NEW

The ESP-LX Basic Controller offers simple irrigation programming options you need for commercial sites. The simple dial makes programming the controller straightforward, and easy-to-understand menu options guide you through set-up. The ESP-LX Basic is the first controller to offer both English and Spanish on one dial.

With 48-station capacity, four independent programs, and up to eight start times for each program, the ESP-LX Basic offers flexible scheduling options.

Water Saving Tips

- A Seasonal Adjust feature is available on all Rain Bird AC-powered controllers, allowing users to easily adjust irrigation schedules to changing seasonal landscape water requirements. The ESP-LX Series Controllers also feature an automated Monthly Seasonal Adjust feature to help save water through automatic adjustments every month of the year.

- Water savings can also be optimized through daily irrigation schedule adjustments which fine-tune watering based on current weather. All ESP-LX series controllers can easily be upgraded to include smart weather-based/ET or soil moisture irrigation control capability by adding the Rain Bird ET Manager Cartridge or a local rain sensor or soil moisture sensor.

- All Rain Bird controllers simplify conservation through a variety of flexible programming features. With the touch of a button, the ESP-Me can recall a previously saved "Contractor Default" irrigation program; the ESP-LX Series "Delayed Recall" feature automatically reverts to typical watering programs after a user-set time period.

Sidebar tabs: Introduction | Spray Bodies | Spray Nozzles | Rotors | Valves | Controllers | Central Controls | Landscape Drip | Pumps & Filtration | Drainage Products | Resources

Major Products	ESP-TM2 (WiFi Ready)	ESP-Me (WiFi Ready)	ESP-SMTe	ESP-LX BASIC	ESP-LXME ESP-LXMEF	ESP-LXD	TBOS II™
Primary Applications							
Residential	●	●	●				●
Light Commercial	●	●	●	●	●	●	●
Commercial/Industrial				●	●	●	●
Type of Controller							
Hybrid	●	●	●	●	●	●	
Solid State						●	
Battery Operated							●
Indoor Location	●	●	●	●	●	●	
Outdoor Location	●	●	●	●	●	●	
Features							
Stations (up to)	12	22	22	48	48	200	6
Programs (up to)	3	4	22	4	4	4	3
Station Timing (up to)	6 hr[1]	6 hr[1]	weather-based	12 hr[1]	12 hr[1]	12 hr[1]	12 hr
Number of Starts per Program (up to)	4	6	N/A	8	8	8	8
Surge protection	●	●	●	●	●	●	
230VAC Option		●		●	●	●	
Master Valve/Pump Start	●	●	●	●[2]	●[2]	●[2]	
Water Budgeting	●	●	●	●[4]	●[4]	●[4]	
Individual Program/Zone Shut-Off	●	●	●	●	●	●	
Rain Delay	●	●	●	●	●	●	
Battery Programmable	●	●	●	●	●	●	●
Sensor Terminals, Status Indicator and Override	●	●	●	●	●	●	
Delay Between Stations (up to)	9 hrs	9 hrs	9 hrs	0 - 10 min.	0 - 10 min.	0 - 10 min.	
Flow Sensing					●[5]	●	
Simultaneous Multi-Station Operation				●	●	●	●
Cycle + Soak™			●	●	●	●	
Overlapping Programs				●	●	●	
Manual On/Off	●	●	●	●	●	●	●
Remote Control Compatible	●	●	●	●	●	●	
Diagnostic Test			●	●	●	●	
Diagnostic Valve Circuit Breaker	●	●	●	●	●	●	
Out-of-Valve Box Programming							●
Submersible (up to)							3.3 ft (1 m)
Vandal/Tamper Resistant							●
Self-Cleaning Solenoid							●
Low Battery Indicator							●
Save / Restore Programs	●	●	●	●	●	●	●
Master Valve ON/OFF by Station	●	●	●	●	●	●	●
Total Run Time Calculator by Program	●	●		●	●	●	●
Bypass Rain Sensor by Station	●	●	●	●	●	●	
Programming Schedule							
7 Day-of-Week	●	●	●	●	●	●	●
1-7 Variable Cycle	●	●	●	●	●	●	●
1-31 Variable Cycle	●	●	●	●	●	●	●
Odd/Even Cycle	●	●	●	●	●	●	●
Odd 31st	●	●	●	●	●	●	●
365-Day Calendar	●	●	●	●	●	●	
Event Day Off			●	●	●	●	
Central Control Compatibility							
IQ™ Upgradeable					●	●	
Cabinet							
Plastic-Indoor	●	●	●				
Plastic-Outdoor	●	●	●	●	●	●	●
Powder-Coated Metal Outdoor				●	●	●	
Stainless Steel Pedestal				●	●	●	
Powder-Coated Metal Pedestal				●	●	●	
Hardware/Accessories							
Two-Wire Decoders and Accessories						●	
Rain Sensing (need Rain Sensor)	●	●		●	●	●	●
Flow Sensing (need Flow Sensor)					ESP-LXMEF only	●	
SMRT-Y Soil Moisture Sensor	●	●	●	●			

