

## FLOAT AND THERMOSTATIC STEAM TRAPS FLT21 (SG iron ; 1/2" to 1" – DN 15 to DN 25)

### DESCRIPTION

The FLT21 is a series of float and thermostatic steam traps with integral air vent designed for modulating discharge of condensate, ensuring maximum system heat transfer.

Typical applications include unit heaters, heat exchangers, dryers, jacketed vessels and other applications where continuous discharge is essential.

### MAIN FEATURES

Modulating discharge of condensate at steam temperature.  
Unaffected by sudden or wide load and pressure variations.  
No backing-up with condensate.  
Excellent air discharge through its integrated air vent.  
Flow direction can be easily changed by repositioning the body in relation to the mechanism and cover.

**OPTIONS:**

- Equalizing (vent) and drain connections.
- SLR – Steam lock release.
- HVV – Hand vent valve.
- BDV – Blowdown valve.
- AFZ – Anti-freeze device.
- FLL – Float lifting lever.
- VB21M – Vacuum breaker.

**USE:** Saturated and superheated steam.

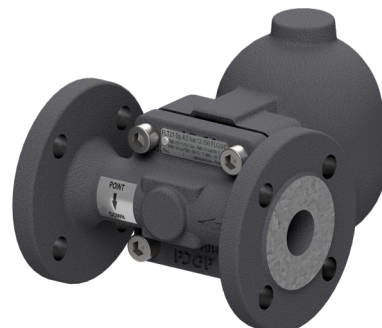
**AVAILABLE MODELS:** FLT21-4,5 , 10 and 14 – SG iron.

**SIZES:** 1/2" to 1"; DN 15 to DN 25.

**CONNECTIONS:** Female threaded ISO 7 Rp or NPT.  
Flanged EN 1092-1/2 PN 16.  
Flanged ASME B16.42 Class 150.

**INSTALLATION:** Inline horizontal or vertical installation.  
Angled horizontal or vertical installation.  
See IMI – Installation and maintenance instructions.

**ΔPMX:** FLT21-4,5 – 4,5 bar  
FLT21-10 – 10 bar  
FLT21-14 – 14 bar



CE MARKING – GROUP 2 (PED – European Directive)	
PN 16	Category
1/2" to 1" – DN 15 to 25	SEP

BODY LIMITING CONDITIONS		
FLANGED PN 16 *	FLANGED CLASS 150 **	RELATED TEMPERATURE
ALLOWABLE PRESSURE	ALLOWABLE PRESSURE	
16 bar	16 bar	100 °C
15,5 bar	14,8 bar	150 °C
14,7 bar	13,9 bar	200 °C
13,9 bar	12,1 bar	250 °C

PMO – Maximum operating pressure: 14 bar.

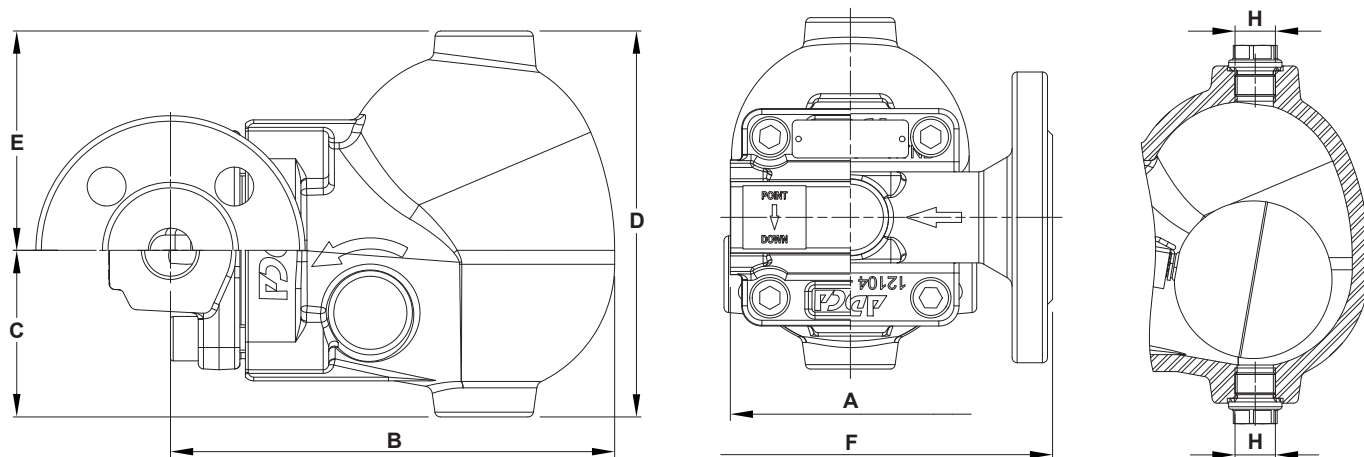
TMO – Maximum operating temperature: 250 °C.

