TECHNICAL SUBMITTAL DATA SHEET
Wireless, App-Based Flow Monitoring & Automatic Water Shut-Off System

RDT ™
RELIANCE
DETECTION TECHNOLOGIES

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

MODEL RSC-900-F

TYPICAL INSTALLATIONS INCLUDE:

• Common-risk housing – condos and apartments
• Commercial office suites
• New and retrofit construction
• Vacation homes and unattended properties

HIGHLY RECOMMENDED FOR:

• Multi-unit residential complexes
• Commercial office buildings
• Medical and assisted living facilities
• Any facility with a history of insurance claims for water damage

FEATURES:

• Mobile app provides automatic notifications and remote user interface
• Automatic water shut-off (optional)
• 1" self-cleaning full port valve
• Supports multiple flow actuator assemblies (i.e. both hot and cold water lines)
• IP68-rated actuator for indoor/outdoor use
• Operates via wireless system network
• App supports creation of multiple "Zones" to monitor/control designated areas or plumbing subsections within a single system
• Point-of-contact wireless water sensors can be added to system
• Hub supports up to 64 total wireless devices; max. 4 wireless signal repeaters
• Optional cloud-based Central Monitoring for multiple system viewing from one screen – great for commercial multi-unit applications

Communications Hub *(Ethernet model shown)*
Flow-Enabled Actuator
RSC-900 Mobile App
Water Flow Sensor
1" Shut-Off Valve

APPLICATION CONSIDERATIONS:

The RSC-900 Flow is a complete wireless, app-based system for monitoring indoor plumbing flow rates on 1" lines and alerting when abnormal usage is detected. Ideal system for those looking to mitigate water damage from an undetected leak, or to simply promote water conservation. Excessive water usage triggers can include a plumbing leak, a dripping faucet or a malfunctioning toilet flap. Select from pre-set flow rates (Low, Medium or High) or set custom flow levels. When abnormal flow is detected, the system will send a push notification to the app, including device location, alarm type and valve status. Water consumption usage by individual sensor is captured and charted within the app – view water consumption trends at the Daily, Weekly or Monthly* level. The flow sensor connects to a standard 1" valve body and communicates with the wireless network through the flow-enabled actuator. The 1" shut-off valve can be programmed via the app to turn off the water flow automatically in the event excessive usage is detected. All fault notifications and status check-ins are communicated through the app from any Internet-enable device. This system also supports point-of-contact water sensors where redundancy is required.

* This device is not intended to replace water meters. It is a tool to manage and reduce unnecessary water consumption.

INSTALLATION OVERVIEW:

Hub: Choose between Wi-Fi or Ethernet connectivity.

Flow-Enabled Actuator & 1" Valve Body Assembly: Install the 1" valve within 200' of the hub**, on the desired water feed line. Mount the flow-enabled actuator to the valve mounting pad.

Flow Sensor: Install upstream of the 1" valve body and flow actuator. Connect the flow sensor to the actuator with provided cable.

** Repeater(s) may be used to extend range between hub and accessory (+200' max.).

App: Free download available for iOS or Android smart phones at the App Store or Google Play. Required for initial system installation and set-up.

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RSC-900-F TECHNICAL SUBMITTAL DATA SHEET

ORDERING INFORMATION:

Valve	Hub	P/N	UPC
1"	Eth.	RSC-900-F-1	811475030757
1"	WiFi	RSC-900-F-WIFI-1	811475030740

OPERATING SPECIFICATIONS:

See charts at right for further detail.

Valve

Pressure Rating ....600 WOG - 150 WSP
Max. Temperature...........366°F

Flow Sensor

Flow Range ....1 - 60 l/min.
Accuracy........................± 1% of range
       ± 1% of reading
Medium Temperature......32° - 194°F (0° - 90°C)
       (non-freezing)
Ambient Temperature .....32° - 158°F (0° - 70°C)
Pressure Rating ....PN 16
Nominal Diameter...........DN 20
Sensor ....Hall effect sensor
Pressure Drop ....0.33 bar
       (at Q = 60 l/min.)

MATERIALS:

Valve

Body, Stem, End Connection.... Low-lead brass

Flow Sensor

Pipe Section........................... Brass CW617N

CABLE LENGTHS:

Hub Power Cord ..... 5'
Ethernet Cable........ 4' (Ethernet hub models)

APPROVALS:

Certifications:	FCC	IC
Hub	2AFOICLMCTRL10	20798-CLMCTRL10
Actuator	2AFOICLMASOU20	20798-CLMASOU20

RSC-900 Wireless System FCC & Industry Canada Info

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
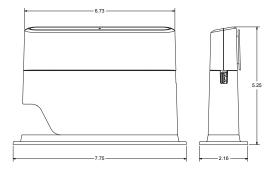
Communication Hub: IP Rating IEC60529

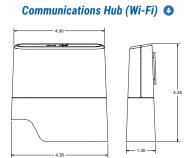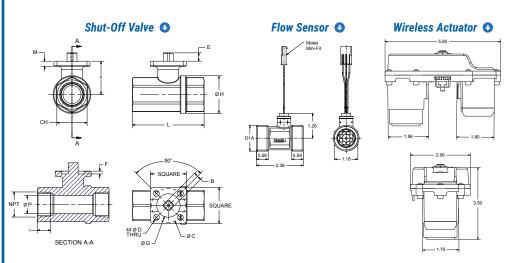Valve/Actuator: IP Rating IEC60529; IP68; ANSI 61/372 (Valve)

Flow Sensor: ANSI 61/372

Mass. Board of Registration of Plumbers
(The various approval numbers are available from the Manufacturer upon request.)

DIMENSIONS & WEIGHTS:

Communications Hub (Ethernet) ⬇

Communications Hub (Wi-Fi) ⬇

Shut-Off Valve ⬇

Flow Sensor ⬇

Wireless Actuator ⬇

RSC-900 Shut-Off Valve Specifications

Size	Square	A	B	ØC	ØD	E	F	ØG	ØH	I	L	CH	M	ØP	CV	PSI	LBS	IN-LBS
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	600	1.10	53.10

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

RSC-900 Wireless Component Specifications

Component	Weight*	Power Supply	Backup Battery	Primary Radio Frequency	Operating Temperature	Communication	Signal Range	Addressable?
Communication Hub	≤ 6 oz (170 gm)	External Adapter Input 110-240V AC	(2) AA batteries	915 MHz	-4°F to 122°F (-20°C to 50°C)	Wi-Fi or Ethernet	200'	Yes
Wireless Actuator (IP68)	13 oz (369 gm)	(4) CR123A batteries 2-year life	N/A	915 MHz	-4°F to 122°F (-20°C to 50°C)	Wireless RF	200'	Yes

* Weight without accessories attached. Hub weight is model dependent.

AVAILABLE ACCESSORIES:

- **Wireless Signal Repeater (RSC-900-X-200)** – Max. 4 per system
- **Extra Wireless Flow Actuator with Flow Sensor & Valve (RSC-900-F-310-1)**
- **Point-of-Contact Wireless Water Flood Sensor (RSC-900-W-001)**
- **Wireless Rope-Style Water Sensor (RSC-900-W-175)**

⚠ *Hub and sensors are for interior use only. Actuator is IP68 rated for indoor or outdoor use. Do not install any components inside a metal cabinet.*

RDT recommends that RSC-900-F installations be completed by a licensed plumber to ensure that all local code requirements are followed.

All specifications are subject to change without notice.