[1] With water budgeting, timing can be extended　[2] Programmable by station　[3] 6 independent start times per zone　[4] Selectable for each program and by month　[5] With Flow Smart Module

The Intelligent Use of Water.™

Controllers

LNK WiFi Module

NEW

Irrigation System Control from Anywhere

Features

- Upgrades WiFi-ready controllers (ESP-Me and ESP-TM2) to make them fully accessible and programmable from iOS or Android compatible devices*

- Operates like a wireless remote control for your irrigation system while onsite or an internet-based monitoring and control system when offsite

- Streamlines and simplifies initial irrigation timer setup and seasonal adjustment

- Instant access allows for real-time system management and timer settings

- Compatible professional app features allow for simple multi-site management and as well as remote diagnostics by landscape professionals

- Built-in mobile notifications provide troubleshooting access, simplify service calls, and warn of freezing conditions when expected

- Automatic weather adjustments provide daily run time changes, saving up to 50% in water

- Superior programming capabilities that are designed to meet the most stringent water restrictions

Specifications

- 2.4 GHz (only) WiFi router compatible with WEP and WPA security settings

- Compatible with iOS 8.0 and Android 4.4 (KitKat) or later mobile devices*

- Operating Temperature: 14° F (-10° C) to 149°F (65°C)

- Storage Temperature: -40°F (-40°C) to 150°F (66°C)

- Operating Humidity: 95% max @ 50°F to 120°F (10°C to 49°C) non-condensing environment

Electrical Specifications

- Input: 24VAC(RMS) 50/60Hz; 55mA max

Certifications

- UL, cUL, CE, CSA, FCC Part 15b, WEEE, S-Mark, IP30, IFETEL

Dimensions

- Width: 1.13" (2,87 cm)
- Height: 1.83" (4,65 cm)
- Depth: 0.48" (1,22 cm)

Models

- LNKWIFI

LNK WiFi Module

Upgrades Rain Bird ESP-Me and ESP-TM2 Controllers

Controllers

ESP-TM2 Series Controller

NEW **WiFi Ready**

Simple, Flexible, and Reliable for Residential Applications

Features

• Upgradeable for WiFi-based remote monitoring and control via iOS and Android mobile devices (with LNK WiFi Module sold separately).

• Internet-based weather information can be used to make daily adjustments to the irrigation schedule, saving up to 30% in water (with LNK WiFi Module sold separately).

• 4, 6, 8, and 12 station models to meet small or large residential irrigation needs

• Set Permanent Days Off per program to ensure watering never occurs on days when maintenance crews are on site (for Odd/Even/ Cyclic schedules)

• Easy to install indoors or outdoors with pre-installed 6' power cord

• Quick programming in just 3 steps for ease of setup

• 3 available programs with up to 4 start times for each program to meet the needs of varied landscapes

• One-touch manual watering capability for ease of use

• Large back-lit LCD display for improved visibility in low-light and direct sun conditions

• Contractor Default™ allows you to easily save and restore your custom schedule

• Delay Watering up to 14 days and automatically resume watering after the set delay has elapsed

