



PT1 'Pocket TrapMan' Handheld Diagnostic Tool

Features

Compact diagnostic instrument employing ultrasonic and temperature detection for steam trap, valve and bearing inspection.

1. Compact and easy to use.
2. Simultaneously measures vibration and surface temperature.
3. Analog and digital display plus scaled audio function assist operation assessment.
4. Quickly makes basic judgements for steam traps and valves to help identify where repairs or replacements may be necessary.
5. dB is displayed for bearing inspection to help diagnose operational status.
6. Band-pass filter eliminates misleading background noise, focusing on high frequencies for improved accuracy over conventional ultrasonic detectors.
7. Stores the results of up to 100 trap/valve and 100 bearing inspections in internal memory.



Specifications

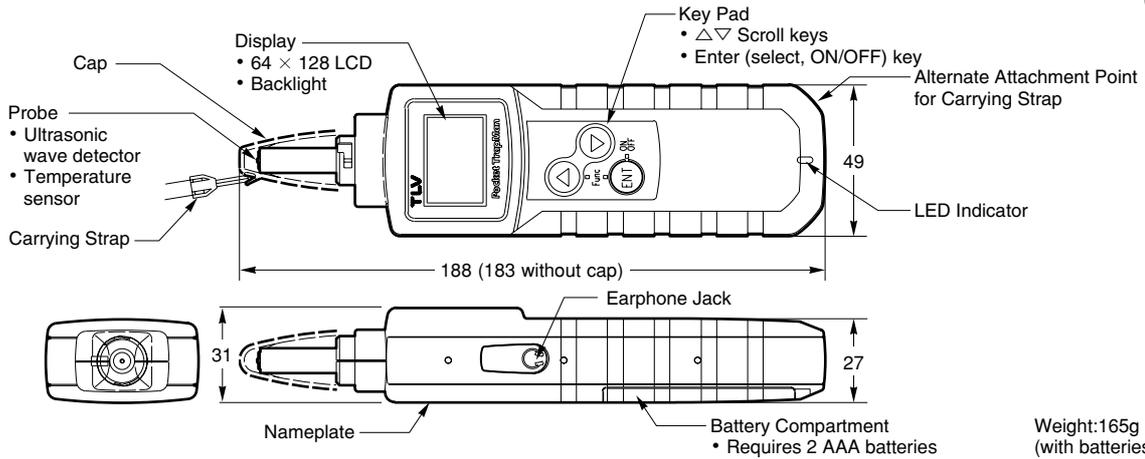
Inspection Type	Steam Trap Diagnosis	Valve Diagnosis ¹⁾	Bearing Inspection
Mode	Steam Trap & Valve		Bearing
Information Displayed	<ul style="list-style-type: none"> • Operation judgements: Good²⁾ Blocked Caution LowTemp³⁾ Leaking • Surface temperature 	<ul style="list-style-type: none"> • Valve seal judgements: Good Caution Leaking • Surface temperature 	<ul style="list-style-type: none"> • Average vibration acceleration level (AVG) • Peak vibration acceleration level (PEAK) • CF Value⁴⁾ • Surface temperature
Measuring Time	15 seconds after placing PT1 probe against item to be inspected	10 seconds after placing PT1 probe against item to be inspected	Up to 1 minute after placing PT1 probe against item to be inspected
	<ul style="list-style-type: none"> • Measurement begins and ends automatically • Measurement status is displayed by the LED indicator and in the display 		<ul style="list-style-type: none"> • Measurement begins automatically • Measurement ends after 1 minute or when the probe is removed; data is stored automatically • Measurement status is displayed by the LED indicator after 10 seconds or when the measured value stabilizes
Data Memory	100 measurement results (3 digit Control ID)		100 measurement results (3 digit Control ID)
Measured Variables	Ultrasonic sound, surface temperature		Vibration acceleration (shock pulse/32 kHz), surface temperature
Engineering Units	Selectable: MPa & °C, bar & °C, kg/cm ² & °C, or psi & °F		
Temperature Measurement	Measurement Range: 0 – 350 °C; Response Speed: 97% (after 15 seconds); Measurement Accuracy: ± 2 °C (after 1 minute)		
Operating Conditions	Ambient temperature range: 0 – 40 °C		
Display	64 × 128 LCD (16 × 26 mm) with backlight		
Auto Power OFF	Power goes OFF automatically after 1 minute if there is no operation and no keys pressed		
Power Source	2 AAA batteries (manganese or alkaline dry cell, Ni-Cd or Ni-MH rechargeable)		
Total Battery Use Time	Approximately 8 hours without backlight, 6 hours with backlight (exact time depends on batteries used)		
Earphone Output	ϕ 3.5 stereo output (audio sound generated in proportion to ultrasonic sound level measured)		
Accessories	Soft case, earphone, carrying strap, 2 AAA batteries		

