



TECHNICAL SUBMITTAL DATA SHEET

Leak Detection & Automatic Water Main Shut-Off System

Job Name: _____

Job Location: _____

Engineer: _____

Engineer Approval: _____

Contractor: _____

Contractor Approval: _____

Contractor P.O.: _____

Representative: _____

MODEL RS-080 with 2-1/2" to 4" Butterfly Valve

TYPICAL INSTALLATIONS INCLUDE:

- Common-risk housing – condos and apartments
- Commercial break rooms
- New and retrofit construction
- Mechanical rooms

HIGHLY RECOMMENDED FOR:

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

FEATURES:

- Butterfly valves available from 2-1/2" to 4" dia.; systems with ball valves also available from 3/4" to 2" dia.
- Reusable and testable
- Easy reset button
- Plugs into a standard 120V AC outlet
- Audible alarm (83 dB)
- Supports multiple water sensors for a wider area of leak detection
- N/O and N/C dry contacts
- Factory pre-wired

MODIFIED KIT CONFIGURATIONS:

RS-080-MK6 Plenum-Rated Kit –

Features plenum-rated wires and step-down transformer (120, 208, 240V AC to 24V AC) with mounting plate in lieu of standard wall wart. Ideal for any application that requires a valve installation on a supply line up in the plenum, with power and leak detection sensing in the work space below.

Power Supply

Receiver Box

NO/C/NC Dry Contacts

Water Sensor

Metal Plate



APPLICATION CONSIDERATIONS:

The RS-080 is designed for localized leak detection (one room, one floor, etc.). When a leak is detected, the unit will sound an alarm and automatically shut off the main water supply line, preventing extensive water damage.

INSTALLATION OVERVIEW:

The full-port shut-off valve installs on the main water supply line. The receiver box plugs into a standard 120V AC wall outlet. A magnetic sensor is placed in an area where water from a leak is likely to accumulate, mounted either horizontally or vertically using the included metal plate. Components come pre-wired.

Optional Cable Adder between the receiver and valve assembly allows the receiver to be located up to 100' from the valve (available in standard 10', 25', 50' and 100' lengths). Ideal for situations where the valve is located in hard to reach locations such as in risers, ceilings, crawl spaces, etc.

The system can be performance tested anytime; it is resettable via reset button on the receiver box. Optional dry contact connections (NO/C/NC) are available for fault notification to existing security panel or BMS.

Emergency manual operation of the valve is accomplished by turning the knob on the top of the actuator. In the event of a power failure, the valve will remain in position (either open or closed).

RS-080 with 2-1/2" to 4" Butterfly Valve TECHNICAL SUBMITTAL DATA SHEET

ORDERING INFORMATION:

Valve Size	P/N	UPC
2-1/2"	RS-080-2-1/2	857640005786
3"	RS-080-3	857640005793
4"	RS-080-4	857640005809

OPERATING SPECIFICATIONS:

Butterfly Valve

Pressure Rating250 PSI

Max. Temperature.....250°F

Electric Actuator

Voltage24V AC

Absorbed Current1.0 A

Absorbed Power24V A

Frequency50/60 Hz

Working Temp.-4° to 131°F

Receiver Box

Audible Alarm83 dB

MATERIALS:

Butterfly Valve

BodyDuctile Iron

Seat.....EPDM (-30° to 250°F)
Lug Style

Disc.....Nylon-Coated
Ductile Iron

Shafts.....416 Stainless Steel

Locating Pin.....Carbon Steel

BushingPTFE

O-Ring.....EPDM

MountingDirect Mount* (see note under Dimensions)

CABLE LENGTHS:

Power Cord12'

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


Valve Cable8' (adder lengths avail.)

APPROVALS:

NSF/ANSI 61 and 372 approved valve.

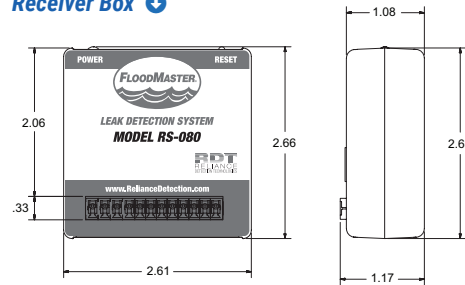
MA Board of Registration of Plumbers

Approval – Code # P3-0818-66.

