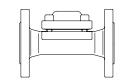
### Thermostatic steam trap

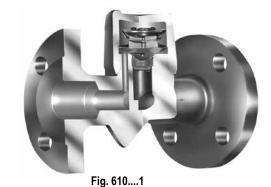
# Thermostatic steam trap **PN16**

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



Grey cast iron

Fig. 610 Page 2

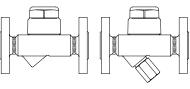


# Thermostatic steam trap **PN40**

- with flanges (Fig. 610/612....1) (Fig. 610/612....2) - with screwed sockets

- with socket weld ends (Fig. 610/612....3)

(Fig. 610/612....4) - with butt weld ends



Forged steel Stainless steel

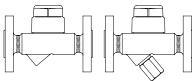
Fig. 610/612 (Y) Page 4

# Thermostatic steam trap

With seat for higher flow capacity than Fig. 610/612 **PN40** 

- with flanges (Fig. 611/613....1) (Fig. 611/613....2) - with screwed sockets

(Fig. 611/613....3) - with socket weld ends (Fig. 611/613....4) - with butt weld ends



Forged steel

High temperature steel Stainless steel

Fig. 611/613 (Y)

Page 6

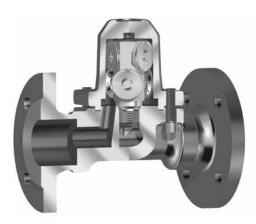
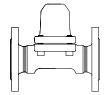


Fig. 616....1....10K2

# Thermostatic steam trap pilot operated / with multi capsule for very high flow capacity **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)



Forged steel

Fig. 616 Page 8

# 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 compression ring connection (Fig. 614....c)

- with screwed sockets (Fig. 615....2) Stainless steel

Page - for clamp connection (Fig. 615....a) Fig. 614/615 10 + 12

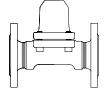


# Thermostatic steam trap **PN40**

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

Stainless steel

Fig. 619 Page 13



# Features:

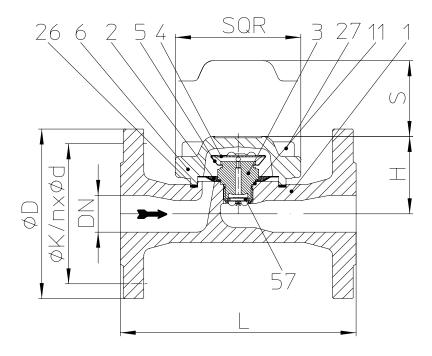
- · For discharging of slight to highly sub-cooled condensate
- · Automatic air-venting during start up and operation of the plant
- · High sensitivity
- · Exact control characteristic
- · Robust and resistant to water-hammer
- · Integrated non return protection (Fig. 610/612; 611/613 (not at controller 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)



A member of the ARI group



# Thermostatic steam trap (Grey cast iron)



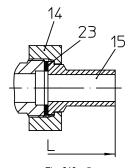


Fig. 610....5 union with butt weld ends

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

Figure	Nominal pressure	Material	Nominal diameter / NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure ΔPMX	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.
Flanges1	acc. to DIN EN 1092-2	

Union with butt weld ends ....5 \_\_\_\_acc. to data sheet resp. customer request

### Features

- Thermostatic steam trap with noncorrosive and robust water hammer proofed capsule
- · Non return protection (not at controller R5)

Non return protection (no	t at controller R5)	
With inside strainer		
Installation in any position	1	
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, especially suitable for tracing systems with low and medium pressure steam	



Types of connection	Flanges	Union with b	utt 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	190		

