X76 SERIES

Environmental Monitors and Controls

RONAN

Ronan Engineering has set the standard for monitoring equipment since 1959. We have enjoyed continuous growth over the years, based on innovative thinking and new product designs which meet the diverse needs of our customer base. We pride ourselves in supplying quality products of excellent mechanical design and state-of-the-art electronic circuitry to monitor facilities such as nuclear power plants, offshore drilling platforms, the petrochemical and refining industry, steel mills and even your neighborhood gasoline stations.

Specifically, Ronan has for many years supplied Leak Detection Systems for underground and aboveground product storage facilities around the world. As one of the first organizations to obtain formal third party verification meeting both local and national EPA compliance requirements, Ronan has become a leader in this specialized industry and has one of the largest installed bases of Leak Detection Systems worldwide.

Ronan stands ready to provide the highest quality monitoring system to the underground and aboveground fuel storage industry. The X76 Series of Leak Detection Equipment will provide years of reliable service and will help you to maintain regulatory compliance well into the 21st century.

X7ETM-4X

Electronic Tank Monitors

The X76ETM-4X offers the highest reliability for continuously monitoring both single-walled and double-walled tank and piping systems. Low maintenance and fail-safe design, combined with a weather-tight NEMA 4X enclosure, makes the X76ETM-4X the best solution for the harsh environments found at service stations and industrial storage tank installations.

The X76ETM-4X combines state-of-the-art technology with simple user interface to meet all of the following EPA leak detection monitoring requirements: Automatic tank gauging "ATG" — monthly testing — 0.2 gph leak sensitivity; Volumetric tank tightness testing "VTTT" — annual testing — 0.1 gph leak sensitivity; Continuous line leak detection — hourly — 3.0 gph leak sensitivity; Monthly line leak detection — monthly monitoring — 0.2 gph leak sensitivity; Annual line leak detection — precision line testing — 0.1 gph leak sensitivity; Groundwater monitoring; Secondary containment monitoring; Positive turbine/pump shutdown capabilities.

No additional modules are required. The unique microprocessor, single board controller allows any combination of sensors to be installed without the need to purchase more modules.

FEATURES

☐ RS232 Communications Port for Interfacing with the X76ATM, TM Server, X76CRC and ComPro Detection and Networking Systems

☐ Available with or without Printer

☐ 3rd Party Approval on Single and Manifolded Tank Applications

☐ Stainless Steel Probes for Chemical Applications

☐ Inventory Probes up to 60 Feet Long

☐ Hard Copy Report with Time and Date Stamp on Alarm Conditions

☐ Digital to Analog Outputs

☐ Intrinsically Safe Interface

☐ UL Listed

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Secondary Containment Monitors

The X76-4X offers the highest reliability for continuously monitoring secondarily contained tank and piping systems. The low maintenance and fail-safe design, combined with a weather-tight NEMA 4X enclosure, makes the X76-4X the best monitoring solution for the harsh environments found at service stations and industrial storage tank installations.

The X76-4X provides expandable modular design with basic operator interface. Simple straight forward design, utilizing proven "C-MOS Electronics" that meets and exceeds all mil-specs, will provide years of unmatched reliability. Built to industrial control panel specifications, it affords the design engineer the option of utilizing the X76-4X as an environmental monitoring panel or a safety control panel to provide process alarms and shutdowns.

FEATURES

- ☐ NEMA-4X Weather-Tight Enclosure Ideal for Outside Aboveground Storage Tanks
- ☐ Continuous Monitoring for All Double Walled Tanks and Piping
- ☐ High and Low Level Alarms
- ☐ Positive Pump Shutdown
- ☐ Remote Alarm Capabilities
- ☐ Up to 6 Auxiliary Relays
- ☐ Flexible Modular Design for Future Expansion and Easy Maintenance
- ☐ Intrinsically Safe Interface
- ☐ UL Listed

X76ATM

Combined with the X76ETM, X76ETM-4X or X76LVCS, the X76ATM provides state-of-the-art technology to provide continuous automatic tank testing without shutting down your fueling operation! The heart of the X76ATM is the 486 microprocessor that provides the most advanced statistical tank analysis on the market today.
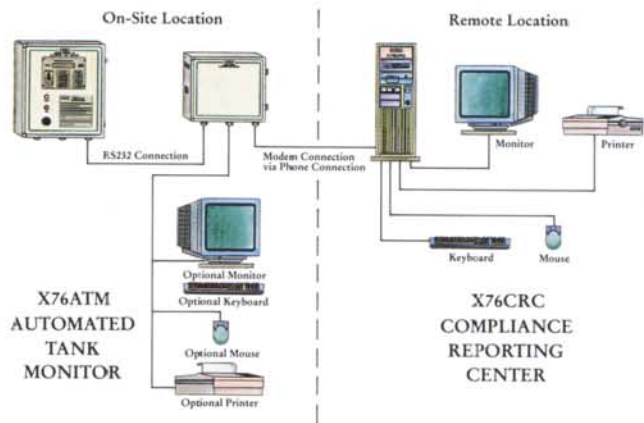
The X76ATM not only provides continuous leak, statistical leak detection, but also provides the logging capability of a PC. Your facility will have a permanent record, stored on disk, to back up any test results, maintenance history, sales activity, delivery information, etc. These records can be reprinted by request or you can run reports from log files minute by minute as they actually occurred...days, weeks, months, or even years ago. For owners of numerous facilities, the X76ATM will act as the communication link between your headquarters and the facilities.