• Bypass Rain Sensor for any station gives you the ability to customize which stations react to a rain sensor

• Seasonal Adjust by program allows you to easily reduce or increase watering by program

Specifications

• Operating Temperature: Up to 149°F (65°C)

• Storage Temperature: -40°F (-40°C) to 150°F (66°C)

• Operating Humidity: 95% max @ 50°F to 120°F (10°C to 49°C) non-condensing environment

Electrical Specifications

• Input required: 120VAC (±10%) @ 60Hz

• Output: 1A at 24VAC

• Master Valve/Pump Start Relay

• External battery back-up not required. Nonvolatile memory permanently saves the current programming and a 10 year life lithium battery maintains the controllers time and date during power outages

Certifications

• UL, cUL, FCC Part 15b, IP24

Dimensions

• Width: 7.92 in. (20,1 cm)

• Height: 7.86 in. (20,0 cm)

• Depth: 3.51 in. (9,0 cm)

Models

• TM2-4-120V: 4-station 120VAC

• TM2-6-120V: 6-station 120VAC

• TM2-8-120V: 8-station 120VAC

• TM2-12-120V: 12-station 120VAC

Optional Accessories

• LNKWIFI: LNK WiFi Module for remote control and notification via iOS or Android device

• WR2 Series Wireless Rain / Freeze Sensors

• RSD Series Rain Sensors

ESP-TM2

The Intelligent Use of Water.™

Controllers

ESP-Me Series Controllers

WiFi
Ready

The industry's most flexible irrigation controller solution.
Supports up to 22 stations

Features

- Large LCD display with easy to navigate user interface
- Rain Sensor input with override capability
- Master valve/pump start circuit
- Non-Volatile (100 year) storage memory
- Remotely Programmable under 9V battery power (not included)
- Program based scheduling allows 4 individual programs with 6 independent start times per program for 24 total start times
- Watering schedule options: By days of week, ODD calendar days, EVEN calendar days, or Cyclic (every 1 – 30 days) Advanced Features
- Advanced diagnostics and short detection with LED alert
- Contractor Default™ Program Save/Restore saved program(s)
- Rain Sensor bypass by Station
- Total Run Time Calculator by program
- One Touch manual watering
- Delay Watering up to 14 days (applies only to stations not set to ignore Rain Sensor)
- Manual Watering option by program or station
- Seasonal Adjust applied to all programs or individual program
- Adjustable delay between valves (default set to 0)
- Master Valve on/off by station
- Upgradeable for WiFi-based remote monitoring and control via iOS and Android mobile devices (with LNK WiFi Module sold separately).
- Internet-based weather information can be used to make daily adjustments to the irrigation schedule, saving up to 30% in water (with LNK WiFi Module sold separately).

Operating Specifications

- Station timing: 1 minute to 6 hours
- Seasonal Adjust: 5% to 200%
- Max operating temperature: 149°F (65°C)

Electrical Specifications

- Input Required: 120VAC ± 10%, 60Hz (International models: 230/240VAC ± 10%, 50/60Hz)
- Master Valve/Pump Start Relay
- Operating Voltage: 24VAC 50/60Hz
- Max Coil Inrush: 11VA
- Max Coil Holding: 5VA
  - Idle/Off power draw 0.06 amps at 120VAC
- Power back-up not required. Nonvolatile memory permanently saves the current programming and a 10 year life lithium battery maintains the controllers time and date during power outages.

Certifications

- UL, cUL, CE, CSA, C-Tick, FCC Part 15b, WEEE, S-Mark, IP24

Dimensions

- Width: 10.7" (27.2 cm)
- Height: 7.7" (19.5 cm)
- Depth: 4.4" (11.2 cm)

North America Models (120VAC)

- Controller Base Models
  - ESP4MEI: 4 station indoor model
  - ESP4ME: 4 station outdoor model*
- Modules
  - ESPSM3: 3 station module
  - ESPSM6: 6 station module (compatible with ESP-Me Series controllers only)