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

Weights				
Fig. 610	(approx.) (kg)	4,5	2,3	2,1

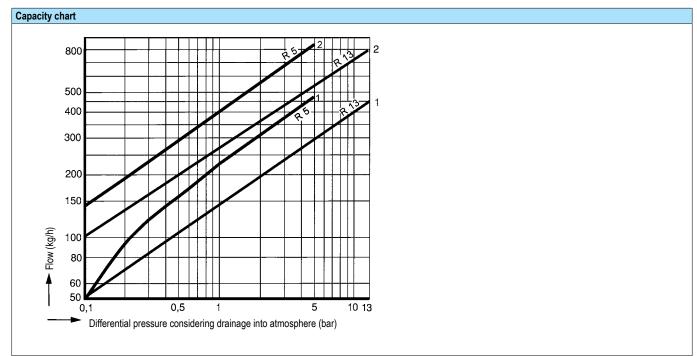
Parts			
Pos.	Sp.p.	Description	Fig. 12.610
1		Body	EN-GJL-250, EN-JL1040
2	х	Strainer	X5CrNi18-10, 1.4301
3	х	Seat	X8CrNiS18-9, 1.4305
4	х	Capsule (Diaphragm / Capsule)	Hastelloy / X5CrNi18-10, 1.4301
5	х	Spring actuated clip	X10CrNi18-8, 1.4310
6		Cover	EN-GJL-250, EN-JL1040
11	х	Sealing ring	CU
14		Union nut	11SMn30+C, 1.0715+C
15		Welding end	C15, 1.0401
23	х	Sealing ring	Novapress MULTI
26	х	Gasket	Graphite (CrNi laminated with graphite)
27		Cheese head screw	A2-70
57		Non return protection	X6Cr17, 1.4016
	L Spar	e parts	

Information / restriction of technical rules need to be observed!

ARI-Valves of EN-JL1040 are not allowed to be operated in systems acc. to TRD 110.

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.



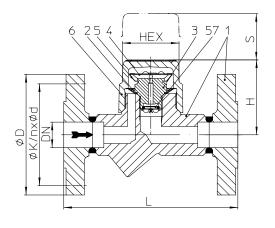
The capacity chart shows the maximum flow rates for controller.

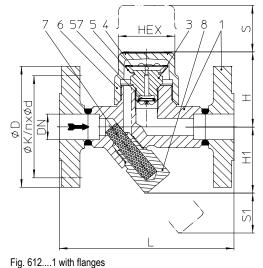
 $\textbf{Curve 1:} \ \text{Maximum flow of hot condensate for capsule No. 1, 2, 3 and 4.}$ 

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



# Thermostatic steam trap (Forged steel, Stainless steel)





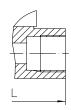


Fig. 610/612....2 with screwed sockets

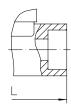


Fig. 610/612....3 with socket weld ends

Fig. 610....1 with flanges





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

Figure	Nominal pressure	Material	Nominal diam. / NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure ΔPMX	for controller		
45.610	DNI40	4.0400	15 - 25 /	22 barg	385 °C				
45.612 (Y)	PN40	1.0460	1/2" - 1"	14,5 barg	450 °C	22 bar 5 bar	R22 R5		
55.610	DNI40	1.4541	15 - 25 /	22 barg	400 °C				
55.612 (Y)	PIN4U		1/2" - 1"						
For ANSI version	For ANSI versions refer to data sheet CONA®M-ANSI								

Types of connection	Other types of connection on request.
• Flanges1acc. to DIN EN 1092-1	
Screwed sockets2Rp thread acc. to DIN EN 10226-1 or NPT thread acc. to ANSI B1.20.1	
Socket weld ends3acc. to DIN EN 12760	
Butt weld ends4Weld preparation acc. to EN ISO 9692 identification No. 1.3 and 1.5  (Note restriction on operating pressure / inlet temperature depending to design!)	
Fastures	

- 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 of	lue 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 Screwed sockets Socket weld ends Butt w			Butt weld ends	i						
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	Face-to-face acc. to data sheet resp. customer request									
L	(mm)	150	150	160	95	95	95	250	250	250
Dimensions								Standard-flang	je dimensions re	efer to page 17.
Н	(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							50			
Weights	Weights									
Fig. 610/612 (appr.)	(kg)	2,7	3,3	3,7	1,4	1,3	1,8	1,8	1,9	2

