



BALANCED PRESSURE THERMOSTATIC STEAM TRAP

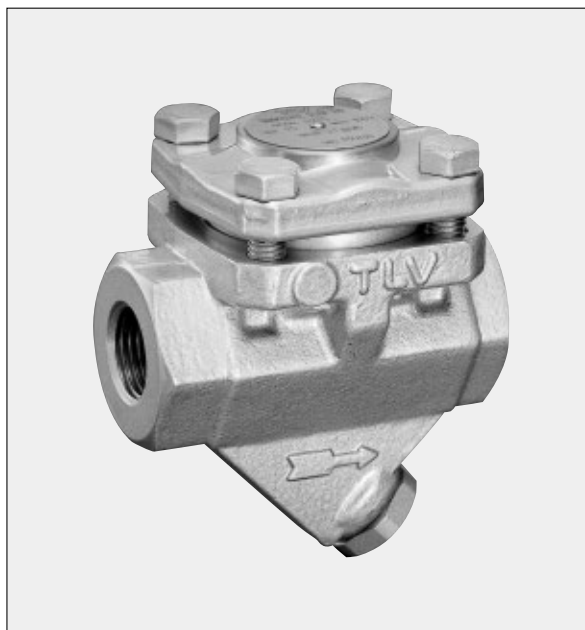
MODELS L21S/L32S

BALANCED PRESSURE THERMOSTATIC TRAP WITH "FAIL OPEN" DESIGN

Benefits

Inline repairable steel-bodied traps with high air venting capability and light to medium condensate capacity for 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, multiple diaphragms and casing have matching contours for high superheat capability and water hammer resistance.
6. Built-in 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 and capable of self adjusting to wide flow.
10. Easily cleanable and repairable design lowers maintenance costs.
11. Model L32SC with built-in check valve is available upon request.



Specifications

| Model | L21S | | L32S | |
|-------------------------------------|------------------------------|-------------|---------|-------------|
| Connection | Screwed | Socket Weld | Screwed | Socket Weld |
| Size (in) | 1/2, 3/4, 1 | | | |
| Max. Operating Pressure (psig) PMO | 300 | | 450 | |
| Min. Operating Pressure (psig) | Vacuum | | | |
| Maximum Back Pressure | 90% of Inlet Pressure | | | |
| Max. Operating Temp (°F) TMO | see graph at right | | | |
| Max. Allowable Pressure (°F) PMA | 450 | | | |
| Max. Allowable Temperature (°F) TMA | 572 | | | |
| Subcooling of X-element Fill (°F) | up to 11 (option : up to 40) | | | |
| Type of X-element | C6 (option : C22) | | | |
| Number of Diaphragms | 4 | | | |

Connections and sizes in bold are standard

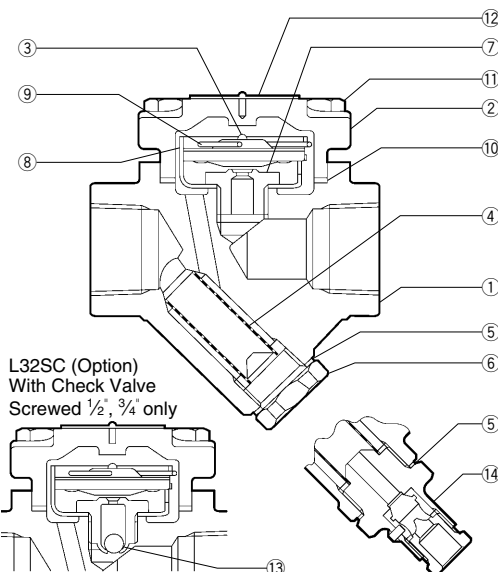
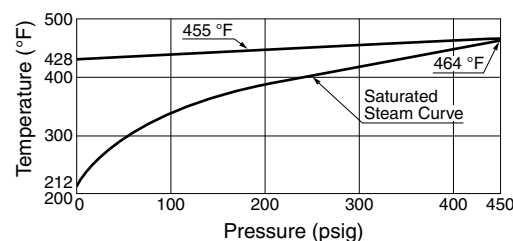


To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

| No. | Description | Material | ASTM/AISI* | JIS |
|-----------------|----------------------|--------------------------|------------------|------------|
| ① | Body | Carbon Steel | A105/A105M | — |
| ② | Cover | Carbon Steel | A105/A105M | — |
| ③ ^R | X-element | Stainless Steel | — | — |
| ④ ^R | Screen | Stainless Steel | AISI430 | SUS430 |
| ⑤ ^{MR} | Screen Holder Gasket | Soft Iron | AISI1010 | SUYP |
| ⑥ | Screen Holder | Carbon Steel | A105/A105M | — |
| ⑦ ^R | Valve Seat | Stainless Steel | AISI420F | SUS420F |
| ⑧ ^R | X-element Guide | Stainless Steel | AISI304 | SUS304 |
| ⑨ ^R | Spring Clip | Stainless Steel | AISI304 | SUS304 |
| ⑩ ^{MR} | Cover Gasket | Graphite/Stainless Steel | - /AISI316L | - /SUS316L |
| ⑪ | Cover Bolt | Alloy Steel | A193/A193M Gr.B7 | — |
| ⑫ | Nameplate | Stainless Steel | AISI304 | SUS304 |
| ⑬ ^R | Check Valve Ball | Stainless Steel | AISI440C | SUS440C |
| ⑭ | BD2 Blowdown Valve** | Cast Stainless Steel | A351 Gr.CF8 | — |

