



# BALANCED PRESSURE THERMOSTATIC STEAM TRAP

## MODEL LV5/LV13

### BALANCED PRESSURE THERMOSTATIC TRAP WITH "FAIL OPEN" DESIGN

#### Benefits

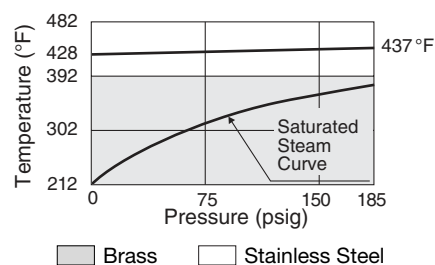
Maintainable stainless steel trap with high air venting capability and light condensate capacity for steam mains, tracing, and process equipment.

1. Patented "fail open" design for critical service.
2. Hardened stainless steel valve head and seat for maximum longevity.
3. Positive open-close operation reduces valve wear.
4. "Pressure-to-close" valve design improves life
5. Valve, four diaphragms and casing have matching contours for high superheat capability and water hammer resistance.
6. Large screen promotes trouble-free service.
7. Self-draining for freeze protection in vertical use.
8. Flat mirror-finish valve head provides tightest sealing for energy efficiency and life.
9. Compact for easy installation.
10. Maintainable design lowers cleaning costs.



#### Specifications

Model	LV5		LV13
Body Material	Brass	Cast Stainless Steel	Brass
Connection	Screwed		
Size (in)	1/4, 3/8, 1/2, 3/4	1/4, 3/8, 1/2	1/4, 3/8, 1/2, 3/4, 1
Max. Operating Pressure (psig) PMO	75		185
Min. Operating Pressure (psig)	Vacuum		
Maximum Back Pressure	90% of Inlet Pressure		
Max. Operating Temp. (°F) TMO	see graph at right		
Max. Allowable Pressure (psig) PMA	230	900	230
Max. Allowable Temp. (°F) TMA	428	800	428
Subcooling of Capsule Fill (°F)	up to 11 (option: up to 40)		
Type of X-element	B (option: T)		



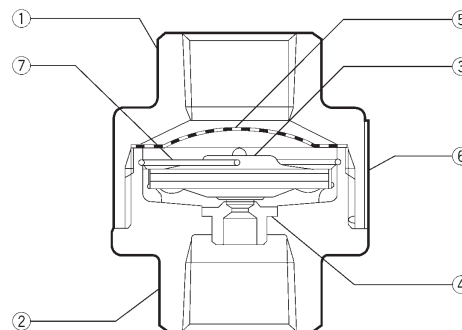
LV5 and LV13 are non-standard products, consult TLV for delivery time required.



To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

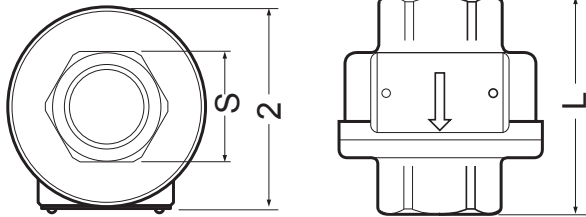
No.	Description	Material	ASTM/AISI*	JIS
①	Body Upper Part	LV5/LV13 Brass	B124 C37700	C3771
	LV5 Cast Stainless Steel	A351 Gr.CF8	—	
②	Body Lower Part	LV5/LV13 Brass	B124 C37700	C3771
	LV5 Cast Stainless Steel	A351 Gr.CF8	—	
③	X-element	Stainless Steel	—	—
④	Valve Seat	Stainless Steel	AISI603	SUS603
⑤	Screen	Stainless Steel	AISI304	SUS304
⑥	Nameplate	Stainless Steel	AISI304	SUS304
⑦	Spring Clip	Stainless Steel	AISI304	SUS304
⑧	Body Gasket**	Fluorine Resin	PTFE	PTFE

\* Equivalent \*\* Not shown, only for LV5 in brass and LV13



**Dimensions**

● **LV5/LV13** Screwed, Brass

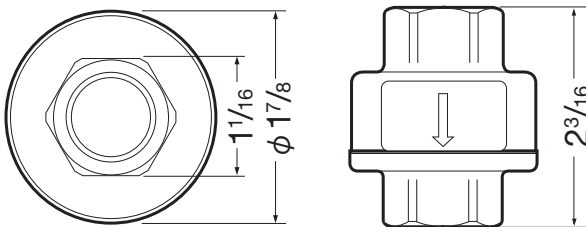


**LV5/LV13** Screwed\*, Brass (in)

Size	L	S	Weight (lb)
1/4	2 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	1.0
3/8			
1/2			
3/4	2 <sup>3</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>8</sub>	1.1
1**			

\* NPT, other standards available  
 \*\* LV13 only

● **LV5** Screwed, Cast Stainless Steel

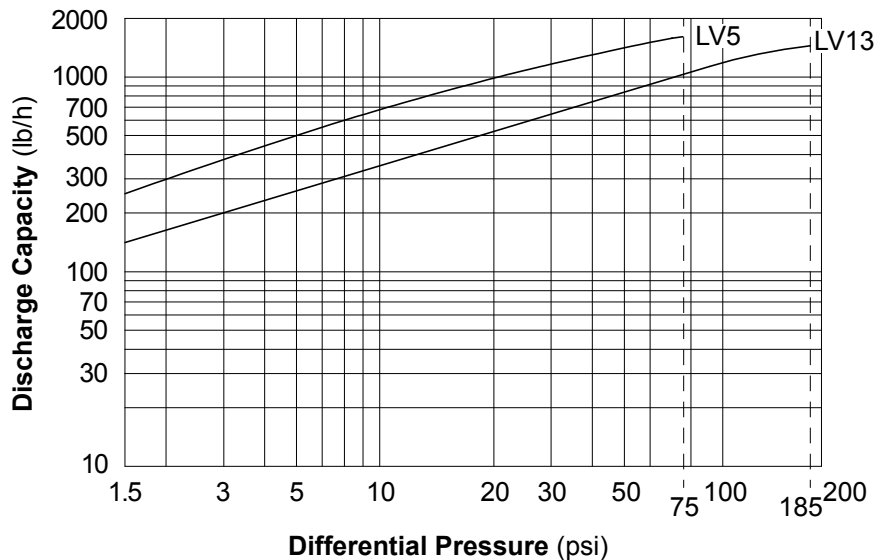


**LV5** Screwed\*, Cast Stainless Steel (in)

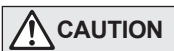
Size	Weight (lb)
1/4	0.9
3/8	
1/2	

\* NPT, other standards available

**Discharge Capacity**



1. Differential pressure is the difference between the inlet and outlet pressure of the trap.
2. Recommended safety factor: at least 2.



**DO NOT DISASSEMBLE OR REMOVE THIS PRODUCT WHILE IT IS UNDER PRESSURE.**  
 Allow internal pressure of this product to equal atmospheric pressure and its surface to cool to room temperature before disassembling or removing. Failure to do so could cause burns or other injury. READ INSTRUCTION MANUAL CAREFULLY.

**TLV CORPORATION**

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Manufacturer  
**TLV CO., LTD.**  
 Kakogawa, Japan  
 is approved by LRQA Ltd. to ISO 9001/14001