\* Acc. to EN 1092-2:2018; \*\* Acc. to ASME B16.42.

Body limiting conditions PN 16 or below, depending on the type of connection adopted. Rating PN 16 for threaded versions.

FLOW RATE CAPACITY (kg/h)

MODEL	SIZE	DIFFERENTIAL PRESSURE (bar)								
		0,5	1	1,5	2	4,5	7	10	12	14
FLT21-4,5	1/2" to 1" – DN 15 to 25	305	395	455	500	680	–	–	–	–
FLT21-10	1/2" to 1" – DN 15 to 25	235	330	400	440	630	694	705	–	–
FLT21-14	1/2" to 1" – DN 15 to 25	220	277	318	365	481	556	654	691	710

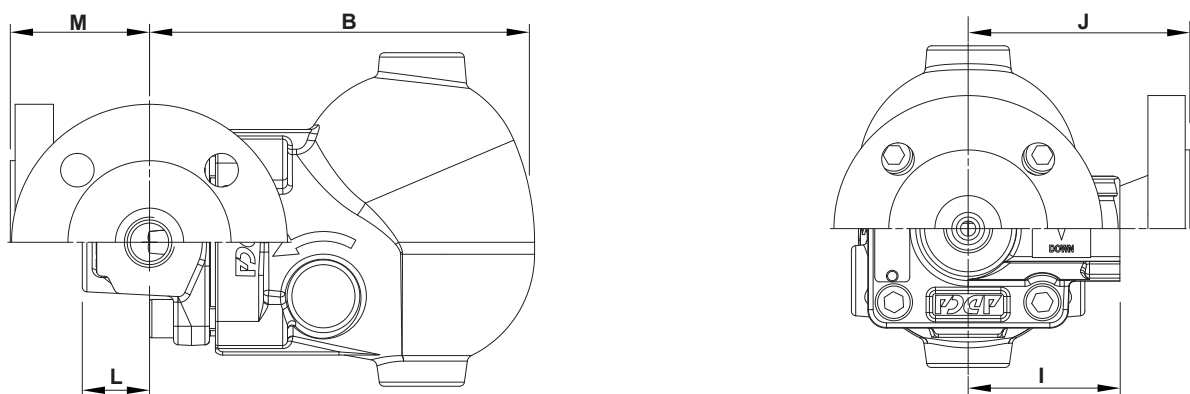


Inline design

DIMENSIONS – INLINE DESIGN (mm)

SIZE	THREADED							PN 16		CLASS 150	
	A	B	C	D	E	H *	WGT. (kg)	F	WGT. (kg)	F	WGT. (kg)
1/2" – DN 15	95	160	60	139	79	3/8"	4,9	150	6,2	150	5,8
3/4" – DN 20	95	160	60	139	79	3/8"	4,8	150	6,7	150	6,1
1" – DN 25	95	160	60	139	79	3/8"	4,7	160	7,4	160	7,2

\* As standard, in versions with EN flanges or female ISO 7 Rp threads, these connections are female threaded ISO 228. In versions with ASME flanges or female NPT threads, these connections are female threaded NPT.



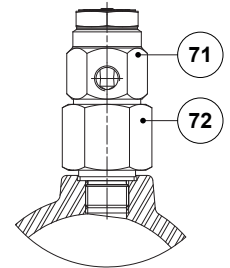
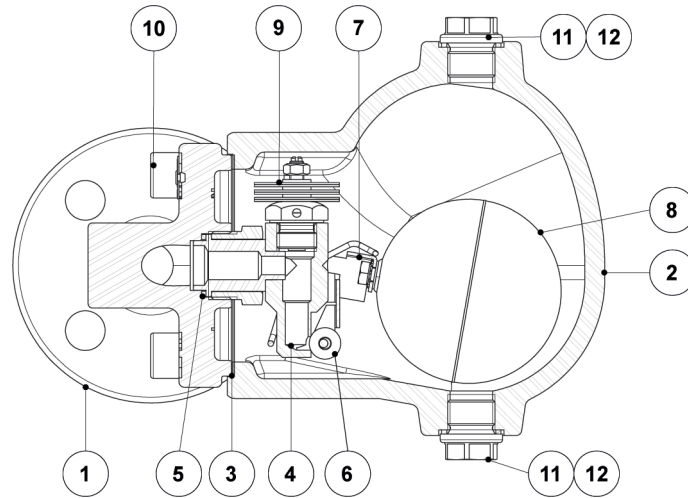
Angled design

