

## AIR AND GAS FLOAT TRAPS FA31.1 (Carbon steel 1/2" – 1"; DN 15 – 25)

### DESCRIPTION

The FA31.1 is a series of fully automatic ball float traps specially designed for condensate drainage in compressed air and gas systems. Typical applications include aftercoolers, separators and compressed air mains.

### MAIN FEATURES

Modulating discharge.  
Unaffected by sudden or wide load and pressure variations.  
Flow direction can be easily changed by repositioning the body in relation to the mechanism and cover.

**OPTIONS:** Metal to metal sealing.  
Equalizing (vent) and drain connections.  
BDV – Blowdown valve.  
AFZ – Anti-freeze device.  
FLL – Float lifting lever.

**USE:** Compressed air and other non corrosive gases compatible with the construction.

**AVAILABLE MODELS:** FA31.1-4,5 , 14, 10, 21 and 32 – carbon steel.

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

**CONNECTIONS:** Female threaded ISO 7 Rp or NPT.  
Flanged EN 1092-1 PN 40.  
Flanged ASME B16.5 Class 150 or 300.  
Socket weld (SW) ASME 16.11.

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

**MAX. ΔP:** FA31.1-4,5 – 4,5 bar  
FA31.1-10 – 10 bar  
FA31.1-14 – 14 bar  
FA31.1-21 – 21 bar  
FA31.1-32 – 32 bar



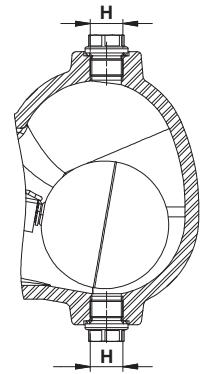
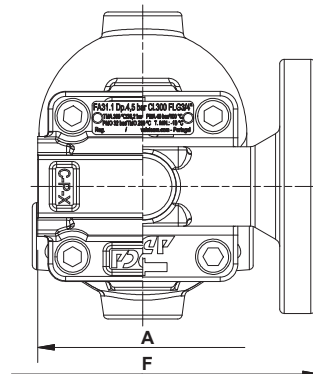
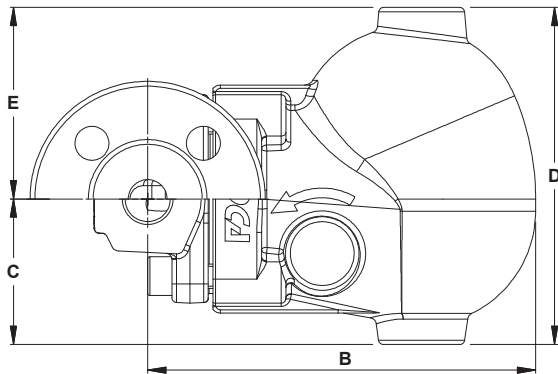
### CE MARKING – GROUP 2 (PED – European Directive)

CLASS 150	PN 40	Category
1/2" to 1" DN 15 to 25	–	SEP
–	1/2" to 1" DN 15 to 25	1 (CE marked)

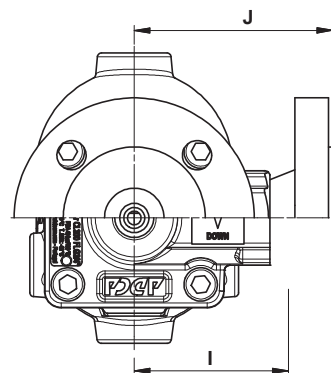
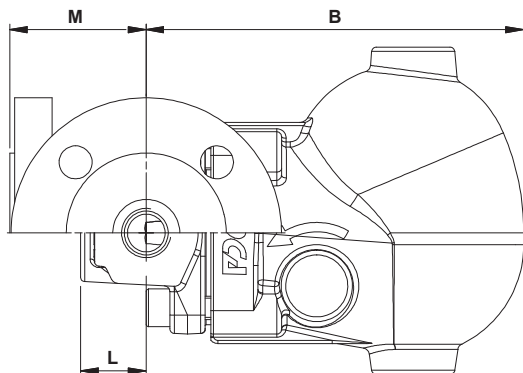
BODY LIMITING CONDITIONS		
FLANGED PN 40 / CLASS 300 *	FLANGED CLASS 150 **	RELATED TEMP.
ALLOWABLE PRESSURE	ALLOWABLE PRESSURE	
37,1 bar	17,7 bar	100 °C
33,3 bar	14 bar	200 °C
30,4 bar	12,1 bar	250 °C
27,6 bar	10,2 bar	300 °C