Accessories

- LNKWIFI: LNK WiFi Module for remote control and notification via iOS or Android device
- RSD-BEx / RSD-CEx: Wired Rain Sensor
- WR2: Wireless Rain + Freeze Sensors
- PIGTAIL: UL approved pig tail

Also available in 230VAC and 240VAC models

Controllers

**ESP-Me Series Controller
and Modules**

ESP-SMTe Smart Modular Control System

4 to 22 Station Indoor or Outdoor Smart Modular
Control System for Residential and Light Commercial Use

Features

• English/Spanish Button easily switches the display text between languages
• Weather Sensor sends rainfall and temperature data to the controller
• Large LCD display with easy to use interface
• Non-Volatile (100- year) program memory
• Remotely Programmable under 9V battery power (not included)
• Programming tutorial assures efficient and accurate scheduling
• Watering occurs only as needed and can be restricted to selected days of the week, odd or even calendar days or at set intervals (cyclic)
• Grow-in watering option allows a time based schedule for new plants for a programmed period of time
• Cycle+Soak™ feature for each zone prevents runoff based on soil type, precipitation rate and landscape slope
• Any zone can be switched to Time Based programming (for example, to operate a pond pump)
• Copy Zone to Zone feature allows the contractor to copy a zone program from one zone to another
• Event Days Off allows you to select up to four specific dates to block watering
• Rainfall Shutdown suspends all irrigation if the measured rainfall exceeds a user set threshold
• Cold Weather Shutdown suspends all irrigation to prevent potential freeze damage
• Contractor Default™ allows the controller zone settings to be saved/restored
• Next Irrigation Estimate shows an estimated schedule up to three weeks in advance
• Weather Log holds historical weather data for 30 days
• Event Log by date or by zone
• Manual Watering allows immediate watering of a selected zone or all zones
• Enable or disable Master Valve by zone
• Advanced diagnostics and short circuit detection

Operating Specifications

• 2 Watering Windows per zone
• Fine Tune watering adjustment -60% to +60% by zone
• Programmable delay between zones (default set to 3 seconds)

Electrical Specification

• Input Required: 120VAC +/- 10%, 60 Hz
• Output: 25.5VAC 1A
• IP 24

• Valve/solenoid capacity (two 24VAC, 7VA solenoids plus a master valve)
• Nonvolatile memory saves programming
• 10 year life lithium battery maintains the controller's time and date
• Master Valve/Pump Start Relay:
  - Operating Voltage: 24VAC 50/60Hz
  - Max Coil Inrush: 11VA
  - Max Coil Holding: 5VA
• Idle/Off power draw 0.06 amps at 120VAC
• Certifications
  - WaterSense approved, meets EPA criteria for high-performing, water efficient products.
  - UL, cUL, FCC Part 15b

Dimensions

• Width: 10.7 in. (27.2 cm)
• Height: 7.7 in. (19.5 cm)
• Depth: 4.4 in. (11.2 cm)
• Mounting Bracket
  - Maximum reach: 7.0" (17.8 cm)

Models

• Control System Base Models *(includes ESP-SMTe controller & weather sensor)*
  - ESP4SMTEi – 4 station indoor* - 120V
  - ESP4SMTE – 4 station outdoor* -120V
• Upgrade Model *(includes ESP-SMTe controller panel & weather sensor)*
  - ESPSMTEUPG – Kit to Upgrade existing ESP-Modular or ESP-Me Controllers**
• Modules
  - ESPSM3 – 3-station expansion module
  - ESPSM6 - 6 station expansion module

  * To expand up to 22 stations, use ESPSM3 or ESPSM6 modules – Station Expansion Modules
  ** Applies to ESP-M controllers manufactured after April, 2005

  Note: *All ESP-SMTe models come with a heavy-duty adjustable bracket and 25 feet of 18-2 UV-rated non-burial wire for connection between the controller panel and the weather sensor pod. Up to 200 feet of appropriate wire may be spliced to extend range.*