DIMENSIONS – ANGLED DESIGN (mm)

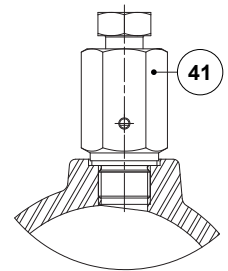
SIZE	THREADED								PN 16			CLASS 150		
	B	C	D	E	H *	I	L	WGT. (kg)	J	M	WGT. (kg)	J	M	WGT. (kg)
1/2" – DN 15	160	60	139	79	3/8"	65	28	4,9	95	58	6,5	100	63	6
3/4" – DN 20	160	60	139	79	3/8"	65	28	4,9	95	58	7	100	63	6,4
1" – DN 25	160	60	139	79	3/8"	65	28	4,9	95	58	7,5	100	63	6,9

\* As standard, in versions with EN flanges or female ISO 7 Rp threads, these connections are female threaded ISO 228. In versions with ASME flanges or female NPT threads, these connections are female threaded NPT.

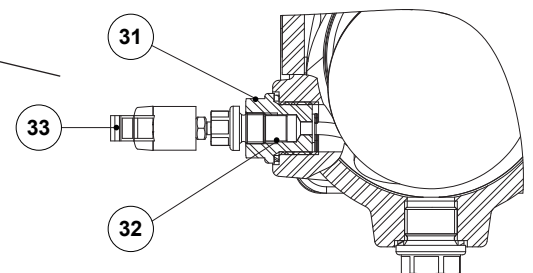
## MATERIALS



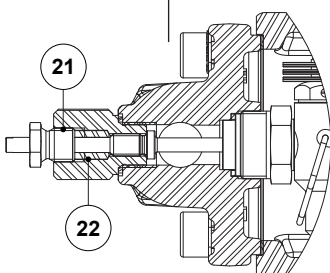
*Optional vacuum breaker  
(VB21M)*



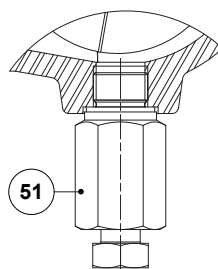
*Optional hand vent valve  
(HVV)*



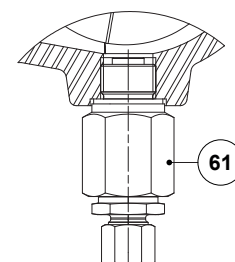
*Optional float lifting lever (FLL)*



*Optional steam lock release  
(SLR)*



*Optional blowdown valve (BDV);  
Manual*



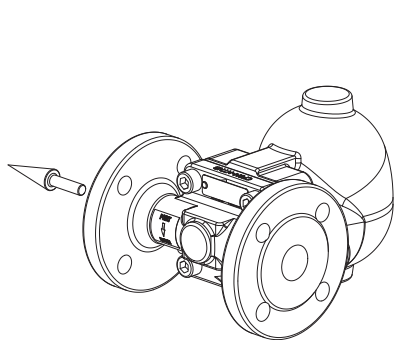
*Optional anti-freeze device (AFZ);  
Automatic*

