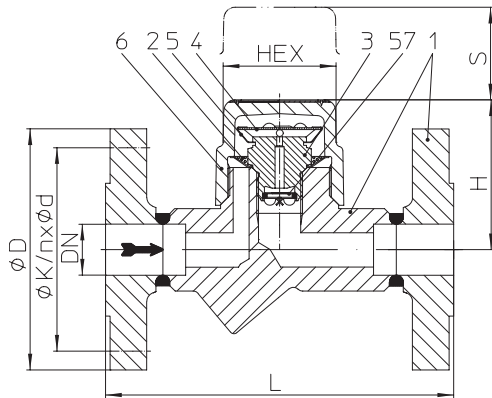
**Thermostatic steam trap (Forged steel, Stainless steel)**


Fig. 610....1 with flanges

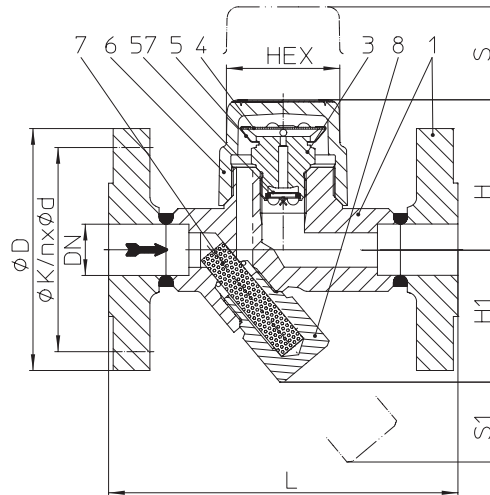


Fig. 612....1 with flanges

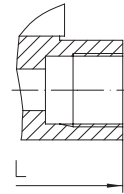
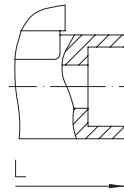
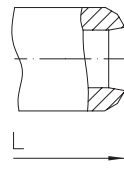

 Fig. 610/612....2  
with screwed sockets

 Fig. 610/612....3  
with socket weld ends

 Fig. 610/612....4  
with butt weld ends

Figure	Nominal pressure	Material	Nominal diam. / NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure $\Delta PMX$	for controller
45.610	PN40	1.0460	15 - 25 / 1/2" - 1"	22 barg	385 °C	22 bar 5 bar	R22 R5
45.612 (Y)				14,5 barg	450 °C		
55.610	PN40	1.4541	15 - 25 / 1/2" - 1"	22 barg	400 °C		
55.612 (Y)							

For ANSI versions refer to data sheet CONA®M-ANSI

**Types of connection**

Other types of connection on request.

- Flanges ....1 \_\_\_\_\_ acc. to DIN 2635 or DIN EN 1092-1
- 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**

- Thermostatic steam trap with noncorrosive and robust water hammer proofed capsule
- Non return protection (not at controller R5)
- With inside strainer - Fig. 610 / With outside strainer - Fig. 612 (Y)
- Installation in any position, optimal filter effect at horizontal installation
- Optimized design for quick installation
- Maintenance simplified due to screwed cap without sealing

**Capsule**

(chooseable for operating range)

- Capsule No. 1 \_\_\_\_\_ for condensate discharge at boiling temperature - applicable up to 5 bar inlet pressure
- Capsule No. 2 \_\_\_\_\_ for condensate sub-cooling about approx. 10K (Standard)
- Capsule No. 3 \_\_\_\_\_ for condensate sub-cooling about approx. 30K
- Capsule No. 4 \_\_\_\_\_ for condensate sub-cooling about approx. 40K - applicable up to 16 bar inlet pressure, especially suitable for tracing systems with low and medium pressure steam

Types of connection	Flanges			Screw 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

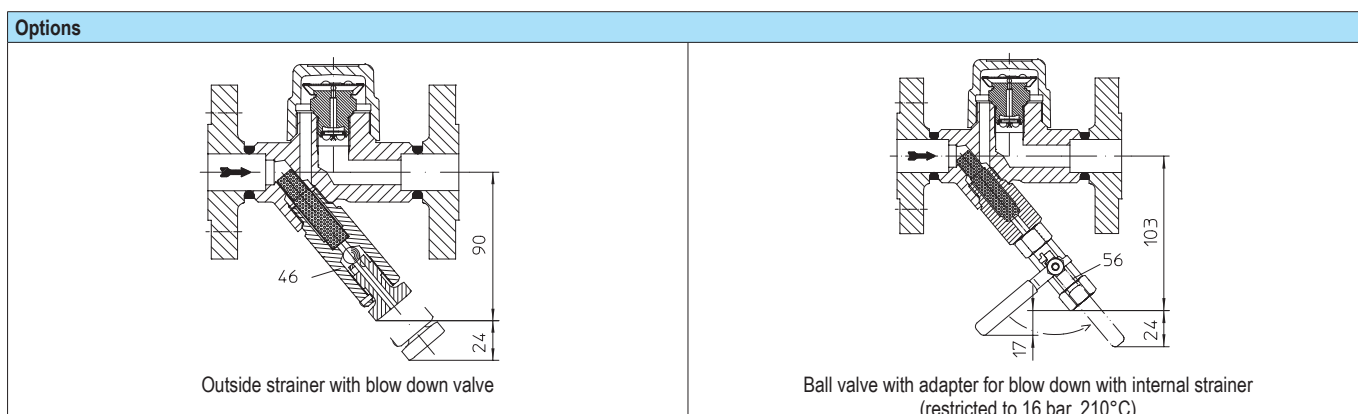
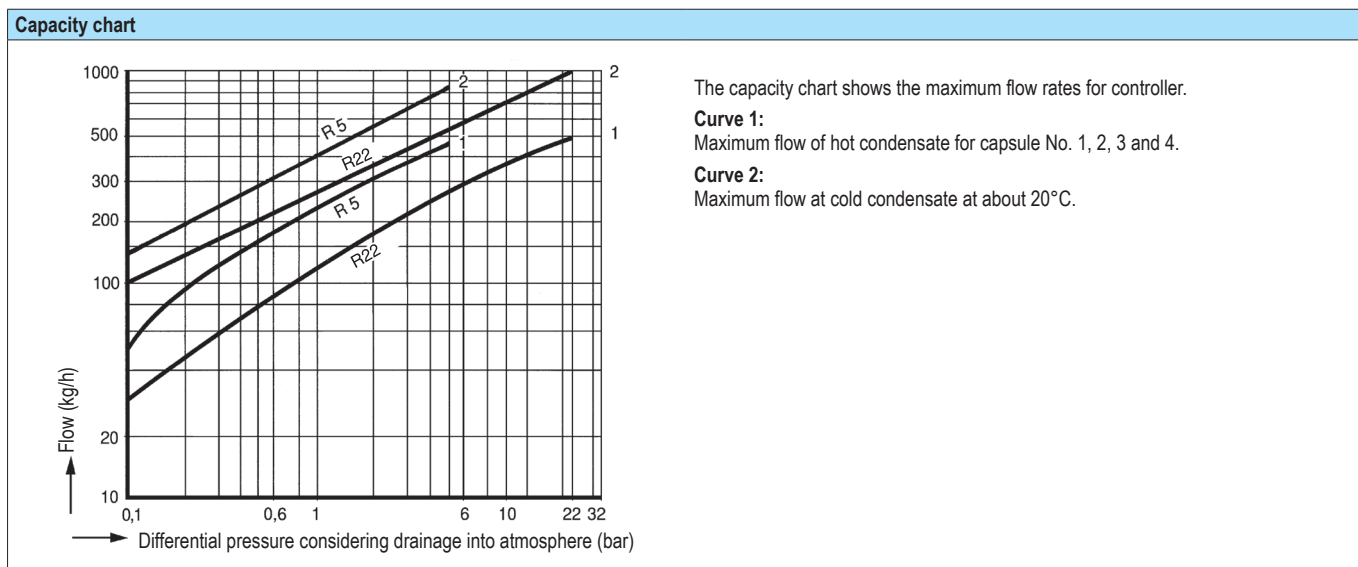
Dimensions										Standard-flange dimensions refer to page 17.
H	(mm)	65	65	65	65	65	74	65	65	65
H1	(mm)	62	62	62	62	62	55	62	62	62
S	(mm)	40	40	40	40	40	40	40	40	40
S1	(mm)	24	24	24	24	24	24	24	24	24
HEX	(mm)	50	50	50	50	50	50	50	50	50

