



TECHNICAL SUBMITTAL DATA SHEET

Water Tank Leak Detection & Automatic Shut-Off System

Job Name: _____	Job Location: _____
Engineer: _____	Engineer Approval: _____
Contractor: _____	Contractor Approval: _____
Contractor P.O.: _____	Representative: _____

MODEL RS-094

TYPICAL INSTALLATIONS INCLUDE:

- Common-risk housing – condos and apartments
- Commercial break rooms
- New and retrofit construction
- Vacation homes and other unattended properties

HIGHLY RECOMMENDED FOR:

- Multi-residential complexes
- Commercial office buildings
- Any facility with a history of insurance claims for water damage

FEATURES:

- Full port valve sizes 1/2" to 1-1/4" dia.
- Reusable and testable; easy reset button
- Snap-fit actuator allows for manual operation of the valve
- Reliable, gear-driven valve – less susceptible to failure from build-up than spring-driven valves
- Plugs into a standard 120V AC outlet
- Audible alarm (83 dB)
- N/O and N/C dry contacts
- Factory pre-wired

MODIFIED KIT CONFIGURATIONS:

- RS-094-MK6 for Plenum Spaces
- RS-094-MK1 with Rope Sensor for Low-Profile Tanks
- RS-094-MK4 with Electrical Plug Interrupter
- RS-094-MK5 Kit with Gas Flow Interrupter
- RS-094-MK7 Kit with Gas Interface Cable



Patent #6,035,699

APPLICATION CONSIDERATIONS:

The RS-094 system is designed to prevent damage caused by an undetected plumbing leak from a water tank. The full port valve installs on the cold water inlet line to the water heater, and the snap-fit actuator attaches directly to the valve mounting pad. A magnetic leak detection sensor fits nicely in the pan or on the floor under the tank, typically under the pressure relief valve or in a similar area where water from a leak is likely to accumulate. It can be installed securely horizontally or vertically on the included metal plate. This water sensor features a 1/16" stand-off to allow for air circulation and eliminate false alarms caused by humidity from the floor.

INSTALLATION OVERVIEW:

The RS-094 features an integrated receiver box and actuator that install directly onto the shut-off valve for tidy system installation, even if the water tank is not located near a wall. The system plugs into a standard 120V AC wall outlet. Components come pre-wired.

The system can be performance tested anytime; it is resettable via reset button on actuator. Suitable for new construction or retrofit, gas-powered or electric tanks, conventional or tankless systems. Dry contact connections (NO/C/NC) are included for fault notification to an existing security panel or BMS.

Emergency manual operation of the valve is accomplished by removing the snap-fit actuator and manually changing the valve to open or closed. In the event of a power failure, the valve will remain in position (either open or closed).



203-488-2684 or 888-771-4929
 info@RelianceDetection.com
 www.RelianceDetection.com

RS-094 TECHNICAL SUBMITTAL DATA SHEET

ORDERING INFORMATION:

Valve Size	P/N	UPC
1/2"	RS-094-1/2	857640005373
3/4"	RS-094-3/4	857640005380
1"	RS-094-1	857640005397
1-1/4"	RS-094-1-1/4	857640005403

OPERATING SPECIFICATIONS:

Valve

Pressure Rating 600 WOG - 150 WSP

Max. Temperature 366°F

Max. Pressure Tested to 80 PSI

Receiver Box / Actuator

Transformer 120V AC

Voltage 24V AC

Absorbed Current 0.6 A

Absorbed Power 15V A

Frequency 50/60 Hz

Working Temp. 0° to 100°F

Square Drive 0.43

Audible Alarm 83 dB

MATERIALS:

Valve

Body Low-lead brass

End Connection ... Low-lead brass

Stem Low-lead brass

Ball Low-lead brass
(tea coated)

Ball Seats PTFE

O-Rings FKM (Viton®)

Receiver Box / Actuator & Sensor

Body High-performance
engineered polymer

CABLE LENGTHS:

Power Cord 12'

Sensor Cable 8' (custom lengths avail.)