The X76ATM offers the following report capabilities: Inventory report; Activity charts showing level, net and gross volume, temperature over time for detailed trend analysis and leak test evaluation; Leak test reports; Inventory reorder reports; Transaction reports for summarizing deliveries and withdrawals.

FEATURES

☐ Monthly Monitoring for 0.2 gph. No Shutdown Required

☐ Volumetric Tank Tightness Testing, 0.1 gph. No Shutdown Required

☐ Inventory Reconciliation / SIR

☐ Statistically Combines Multiple Tests for Higher Accuracy

☐ Ronan Video Annunciator for Alarm Logging and Quick Diagnosis

☐ Real-Time Monitoring

☐ Interface to Other Leak Detection Systems

☐ Remote Monitoring of Equipment Not Belonging to Ronan

☐ UL Listed

The X76AST-4X, Three-Channel Leak Detection System, is designed to give years of reliable trouble-free operation. Perfectly suited for the above ground storage tank owner, the X76AST-4X is supplied in a weather tight, corrosion proof, NEMA 4X enclosure, which is suitable for installation indoors and outdoors. The system size, 7-1/4"W x 9-1/4"H x 5"D, is easily installed even in the smallest of locations.

The X76AST-4X Leak Detection System is compatible with the following Ronan probes: Models LS-3, LS-6, LS-7, and LS-30; HVA Liquid Sensors; JT-2V and JT-2P Pressure Sensors.

Typical applications include: Aboveground storage tanks; Belowground storage tanks; Oil/water separators; Emergency generator tanks; Waste oil tanks; Tank interstice monitors; Piping sump monitors; Low level reorder alarms; High level/overfill alarms; Dispenser pan sump monitors; Multiple inputs from single tanks; Single inputs from multiple tanks.

FEATURES

- ☐ Three-Input Channels and Three-Output Relays
- ☐ Audio and Individual Visual Alarm Indicators
- ☐ NEMA 4X and Chemical Resistant Enclosures
- ☐ Power ON Indicator
- ☐ Multiple Sensor Combinations
- ☐ Intrinsically Safe Interface
- ☐ UL Listed

DOUBLEWALL FIBERGLASS TANK

DOUBLEWALL FIBERGLASS TANK

SINGLEWALL STEEL TANK
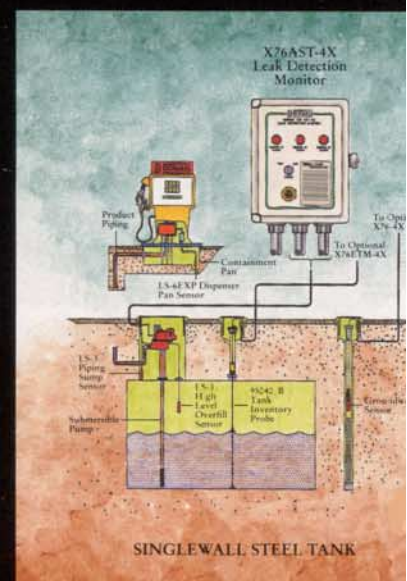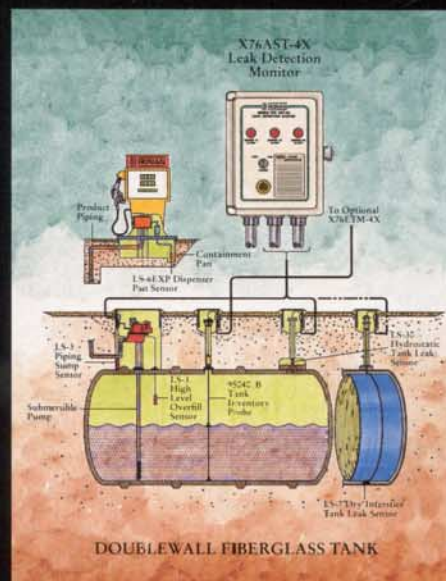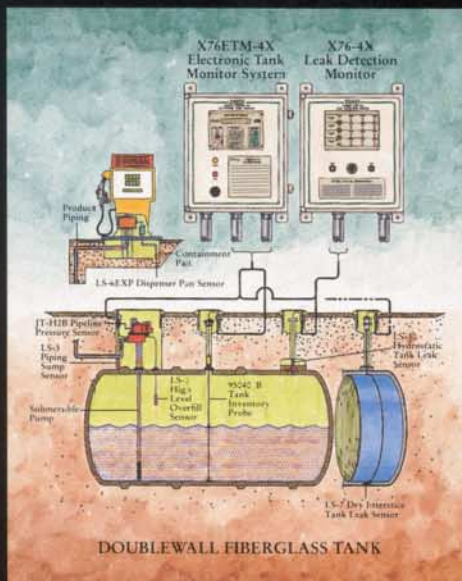
# X76RA-4X