PMO – Maximum operating pressure: 32 bar.  
TMO – Maximum operating temperature:  
FPM / Viton valve sealing: 200 °C.  
Metal to metal sealing: 250 °C  
Min. liquid specific weight: 0,75 kg/dm<sup>3</sup>.  
\* Acc. to EN 1092-1:2018; \*\* Acc. to EN 1759-1:2004.  
Body limiting conditions PN 40 or below, depending on the type of connection adopted. Rating PN 40 for threaded and SW versions.

FLOW RATE CAPACITY (kg/h)														
MODEL	SIZE	DIFFERENTIAL PRESSURE (bar)												
		0,5	1	1,5	2	4,5	7	10	12	14	16	21	25	32
FA31.1-4,5	1/2" to 1" – DN 15 to 25	455	644	788	910	1366	–	–	–	–	–	–	–	–
FA31.1-10	1/2" to 1" – DN 15 to 25	285	403	494	570	856	1068	1276	–	–	–	–	–	–
FA31.1-14	1/2" to 1" – DN 15 to 25	215	304	372	430	645	805	962	1054	1139	–	–	–	–
FA31.1-21	1/2" to 1" – DN 15 to 25	154	219	268	309	464	579	693	759	820	876	1004	–	–
FA31.1-32	1/2" to 1" – DN 15 to 25	71	100	123	142	214	267	319	349	377	403	462	504	570



Inline design

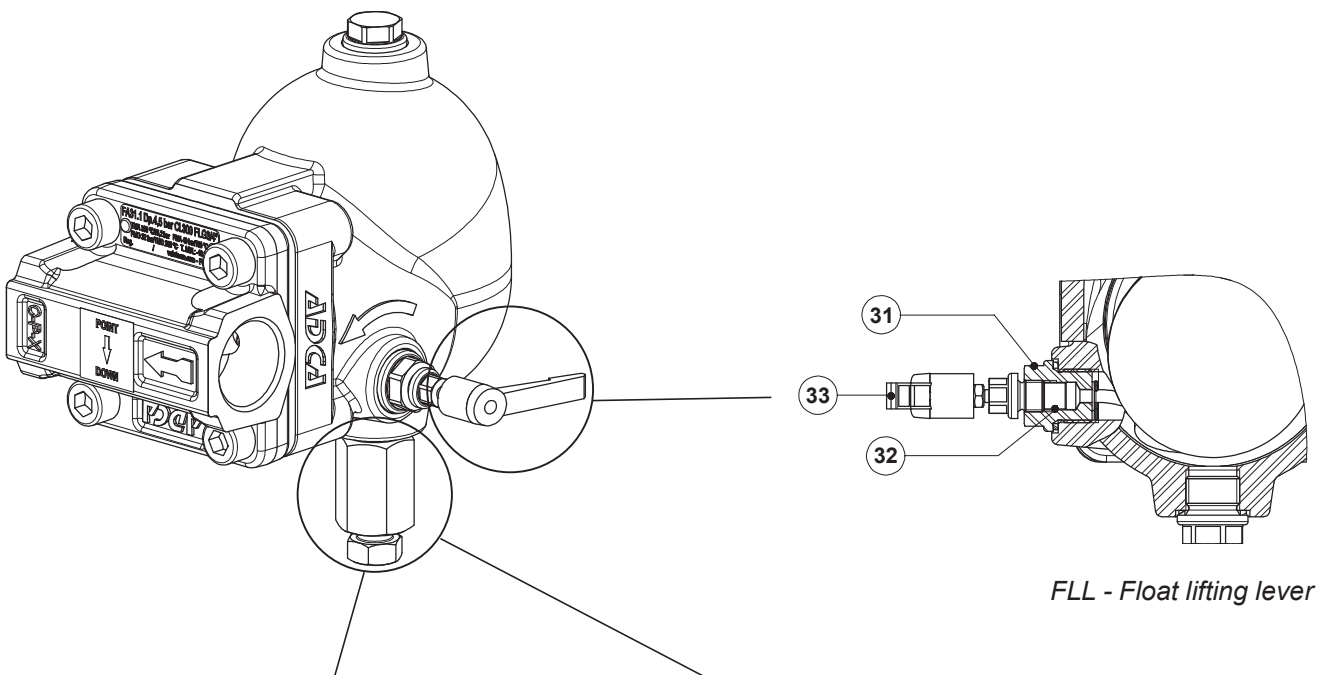
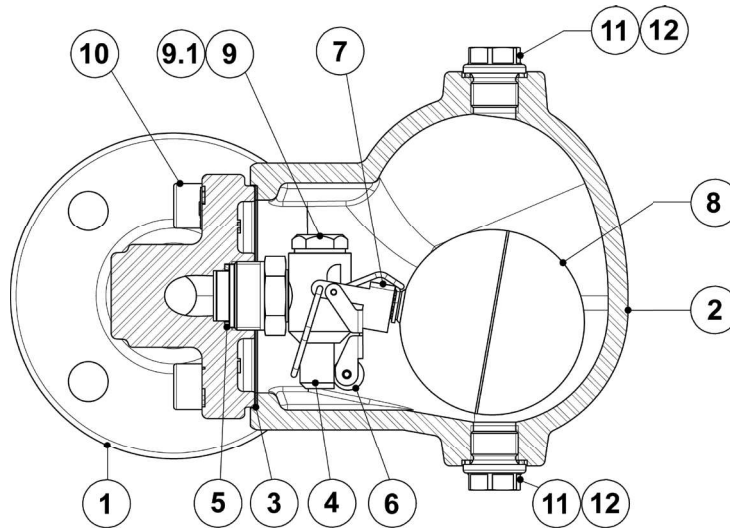