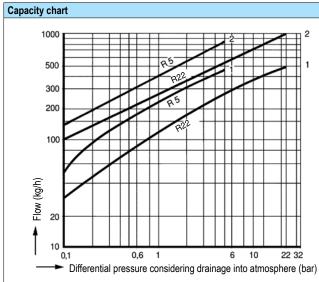
Screwed sockets

Parts									
Pos.	Sp.p.	Description	Fig. 45.610	Fig. 45.612	Fig. 55.610	Fig. 55.612			
1		Body	P250 GH, 1.0460		X6CrNiTi18-10, 1.4541				
2	х	Strainer	X5CrNi18-10, 1.430	1	X5CrNi18-10, 1.4301				
3	х	Seat	X8CrNiS18-9, 1.430	)5					
4	х	Capsule (Diaphragm / Capsule)	Hastelloy / X5CrNi1	8-10, 1.4301					
5	х	Spring actuated clip	X10CrNi18-8, 1.431	X10CrNi18-8, 1.4310					
6		Cap	P250 GH, 1.0460		X6CrNiTi18-10, 1.4541				
7	х	Strainer		X5CrNi18-10, 1.4301		X5CrNi18-10, 1.4301			
8	х	Strainer plug		X6CrNiTi18-10, 1.4541		X6CrNiTi18-10, 1.4541			
46	х	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, GX5CrNiMo19-11-408 1.4408					
57		Non return protection	X6Cr17, 1.4016	X6Cr17, 1.4016					
	L Spare	e 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.



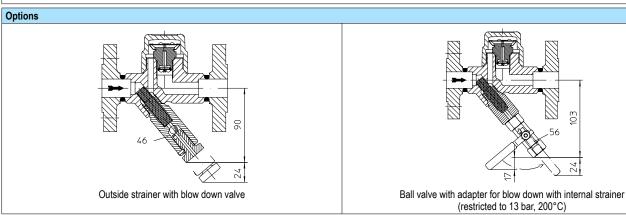
The capacity chart shows the maximum flow rates for controller.

# Curve 1:

Maximum flow of hot condensate for capsule No. 1, 2, 3 and 4.

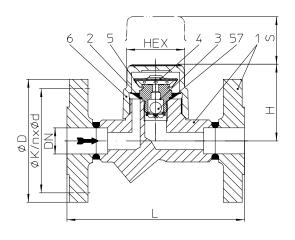
#### Curve 2:

Maximum flow at cold condensate at about 20°C.





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



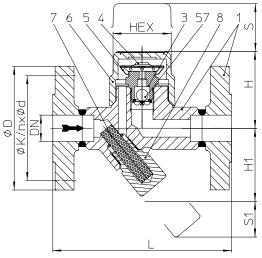


Fig. 611/613....2 with screwed sockets

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

Fig. 611....1 with flanges

Fig. 613....1 with flanges



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

Figure	Nominal pressure	Material	Nominal diameter / NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure ΔPMX	for controller
45.044				32 barg	250 °C		
45.611 45.613 (Y)	PN40	1.0460	15 - 25 / 1/2" - 1"	22 barg 385 °C			
45.015 (1)				14,5 barg	450 °C		R32
05.044		PN40 16Mo3 PN40 1.4541	15 - 25 / 1/2" - 1"	35 barg	300 °C	20 h	
85.611 85.613 (Y)	PN40			32 barg	335 °C	32 bar	
00.010 (1)				28 barg	450 °C		
55.611 55.613 (Y)	DNI40		15 - 25 / 1/2" - 1"	32 barg	350 °C		
	PIN4U			22 barg	400 °C		