Remote Annunciators

The Ronan Model X76RA-4X Remote Annunciator is designed to provide remote indication of alarm conditions generated by monitoring systems. It is designed to connect to any system in the Ronan product line, and can provide interface to equipment not belonging to Ronan. The integrated ALARM TEST/ACK button is used to silence alarms and to test the unit's alarm horn and lamp. The X76RA-4X is compatible with most all voltage signals used to provide remote alarm conditions to areas not practical for the main monitoring system. The NEMA 4X enclosure provides a weather-tight, corrosion-proof unit that is perfectly suited for outdoor or indoor use. The X76RA's small size, 3-5/8"W x 6.00"H x 3.00"D is well suited for installation in the smallest areas where space is a premium.

Typical applications include: High level/overfill alarm; Low level reorder alarm; All retransmitted alarm signal conditions.

FEATURES

☐ Weather-Tight, Corrosion-Proof NEMA 4X Enclosure

☐ Highly Visible Alarm Indicator

☐ High Frequency Horn Rated 80 Decibels at 10 Feet

☐ Integral Alarm Test/Acknowledge Button

☐ Easy Surface Mounting Tabs

☐ Designed for Years of Trouble-Free Service

☐ Intrinsically Safe Interface

☐ UL Listed

SINGLEWALL STEEL TANK

DOUBLEWALL STEEL TANK

ABOVEGROUND DOUBLEWALL STEEL TANK
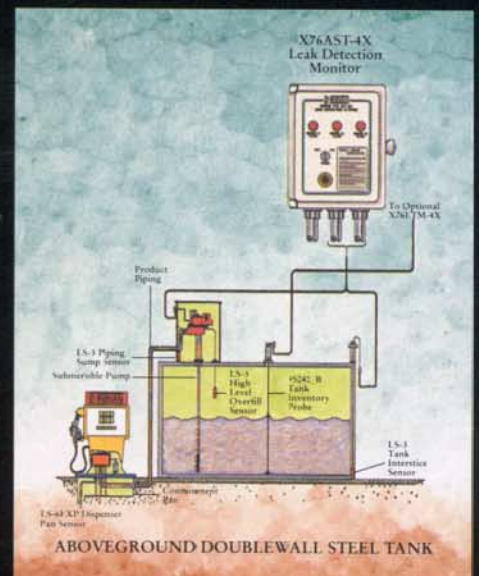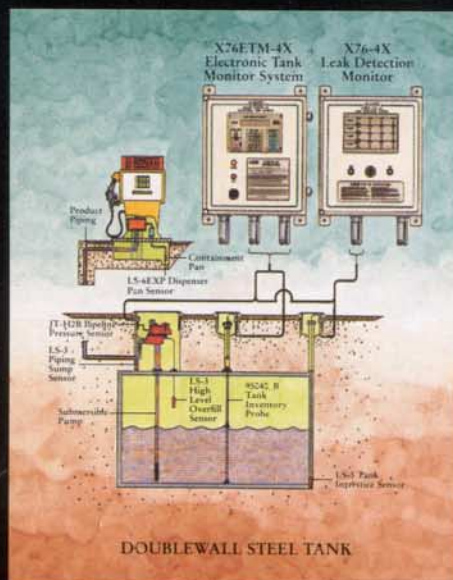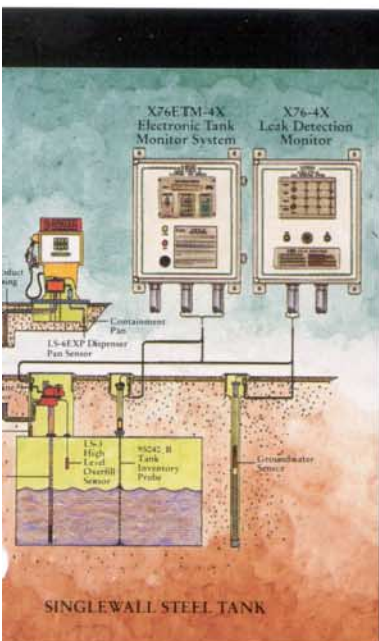
ENVIRONMENTAL SENSORS AND PROBES