**MATERIALS**

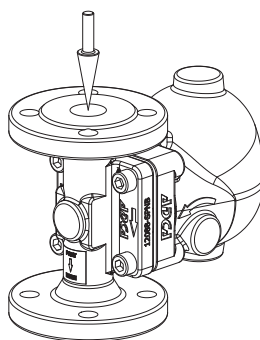
POS. N°	DESIGNATION	MATERIAL
1	Body (inline flanged)	GJS-400-15 / 0.7040
	Body (inline threaded)	P250GH / 1.0460
	Body (angled)	P250GH / 1.0460
2	Cover	GJS-400-15 / 0.7040
3	* Gasket	Stainless steel / Graphite
4	* Seat	AISI 303 / 1.4305
5	* Gasket	Copper
6	* Valve ball	AISI 316 / 1.4401
7	* Lever	AISI 304 / 1.4301
8	* Float	AISI 304 / 1.4301
9	* Automatic air vent	Stainless steel; Bimetallic
10	Bolt	Zinc plated steel
11	Plug	AISI 316L / 1.4404
12	** Gasket	Copper; AISI 304 / 1.4301
21	Steam Lock Release	AISI 420 / 1.4021; AISI 316L / 1.4404
22	Packing	Graphite
31	Lever mechanism	AISI 303 / 1.4305; AISI 304 / 1.4301; AISI 316L / 1.4404
32	Packing	Graphite
33	Lever	Plastic
41	Hand vent valve	AISI 303 / 1.4305; AISI 316L / 1.4404
51	Blowdown valve	AISI 303 / 1.4305; AISI 316L / 1.4404
61	Anti-freeze device	AISI 303 / 1.4305; AISI 316L / 1.4404
71	Vacuum breaker	AISI 303 / 1.4305
72	Connector	AISI 316L / 1.4404

\* Available spare parts; \*\* Not applicable in NPT version.

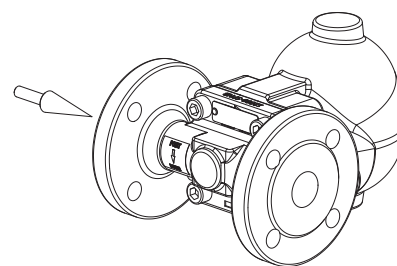
**FLOW DIRECTION**



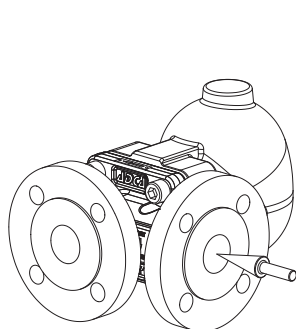
*IR - Horizontal from right to left*



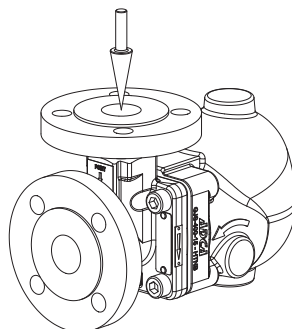
*IT - Vertical from top to bottom*



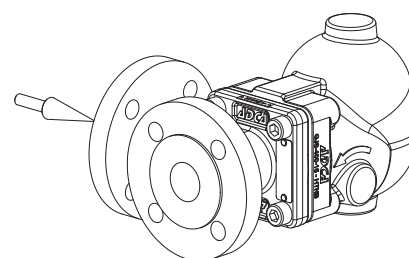
*IL - Horizontal from left to right*



*AR - Angled from right to front*



*AT - Angled from top to front*



*AL - Angled from left to front*

ORDERING CODES FLT21											
Model	A21	2	V	XX	X	X	IR	A	15		
FLT21	A21										
<b>Maximum allowable differential pressure (<math>\Delta</math>PMX)</b>											
4,5 bar		2									
10 bar		3									
14 bar		4									
<b>Automatic air vent</b>											
Bimetallic air vent (standard)			V								
None			X								
<b>Cover connections</b>											
None				XX							
3/8" threaded connections on top and bottom, closed with plugs (mandatory if any options are considered)				10							
<b>Options</b>											
If any, these have specific separate ordering codes, please refer to the appropriate documentation.											
<b>SLR - Steam lock release</b>											
None					X						
With steam lock release assembled					S						
<b>FLL - Float lifting lever</b>											
None						X					
Lifting lever on the right side (when facing the steam trap body)						R					
Lifting lever on the left side (when facing the steam trap body)						L					
<b>Flow direction</b>											
Inline horizontal from right to left (standard)							IR				
Inline horizontal from left to right							IL				
Inline vertical from top to bottom							IT				
Angled from right to front							AR				
Angled from left to front							AL				
Angled from top to front							AT				
<b>Pipe connections</b>											
Female threaded ISO 7 Rp								A			
Female threaded NPT								C			
Flanged EN 1092-2 PN 16								L			
Flanged ASME B16.42 Class 150								U			
<b>Size</b>											
1/2" or DN 15									15		
3/4" or DN 20									20		
1" or DN 25									25		
<b>Special construction / Additional options</b>											
A full description must to be provided and validated in case of a non-standard construction.										E	