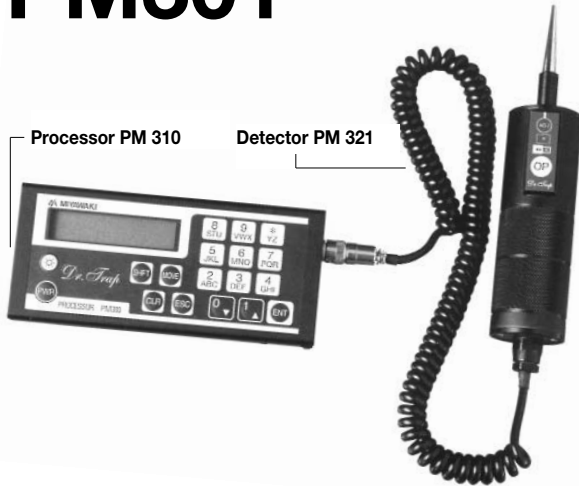


Advanced Steam Trap Management System

Dr. Trap[®] PM301



System Configuration

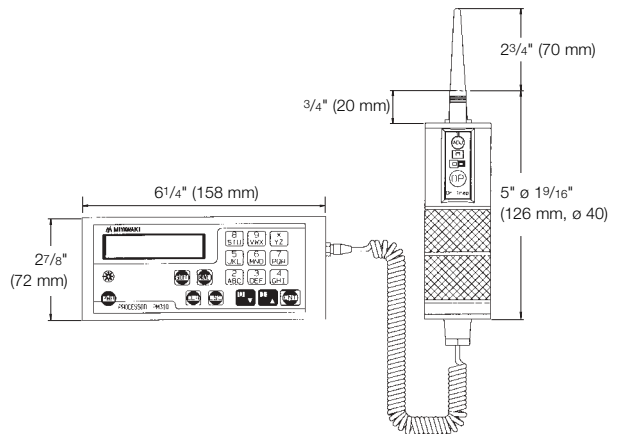
Processor PM 310 processes the data from the detector, displays and stores results.

Detector PM 321 detects the vibration and temperature in steam traps, which is used in their diagnosis.

Features

1. High-speed diagnosis: Each steam trap will be surveyed in less than 10 seconds. A normal trap without any leaks can be tested in only 2 – 4 seconds. Out of service traps are always identified in 2 – 4 seconds.
2. Small and lightweight: The total weight of the detector and processor is only 1.25 Lb. (580 g), which means that it can be carried by a technician for an extended period of time without fatigue.
3. Simple operation: A steam trap can be tested with a single press of the „OP“ key on the detector. The processor design requires only simple actions by the operator, making it easy to learn to use.
4. Can be used with high-pressure traps: Dr. Trap can be used to test any steam trap at a wide range of pressures and at temperatures up to 932°F (500°C).
5. Extended battery operation: The batteries allow approx. 12 hours of continuous operation. There is no need to replace the batteries in the middle of the day.
6. Ample storage: The results of 1,000 steam trap checks can be stored in the processor's memory.
7. High-speed automatic analysis: The Dr. Trap software provides automatic analysis and high-speed sorting of the data collected.

Dimensions



Hardware

Weight	Detector PM 321: 0.58 Lb (270g) Processor: 0.65 Lb (310g) incl. battery and soft case	Medium	CD-ROM
Sensor	Vibration Sensor: Piezo-electro-ceramic accelerometer Temperature sensor: Infrared sensor (thermopile)	Environment	General-purpose personal computer OS: Windows 95 or later Memory (RAM): 32 MB or more Hard disk: 40 MB free space (50 MB when being installed) or more Display resolution: 800 x 600 pixel or better Display colors: 256 or more
Temperature range	Ambient temperature to 932°C (500°C)		
Power supply	2 x 1.2V AA size rechargeable battery		
Continuous operating	Approximately 12 hours (approximately 9 hours with the LCDs lit continuously)		
Working survey time	10 seconds (2 seconds minimum)		
Trap recording capacity	1.000 Data max.		
Display	LCD (16 characters x 2 lines)		

Advanced Steam Trap Management System



Software

PM330

This custom software can be run on a personal computer. It aggregates and analyzes steam trap data from the processor, identifying faulty steam traps, leaking traps, etc., making it easy to manage all of your traps. It provides detailed charts and graphs. Survey results are transferred from the processor to the computer using the Dr. Trap management software.