 UL classified actuator.

DIMENSIONS & WEIGHTS:

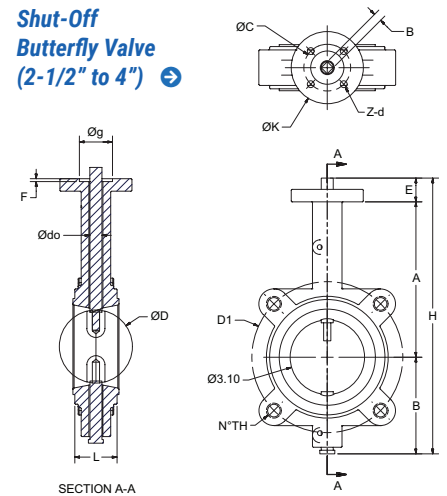
Receiver Box



Note: Butterfly valves require appropriate mounting flange and hardware (not included). Please see install manual for details.

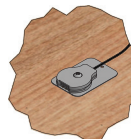
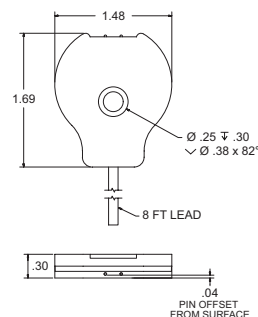
Recommended flange: 316/316L SS forged, threaded NPT-F, 150 lb. ANSI raised-face flange (raised surface on the back).

Shut-Off Butterfly Valve (2-1/2" to 4")



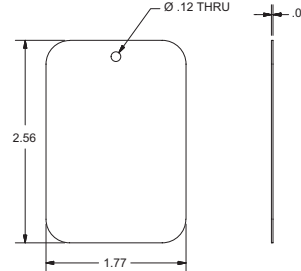
RS-080 Shut-Off Butterfly Valve Specifications: 2-1/2" through 4"																			
Size	C ISO	B1	A	B2	L	D	E	H	R	DO	K	Z-d	g	F	D1	N-TH	LBS	Seat Torque	CV (GPM @ 1 PSI)
2-1/2"	F05	9mm	6.89	3.50	1.76	2.54	0.47	15.04	10.63	0.50	3.03	4-0.28	1.38	0.12	5.49	4-5/8"-11	9.3	134	167
3"	F05	9mm	7.13	3.74	1.78	3.10	0.47	15.51	10.63	0.50	3.03	4-0.28	1.38	0.12	6.00	4-5/8"-11	10.4	205	223
4"	F07	11mm	7.87	4.49	2.05	4.09	0.63	17.00	10.63	0.62	3.54	4-0.35	2.17	0.12	7.50	8-5/8"-11	19.8	339	386

Water Sensor

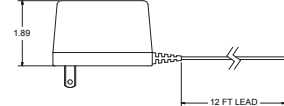


HORIZONTAL
INSTALL OPTIONS
VERTICAL

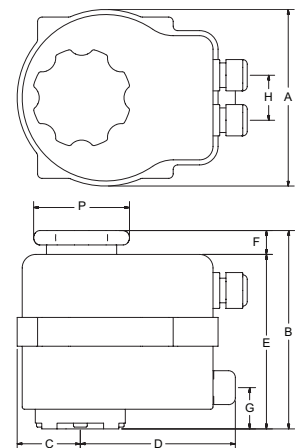
Metal Plate



Power Supply (24V AC Wall Wart)



Actuator



RS-080 Electric Actuator Specifications											
Size	Drilling ISO 5211	A	B	C	D	E	F	G	H	I	P
2-1/2", 3", 4"	F03-F05	6.18	7.40	2.38	5.12	5.75	1.65	1.30	1.42	0.47	2.68

AVAILABLE ACCESSORIES:

- **Wired Water Sensors** – Additional sensors can be wired to a single RS-080 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-080 identifies a fault condition.
- **Cable Adder** – Allows for positioning of the receiver box up to 100' further from the valve.

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



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