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

Types of connection	Other types of connection on request.
• Flanges1acc. to DIN EN 1092-1	
Screwed sockets2Rp thread acc. to DIN EN 10226-1 or NPT thread acc. to ANSI B1.20.1	
Socket weld ends3acc. to DIN EN 12760	
Butt weld ends4Weld 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 blo	nw down valve (Pos. 46)	

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

Butt weld ends





Types of connection

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	Face-to-face acc. to data sheet resp. customer request										
L	(mm)	150	150	160	95	95	95	250	250	250	
Dimensions	Dimensions Standard-flange dimensions refer to page 17.										
Н	(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	Weights										
Fig. 611/613 (appr.)	(kg)	2,7	3,3	3,7	1,4	1,3	1,8	1,8	1,9	2	

Screwed sockets

Socket weld ends

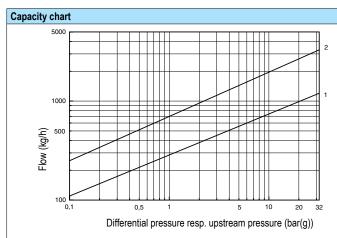
Parts									
Pos.	Sp.p.	Description	Fig. 45.611	Fig. 45.613	Fig. 85.611	Fig. 85.613	Fig. 55.611	Fig. 55.613	
1		Body	P250 GH, 1.0460		16Mo3, 1.5415		X6CrNiTi18-10, 1.4541		
2	Х	Strainer	X5CrNi18-10, 1.4301		X5CrNi18-10, 1.4301		X5CrNi18-10, 1.4301		
3	х	Seat	X8CrNiS18-9, 1.4305	X8CrNiS18-9, 1.4305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

**Flanges** 

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



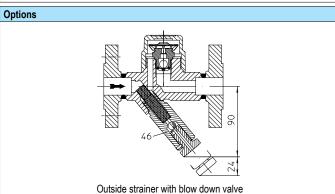
The capacity chart shows the maximum flow rates for controller.

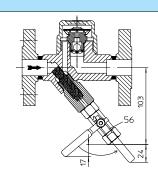
#### Curve 1:

The capacity chart shows the maximum flow of hot condensate for capsule No. 1, 2 and 3.

#### Curve 2:

Maximum flow at cold condensate at about 20°C.





Ball valve with adapter for blow down with internal strainer (restricted to 13 bar, 200°C)