Weights										
Fig. 610/612 (appr.)	(kg)	2.7	3.3	3.7	1.4	1.3	1.8	1.8	1.9	2

Parts				
Pos.	Sp.p.	Description	Fig. 45.610 / 45.612	Fig. 55.610 / 55.612
1		Body	P250 GH, 1.0460	X6CrNiTi18-10, 1.4541
2	x	Strainer	X5CrNi18-10, 1.4301	
3	x	Seat	X8CrNiS18-9, 1.4305	
4	x	Capsule (Diaphragm / Capsule)	Hastelloy / X5CrNi18-10, 1.4301	
5	x	Spring actuated clip	X10CrNi18-8, 1.4310	
6		Cap	P250 GH, 1.0460	X6CrNiTi18-10, 1.4541
7	x	Strainer	X5CrNi18-10, 1.4301	
8	x	Strainer plug	X6CrNiTi18-10, 1.4541	X6CrNiTi18-10, 1.4541
46	x	Blow down valve, cpl.	X6CrNiTi18-10, 1.4541	X6CrNiTi18-10, 1.4541
56	x	Ball valve for blow down (G 3/8")	GX5CrNiMo19-11-2, 1.4408	
57		Non return protection	X5CrNi18-10, 1.4301	
L Spare parts				

Information / restriction of technical rules need to be observed!

Operating and installation instructions can be downloaded at [www.ari-armaturen.com](http://www.ari-armaturen.com).



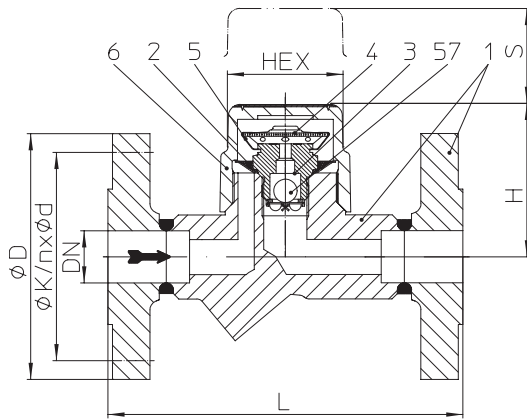
**Thermostatic steam trap for higher flow capacity (Forged steel, High temperature steel, Stainless steel)**


Fig. 611....1 with flanges

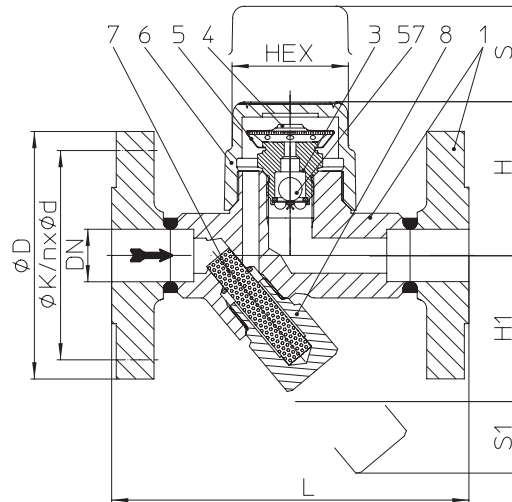


Fig. 613....1 with flanges

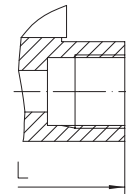
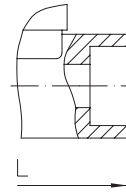
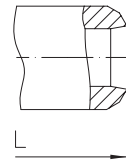

 Fig. 611/613....2  
with screwed sockets

 Fig. 611/613....3  
with socket weld ends

 Fig. 611/613....4  
with butt weld ends

Figure	Nominal pressure	Material	Nominal diameter / NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure $\Delta PMX$	for controller
45.611 45.613 (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		
85.611 85.613 (Y)	PN40	16Mo3	15 - 25 / 1/2" - 1"	35 barg	300 °C		
				32 barg	335 °C		
				28 barg	450 °C		
55.611 55.613 (Y)	PN40	1.4541	15 - 25 / 1/2" - 1"	32 barg	350 °C		
				22 barg	400 °C		

For ANSI versions refer to data sheet CONA®M-ANSI

**Types of connection**

Other types of connection on request.

- Flanges ....1 \_\_\_\_\_ acc. to DIN 2635 or DIN EN 1092-1
- 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**

- Thermostatic steam trap with noncorrosive and robust water hammer proofed capsule
- **With seat for higher flow capacity than Fig. 610/612**
- Non return protection
- With inside strainer - Fig. 611 / With outside strainer - Fig. 613 (Y)
- Installation in any position, optimal filter effect at horizontal installation
- Optimized design for quick installation
- Maintenance simplified due to screwed cap without sealing

**Capsule**

(chooseable for operating range)

- Capsule No. 1 \_\_\_\_\_ for condensate discharge at boiling temperature - applicable up to 5 bar inlet pressure
- Capsule No. 2 \_\_\_\_\_ for condensate sub-cooling about approx. 10K (Standard)
- Capsule No. 3 \_\_\_\_\_ for condensate sub-cooling about approx. 30K

**Options**

(Design refer to page 7)

- Outside strainer with blow down valve (Pos. 46)
- Ball valve for blow down (pos. 56) with internal strainer (Observe operating and installation instructions!)

Types of connection	Flanges			Screw 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

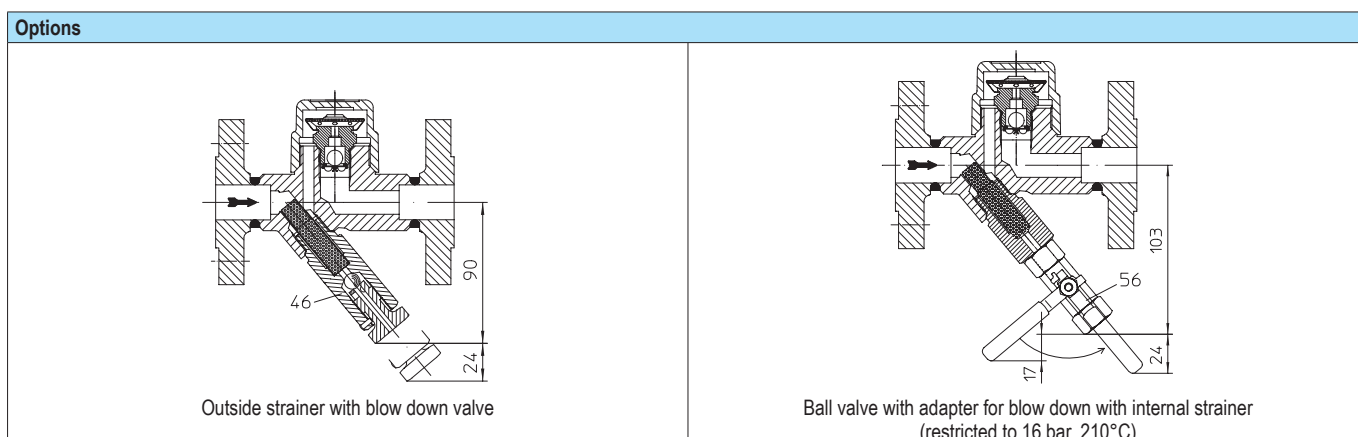
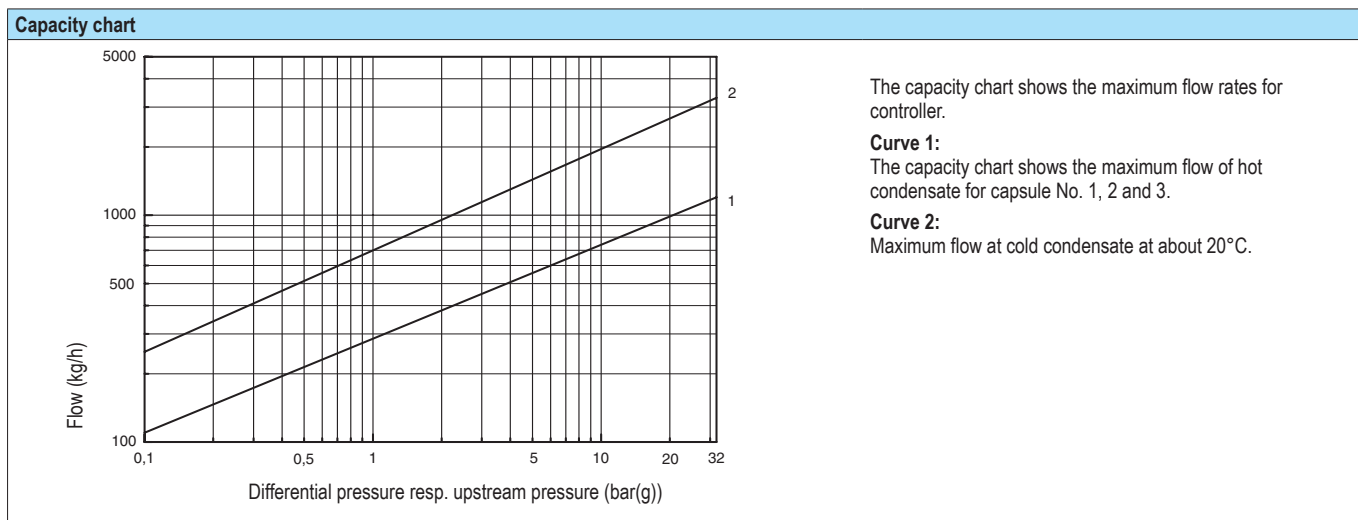
Dimensions										Standard-flange dimensions refer to page 17.
H	(mm)	65	65	65	65	65	74	65	65	65
H1	(mm)	62	62	62	62	62	55	62	62	62
S	(mm)	40	40	40	40	40	40	40	40	40
S1	(mm)	24	24	24	24	24	24	24	24	24
HEX	(mm)	50	50	50	50	50	50	50	50	50