ESP-SMTe Smart Modular Control System

ESP-LX Basic Controller

NEW

The easiest to use commercial controller

Features

- Two Languages, One Dial: English and Spanish are both on one simple dial making it easy to install and maintain
- Larger Station Count compared to competitive commercial controllers. The ESP-LX Basic base model has 12 stations and has capacity for 48 stations using 12-station modules
- Flexible features and modular options make the controller ideal for a wide variety of applications including large residential, light commercial, and large commercial irrigation systems
- ESP = Extra-Simple Programming user interface and large LCD display with softkey text labels
- Simple, Three-Step Programming can be done using minimal dial positions. Additional programming options can be accessed through the Basic Setup and Station Timing dial positions
- Water Management Features: SimulStations™ (Operate two stations simultaneously), Cycle+Soak™, Station Delay, Seasonal Adjust, Sensor & Master Valve Programmable by Station
- Contractor Default™ allows the user to create a customized default program that can be automatically recalled up to 90 days in the future. This allows a temporary schedule to be created for new seed or a fast fix
- Enhanced Diagnostic Feedback™ with RASTER™ Wiring Test with external alarm light and on-screen messaging alert the user of conditions that may disrupt controller operation
- ESP-LX Basic is not compatible with IQ NCC Cartridges

Electrical Specifications

- Power Supply Voltage: 120 VAC ± 10%, 60Hz
- Output: 26.5 VAC 1.9A
- Power back-up: Lithium coin-cell battery maintains time and date while nonvolatile memory maintains the programming
- Multi-valve capacity: Maximum two 24 VAC, 7VA solenoid valve simultaneous operation including master valve

Certifications

- UL, cUL, CE, CSA, C-Tick, FCC Part 15

Controller Hardware

- Plastic, locking, UV resistant, wall-mount case
- Optional Metal/Stainless Steel Case & Pedestal
- 12-station base unit expandable to 48 stations with 12-Station Modules

Dimensions

- Width: 14.32 in. (36.4 cm)
- Height: 12.69 in. (32.2 cm)
- Depth: 5.50 in. (14.0 cm)

Models

- ESPLXBASIC: ESP-LX Basic 12 Station Controller, 120VAC
- ESPLXBFP: ESP-LX Basic Controller Front Panel
- LXBASEMOD: ESP-LX Series Base Module for LX Basic and non flow LXME
- ESPLXMSM8: 8-Station Module for ESP-LXME/F and ESP-LX Basic Controller
- ESPLXMSM12: 12-Station Module for ESP-LXME/F and ESP-LX Basic Controller

Optional Accessories

- Painted Metal and Stainless Steel Pedestal/Enclosure Options available (see page 94)

For more information call the ESP-LX Hotline: 1-866-544-1406

Note: The ESP-LX Basic is not compatible with IQ NCC Communication Cartridges

Controllers

ESP-LX Basic Controller

ESP-LXME/F Controllers

Modular - Easily expandable from 8 or 12 stations
up to 48 stations with 8- and 12-station modules

Features

- Hot-swappable modules, no need to power down the controller to add/remove modules
- 8- or 12-stations base unit expandable to 48 stations with 8- and 12-Station Modules
- Flow Smart Module™ factory installed (ESP-LXMEF) or field upgradable (ESP-LXME)
- Dynamic station numbering eliminates station numbering gaps
- Master valve/pump start circuit
- Weather Sensor input with override switch
- 6 user-selectable languages
- Standard 10kV surge protection
- Non-Volatile (100-year) program memory
- Front panel is removable and programmable under battery power
- Compatible with Rain Bird Landscape Irrigation and Maintenance Remote
- Plastic, locking, UV resistant, wall-mount case , Optional Metal and Stainless Steel Case & Pedestal

Water Management Features

- Optional Flow Smart Module™ with Learn Flow utility and flow usage totalizer — standard on ESP-LXMEF
- FloWatch™ protection for high and low flow conditions with user defined reactions (requires flow sensor)
- FloManager™ manages hydraulic demand, making full use of available water to shorten total watering time
- SimulStations™ are programmable to allow up to 5 stations to operate at the same time
- Station sequencing by station numbers or station priorities
- Water Windows by program plus Manual MV Water Window
- Cycle+Soak™ by station
- Rain Delay
- 365-Day Calendar Day Off
- Programmable Station Delay by program
- Normally Open or Closed Master Valve programmable by station
- Weather Sensor programmable by station to prevent or pause watering
- Program Seasonal Adjust
- Global Monthly Seasonal Adjust