* Equivalent ** Option

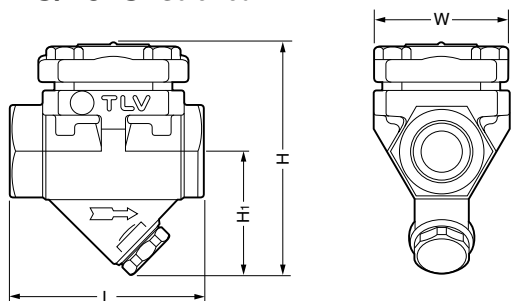
Replacement kits available: (M) maintenance parts, (R) repair parts



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Dimensions

• L21S/L32S Screwed



L21S/L32S Screwed*

(in)

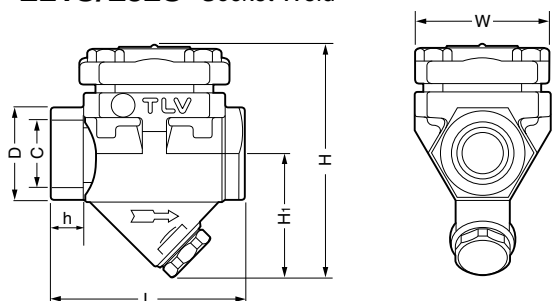
| Size | L | H** | H1** | W | Weight (lb) |
|------|--------|---------|--------|--------|-------------|
| 1/2 | 3 1/8 | 3 13/16 | 2 | 1 7/16 | 2.9 |
| 3/4 | | | | | |
| 1 | 3 7/16 | 4 1/8 | 2 3/16 | 1 3/4 | 4.0 |

* NPT, other standards available

** With optional BD2 add approx. 1 1/16" to H and H1.

The optional model L32SC with internal check valve has the same dimensions and weights as model L32S.

• L21S/L32S Socket Weld



L21S/L32S Socket Weld*

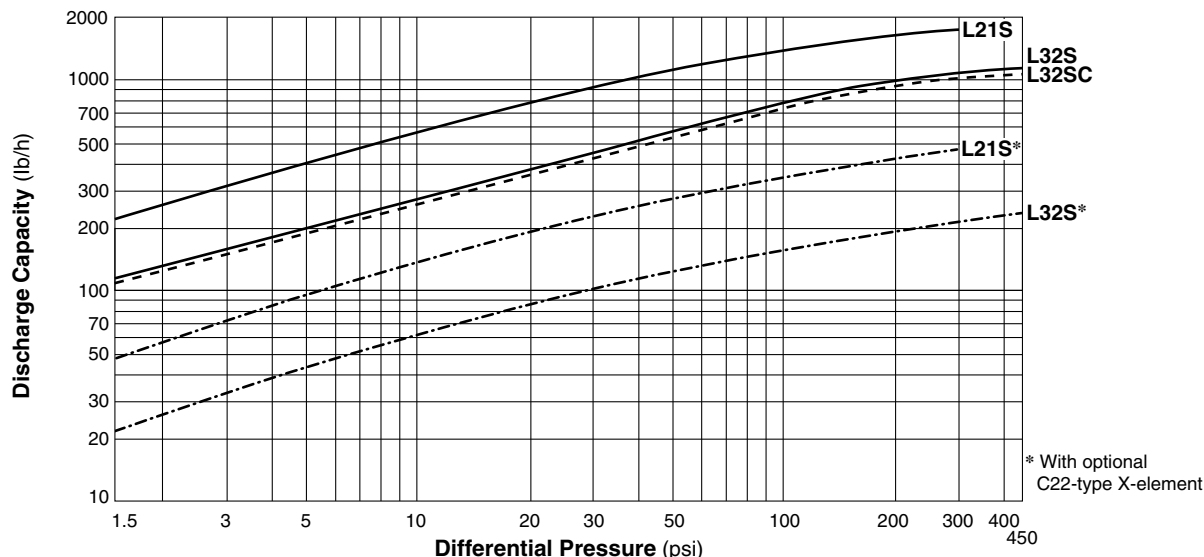
(in)

| Size | L | H** | H1** | W | φD | φC | h | Weight (lb) |
|------|--------|---------|--------|--------|--------|-------|------|-------------|
| 1/2 | 3 1/8 | 3 13/16 | 2 | 1 7/16 | 1 3/16 | 0.855 | 1/2 | 2.9 |
| 3/4 | | | | | 1 7/16 | 1.065 | 9/16 | |
| 1 | 3 7/16 | 4 1/8 | 2 3/16 | 1 3/4 | 1 3/4 | 1.330 | 9/16 | 4.0 |

* ASME B16.11-2005, other standards available

** With optional BD2 add approx. 1 1/16" to H and H1.

Discharge Capacity



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


CAUTION 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.

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

ISO 9001
 ISO 14001