Weights										
Fig. 611/613 (appr.)	(kg)	2.7	3.3	3.7	1.4	1.3	1.8	1.8	1.9	2

Parts					
Pos.	Sp.p.	Description	Fig. 45.611 / 45.613	Fig. 85.611 / 85.613	Fig. 55.611 / 55.613
1		Body	P250 GH, 1.0460	16Mo3, 1.5415	X6CrNiTi18-10, 1.4541
2	x	Strainer	X5CrNi18-10, 1.4301		
3	x	Seat	X8CrNiS18-9, 1.4305		
4	x	Capsule B (Diaphragm / Capsule)	Hastelloy / X5CrNi18-10, 1.4301		
5	x	Spring actuated clip	X10CrNi18-8, 1.4310		
6		Cap	P250 GH, 1.0460	16Mo3, 1.5415	X6CrNiTi18-10, 1.4541
7	x	Strainer	X5CrNi18-10, 1.4301		
8	x	Strainer plug	X6CrNiTi18-10, 1.4541		
46	x	Blow down valve, cpl.	X6CrNiTi18-10, 1.4541		
56	x	Ball valve for blow down (G 3/8")	GX5CrNiMo19-11-2, 1.4408		
57		Non return protection	X20Cr13+QT, 1.4021+QT		
L Spare parts					

Information / restriction of technical rules need to be observed!

Operating and installation instructions can be downloaded at [www.ari-armaturen.com](http://www.ari-armaturen.com).



## Thermostatic steam trap pilot operated for very high flow capacity (Grey cast iron)

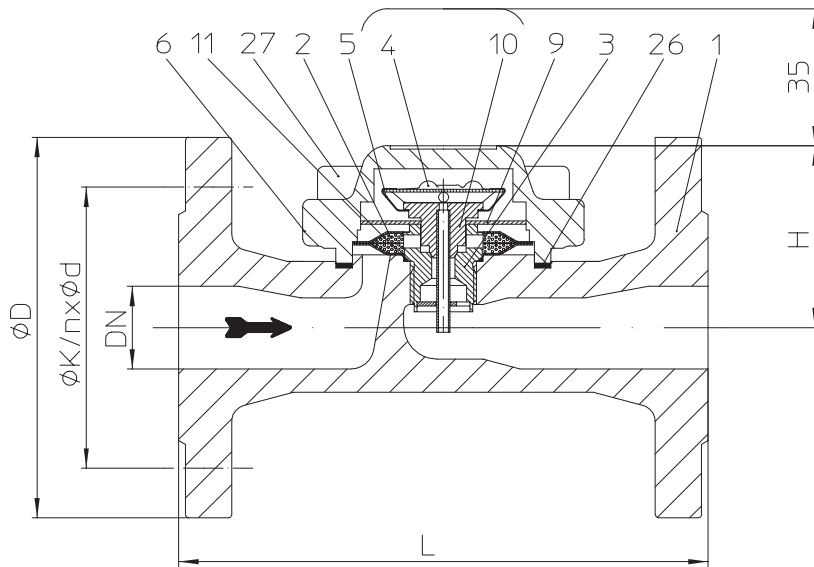


Fig. 616....1 with flanges

Figure	Nominal pressure	Material	Nominal diameter / NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure $\Delta PMX$	for controller
12.616	PN16	EN-JL1040	DN25-50 / 1" - 2"	12,8 barg	200 °C	13 bar	R13
				9,6 barg	300 °C		

For ANSI versions refer to data sheet CONA®M-ANSI

Types of connection		Other types of connection on request.
• Flanges ....1 _____ acc. to DIN 2533 or DIN EN 1092-2		
Features		
• Thermostatic steam trap with noncorrosive and robust water hammer proofed capsule • <b>Pilot operated for discharge of very high flow capacity</b> • With double-inside strainer - Fig. 616 • Installation in any position, except cover downwards		
Capsule		(chooseable for operating range)
• Capsule No. 1 _____ for condensate discharge at boiling temperature - applicable up to 5 bar inlet pressure		
• Capsule No. 2 _____ for condensate sub-cooling about approx. 10K (Standard)		
• Capsule No. 3 _____ for condensate sub-cooling about approx. 30K		