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

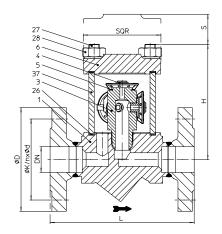


Fig. 616....1....4K2 (DN25) with 4 capsules, with flanges

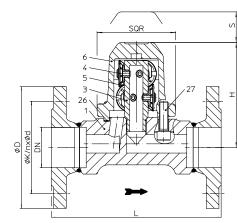


Fig. 616....1....6K2 (DN40-50) with 6 capsules, with flanges

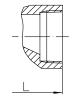


Fig. 616....2 with screwed sockets

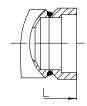


Fig. 616....3 with socket weld ends

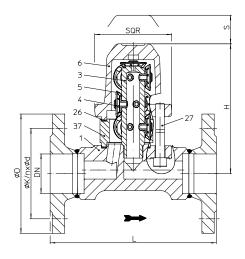


Fig. 616....1....10K2 (DN40-50) with 10 capsules, with flanges

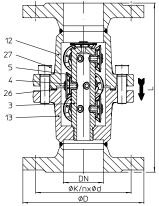


Fig. 616....1....10K2 (DN40-50) with 10 capsules, with flanges -In-line design

	Fig. 6164 with butt weld ends
DN ØK/nxØd ØD	

Figure	Nominal pressure	Material	Nominal diam. / NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure ΔPMX	for controller		
45.6164K2	PN40	1.0460 <sup>1)</sup>	25 <i>l</i> 1"	32 barg	250 °C				
with 4 capsules	FIN4U	1.0400 7		14,5 barg	450 °C				
45.6166K2	PN40	1.0460 1)	1.04601)	40 - 50 /	40 - 50 /	32 barg	250 °C		
with 6 capsules	FIN4U		1 1/2" - 2"	14,5 barg	450 °C	32 bar	R32		
45.61610K2	DNAO	1.04601)	40 - 50 /	32 barg	250 °C				
with 10 capsules	PN40	1.0460 1) 1 1/2	1 1/2" - 2"	14,5 barg	450 °C				
45.61610K2	D1140	4.04001)	40 - 50 /	28,3 barg	250 °C				
with 10 capsules In-line design	PN40	1.04601)	1 1/2" - 2"	13,1 barg	450 °C				
144	DI 01 1						1) 4 4544		

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

1) 1.4541 on request

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

Types of connection	Other types of connection on request.
• Flanges1acc. to DIN EN 1092-1	
Screwed sockets2Rp thread acc. to DIN EN 10226-1 or NPT thread acc. to ANSI B1.20.1	
Socket weld ends3acc. to DIN EN 12760	
Butt weld ends4Weld 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			Screwed 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"

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

Dimens	<b>Dimensions</b> Standard-flange dimensions refer to page 17.											
	4 capsules	(mm)	125				an request					
Н	6 capsules	(mm)		144	144	on request						
	10 capsules	(mm)		185	185		on request					
S		(mm)	65	90	90							

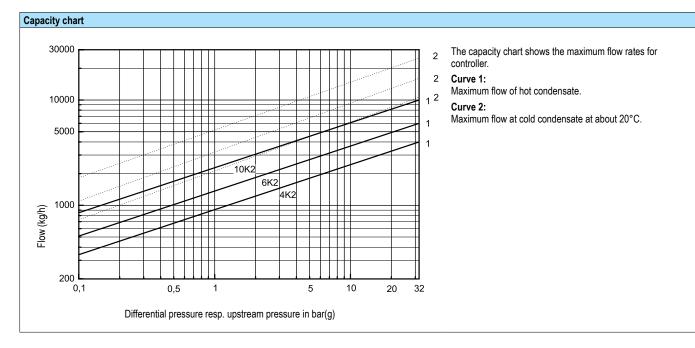
Weights							
Fig. 616	(approx.) (kg	g)	6,5	11,3	12,1	on request	on request

Parts										
Pos.	Sp.p.	Description	Fig. 45.6164K2, with 4 capsules	Fig. 45.6166K2 with 6 capsules	Fig. 45.61610K2 with 10 capsules	Fig. 45.61610K2 with 10 capsules In-line design				
1		Body	P250 GH, 1.0460	•						
3	х	Seat	X8CrNiS18-9, 1.4305							
4	х	Capsule (Diaphragm / Capsule)	Hastelloy / X5CrNi18-10	Hastelloy / X5CrNi18-10, 1.4301						
5	х	Spring actuated clip	X10CrNi18-8, 1.4310	X10CrNi18-8, 1.4310						
6		Cover	P250 GH, 1.0460	P250 GH, 1.0460						
12		Bonnet				P250 GH, 1.0460				
13		Body				P250 GH, 1.0460				
26	х	Gasket	Graphite (CrNi laminate	d 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	7, 1.7709						
37		Intermediate flange	P250 GH, 1.0460		P250 GH, 1.0460					
	L Spar	re 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.





