



# 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-MK6 with 2-1/2" to 4" Butterfly Valve

#### TYPICAL INSTALLATIONS INCLUDE:

- Applications requiring a valve installation in the plenum, with power and leak detection sensing in the work space below (such as commercial break rooms)
- Plenum-mounted water heaters requiring an oversized shut-off valve
- Installations requiring hard-wiring for electrical code

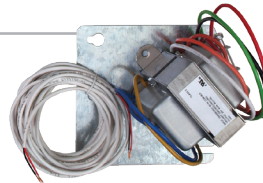
#### HIGHLY RECOMMENDED FOR:

- Multi-residential complexes
- Commercial office buildings

#### FEATURES:

- Butterfly valves available from 2-1/2" to 4" dia.; systems with ball valves also available from 3/4" to 2" dia.
- Plenum-rated wires for the water sensor, power supply and valve cable connections (as applicable)
- Step-down transformer (120, 208, 240V AC to 24V AC) with mounting plate in lieu of standard wall wart
- Reusable and testable; easy reset button
- Audible alarm (83 dB)
- Supports multiple water sensors for a wider area of leak detection
- N/O and N/C dry contacts
- Pre-wired with basic connections to the power transformer and the sensor

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



Receiver Box



NO/C/NC Dry Contacts

Water Sensor



Metal Plate



#### 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-080-MK6 is designed for localized leak detection (one room, one floor, etc.) with a valve located in a plenum space. 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 is powered by a hard-wired step-down transformer (120, 208, 240V AC to 24V AC). 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 prewired. Optional Cable Adder between the receiver and valve assembly allows the receiver to be located up to 100' from a valve located in a hard-to-reach location.

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.

# RS-080-MK6 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-MK6	857640005915
3"	RS-080-3-MK6	857640005922
4"	RS-080-4-MK6	857640005939

## OPERATING SPECIFICATIONS:

### Butterfly Valve

Pressure Rating ..... 250 PSI  
 Max. Temperature ..... 250°F

### Electric Actuator

Voltage ..... 24V AC  
 Absorbed Current ..... 1.0 A  
 Absorbed Power ..... 24V A  
 Frequency ..... 50/60 Hz  
 Working Temp. .... -4° to 131°F

### Receiver Box

Audible Alarm ..... 83 dB

### Step-Down Transformer

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

## MATERIALS:

### Butterfly Valve


Body ..... Ductile Iron  
 Seat ..... EPDM (-30° to 250°F) Lug Style  
 Disc ..... Nylon-Coated Ductile Iron  
 Shafts ..... 416 Stainless Steel  
 Locating Pin ..... Carbon Steel  
 Bushing ..... PTFE  
 O-Ring ..... EPDM  
 Mounting ..... Direct Mount\* (see note under Dimensions)

## CABLE LENGTHS:

Transformer Cable ..... 12'  
 Sensor Cable ..... 8' (custom lengths avail.)  
 Valve Cable ..... 12'

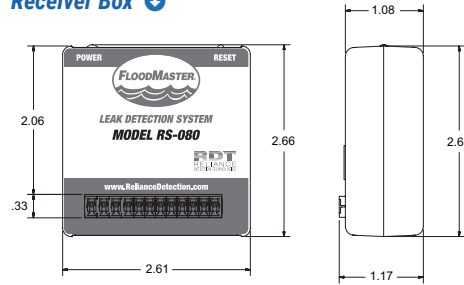
## APPROVALS:

NSF/ANSI 61 and 372 approved valve.  
 MA Board of Registration of Plumbers  
 Approval – Code # P3-0818-66.

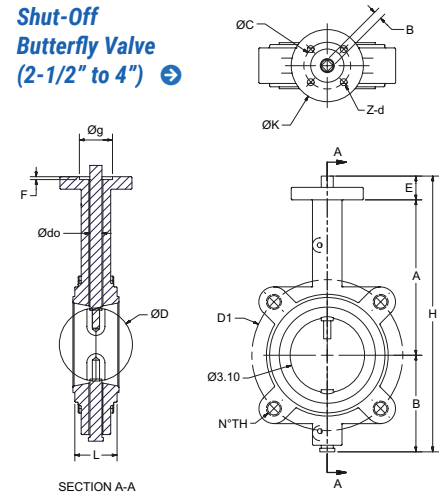
 UL classified actuator.

## DIMENSIONS & WEIGHTS:

### Receiver Box



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



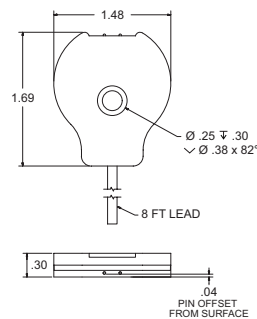
Note: Butterfly valves require appropriate mounting flange and hardware (not included). Please see install manual for details.

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

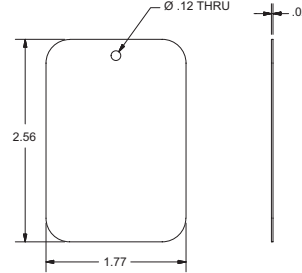
### RS-080-MK6 Shut-Off Butterfly Valve Specifications: 2-1/2" through 4"

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)	
																		100 PSI	200 PSI	50% OP	100% OP	50% OP	100% OP
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	65	220		
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	70	300		
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	140	605		

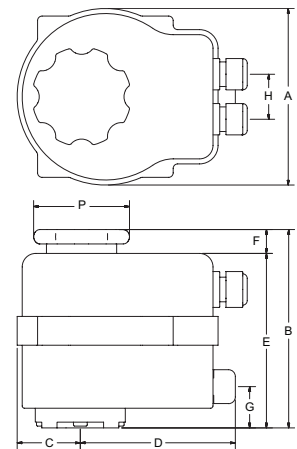
### Water Sensor



### Metal Plate



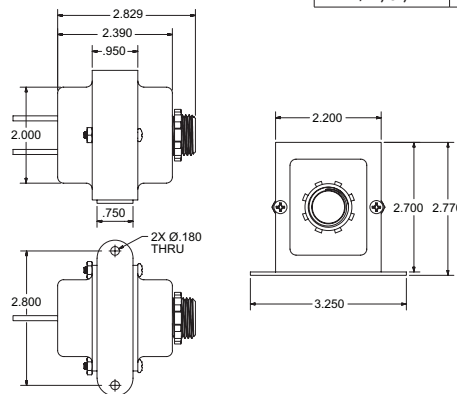
### Actuator



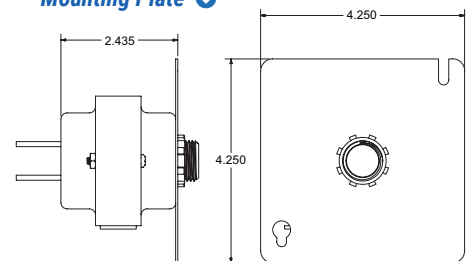
### RS-080-MK6 Electric Actuator Specifications

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

### Step-Down Transformer



### Mounting Plate



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.RelianceDetection.com](http://www.RelianceDetection.com)