Types of connection	Flanges	
DN	25	50
NPS	1	2

Face-to-face acc. to data sheet resp. customer request			
L	(mm)	160	230

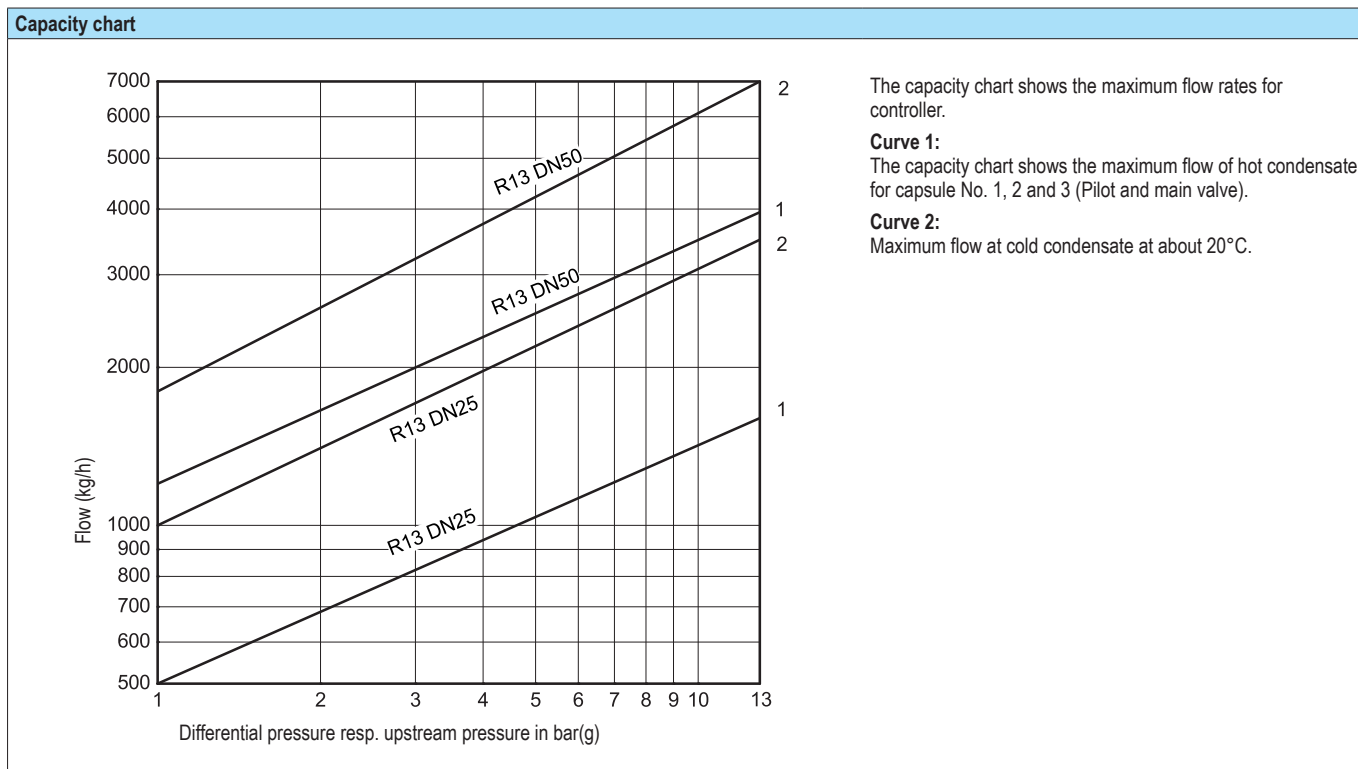
Dimensions		Standard-flange dimensions refer to page 17.	
H	(mm)	60	58
S	(mm)	28	35

Weights				
Fig. 616	(approx.)	(kg)	4	9.5

Parts			
Pos.	Sp.p.	Description	Fig. 12.616
1		Body	EN-GJL-250, EN-JL1040
2	x	Strainer / Filter screen	X5CrNi18-10, 1.4301
3	x	Seat	X8CrNiS18-9, 1.4305
4	x	Capsule (Diaphragm / Capsule)	Hastelloy / X5CrNi18-10, 1.4301
5	x	Spring actuated clip	X10CrNi18-8, 1.4310
6		Cover	EN-GJL-250, EN-JL1040
9	x	Plate piston	X5CrNi18-10, 1.4301
10	x	Nozzle piston	DN25: X8CrNiS18-9, 1.4305 / DN50: X17CrNi16-2, 1.4057
11	x	Bague	Cu
26	x	Gasket	Graphite (CrNi laminated with graphite)
27		Cheese head screw	A2-70
L Spare parts			

Information / restriction of technical rules need to be observed!

Operating and installation instructions can be downloaded at [www.ari-armaturen.com](http://www.ari-armaturen.com).



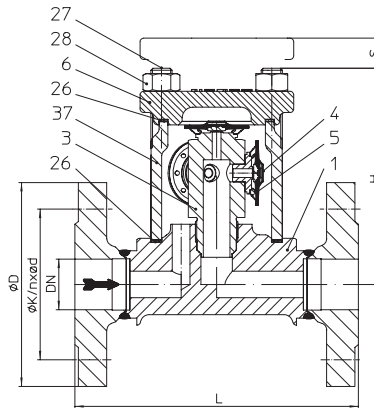
**Thermostatic steam trap with multi capsule for very high flow capacity (Forged steel)**


Fig. 616....1....4K2 (DN25) with 4 capsules, with flanges

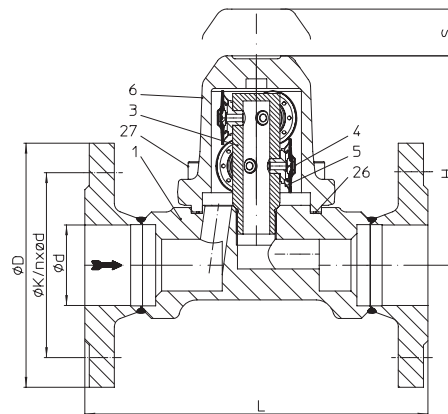


Fig. 616....1....6K2 (DN40-50) with 6 capsules, with flanges

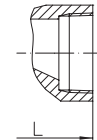


Fig. 616....2  
with screwed sockets

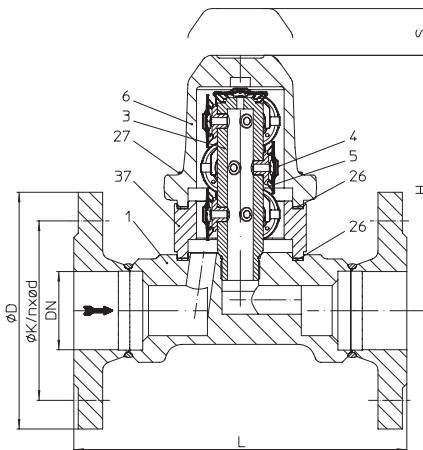


Fig. 616....1....10K2 (DN40-50) with 10 capsules, with flanges

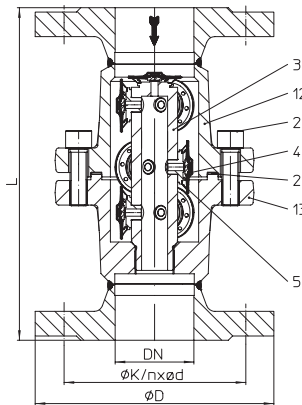


Fig. 616....1....10K2 (DN40-50) with 10 capsules, with flanges -  
**In-line design**

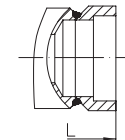


Fig. 616....3  
with socket weld ends

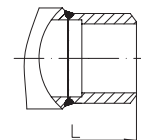


Fig. 616....4  
with butt weld ends

Figure	Nominal pressure	Material	Nominal diam. / NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure $\Delta PMX$	for controller
45.616....4K2 with 4 capsules	PN40	1.0460 <sup>1)</sup>	25 / 1/2"	32 barg	250 °C	32 bar	R32
				14,5 barg	450 °C		
45.616....6K2 with 6 capsules	PN40	1.0460 <sup>1)</sup>	40 - 50 / 1 1/2" - 2"	32 barg	250 °C		
				14,5 barg	450 °C		
45.616....10K2 with 10 capsules	PN40	1.0460 <sup>1)</sup>	40 - 50 / 1 1/2" - 2"	32 barg	250 °C		
				14,5 barg	450 °C		
45.616....10K2 with 10 capsules In-line design	PN40	1.0460 <sup>1)</sup>	40 - 50 / 1 1/2" - 2"	28,3 barg	250 °C		
				13,1 barg	450 °C		

We recommend a ARI Strainer Fig. 050 in front of the steam trap.

<sup>1)</sup> 1.4541 on request

For ANSI versions refer to data sheet CONA®M-ANSI

**Types of connection**

Other types of connection on request.

