



# TECHNICAL SUBMITTAL DATA SHEET

## Plenum-Rated 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-MK6

#### TYPICAL INSTALLATIONS INCLUDE:

- Plenum-mounted water heaters and water tanks
- Installations requiring hard-wiring for electrical code

#### HIGHLY RECOMMENDED FOR:

- Commercial and municipal facilities
- Multi-residential complexes

#### FEATURES:

- Full port valve sizes 1/2" to 1-1/4" dia.
- 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
- 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
- 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

Metal Plate

Patent #6,035,699

#### APPLICATION CONSIDERATIONS:

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 often 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.

The RS-094-MK6 system is designed to prevent damage caused by an undetected plumbing leak from a plenum-mounted water heater or tank. The full port valve installs on the cold water inlet line to the tank, 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-MK6 features an integrated receiver box and actuator that install directly onto the shut-off valve for tidy system installation. The system is hard-wired through a step-down transformer (120, 208, 240 VAC to 24 VAC). 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. Dry contact connections (NO/C/NC) are included for fault notification to an existing security panel or BMS.



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

# RS-094-MK6 TECHNICAL SUBMITTAL DATA SHEET

## ORDERING INFORMATION:

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

## 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

### Step-Down Transformer

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

## 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-perf. engineered polymer

## CABLE LENGTHS:

Transformer Cable ..... 12'

Sensor Cable ..... 8' (custom lengths avail.)

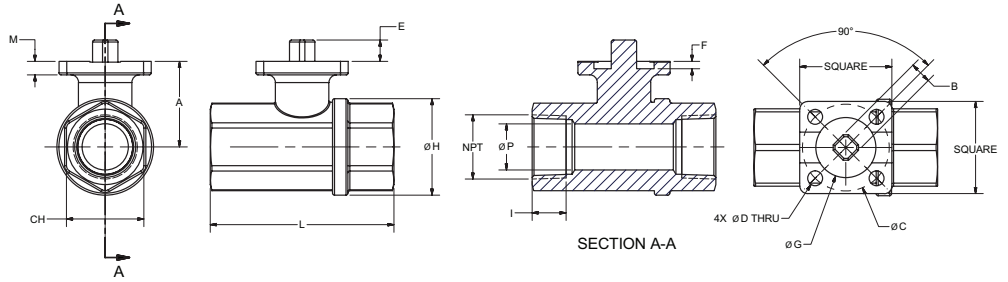
## APPROVALS:

NSF/ANSI 61 and 372 approved valve.

MA Board of Registration of Plumbers

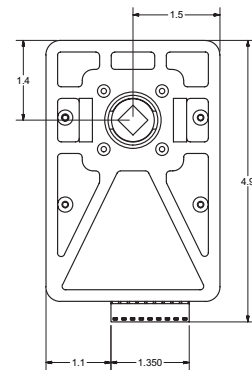
Approval – Code # P1-0515-489.

## DIMENSIONS: Shut-Off Valve



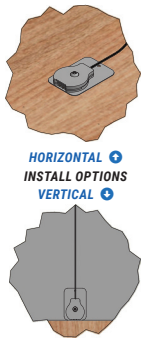
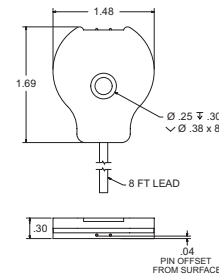
Size	Square	A	B	C	D	E	F	G	H	I	L	CH	M	P	CV	PSI	LBS	IN-LBS
1/2"	1.50	1.28	0.35	1.42 (ISO F03)	0.24	0.35	0.08	0.98	1.32	0.59	2.64	1.06	0.22	0.56	18.84	580	0.21	53.10
3/4"	1.50	1.36	0.35	1.42 (ISO F03)	0.24	0.35	0.08	0.98	1.57	0.64	2.99	1.26	0.22	0.75	34.10	580	0.40	53.10
1"	1.50	1.79	0.35	1.42 (ISO F03)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



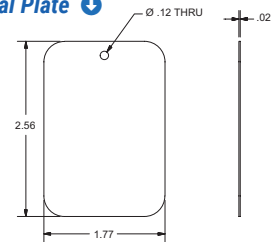
### Receiver Box / Actuator

### Water Sensor

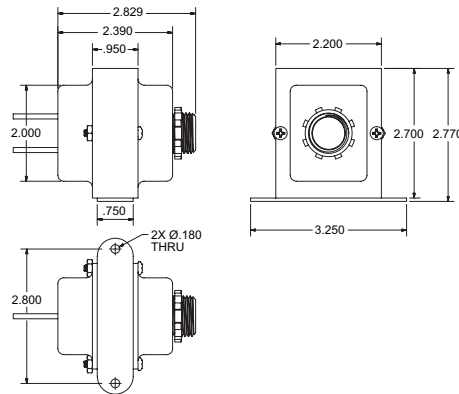


HORIZONTAL  
INSTALL OPTIONS  
VERTICAL

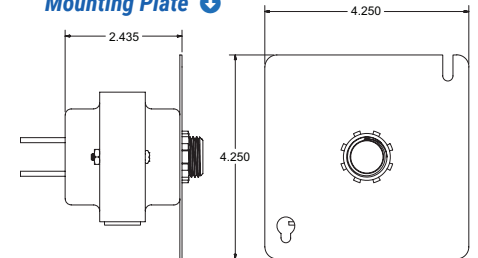
### Metal Plate



### Step-Down Transformer



### Mounting Plate



## AVAILABLE ACCESSORIES:

- **Wired Water Sensors** – Additional sensors can be wired to a single receiver box for a wider area of leak detection.

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

203-488-2684 or 888-771-4929  
info@RelianceDetection.com  
[www.Reliandetection.com](http://www.Reliandetection.com)