JT-H2B — Pipeline Leak Sensor for 2" pipelines

JT-H3B — Pipeline Leak Sensor for 3" pipelines

LS-3 — Vertical Liquid Sensor for DW steel tanks, sumps, overfill protection

LS-3s — Vertical Liquid Sensor for DW steel tanks, sumps, overfill protection with test cable

LS-3ss — Vertical Liquid Sensor for chemicals, 316 stainless steel

LS-6EXP — Dispenser Pan/Sump Leak Sensor

LS-7 — Horizontal Liquid Sensor for dry interstice DW fiberglass tanks

LS-7s — Horizontal Liquid Sensor for dry interstice DW fiberglass tanks with test cable

LS-8 — Ground Water Sensor and Sump Sensor

LS-30 — Dual Level Reservoir Sensor for wet interstice tanks

JT-2P — Tank Leak Sensor for pressurized DW tanks

JT-2V — Tank Leak Sensor for vacuum DW tanks

HVA — Mini Vertical Liquid Sensor for confined spaces

95040(x)B — In-Tank Gauge Probe for most liquids

95140(x)B — In-Tank Gauge Probe for chemicals

COMMERCIAL & INDUSTRIAL LEVEL SENSORS

LS39 — Brass or Stainless Steel Level Switch N.O. or N.C., with stainless steel float, 1/8" NPT

LS40 — Multi-Level Level Switch, custom built

LS41 — Brass or Stainless Steel Level Switch with stainless steel float, 1" NPT

LS42 — Polysulfone, Polypropylene, Brass or Stainless Steel Level Switch with polysulfone, polypropylene, BUNA-N or stainless steel float, 1/8" NPT or 3/8" 16

LS44 — Polysulfone or Polypropylene Level Switch with polysulfone or polypropylene float, 1/2" NPT, 1/2" 13 or 5/8" 11

LS45 — Brass or Stainless Steel Level Switch, 20VA or 100VA. with BUNA N float, 1/4" NPT

LS47 — Stainless Steel Level Switch and float, 20VA or 100VA, 1/4" NPT

LS48 — PVC Level Switch and float, 1/4" NPT

LS49 — Brass or Stainless Steel Level Switch with BUNA N of stainless steel float, 1/8" NPT or 3/8" 24 2A

COMMERCIAL & INDUSTRIAL FLOW SENSORS

FS11 — Bronze or Stainless Steel Flow Switch, 3/4" to 3" pipe, 0.5 to 100 GPM

FS12 — Adjustable Bronze Flow Switch, 1" pipe, 0.75 to 15.0 GPM

FS13 — Bronze Flow Switch, 3/4" pipe, 0.75 to 10.0 GPM

FS14 — Adjustable Bronze Flow Switch, 3/4" pipe, 0.75 to 14.0 GPM

FS15 — Adjustable Bronze or Stainless Steel Flow Switch, 1/2" pipe, liquid or gas, 0.5 to 20.0 GPM or 3 to 475 SCFM

FS16 — Brass or Stainless Steel Flow Switch, 1/4" pipe, 0.1 to 1.5 GPM

FS17 — Brass or Stainless Steel Flow Switch 1/4" pipe, 50 to 300 ccm

FS18 — PVC Flow Switch, 1" slip fit, 0.5 to 1.0 GPM

FS19 — Brass or Stainless Steel Flow Switch, 1/4" pipe, 0.1 to 1.5 GPM

FS20 — Brass or Stainless Steel Flow Switch, 1/2" pipe, 0.5 to 3.0 GPM

FS21 — Polysulfone Flow Switch, 9/16", 18 UNF-2B port, 0.1 to 1.5 GPM

FS22 — Polysulfone Flow Switch, 9/16", 18 UNF-2B port, 0.1 to 0.75 GPM

FS24 — Adjustable Brass or Stainless Steel Flow Switch, 1" to 3" pipe, 6.0 to 26.0 GPM

FS25 — Adjustable Polysulfone Flow Switch, 1" to 3" pipe, 6.0 to 26.0 GPM

FS26 — PVC Flow Switch, 2.0" slip fit, 0.5 to 2.0 GPM

WARRANTY

Ronan warrants equipment of its own manufacture to be free from defects in material and workmanship, under normal conditions of use and service, and will replace any component found to be defective, on its return, transportation charges prepaid, within one year of its original purchase. This warranty carries no liability, either expressed or implied, beyond our obligations to replace the unit which carries the warranty.

RONAN