



YARWAY SERIES 1004 ELECTRONIC LEVEL INDICATION

An advanced, multi-featured one to four probe electronic alarm system for sensing water level in a wide variety of applications



FEATURES

- Based on widely accepted conductivity probe technology.
- Reliable and cost-effective.
- Probes can be mounted directly to the pressure vessel or column.
- Independent detection circuit for each probe.
- HP probes feature brazed welded stainless steel electrode with zirconia insulator for high pressure, high temperature applications.
- LP probes feature threaded stainless steel electrode with PTFE insulator for lower pressure and temperature applications.
- Direct replacement for mechanical float switches.
- Local LED indication of water level in a Type 4X/IP66 enclosure provides redundant logic and primary visual verification.

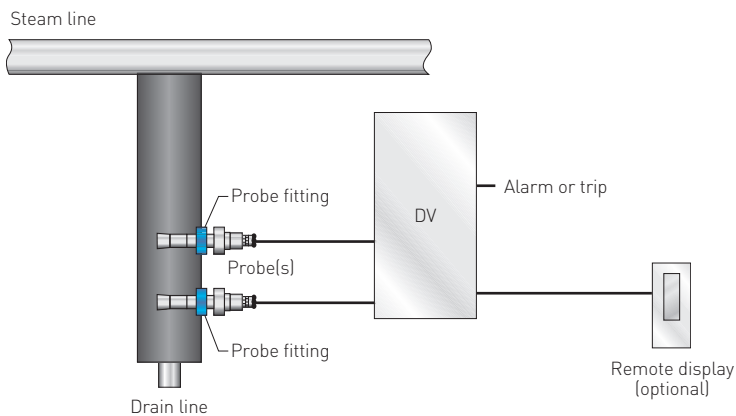
GENERAL APPLICATIONS

Suitable for use in turbine water intrusion protection (TWIP), sump pump protection, boiler drum level, equipment drains and receiver tanks. Also for flash tanks, feedwater heaters, steam line drain pots and as an economical solution for high pressure systems.

TECHNICAL DATA

Max. pressures	
HP probe:	3000 psig (207 barg) at saturation
LP probe:	850 psig (58 barg)
Max. temperatures	
HP probe:	1000°F (538°C)
LP probe:	525°F (274°C)
Operating temperature:	0°F to 160°F (-17°C to 71°C)
Input voltage:	120 VAC/240 VAC nominal 50-60 Hz 12 VA nominal

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SYSTEM COMPONENTS

- Probe fitting
- Probe(s)
- Detection and verification (D&V) module
- Remote display (optional)

SPECIFICATIONS

- Up to four level switch/indication applications
- Independent detection circuit for each probe
- Failure of any channel or probe does not disable system
- Standard green LED internal D&V display, yellow LED for errors
- Every level has a relay output for alarms and trips with optional remote red/green LED indication
- Low voltage mixed dual frequency sine wave used for water detection (<12 VAC RMS nominal)
- Net integral zero current waveform
No DC = no possibility of electrolysis of water or plating
- DV accepts up to two red/green LED displays and up to 10 independently powered displays
- Redundant internal power supply
- Relay outputs for level and electronic faults
- Internal diagnostics to monitor clock faults, power supply faults, and level faults
- Enclosure: Type 4X/IP66
- Maximum sensitivity: 1 μ S/1M Ω - cm water
- Field-selectable steam fail-safe or water fail-safe of probe output relays

- Conforms to directives:
 - 73/23/EEC - Low voltage
 - 89/336/EEC - Electromagnetic compatibility
 - EN61000 - Electromagnetic immunity
- Input power:
120 VAC/240 VAC nominal, 50-60 Hz 12 VA nominal unit incorporates MOV protection
- Relay contacts:
Form C, SPDT
10A at 120 VAC
5A at 240 VAC
8A at 28 VDC
- Operating temperature (electronics):
0 to 160°F (-17 to 71°C)

STANDARD ASSEMBLY

- Type 4X/IP66 enclosure with electronics
- Probes
- Housings, including:
 - 20" (500 mm) conduit per probe
 - 36" (910 mm) HT wire per probe
- Connectors (Type A or NPS 1½ male SW)

OPTIONAL

- NPS 1½ (40 mm) connector welded in NPS 1½ (40 mm) tee
- Custom fitting with electrode holders
- Local (door mounted) display
- Type 4X/IP66 enclosure for remote display
- Continuity check for short/open probe/wire detection. Short based on less than 1/10 nominal water conductivity
- 4-20 mA loop output
- Refer to publication **VCTDS-02606** for water columns, probes and probe fittings