Angled design

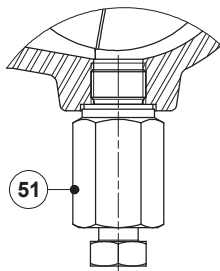
DIMENSIONS (mm) – INLINE DESIGN													
SIZE	THREADED / SW							PN 40		CLASS 150		CLASS 300	
	A	B	C	D	E	H *	WEIGHT (kg)	F	WEIGHT (kg)	F	WEIGHT (kg)	F	WEIGHT (kg)
1/2" – DN 15	95	160	60	139	79	3/8"	4,9	150	6,2	150	5,8	150	6,1
3/4" – DN 20	95	160	60	139	79	3/8"	4,8	150	6,7	150	6,1	150	7,2
1" – DN 25	95	160	60	139	79	3/8"	4,7	160	7,4	160	7,2	160	7,9

DIMENSIONS (mm) – ANGLED DESIGN																	
SIZE	THREADED / SW								PN 40			CLASS 150			CLASS 300		
	B	C	D	E	H *	I	L	WGT. (kg)	J	M	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	95	58	6	95	58	6,5
3/4" – DN 20	160	60	139	79	3/8"	65	28	4,9	95	58	7	95	58	6,4	95	58	7,5
1" – DN 25	160	60	139	79	3/8"	65	28	4,9	95	58	7,5	95	58	6,9	95	58	8

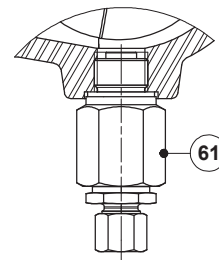
\* As standard, in versions with EN flanges or female ISO 7 Rp threads, these connections are female threaded ISO 228. In versions with ASME flanges, female NPT threads or SW, these connections are female threaded NPT.



FLL - Float lifting lever



BDV - Blowdown valve  
 (Manual)

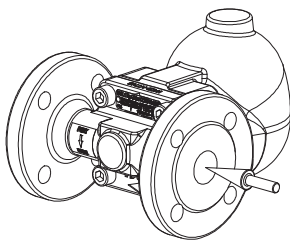


AFZ - Anti-freeze device  
 (Automatic)