# Thermostatic steam trap - compact (Stainless steel)

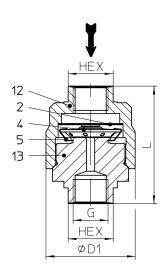


Fig. 614....2 with screwed sockets

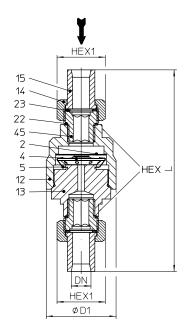


Fig. 614....5 union with butt weld ends

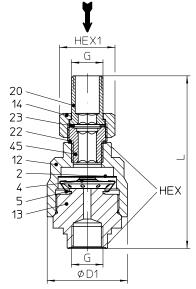


Fig. 614....9 Input: Screwed male, Output: Screwed socket

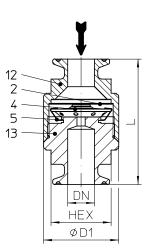


Fig. 614....a for clamp connection (PN16)

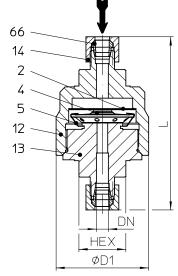


Fig. 614....c with compression ring connection

Figure	Nominal pressure	Material	NPS	Operating pressure PS	Inlet temperature TS	allowable differential pressure ΔPMX	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		
55.014	PN40	1.4305	1/4" - 1"	22 barg	400 °C		

- 410			- 1 - 1		0011481441	
For ANSI	versions	reter to	n data	sheet	CONA@M-AN	ISL

TOTANOT VERSIONS TELET TO data sheet CONA INFANOI						
Types of connection			Other types of connection on request.			
Screwed sockets2	_Rp thread acc. to DIN EN	N 10226-1 or NPT thread acc. to ANSI B1.20.1				
Union with butt weld ends5	_acc. to data sheet resp. o	customer request				
• Input: Screwed male, Output: Screwed socket9 Rp- and NPT-thread acc. to DIN EN 10226-1						
for clamp connectiona	acc. to DIN 32676 or BS 4825-3					
with compression ring connectionc	_acc. to DIN 2353 or EN I	SO 8434-1				
Features						
Thermostatic steam trap with noncorrosive and robust was	ater hammer proofed	Suitable as air vent for steam systems				
capsule		Corrosion resistant stainless steel body				
With inside strainer		Installation in any position				

- Especially designed for instrumentation and product heating with sub-cooled condensate discharge
- Optimized design for quick installation
- Maintenance simplified due to screwed cap without sealing

Capsule	(chooseable for operating range)
Capsule No. 2for condensate sub-cooling about approx. 10K (States)	andard)
Capsule No. 3for condensate sub-cooling about approx. 30K	



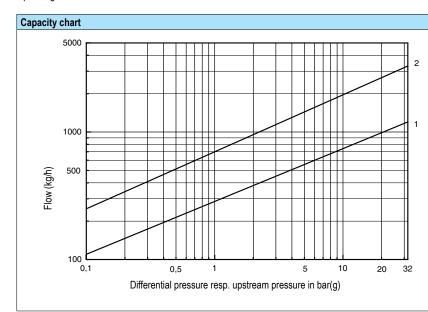
Types of connection			Screwed sockets				with	Union with butt weld ends		Screwed male / screwed socket		for clamp connection (PN16)		Compr. ring con. (PN40)	
NPS		1/4"	3/8"	1/2"	3/4"	1"	1/4"	3/8"	1/2"	1/2"	3/4"	1/2"	3/4"	1"	DN 8
Face-to-f	Face-to-face acc. to data sheet resp. customer request														
L	(mm)	68	68	68	78	78	150	150	150	110	125	75	75	75	100
Dimensio	ons														
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	53,5
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	27
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	0,7

Parts								
Pos.	Sp.p.	Description	Fig. 52.614	Fig. 55.614				
2	х	Strainer	X5CrNi18-10, 1.4301					
4	х	Capsule B (Diaphragm / Capsule)	Hastelloy / X5CrNi18-10, 1.4301					
5	Х	Spring actuated clip	X10CrNi18-8, 1.4310					
12		Bonnet	X8CrNiS18-9, 1.4305	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	Х	Sealing ring		A4				
23	Х	Gasket		Graphite (CrNi laminated with graphite)				
45		Intermediate part		X8CrNiS18-9, 1.4305				
66		Double edge cutting ring		Stainless steel				
	L 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.