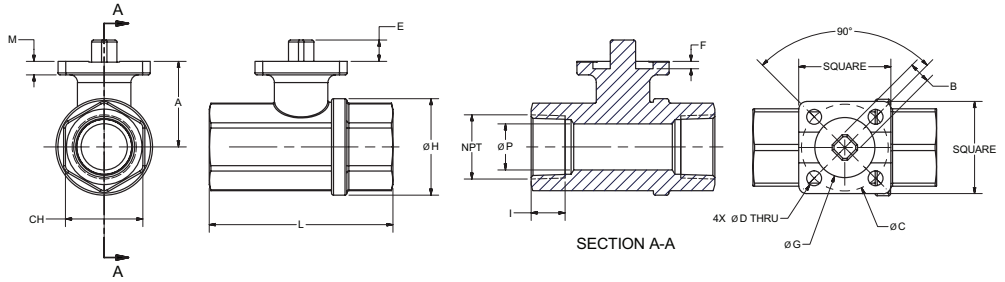
APPROVALS:

NSF/ANSI 61 and 372 approved valve.

MA Board of Registration of Plumbers

Approval – Code # P1-0515-489.

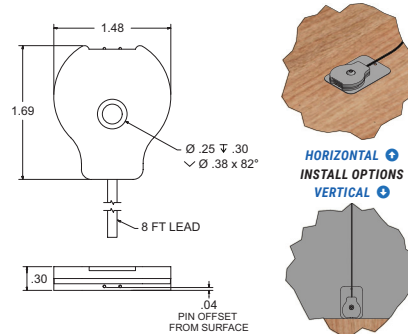
DIMENSIONS: Shut-Off Valve



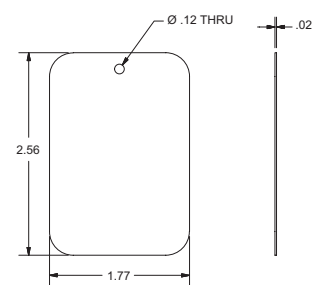
Size	Square	A	B	C	D	E	F	G	H	I	L	CH	M	P	CV	PSI	LBS	IN-LBS
1/2"	1.50	1.28	0.35	1.42 (ISO F03)	0.24	0.35	0.08	0.98	1.32	0.59	2.64	1.06	0.22	0.56	18.84	580	0.21	53.10
3/4"	1.50	1.36	0.35	1.42 (ISO F03)	0.24	0.35	0.08	0.98	1.57	0.64	2.99	1.26	0.22	0.75	34.10	580	0.40	53.10
1"	1.50	1.79	0.35	1.42 (ISO F03)	0.24	0.35	0.12	0.98	1.93	0.75	3.54	1.61	0.24	0.95	49.71	580	0.75	53.10
1-1/4"	1.50	1.93	0.35	1.42 (ISO F03)	0.24	0.35	0.12	0.98	2.30	0.84	4.02	1.97	0.24	1.18	102.88	580	1.05	53.10

(IN-LBS) TORQUE VALVES ARE MEASURED IN LABORATORY TESTS UNDER THE FOLLOWING CONDITIONS: TEMPERATURE: 68°F; PRESSURE: 0 PSI; FLUID: PURIFIED WATER.

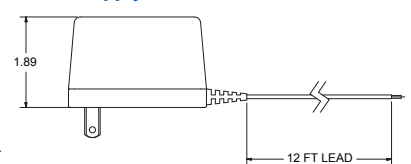
Water Sensor



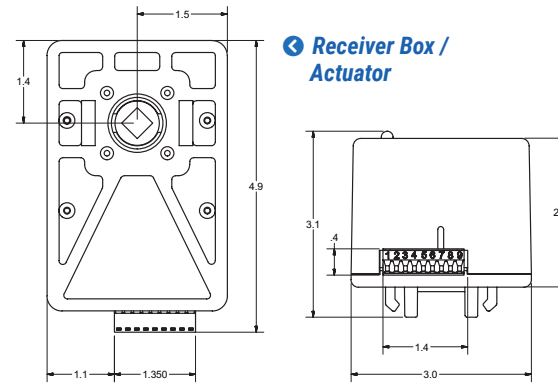
Metal Plate



Power Supply – 24V AC Wall Wart



Receiver Box / Actuator



AVAILABLE ACCESSORIES:

- **Wired Water Sensors** – Up to 5 additional sensors can be wired to a single RS-094 receiver box for a wider area of leak detection.
- **Sensing Rope Kit** – Ideal for use with low tanks, or for room perimeter and sub-floor leak detection applications.
- **Auto Dialer** – Receive automatic alerts whenever the RS-094 identifies a fault condition.
- **Electrical Plug Interrupter** – Power control relay for conventional plug-in Power-Vent gas water heaters; automatically turns of the electricity to the appliance when a leak is detected.

RDT recommends that installations be completed by a licensed plumber to ensure that all local code requirements are followed.



Reliance Detection Technologies, LLC
27 Business Park Drive
Branford, CT 06405

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TECHNICAL SUBMITTAL DATA SHEET

Plenum-Rated Water Leak Detection Kits

Job Name: _____

Job Location: _____

Engineer: _____

Engineer Approval: _____

Contractor: _____

Contractor Approval: _____

Contractor P.O.: _____

Representative: _____

MK6 SERIES

TYPICAL INSTALLATIONS INCLUDE:

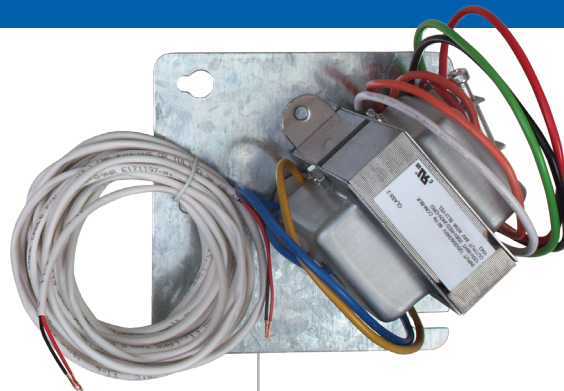
- Plenum-mounted water heaters and water tanks (RS-094-MK6)
- Applications requiring valve installation up in the plenum, with power and leak detection sensing in the work space below (RS-080-MK6) – such as under break room sinks
- Simple water leak detection in a plenum space, including plenum HVAC/water chiller condensate pans for overflow detection (RS-096-MK6)

HIGHLY RECOMMENDED FOR:

- Commercial and municipal facilities
- Multi-residential complexes

KIT FEATURES:

- Plenum-rated wires for the water sensor, power supply and valve cable connections (as applicable)
- Step-down transformer (120, 208, 240 VAC to 24 VAC) with mounting plate in lieu of standard wall wart
- Pre-wired with basic connections to the power transformer and the sensor
- An audible alarm for quick identification of the problem
- All valves are suitable for potable water installations
- Dry contacts (NO/C/NC) to tie into existing building automation and security systems



Plenum-Rated Wires,
Step-Down Transformer
& Wall Mounting Plate

APPLICATION CONSIDERATIONS:

In commercial buildings, water-fed appliances such as water tanks, chiller and water-supply lines are often located in plenum spaces. Because they are hidden from view, they are especially susceptible to the damage caused by an undetected water leak.

Local fire, safety and electrical codes have strict guidelines for installation of electrical devices in plenum spaces, typically requiring that all devices be hard-wired directly to their power source and that special-grade "plenum-rated" wires be used. These special requirements typically require a field retrofit to code, resulting in added time and expense.

RDT makes it easy and convenient to work within these challenging spaces with its plenum-rated FloodMaster MK6 series kits. These kits are also ideal for any application which requires hardwiring to a power source, such as for leak detection under sinks in break rooms.