Operating Specifications

- Station run times: 0 min to 12 hrs
- Seasonal Adjust; 0% to 300% (16 hrs maximum station run time)
- 4 independent programs (ABCD)
- ABCD programs can overlap
- 8 start times per program
- Program Day Cycles include Custom days of the week, Odd, Odd31, Even, & Cyclical dates
- Manual station, program, test program

Electrical Specifications

- Power Supply Voltage: 120 VAC ± 10%, 60Hz (International models: 230 VAC ± 10%, 50Hz; Australian models: 240 VAC ± 10%,50Hz)
- Output: 26.5 VAC 1.9A
- Power back-up: Lithium coin-cell battery maintains time and date while nonvolatile memory maintains the programming
- Multi-valve capacity: Maximum five 24 VAC, 7VA solenoid valves simultaneous operation including the master valve, maximum two solenoid valves per station module
- Certifications: UL, cUL, CE, CSA, C-Tick, FCC Part 15

Dimensions

- Width: 14.32 in. (36.4 cm)
- Height:12.69 in. (32.2 cm)
- Depth: 5.50 in. (14.0 cm)

Models

- ESP8LXME: 8-Station Controller, 120VAC
- ESP12LXMEF: 12-Station Controller with Flow Smart Module, 120VAC
- IESP8LXME: 8-Station Controller for International Market, 230VAC
- FSMLXME: Flow Smart Module for ESPLXME/F Controller
- ESPLXMSM8: 8-Station Module for ESP-LXME/F Controller
- ESPLXMSM12: 12-Station Module for ESP-LXME/F Controller
- ESPLXMEFP: ESPLXME Controller Front Panel Only

Accessories

- Painted Metal and Stainless Steel Pedestal/Enclosure Options available (see page 94)
- IQ Communication Cartridge (see page 102)
- Rain Bird FS-Series Flow Sensors (see page 95)

For more information call the ESP-LX Hotline: 1-866-544-1406

ESP-LXME Controller

The Intelligent Use of Water.™

ESP-LXD Decoder Controller

50 – 200 station capable Two-Wire Decoder
Commercial Controller

Controller Features

• 50-station capability standard expandable to 200 stations with optional ESPLXD-SM75 modules

• Four available sensor inputs (one wired plus up to three decoder-managed) with override switch

• Five flow sensors supported

• Supported decoders: FD-101TURF, FD-102TURF, FD-202TURF, FD-401TURF, FD-601TURF

• Supports SD-210TURF sensor decoders (flow sensing and weather sensor support) and LSP-1 line surge protectors (one per 500 feet of two-wire path required)

• Central Control capable with Rain Bird IQ Communications Cartridges and software (see pg. 102)

• Advanced Features From Cycle+Soak™ to Contractor Default Program™, the ESP-LXD offers innovative features proven to cut installation expenses, troubleshooting time and water use

• Program backup and barcode decoder address entry with the optional PBCLXD

• Six user-selectable languages

• Removable front panel is programmable under battery power

• Plastic, locking, UV resistant, wall-mount case , Optional Metal and Stainless Steel Case & Pedestal

• Compatible with Rain Bird Landscape Irrigation and Maintenance Remote - Flow Smart Module™ factory installed or field upgradable

• Plastic, locking, UV resistant, wall-mount case, Optional Metal and Stainless Steel Case & Pedestal

Operating Specifications

• Station timing: 0 min to 12 hrs

• Program level and global Monthly Seasonal Adjust; 0% to 300% (16 hrs maximum station run time)

• 4 independent programs (ABCD); ABC programs stack, ABCD overlap

• 8 start times per program

• Program Day Cycles include Custom days of the week, Odd, Odd no 31st, Even, and Cyclical dates

• Manual station, program, test program

• Certifications: UL, CE, cUL, C-Tick

Upgrade Options

• IQ-NCC Network Communication Cartridge

• ESP-LXD-SM75 75-station module

• PBCLXD Programming Backup Cartridge

ESP-LXD Decoder Controller

LXMMSSPED Shown with ESP-LXD in LXMMSS Stainless Steel Cabinet

Controllers

ESP-LXD Decoder Controller (cont.)