- Flanges ....1 \_\_\_\_\_ acc. to DIN 2635 or DIN EN 1092-1
- 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**

- Thermostatic steam trap with noncorrosive and robust water hammer proofed capsule
- **With multi capsule for discharge of very high flow capacity**
- Installation in any position, except cover downwards

**Capsule**

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

Types of connection	Flanges			Screw sockets Socket weld ends			Butt weld ends		
DN	25	40	50	25	40	50	25	40	50
NPS	1	1 1/2	2	1	1 1/2	2	1	1 1/2	2

Face-to-face acc. to data sheet resp. customer request									
L	(mm)	160	230	230	on request			on request	

Dimensions						Standard-flange dimensions refer to page 17.			
H	4 capsules	(mm)	125	--	--	on request	on request		
	6 capsules	(mm)	--	144	144				
	10 capsules	(mm)	--	185	185				
S		(mm)	65	90	90				

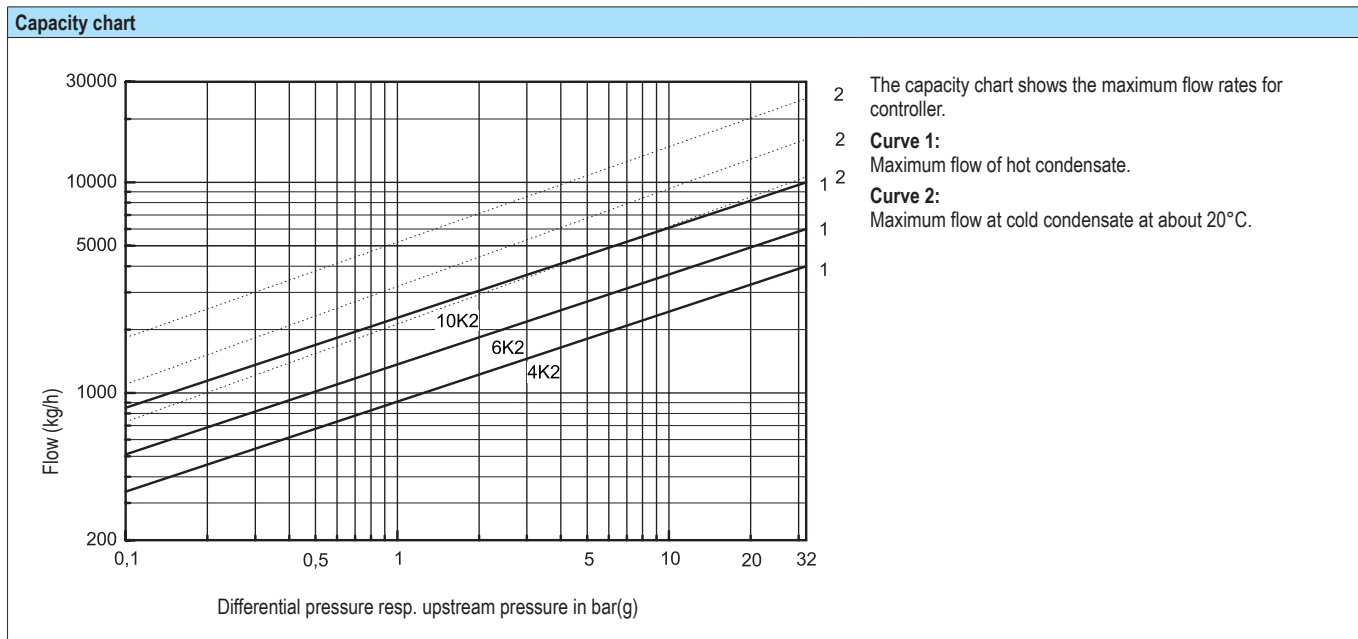
Weights									
Fig. 616	(approx.)	(kg)	6,5	11,3	12,1	on request			on request

Parts						
Pos.	Sp.p.	Description	Fig. 45.616....4K2, with 4 capsules	Fig. 45.616....6K2 with 6 capsules	Fig. 45.616....10K2 with 10 capsules	Fig. 45.616....10K2 with 10 capsules In-line design
1		Body	P250 GH, 1.0460			
3	x	Seat	X8CrNiS18-9, 1.4305			
4	x	Capsule (Diaphragm / Capsule)	Hastelloy / X5CrNi18-10, 1.4301			
5	x	Spring actuated clip	X10CrNi18-8, 1.4310			
6		Cover	P250 GH, 1.0460			--
12		Bonnet	--			P250 GH, 1.0460
13		Body	--			P250 GH, 1.0460
26	x	Gasket	Graphite (CrNi laminated with graphite)			
27		Cheese head screw	--	21CrMoV 5-7, 1.7709		21CrMoV 5-7, 1.7709
27		Stud	21CrMoV 5-7, 1.7709	--		--
28		Hexagonal nut	21CrMoV 5-7, 1.7709	21CrMoV 5-7, 1.7709		--
37		Intermediate flange	P250 GH, 1.0460	--	P250 GH, 1.0460	--
└ Spare parts						

Information / restriction of technical rules need to be observed!

Resistance and fitness must be verified (or contact the manufacturer for information).

Operating and installation instructions can be downloaded at [www.ari-armaturen.com](http://www.ari-armaturen.com).



## Thermostatic steam trap - compact (Stainless steel)

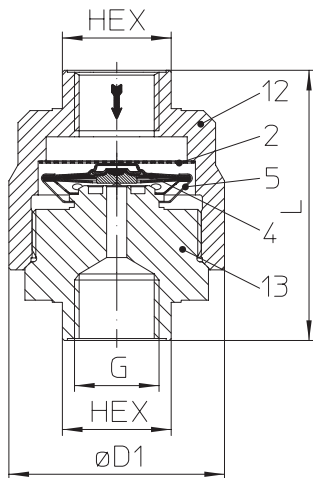


Fig. 614....2 with screwed sockets

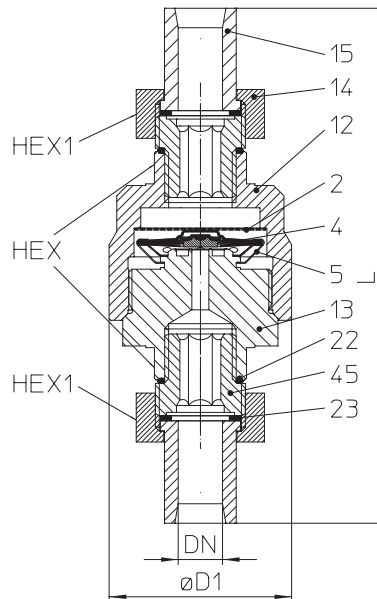


Fig. 614....5 union with butt weld ends

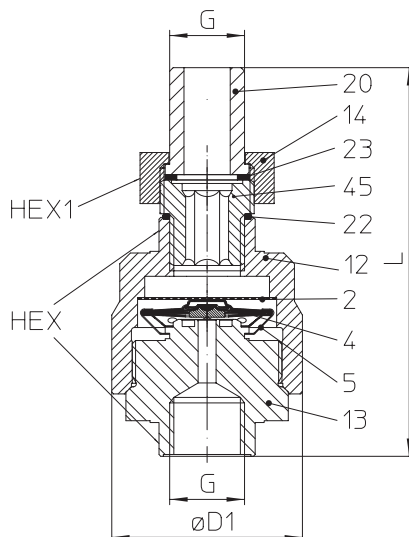
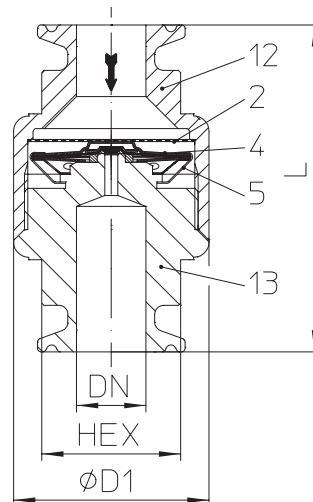

 Fig. 614....9  
 Input: Screwed male, Output: Screwed socket

 Fig. 614....a  
 for clamp connection

Figure	Nominal pressure	Material	NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure $\Delta PMX$	for controller
52.614	PN16	1.4305	1/4" - 1"	12 barg	190 °C	32 bar	R32
55.614	PN40	1.4305	1/4" - 1"	32 barg	250 °C		
	PN40	1.4305	1/4" - 1"	22 barg	400 °C		

For ANSI versions refer to data sheet CONA®M-ANSI

Types of connection		Other types of connection on request.
<ul style="list-style-type: none"> <li>Screwed sockets ....2 _____ Rp thread acc. to DIN EN 10226-1 or NPT thread acc. to ANSI B1.20.1</li> <li>Union with butt weld ends ....5 _____ acc. to data sheet resp. customer request</li> <li>Input: Screwed male, Output: Screwed socket ....9 _____ Rp- and NPT-thread acc. to DIN EN 10226-1</li> <li>for clamp connection ....a _____ acc. to DIN 32676 or BS 4825-3</li> </ul>		
Features		
<ul style="list-style-type: none"> <li>Thermostatic steam trap with noncorrosive and robust water hammer proofed capsule</li> <li>With inside strainer</li> <li>Especially designed for instrumentation and product heating with sub-cooled condensate discharge</li> </ul>		<ul style="list-style-type: none"> <li>Suitable as air vent for steam systems</li> <li>Corrosion resistant stainless steel body</li> <li>Installation in any position</li> <li>Optimized design for quick installation</li> <li>Maintenance simplified due to screwed cap without sealing</li> </ul>
Capsule		(chooseable for operating range)
<ul style="list-style-type: none"> <li>Capsule No. 2 _____ for condensate sub-cooling about approx. 10K (Standard)</li> <li>Capsule No. 3 _____ for condensate sub-cooling about approx. 30K</li> </ul>		

