



Check Line Flow at a Glance... Find Steam Leaks Fast!

TLV sight glasses save time and money. A few seconds is all it takes to check the line flow of cooling water, lubricants, or slurry; or monitor the mixing of fluids in a tank. These compact, lightweight sight glasses save space, and are dependable because of their high performance and durability. TLV makes the perfect sight glass for your application. For any fluid—air, water, hot water, or steam—under any operating pressure or temperature, choose the most appropriate model from the TLV line. The T10N and TF10N are recommended for higher flow rates because of the through-hole in the partition wall between the inlet and outlet.

STANDARD MODELS

Model	T5N	T8N	TF8N	TION	TF10N		
Connection	Screwed Rc(PT)	Screwed Rc(PT)	Flanged	Screwed	Flanged		
Sizes (mm)	15, 20, 25	15, 20, 25, 32, 40, 50					
Body Material	Cast Iron FC250						
Max. Operating Pressure PMO (MPaG)	1.0	1.6					
Max. Operating Temperature TMO (°C)	120	220*					
* Contact TLV for optiona	1 MPa = 10.197 kg/cm						

* Contact TLV for optional models T8NL/TF8NL/T10NL/TF10NL up to 150 °C. PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS): Maximum Allowable Pressure (MPaG) PMA: 1.0 (T5N), 1.6 (T8N/TF8N, T10N/TF10N) Maximum Allowable Temperature (°C) TMA: 120 (T5N), 220 (T8N/TF8N, T10N/TF10N)

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.

The heat-resistant tempered glass must be replaced every year.

MODEL SELECTION CHART

CAUTION

CAUTION

OPERATION





The ball moves violently due to flow pressure.

• If flow rate is small or steam is leaking:



The ball moves only slightly.

T5N



FEATURES

- Ball movement indicates the flow status.
- Cylindrical structure allows to monitor the flow from the side.
- Compact and lightweight.

APPLICATION

• To check the flow of cold water, hot water, air and steam. Do not use for toxic, flammable or otherwise hazardous fluids

DIMENSIONS



T5N	T5N (mn				
Size	L	Ηı	Weight (kg)		
15	68	70	1.1		
20	75	75	1.3		
25	79	79	1.4		

T8N • TF8N / T10N • TF10N



FEATURES

- Ball movement indicates the flow status.
- Compact and lightweight.

APPLICATION

- To check the operation of steam traps.
- To check the flow of cold water, hot water, air and steam. Do not use for toxic, flammable or otherwise hazardous fluids

DIMENSIONS

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T8N/T10N Screwed*

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Size	L	Hı	Through-hole dia.**	Weight (kg)	
15	68	63	10	0.9	
20	75	67	15	1.0	
25	79	69	18	1.2	
32	120	75	20	1.9	
40	120	78	25	2.1	
50	126	85	30	2.7	
* Bc (PT) other standards available ** T10N only					

TF8N/TF10N Flanged

	L				Hı	Through- hole dia**	Weight* (kg)
Size	ASME Class						
	125FF	(150RF)	250RF	(300RF)		nore ald	(149)
(15)	-	175	-	175	64	10	[2.9]
(20)	—	180	-	180	61	15	[4.6]
25	180		184	184	64	18	4.8
32		200	200	200	69	20	5.8
40	200		204	204	71	25	8.2
50					76	30	10

() No ASME standard exists for cast iron; machined to fit steel flanges Class 125 FF can connect to 150 RF, 250 RF can connect to 300 RF Other standards available, but length and weight may vary * Weight is for Class 250 RF [300 RF] ** TF10N only

CAPACITIES



Differential Pressure (MPa)

1. Capacities are based on continuous discharge of condensate 6 °C below saturated steam temperature (or continuous discharge of water at room temperature if so stated).

2. Differential pressure is the difference between the inlet and outlet pressure of the sight glass.

PRECAUTIONS REGARDING USE

- 1. Select the proper model for the job.
- 2. Be sure to replace the heat-resistant, tempered glass every year.
- 3. Protect the line against water hammer before installing the sight glass. In lines in which there is a danger of water hammer, connect a check valve (CK) on the outlet side.
- 4. Install so that the arrow on the body agrees with the direction of flow.
- 5. Install only in a horizontal line with the sight glass facing up.

- 6. Loosen the glass holder to remove the glass for cleaning or replacement.
- 7. When disassembling or assembling, do not use a pipe wrench or other type of tool that applies stress directly to the glass.
- 8. If leaking occurs after the glass holder has been tightened with the proper torque, the gasket is probably deformed or damaged. Do not tighten further. Replace the gasket with a new one.

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Pamphlet M4404 Rev. 12/2019 Specifications subject to change without notice.