MK6 SERIES TECHNICAL SUBMITTAL DATA SHEET

ORDERING INFORMATION:

RS-094-MK6 Water Heater/Tank Kits		
Valve Size	P/N	UPC
1/2"	RS-094-1/2-MK6	857640005960
3/4"	RS-094-3/4-MK6	857640005724
1"	RS-094-1-MK6	857640005977
1-1/4"	RS-094-1-1/4-MK6	857640005984
RS-080-MK6 Water Main Kits		
Valve Size	P/N	UPC
3/4"	RS-080-3/4-MK6	857640005861
1"	RS-080-1-MK6	857640005878
1-1/4"	RS-080-1-1/4-MK6	857640005885
1-1/2"	RS-080-1-1/2-MK6	857640005892
2"	RS-080-2-MK6	857640005908
2-1/2"	RS-080-2-1/2-MK6	857640005915
3"	RS-080-3-MK6	857640005922
4"	RS-080-4-MK6	857640005939
RS-096-MK6 Water Alarm Kits		
Valve Size	P/N	UPC
N/A	RS-096-MK6	857640005946

PLENUM-RATED COMPONENT SPECIFICATIONS:

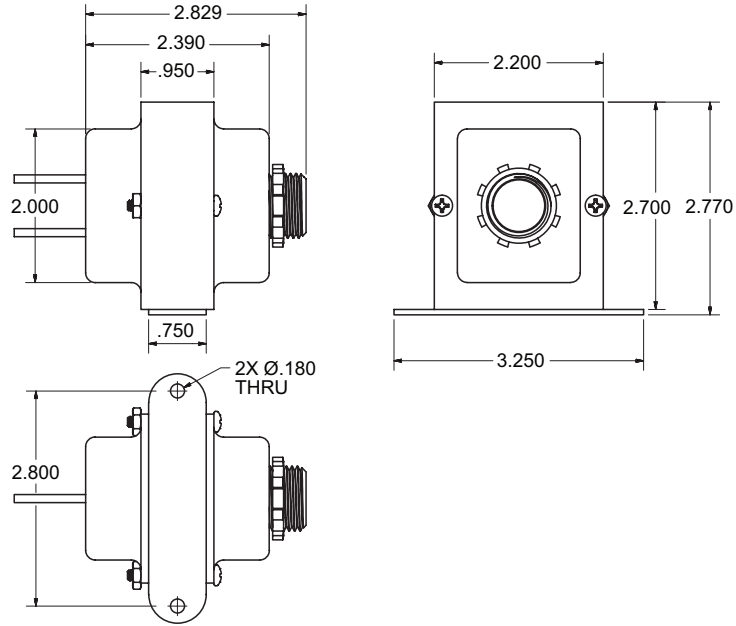
Step-Down Transformer

Voltage 120, 208 or 240V AC
to 24V AC

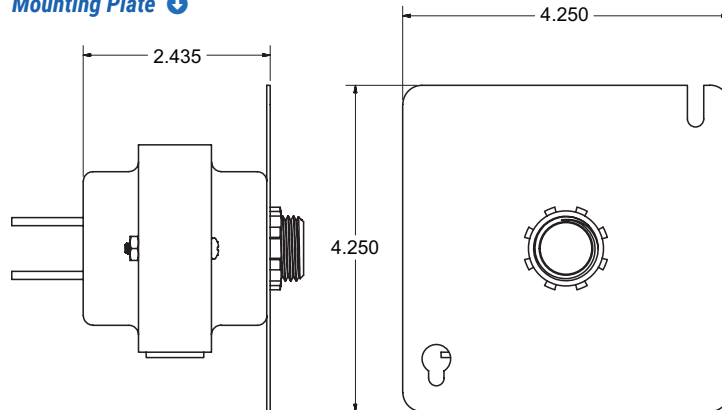
Transformer Cable..... 12'

PLENUM-RATED COMPONENT DIMENSIONS:

Step-Down Transformer



Mounting Plate



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