Types of connection	Screw sockets					Union with butt weld ends			Screw male / screw socket		for clamp connection (PN16)		
NPS	1/4	3/8	1/2	3/4	1	1/4	3/8	1/2	1/2	3/4	1/2	3/4	1

Face-to-face acc. to data sheet resp. customer request														
L	(mm)	68	68	68	78	78	150	150	150	110	125	75	75	75

Dimensions														
D1	(mm)	53,5	53,5	53,5	53,5	53,5	53,5	53,5	53,5	53,5	53,5	45	45	45
G	(inch)	1/4	3/8	1/2	3/4	1	--	--	--	1/2	3/4	--	--	--
HEX	(mm)	27	27	27	41	41	27	27	27	27	27	36	36	36
HEX1	(mm)	--	--	--	--	--	32	32	32	32	32	--	--	--

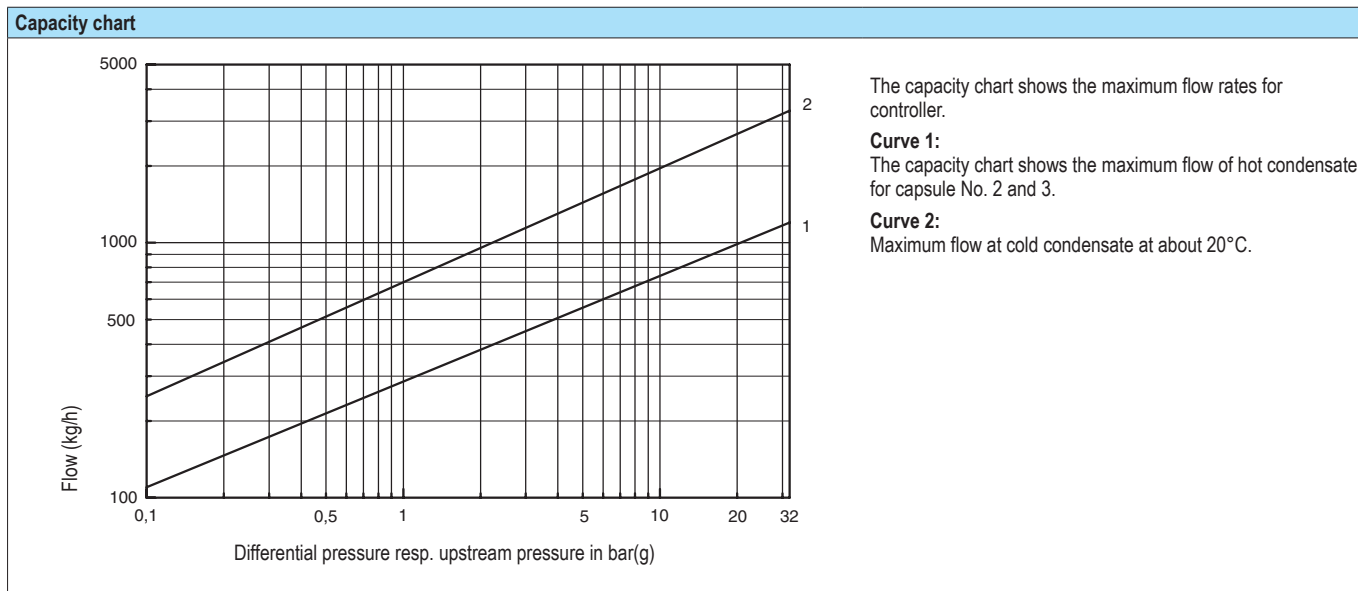
Weights															
Fig. 614	(approx.)	(kg)	0.65	0.65	0.65	0.85	0.85	1.2	1.2	1.2	0.95	1.2	0.7	0.7	0.8

Parts				
Pos.	Sp.p.	Description	Fig. 52.614	Fig. 55.614
2	x	Strainer	X5CrNi18-10, 1.4301	
4	x	Capsule B (Diaphragm / Capsule)	Hastelloy / X5CrNi18-10, 1.4301	
5	x	Spring actuated clip	X10CrNi18-8, 1.4310	
12		Bonnet	X8CrNiS18-9, 1.4305	
13		Body	X8CrNiS18-9, 1.4305	
14		Union nut	--	X14CrMoS17+QT, 1.4104+QT
15		Welding end	--	X20Cr13+QT, 1.4021+QT
20		Screwed male end (with outside thread)	--	X8CrNiS18-9, 1.4305
22	x	Sealing ring	--	A4
23	x	Gasket	--	Graphite (CrNi laminated with graphite)
45		Intermediate part	--	X8CrNiS18-9, 1.4305
	L Spare parts			

Information / restriction of technical rules need to be observed!

Resistance and fitness must be verified (or contact the manufacturer for information).

Operating and installation instructions can be downloaded at [www.ari-armaturen.com](http://www.ari-armaturen.com).



# Thermostatic steam trap - compact (Stainless steel)

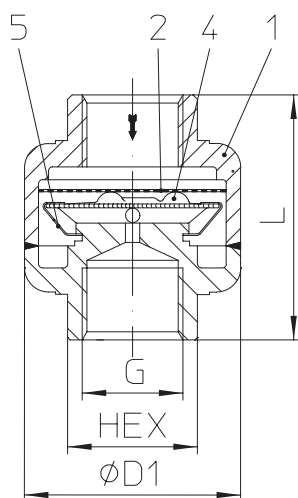


Fig. 615....2 with screwed sockets

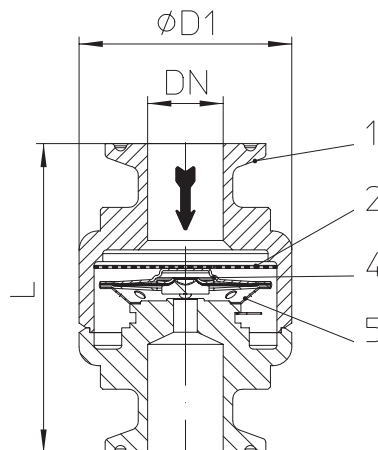
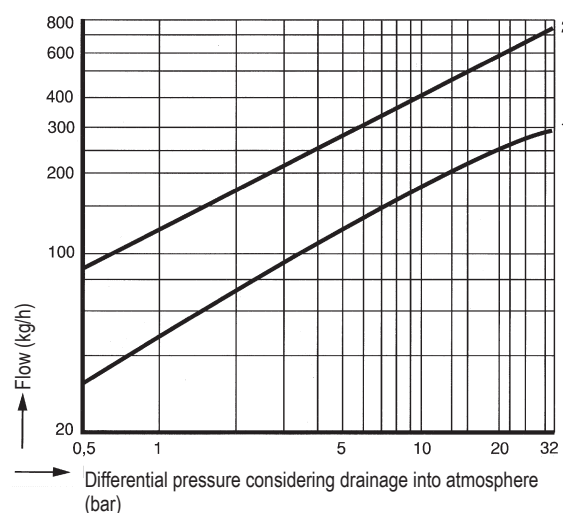


Fig. 615....a for clamp connection (PN16)

## Capacity chart



The capacity chart shows the maximum flow rates for controller.

**Curve 1:**  
Maximum flow of hot condensate.

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

Figure	Nominal pressure	Material	NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure ΔPMX	for controller
52.615	PN16	1.4301	1/4" - 1"	12 barg	190 °C	32 bar	R32
55.615	PN40	1.4301	1/4" - 1/2"	32 barg	250 °C		

For ANSI versions refer to data sheet CONA®M-ANSI

## Types of connection

Other types of connection on request.