The capacity chart shows the maximum flow rates for controller.

### Curve 1:

The capacity chart shows the maximum flow of hot condensate for capsule No. 2 and 3.

# Curve 2:

Maximum flow at cold condensate at about 20°C.



# Thermostatic steam trap - compact (Stainless steel)

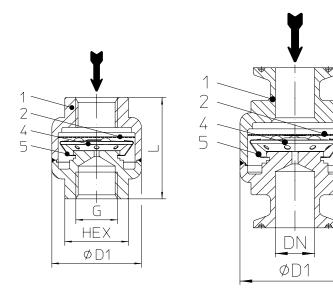
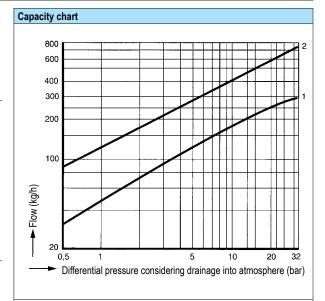


Fig. 615....2 with screwed sockets

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



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 re	or ANSI versions refer to data sheet CONA®M-ANSI								

# Types of connection 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 bodyInstallation 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)

• Capsule No. 2 _	Capsule No. 2for condensate sub-cooling about approx. TUK (Standard)									
Types of connect	ion		Screwed sockets		for clamp connection (PN16)					
NPS	NPS		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	Dimensions									
D1	(mm)	45	45	45	45	45	45			
G	(inch)	1/4	3/8	1/2						
HEX	(mm)	27	27	27						
Weights	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				

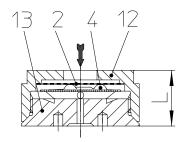
Information / restriction of technical rules need to be observed!

Other types of connection on request.

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



# Wafer pattern-thermostatic steam trap (Stainless steel)



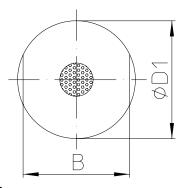
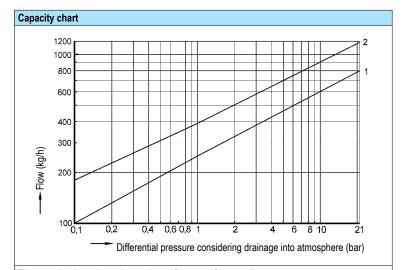


Fig. 619....6



The capacity chart shows the maximum flow rates for controller.

#### Curve 1:

Maximum flow of hot condensate for capsule No. 1, 2, 3 and 4.

#### Curve 2:

Maximum flow at cold condensate at about 20°C.

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

Types of connection	Other types of connection on request.		
Intermediate flange6acc. to DIN 2501			
Features			
Thermostatic steam trap with noncorrosive and robust water hammer proofed	Corrosion resistant stainless steel body		
capsule	Installation in any position		
With inside strainer	Optimized design for quick installation		
Space-saving wafer pattern steam trap	Maintenance simplified due to screwed cap without sealing		
Capsule	(chooseable for operating range)		
Capsule No. 1for condensate discharge at boiling temperature - applicable up to 5 bar inlet pressure			
Capsule No. 2for condensate sub-cooling about approx. 10K (Star	for condensate sub-cooling about approx. 10K (Standard)		
Capsule No. 3for condensate sub-cooling about approx. 30K	for condensate sub-cooling about approx. 30K		
	ule No. 4for 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	n	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		
В	(mm)	46	56	65		
Weights	Weights					
Fig. 619 (approx.)	(kg)	0,45	0,65	0,85		

Parts					
Pos.	Sp.p.	Description	Fig. 55.619		
2	х	Strainer	X5CrNi18-10, 1.4301		
4	Х	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!