Electrical Specifications

• Power Supply Voltage: 120 VAC ± 10%, 60Hz (International models: 230 VAC ± 10%, 50Hz; Australian Models: 240 VAC ± 10%, 50Hz)

• Power back-up: Lithium coin-cell battery maintains time and date while nonvolatile memory maintains the schedule

• Multi-valve station capacity: up to 2 solenoid valves per station; simultaneous operation of up to eight solenoids and/or master valves

Dimensions (W x H x D)

• 14.32" x 12.69" x 5.50" (36.4 x 32.2 x 14.0 cm)

Model

• ESP-LXD: 50-station, 120 VAC

• IESPLXD: 50-station for international markets, 230 VAC

• IESPLXDEU: 50-station for Europe, 230 VAC

• IESPLXDAU; 50-station for Australia, 240 VAC

Accessories

• FD-TURF: two-wire decoders (see pg. 89)

• SD-210TURF: two-wire sensor decoder (see pg. 89)

• LSP1TURF: two-wire line surge protection (see pg. 89)

• DPU-210: two-wire decoder programming unit (see pg. 87)

• Painted Metal and Stainless Steel Pedestal/Enclosure Options available (see pg. 94)

• IQ-NCC: Network Communication Cartridge for ESP-LX Series Controllers (see page 102)

• See page 95 for information on Rain Bird FS-Series Flow Sensors

[1]FD-TURF decoders include peel-off barcode address labels

[2]Barcode scanning pen not included – sold separately; Unitech MS100NRCB00-SG recommended (www.ute.com)

For more information call the ESP-LX Hotline: 1-866-544-1406

PBCLXD Programming Backup Cartridge for ESP-LXD

Provides program backup and restore and barcode scanning capability for the ESP-LXD controller (not compatible with ESP-LXME or ESP-LX Basic)

Upgrade Kit Features

• Provides 8 full backups, including all programs, flow information and decoder addresses – allows you to easily archive 8 different controllers – restoring all information typically takes two minutes or less

• Snaps into the back of the ESP-LXD front panel; installs without tools; no additional enclosures or external wiring required

• Kit includes cable for interface to barcode scanning pen (pen not included) – allows you to quickly scan decoder addresses into the ESP-LXD controller during installation to save you time

Model

• PBCLXD (works with all versions of the ESP-LXD controller)

PBCLXD Cartridge

Pigtail

Features

• 6-feet (1.8 m) long

• Three 16 gauge stranded conductor wires

• 90 degree molded plug type NEMA 5-15P

• Gray color

Model

• PIGTAIL

PIGTAIL

The Intelligent Use of Water.™

Controller Pedestals

Pedestals for ESP-LX Series, ESP-MC, ESP-SAT, ESP-SITE, and CCU

Features
• Includes all necessary mounting bolts, nuts, and washers

Specifications
• Material: Powder-coated steel and stainless steel
• Field wiring connection: In controller

Dimensions

Model	Height	Width	Depth
• LXMM	12⅞" (32.7 cm)	14½" (36.8 cm)	7¾" (19.7 cm)
• LXMMPED	28" (71.1 cm)	14¼" (36.2 cm)	7¼" (18.4 cm)
• LXMMSS	12⅞" (32.7 cm)	14½" (36.8 cm)	7¾" (19.7 cm)
• LXMMSSPED	28" (71.1 cm)	14¼" (36.2 cm)	7¼" (18.4 cm)

Model
• LXMM: Metal Cabinet for ESP-LX Series Controllers*
• LXMMPED: Metal Pedestal for ESP-LX Series Controllers*
• LXMMSS: Stainless Steel Metal Wall Mount Enclosure for ESP-LX Series Controllers
• LXMMSSPED: Stainless Steel Metal Pedestal for ESP-LX Series Controllers

*Note: Metal cabinets and pedestals are not standard on ESP-LX Series controllers and must be purchased separately. LXMMPED requires LXMM, and LXMMSSPED requires LXMSS.