- Screwed sockets ....2 \_\_\_\_\_ Rp thread acc. to DIN EN 10226-1 or NPT thread acc. to ANSI B1.20.1
- for clamp connection ....a \_\_\_\_\_ acc. to DIN 32676 or BS 4825-3

## Features

- Thermostatic steam trap with noncorrosive and robust water hammer proofed capsule
- With inside strainer
- Especially designed for instrumentation and product heating with sub-cooled condensate discharge
- Corrosion resistant stainless steel body
- Installation in any position
- Discharge of condensate sub-cooled at 10K over the entire application range

## Capsule

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

Types of connection	Screwed sockets			for clamp connection (PN16)		
NPS	1/4	3/8	1/2	1/2	3/4	1

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

L*	(mm)	50	50	50	65	65	65
----	------	----	----	----	----	----	----

## Dimensions

D1	(mm)	45	45	45	45	45	45
G	(inch)	1/4	3/8	1/2	--	--	--
HEX	(mm)	27	27	27	--	--	--

## Weights

Fig. 615 (approx.)	(kg)	0,3	0,3	0,3	0,32	0,32	0,4
--------------------	------	-----	-----	-----	------	------	-----

## Parts

Pos.	Description	Fig. 55.615
1	Body	X5CrNi18-10, 1.4301
2	Strainer	X5CrNi18-10, 1.4301
4	Capsule (Diaphragm / Capsule)	Hastelloy / X5CrNi18-10, 1.4301
5	Spring actuated clip	X10CrNi18-8, 1.4310

Information / restriction of technical rules need to be observed!

Resistance and fitness must be verified (or contact the manufacturer for information).

Operating and installation instructions can be downloaded at [www.ari-armaturen.com](http://www.ari-armaturen.com).

## Wafer pattern-thermostatic steam trap (Stainless steel)

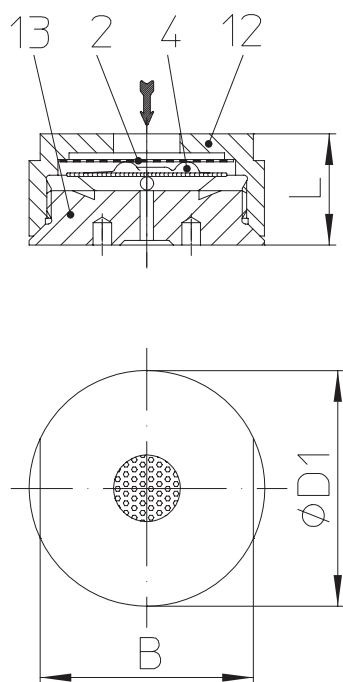


Fig. 619....6

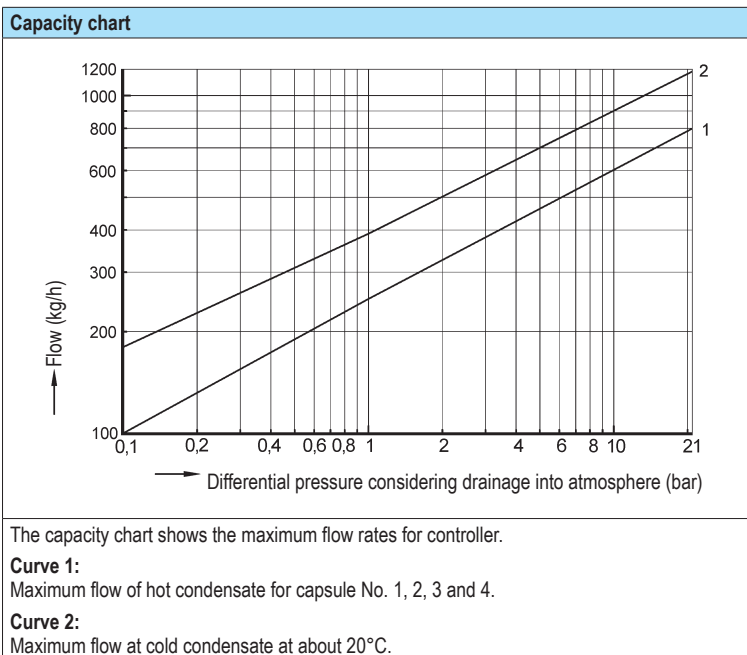


Figure	Nominal pressure	Material	Nominal diameter	Operating pressure PS	Inlet temperature TS	allowable differential pressure ΔPMX	for controller
55.619	PN40	1.4305	DN15-25	21 barg	300 °C	21 bar	R21

For ANSI versions refer to data sheet CONA®M-ANSI

Types of connection		Other types of connection on request	
<ul style="list-style-type: none"><li>Intermediate flange ....6 _____ acc. to DIN 2501</li></ul>			
Features			
<ul style="list-style-type: none"><li>Thermostatic steam trap with noncorrosive and robust water hammer proofed capsule</li><li>With inside strainer</li><li>Space-saving wafer pattern steam trap</li></ul>		<ul style="list-style-type: none"><li>Corrosion resistant stainless steel body</li><li>Installation in any position</li><li>Optimized design for quick installation</li><li>Maintenance simplified due to screwed cap without sealing</li></ul>	
Capsule		(chooseable for operating range)	
<ul style="list-style-type: none"><li>Capsule No. 1 _____ for condensate discharge at boiling temperature - applicable up to 5 bar inlet pressure</li><li>Capsule No. 2 _____ for condensate sub-cooling about approx. 10K (Standard)</li><li>Capsule No. 3 _____ for condensate sub-cooling about approx. 30K</li><li>Capsule No. 4 _____ for condensate sub-cooling about approx. 40K - applicable up to 16 bar inlet pressure, especially suitable for tracing systems with low and medium pressure steam</li></ul>			

Types of connection	Intermediate flange		
DN	15	20	25

Face-to-face acc. to data sheet resp. customer request				
L	(mm)	25	31.5	35

Dimensions				
D1	(mm)	53	63	72
B	(mm)	46	56	65

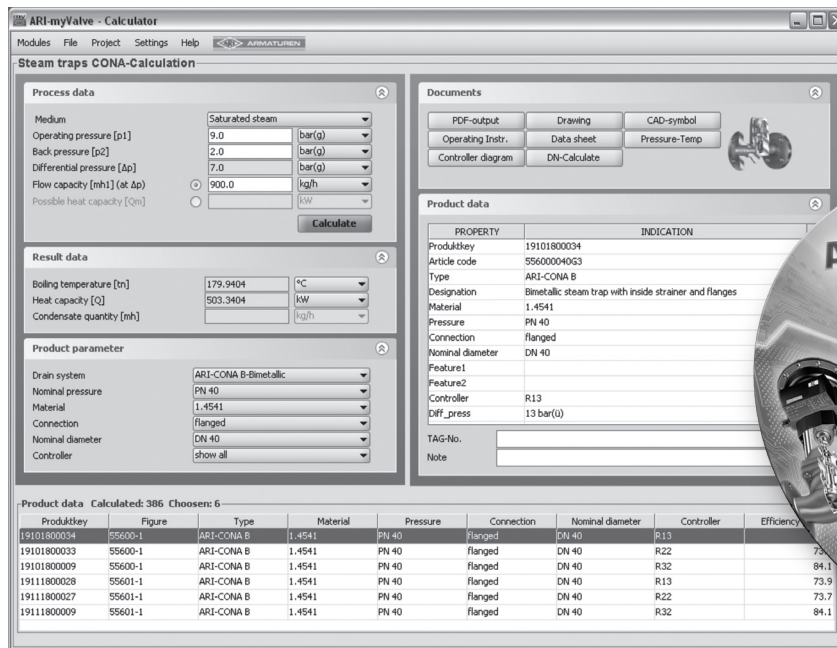
Weights				
Fig. 619 (approx.)	(kg)	0,45	0,65	0,85

