



NORTH 42 SALES
LEAK DETECTION SOLUTIONS

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-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).

* RS-094-MK5 and RS-094-MK7 kits are only available with a 3/4" valve.



For more information:

☎ 519-791-4943

✉ info@North42Sales.com

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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 Rating600 WOG - 150 WSP
 Max. Temperature.....366°F
 Max. PressureTested to 80 PSI

Receiver Box / Actuator

Transformer120V AC
 Voltage24V AC
 Absorbed Current0.6 A
 Absorbed Power15V A
 Frequency50/60 Hz
 Working Temp.0° to 100°F
 Square Drive0.43
 Audible Alarm83 dB

MATERIALS:

Valve BodyLow-lead
 brass End Connection ...Low-lead
 brass StemLow-lead
 brass BallLow-lead
 brass

(tea coated)

Ball SeatsPTFE
 O-RingsFKM (Viton®)

Receiver Box / Actuator & Sensor

BodyHigh-performance
 engineered polymer

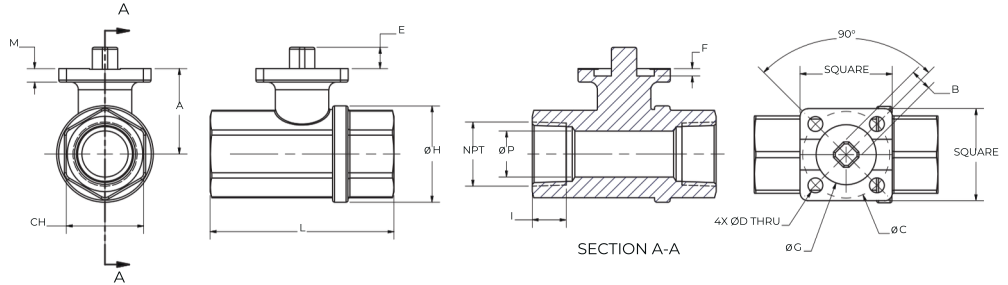
CABLE LENGTHS:

Power Cord12'
 Sensor Cable8' (custom lengths avail.)

APPROVALS:

NSF/ANSI 61 and 372 approved valve.
 MA Board of Registration of Plumbers
 Approval – Code # P1-0515-489.

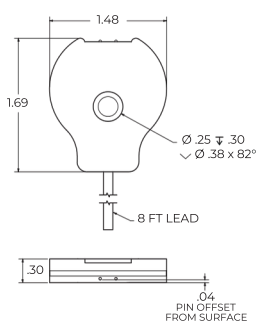
DIMENSIONS: Shut-Off Valve



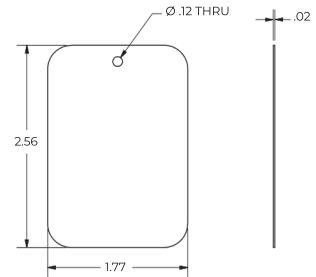
Size	Square	A	B	C	D	E	F	G	H	I	L	RSI 580	M.21	580	0.09	580	0.75	LBS	IN-LBS
1/2"	1.50	1.28	0.35	1.42 (ISO F03)	0.24	0.35	0.08	0.98	1.32	0.59	2.64	0.06	1.02	0.28	580	0.45			53.10
3/4"	1.50	1.36	0.35	1.42 (ISO F03)	0.24	0.35	0.08	0.98	1.57	0.64	2.99	1.26	0.22	0.75	34.10				53.10
1"	1.50	1.79	0.35	1.42 (ISO F03)	0.24	0.35	0.12	0.98	1.93	0.75	3.54	1.61	0.24	0.95	49.71				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								53.10

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

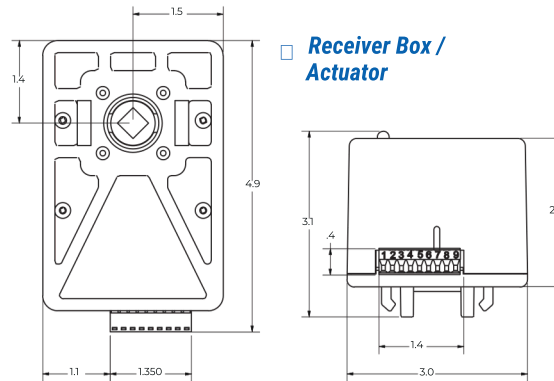
Water Sensor



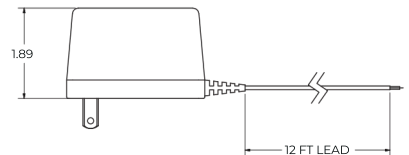
Metal Plate



Receiver Box / Actuator



Power Supply – 24V AC Wall Wart



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.

N42 recommends that installations be completed by a licensed plumber to ensure that all local code requirements are followed.