¹⁾ Valves on steam, air and other gas systems ²⁾ [Good] judgements for Temperature Control (Adjustable) Steam Traps must be confirmed manually

³⁾ There is no [LowTemp] judgement for Temperature Control (Adjustable) Steam Traps ⁴⁾ Crest Factor Value = PEAK – AVG

Dimensions & Components

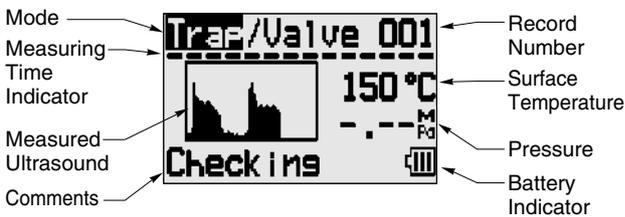
(mm)



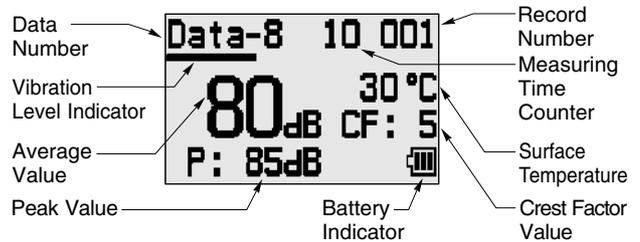
Weight: 165g (with batteries)

Display

• Steam Trap/Valve Diagnosis Mode

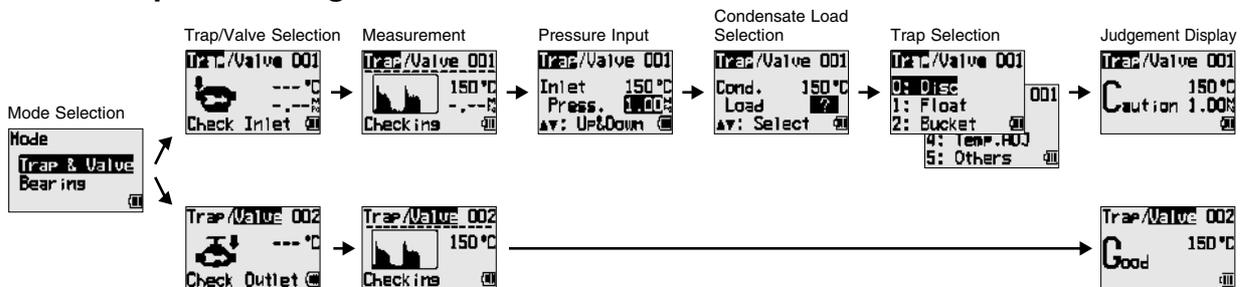


• Bearing Diagnosis Mode

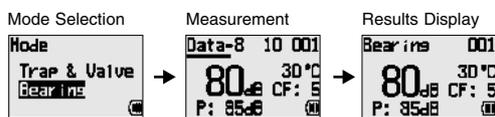


Operation Outline

• Steam Trap/Valve Diagnosis Screens



• Bearing Diagnosis Screens



Note: Actual steps may be different to those shown above