Parts				
Pos.	Sp.p.	Description	Fig. 55.619	
2	x	Strainer	X5CrNi18-10, 1.4301	
4	x	Capsule (Diaphragm / Capsule)	Hastelloy / X5CrNi18-10, 1.4301	
12		Bonnet	X8CrNiS18-9, 1.4305	
13		Body	X8CrNiS18-9, 1.4305	
	L	Spare parts		

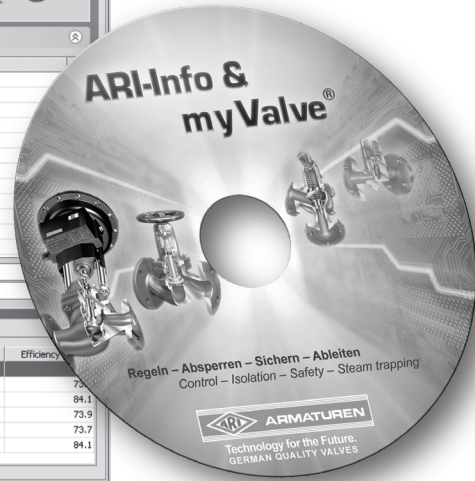
Information / restriction of technical rules need to be observed!  
Resistance and fitness must be verified (or contact the manufacturer for information).  
Operating and installation instructions can be downloaded at [www.ari-armaturen.com](http://www.ari-armaturen.com).

## myValve® - Ihr VALVE Sizing-Program.

myValve is a powerful software tool that not only helps you size your system components; it also gives you instant access to all other data about the selected product, such as order information, spare parts drawings, operating instructions, data sheets, etc., whenever you need it.



Produktkey	Figure	Type	Material	Pressure	Connection	Nominal diameter	Controller	Efficiency
19101800034	55600-1	ARI-CONA B	1.4541	PN 40	flanged	DN 40	R13	73.9
19101800033	55600-1	ARI-CONA B	1.4541	PN 40	flanged	DN 40	R22	84.1
19101800009	55600-1	ARI-CONA B	1.4541	PN 40	flanged	DN 40	R32	73.9
19111800028	55601-1	ARI-CONA B	1.4541	PN 40	flanged	DN 40	R13	73.7
19111800027	55601-1	ARI-CONA B	1.4541	PN 40	flanged	DN 40	R22	84.1
19111800009	55601-1	ARI-CONA B	1.4541	PN 40	flanged	DN 40	R32	84.1



### myValve - Valve Sizing-Program

#### Contents:

#### Module ARI-Steam trap CONA-Calculation

- Sizing (calculation of steam trap systems with given flow capacity or heat capacity)
- Calculation of nominal diameter acc. to given pressure, condensate quantity, condensate sub-cooling and speed

#### Media:

- Steam (saturated and superheated)
- Compressed air

#### Special Features

- Project administration of the calculation and product data incl. spare part drawings concerning to project and tag number
- Direct output of calculation and product data in PDF format
- Product data could be taken for a direct order
- SI- and ANSI-units with direct conversion to another databank
- Settings with over pressure or absolute pressure
- All ARI products are integrated in one databank
- Direct access concerning to the product on data sheets, operating instructions, pressure-temperature-diagram and spare part drawings
- Operation in company networks possible (no complex installations on individually PC's necessary)
- Extensive catalogue extending over several product groups

#### System Requirements:

Windows operating systems, Linux, etc.



**Informations about pipe welding**
**Welding groove acc. to DIN 2559**

The material used for ARI valves with butt weld ends are:

1.0460	P250GH acc. to DIN EN 10222-2
1.0401	C15 acc. to DIN 17210
1.5415	16Mo3 acc. to DIN EN 10028
1.4541	X6CrNiTi18-10 acc. to DIN EN 10088
1.4021+QT	X20Cr13+QT acc. to DIN EN 10088

**Note:**

Note restriction on operating pressure / inlet temperature depending to design!

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).

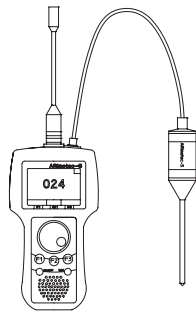
If during the time of warranty others than the manufacturer or by the manufacturer authorized persons are interfering in the product and/or the setting, the right of claim for warranty will lapse!

**Standard-flange dimensions acc. to 2633 / 2635 or DIN EN 1092-1 / -2**

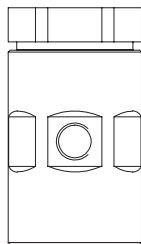
DN			15	20	25	32	40	50
NPS			1/2	3/4	1	1 1/4	1 1/2	2
PN16	ØD	(mm)	95	105	115	140	150	165
	ØK	(mm)	65	75	85	100	110	125
	n x Ød	(mm)	4 x 14	4 x 14	4 x 14	4 x 18	4 x 18	4 x 18
PN40	ØD	(mm)	95	105	115	140	150	165
	ØK	(mm)	65	75	85	100	110	125
	n x Ød	(mm)	4 x 14	4 x 14	4 x 14	4 x 18	4 x 18	4 x 18

Dimensions in mm or inch  
 Weights in kg  
 1 bar  $\triangleq$  10<sup>5</sup> Pa  $\triangleq$  0,1 MPa  
 Kvs in m<sup>3</sup>/h  
 1 bar  $\triangleq$  14,5 psi  
 1 inch  $\triangleq$  25,4 mm

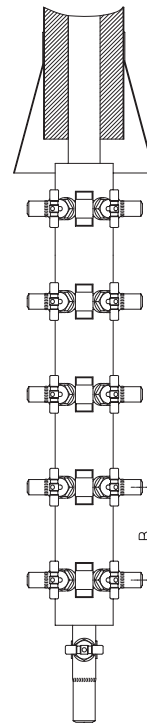
Selection criteria:		Example for order data:
<ul style="list-style-type: none"> <li>• Steam pressure</li> <li>• Back pressure</li> <li>• Quantity of condensate</li> <li>• Nominal diameter / pressure</li> </ul>	<ul style="list-style-type: none"> <li>• Type of connection</li> <li>• Capsule (Capsule-Nr)</li> <li>• Material</li> <li>• Place of service or kind of steam consumer</li> </ul>	<b>Thermostatic steam trap CONA® M,          Fig. 610, PN40, DN15, 1.0460, Capsule-No. 2, with flanges,          Face-to-face dimension 150 mm</b>



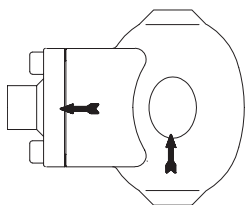
Multifunction tester  
**ARImetec<sup>®</sup>-S**



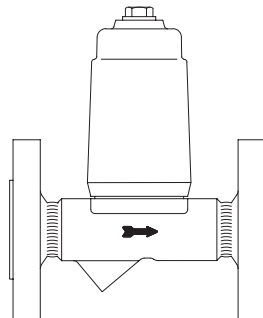
Vacuum breaker  
Fig. 655



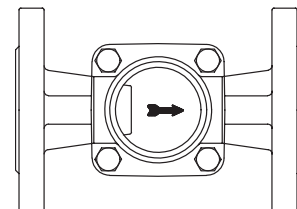
Condensate collection (B = 160), steam distribution (B = 120)  
**CODI<sup>®</sup>S** with gland packing Fig. 671/672;  
**CODI<sup>®</sup>B** with bellows seal, maintenance-free Fig. 675/676



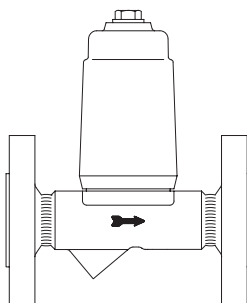
Automatic air vent for liquid systems  
Fig. 656



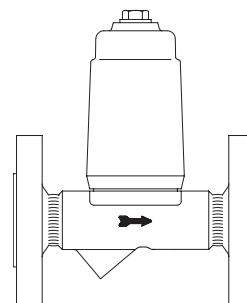
Condensate discharge temperature limiter  
Fig. 645/647



Flow indicator  
Fig. 660/661



Return temperature limiter  
Fig. 650



Liquid drainer  
Fig. 665

(Further informations about the accessories can be found in the appropriate data sheets.)