



TEMPERATURE CONTROL STEAM TRAP

MODEL LEX8-TZ

ADJUSTABLE THERMOSTATIC TRAP CONTROLS CONDENSATE DISCHARGE TEMPERATURE

Features

Compact, all stainless steel bimetal-operated thermostatic steam trap for accurate control of condensate discharge temperature. Ideal for use with steam tracing lines, heat tanks and instruments tracer tubes.*

1. Maintains temperature at preset levels between 50 and 180 °C by adjusting the valve closing temperature.
2. Saves energy by utilizing the sensible heat in condensate.
3. Includes a built-in device for removing scale and build-up from the valve seat during operation.
4. Overexpansion mechanism prevents damage to the bimetal element and ensures long service life.
5. Rapid venting of initial air and fast discharge of cold condensate reduce start-up time.
6. Easy, inline access to internal parts simplifies cleaning and reduces maintenance costs.
7. Built-in screen ensures trouble-free operation.
8. Can be used as an automatic non-freeze valve.



* See 'Suitable Applications' overleaf

Specifications

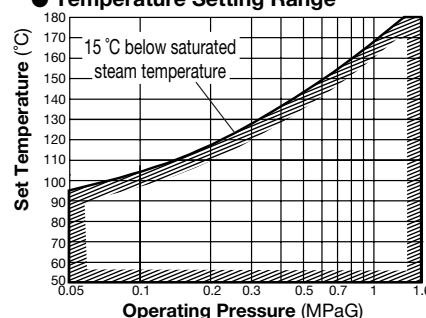
Model	LEX8-TZ	
Connection	Screwed	
Size (mm)	8, 10	
Maximum Operating Pressure (MPaG)	PMO	1.6
Minimum Operating Pressure (MPaG)	0.05	
Maximum Operating Temperature (°C)	TMO	220
Condensate Temperature Setting Range (°C)	50 – 180* (see graph right)	

* Set temperature should be more than 15 °C below the steam saturation temperature. 1 MPa = 10.197 kg/cm²

PRESSURE SHELL DESIGN CONDITIONS (NOT OPERATING CONDITIONS):

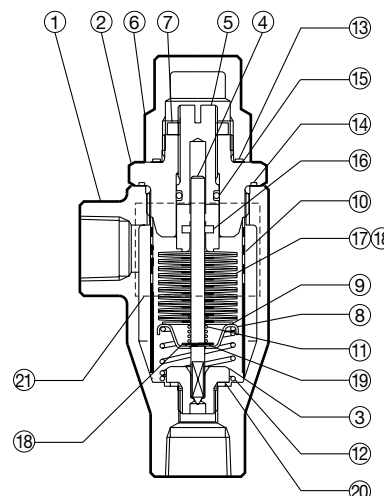
Maximum Allowable Pressure (MPaG) PMA: 4.6 Maximum Allowable Temperature (°C) TMA: 220

● Temperature Setting Range



CAUTION 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.

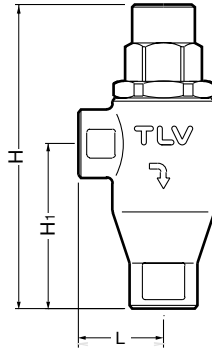
No.	Description	Material	JIS	ASTM/AISI*
①	Body	Cast Stainless Steel	—	A351 Gr. CF8
②	Cover	Stainless Steel	SUS303	AISI303
③ ^R	Valve Seat	Stainless Steel	SUS303	AISI303
④ ^R	Valve Stem	Stainless Steel	SUS420J2	AISI420
⑤	Adjusting Screw	Stainless Steel	SUS303	AISI303
⑥	Cap Nut	Cast Stainless Steel	—	A351 Gr. CF8
⑦	Lock Nut	Stainless Steel	SUS303	AISI303
⑧ ^R	Spring Guide	Stainless Steel	SUS304	AISI304
⑨ ^R	Thrust Plate	Stainless Steel	SUS304	AISI304
⑩ ^R	Screen inside/outside	Stainless Steel	SUS430/304	AISI430/304
⑪ ^R	Return Spring	Stainless Steel	SUS304	AISI304
⑫ ^R	Overexpansion Spring	Stainless Steel	SUS304	AISI304
⑬ ^{MR}	Cap Nut Gasket	Fluorine Resin	PTFE	PTFE
⑭ ^{MR}	Cover Gasket	Fluorine Resin	PTFE	PTFE
⑮ ^{MR}	Seal Ring	Fluorine Rubber	FPM	D2000HK
⑯ ^R	Spring Pin	Stainless Steel	SUS304	AISI304
⑰ ^R	Bimetal Element	Bimetal	—	—
⑱ ^R	Washer	Stainless Steel	SUS304	AISI304
⑲ ^R	Snap Ring	Stainless Steel	SUS304	AISI304
⑳ ^{MR}	Valve Seat Gasket	Stainless Steel	SUS316L	AISI316L
㉑	Nameplate	Stainless Steel	SUS304	AISI304