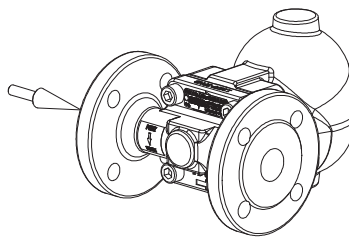
MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Body (inline flanged)	A216 WCB / 1.0619
	Body (inline threaded)	P250GH / 1.0460
	Body (angled)	P250GH / 1.0460
2	Cover	A216 WCB / 1.0619
3	* Gasket	Stainless steel / Graphite
4	* Seat	AISI 303 / 1.4305
5	* Gasket	Copper
6	* Valve ball	AISI 316 / 1.4401; Viton
7	* Lever	AISI 304 / 1.4301
8	* Float	AISI 304 / 1.4301
9	Plug	AISI 316L / 1.4404
9.1	Gasket	Copper
10	Bolts	Zinc plated steel
11	Plug	AISI 316L / 1.4404
12	** Gasket	Copper; AISI 304 / 1.4301
31	Lever mechanism	AISI 303 / 1.4305; AISI 304 / 1.4301; AISI 316L / 1.4404
32	Packing	Graphite
33	Lever	Plastic
51	Blowdown valve	AISI 303 / 1.4305; AISI 316L / 1.4404
61	Anti-freeze device	AISI 303 / 1.4305; AISI 316L / 1.4404

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

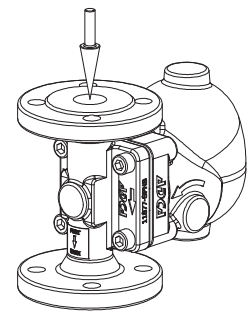
**FLOW DIRECTION**



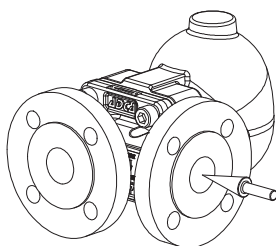
*IR - Horizontal from right to left*



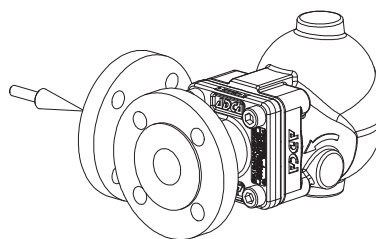
*IL - Horizontal from left to right*



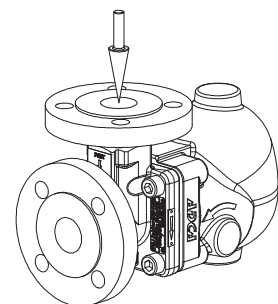
*IT - Vertical from top to bottom*



*AR - Angled from right to front*



*AL - Angled from left to front*



*AT - Angled from top to front*

ORDERING CODES FA31.1										
<b>Model</b>	<b>FA311</b>	<b>2</b>	<b>V</b>	<b>XX</b>	<b>X</b>	<b>IR</b>	<b>A</b>	<b>15</b>		
FA31.1 – carbon steel	FA311									
<b>Differential pressure</b>										
4,5 bar		<b>2</b>								
10 bar		<b>3</b>								
14 bar		<b>4</b>								
21 bar		<b>5</b>								
32 bar		<b>7</b>								
<b>Valve sealing</b>										
FPM / Viton (standard)			<b>V</b>							
Metal to metal			<b>M</b>							
<b>Cover connections</b>										
None				<b>XX</b>						
3/8" threaded connections on top and bottom, closed with plugs (mandatory if any options are considered)				<b>10</b>						
<b>Options</b>										
If any, these have specific separate ordering codes, please refer to the appropriate documentation										
<b>FLL - Float lifting lever</b>										
None				<b>X</b>						
Lifting lever on the right side (when facing the steam trap body)				<b>R</b>						
Lifting lever on the left side (when facing the steam trap body)				<b>L</b>						
<b>Flow direction</b>										
Inline horizontal from right to left (standard)						<b>IR</b>				
Inline horizontal from left to right						<b>IL</b>				
Inline vertical from top to bottom						<b>IT</b>				
Angled from right to front						<b>AR</b>				
Angled from left to front						<b>AL</b>				
Angled from top to front						<b>AT</b>				
<b>Pipe connections</b>										
Female threaded ISO 7 Rp							<b>A</b>			
Female threaded NPT							<b>C</b>			
Socket weld (SW) ASME 16.11							<b>H</b>			
Flanged EN 1092-1 PN 40							<b>N</b>			
Flanged ASME B16.5 Class 150							<b>U</b>			
Flanged ASME B16.5 Class 300							<b>V</b>			
<b>Size</b>										
1/2" or DN 15								<b>15</b>		
3/4" or DN 20								<b>20</b>		
1" or DN 25								<b>25</b>		
<b>Special valves / Extras</b>										
Full description or additional codes have to be added in case of a non-standard combination										<b>E</b>