Functions

Survey lists

Survey lists are automatically generated from the test results of all traps which have been checked. Furthermore only failed traps can be extracted from the management log to make a list showing the volume of steam that is leaking.

Trap No.	Trap Type	Trap Size	Trap Location	Trap Status	Trap Test Date	Trap Test Result	Trap Test Time	Trap Test Pressure	Trap Test Temperature
1001	1	1.0	1001	OK	2003	10	10	10	10
1002	2	1.0	1002	OK	2003	10	10	10	10
1003	3	1.0	1003	OK	2003	10	10	10	10
1004	4	1.0	1004	OK	2003	10	10	10	10
1005	5	1.0	1005	OK	2003	10	10	10	10
1006	6	1.0	1006	OK	2003	10	10	10	10
1007	7	1.0	1007	OK	2003	10	10	10	10
1008	8	1.0	1008	OK	2003	10	10	10	10
1009	9	1.0	1009	OK	2003	10	10	10	10
1010	10	1.0	1010	OK	2003	10	10	10	10
1011	11	1.0	1011	OK	2003	10	10	10	10
1012	12	1.0	1012	OK	2003	10	10	10	10
1013	13	1.0	1013	OK	2003	10	10	10	10
1014	14	1.0	1014	OK	2003	10	10	10	10
1015	15	1.0	1015	OK	2003	10	10	10	10
1016	16	1.0	1016	OK	2003	10	10	10	10
1017	17	1.0	1017	OK	2003	10	10	10	10
1018	18	1.0	1018	OK	2003	10	10	10	10
1019	19	1.0	1019	OK	2003	10	10	10	10
1020	20	1.0	1020	OK	2003	10	10	10	10
1021	21	1.0	1021	OK	2003	10	10	10	10
1022	22	1.0	1022	OK	2003	10	10	10	10
1023	23	1.0	1023	OK	2003	10	10	10	10
1024	24	1.0	1024	OK	2003	10	10	10	10
1025	25	1.0	1025	OK	2003	10	10	10	10
1026	26	1.0	1026	OK	2003	10	10	10	10
1027	27	1.0	1027	OK	2003	10	10	10	10
1028	28	1.0	1028	OK	2003	10	10	10	10
1029	29	1.0	1029	OK	2003	10	10	10	10
1030	30	1.0	1030	OK	2003	10	10	10	10
1031	31	1.0	1031	OK	2003	10	10	10	10
1032	32	1.0	1032	OK	2003	10	10	10	10
1033	33	1.0	1033	OK	2003	10	10	10	10
1034	34	1.0	1034	OK	2003	10	10	10	10
1035	35	1.0	1035	OK	2003	10	10	10	10
1036	36	1.0	1036	OK	2003	10	10	10	10
1037	37	1.0	1037	OK	2003	10	10	10	10
1038	38	1.0	1038	OK	2003	10	10	10	10
1039	39	1.0	1039	OK	2003	10	10	10	10
1040	40	1.0	1040	OK	2003	10	10	10	10

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1013	13	1.0	1013	OK	2003	10	10	10	10
1014	14	1.0	1014	OK	2003	10	10	10	10
1015	15	1.0	1015	OK	2003	10	10	10	10
1016	16	1.0	1016	OK	2003	10	10	10	10
1017	17	1.0	1017	OK	2003	10	10	10	10
1018	18	1.0	1018	OK	2003	10	10	10	10
1019	19	1.0	1019	OK	2003	10	10	10	10
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1028	28	1.0	1028	OK	2003	10	10	10	10
1029	29	1.0	1029	OK	2003	10	10	10	10
1030	30	1.0	1030	OK	2003	10	10	10	10
1031	31	1.0	1031	OK	2003	10	10	10	10
1032	32	1.0	1032	OK	2003	10	10	10	10
1033	33	1.0	1033	OK	2003	10	10	10	10
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1035	35	1.0	1035	OK	2003	10	10	10	10
1036	36	1.0	1036	OK	2003	10	10	10	10
1037	37	1.0	1037	OK	2003	10	10	10	10
1038	38	1.0	1038	OK	2003	10	10	10	10
1039	39	1.0	1039	OK	2003	10	10	10	10
1040	40	1.0	1040	OK	2003	10	10	10	10

Data analysis

Based on detailed lists of failed traps, a variety of data can be produced including the gross failure rate, the failure rate for each trap type and the level of failures by type, and steam losses.