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

Dimensions

● **LEX8-TZ**
Screwed



LEX8-TZ Screwed*				(mm)
Size	L	H	H ₁	Weight (kg)
8	30	107	58	0.4
10				

* Rc(PT), other standards available

Sizing Charts

Estimation of Discharge Capacity

Example: The flow rate of condensate discharging from 0.7 MPaG to atmosphere from a trap set to 80 °C is determined as follows:

Step 1: Use the discharge capacity graph.

From the 80 °C condensate temperature on the horizontal axis, follow a vertical line until it intersects the 80 °C set temperature curve (point A).

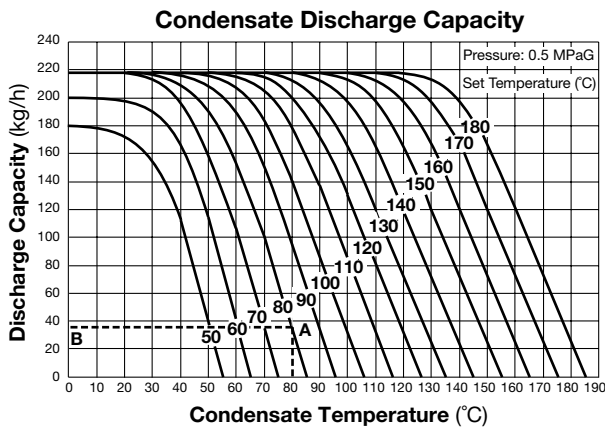
From A, follow a horizontal line across to the vertical axis (point B), and read the discharge capacity, 34 kg/h.

Step 2: Use the correction graph.

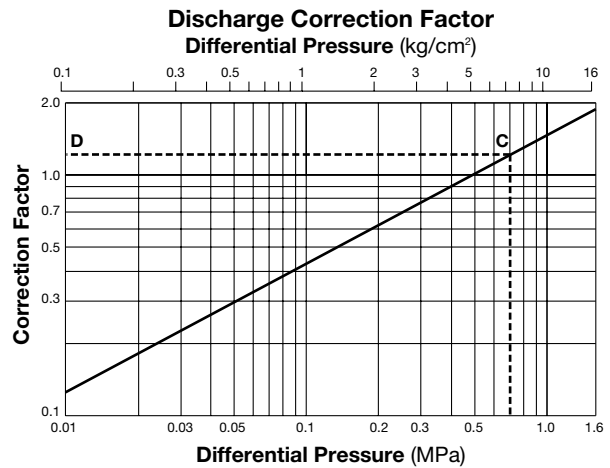
Because the discharge capacity graph is based on a steam pressure of 0.5 MPaG, a correction factor must be used to adjust the discharge capacity value to the actual pressure differential the trap.

Read up from 0.7 MPa on the horizontal axis to the diagonal line (point C), then across to the correction factor (point D). Multiply the discharge capacity obtained in step 1 by the correction factor to get the actual discharge capacity:

$$34 \times 1.2 = 40.8 \text{ kg/h.}$$



Recommended safety factor: at least 2.



Differential pressure is the difference between the inlet and outlet pressure of the trap.

Suitable Applications

- Tracing lines or heat tanks designed to utilize sensible heat of condensate to maintain fluidity in liquids at 80°C or less (e.g. heavy oils)
- Tracing to prevent freeze-up in piping, vessels or instrumentation

Do NOT use for applications requiring rapid removal of condensate: steam mains, heat exchanges or other typical steam-using equipment

Do NOT use on tracing lines or heat tanks to maintain fluidity in liquids that solidify at 80°C or less, e.g. asphalt, sulfur

Do NOT use on tracing lines or heat tanks designed to use latent heat of steam, even for liquids fluid at 80°C or less (e.g. heavy oils)

Manufacturer

ISO 9001/ISO 14001