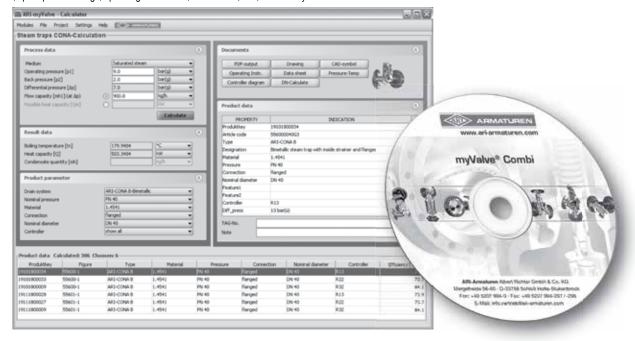
Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview and Resistance list).

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



# myValve® - Your VAlve Slzing-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.



# myValve - VAlve Slzing-Program

#### Contents:

#### Module ARI-Steam trap CONA-Calcuation

- 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 or 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 EN 10277-2

Note:

1.5415 16Mo3 acc. to DIN EN 10222-2

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

1.4541 X6CrNiTi18-10 acc. to DIN EN 10222-5

1.4021+QT X20Cr13+QT acc. to DIN EN 10088-1

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.

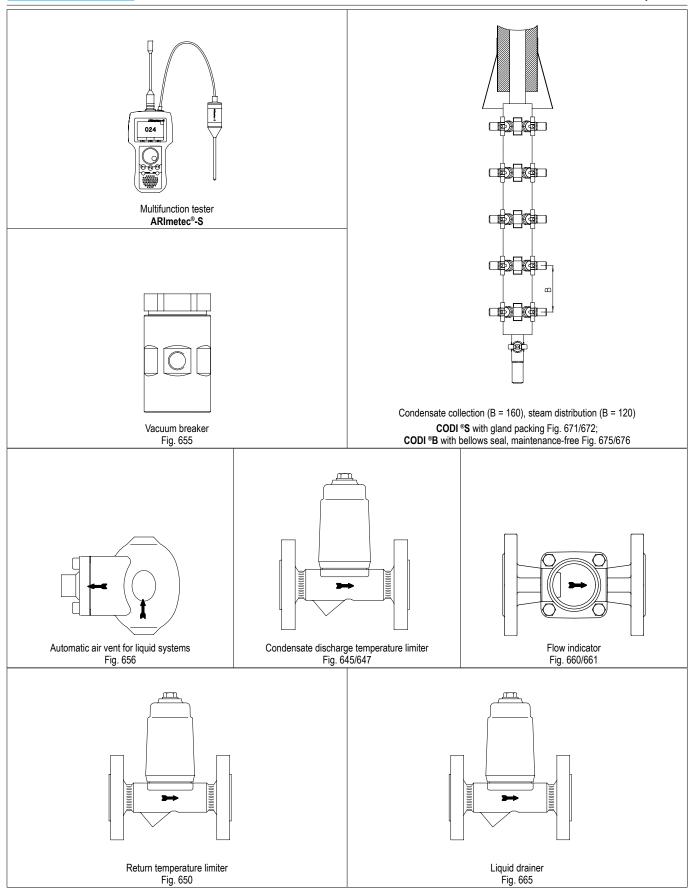
Steam traps with socket-weld ends shall only be welded by arc welding (welding process 111 acc. to DIN EN 24063).

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 1092-1 / -2								
DN NPS		15	5 20 25		32	40	50	
		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

Selection criteria:		Example for order data:
Steam pressure	<ul> <li>Type of connection</li> </ul>	
Back pressure	<ul> <li>Capsule (Capsule-Nr)</li> </ul>	Thermostatic steam trap CONA® M,
Quantity of condensate	<ul> <li>Material</li> </ul>	Fig. 610, PN40, DN15, 1.0460, Capsule-No. 2, with flanges,
Nominal diameter / pressure	<ul> <li>Place of service or kind of steam consumer</li> </ul>	Face-to-face dimension 150 mm





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









Technology for the Future.

GERMAN QUALITY VALVES