LXMMSSPED Shown with ESP-LXD in LXMMSS Stainless Steel Cabinet

FD-TURF Two-Wire Decoders

SiteControl and ESP-LXD with Support for 1, 2, 4 or 6 Decoder Addresses

Features
• Five different decoder options let you choose the precise amount of landscape irrigation control you need. Select different two-wire decoders to operate one, two, four, or six valves.
• Installed out of sight and protected from the elements and vandalism
• Enables advanced diagnostic and sensor features

Specifications
• **Mounting:** In valve box (recommended) or direct burial
• **Power Draw:**
  - FD-101TURF: 0.5 mA (idle) 18 mA (per active solenoid)
  - FD-102TURF: 0.5 mA (idle) 18 mA (per active solenoid)
  - FD-202TURF: 1 mA (idle) 18 mA (per active solenoid)
  - FD-401TURF: 1 mA (idle) 18 mA (per active solenoid)
  - FD-601TURF: 1 mA (idle) 18 mA (per active solenoid)
• **Dimensions:**
  - FD-101TURF: Length: 2.77 in. (70 mm), Diameter: 1.5 in. (40 mm)
  - FD-102TURF: Length: 3.35 in. (85 mm), Diameter: 1.77 in. (45 mm)
  - FD-202TURF: Length: 3.35 in. (85 mm), Diameter: 1.97 in. (50 mm)
  - FD-401TURF: Length: 3.94 in. (100 mm), Diameter: 2.56 in. (65 mm)
  - FD-601TURF: Length: 3.94 in. (100 mm), Diameter: 2.56 in. (65 mm)
• **Solenoids:**
  - FD-101TURF: 1 with individual control
  - FD-102TURF: 1 or 2 simultaneously
  - FD-202TURF: 1 to 4 simultaneously
  - FD-401TURF: 1 to 4 with individual control
  - FD-601TURF: 1 to 6 with individual control
• **Wires:**
  - FD-101TURF: Blue to cable, white to solenoid
  - FD-102TURF: Blue to cable, white to solenoid
  - FD-202TURF: Blue to cable, white and brown to solenoids
  - FD-401TURF: Blue to cable, color-coded to solenoids
  - FD-601TURF: Blue to cable, color-coded to solenoids

Decoders

Controllers

FD-TURF Two-Wire Decoders (cont.)

- **Surge Protection: One of the following is required every 500 ft. along two-wire path (40 V, 1.5 kW transil)**
  - LSP-1 Line Surge Protector
  - FD-401TURF with built in surge protection
  - FD-601TURF with built in surge protection

  Note: Minimum 10ohms resistance grounding required at controller and each surge protector

- **Input Fuse (FD-401TURF and FD-601TURF only):** 300-500 mA, thermal

- **Electrical Input:**
  - Maximum voltage: 36 Vpp
  - Maximum load:
    - FD-101TURF: 1 Rain Bird solenoid (one per address)
    - FD-102TURF: 2 Rain Bird solenoids (two per address)
    - FD-202TURF: 4 Rain Bird Solenoids (two per address)
    - FD-401TURF: 4 Rain Bird Solenoids (one per address)
    - FD-601TURF: 6 Rain Bird solenoids (one per address)

- **Decoder/Solenoid Wires:**
  - Electrical resistance: Max. 3 ohms

- **Maximum Distance Decoder/Solenoids:**
  - Cable length: 14 gauge, 456 feet

- **Wiring:** 2 x 14-gauge (1.5 mm2) solid copper, UF insulated type

- **Environment:**
  - Working range: 32° to 122° F (0° to 50° C)
  - Storage range: -4° to 158° F (-20 to 70° C)
  - Humidity: 100%

Note: Rain Bird recommends using Rain Bird DB Series Wire Connectors (pg. 71) waterproof connectors for all connections.
Note: FD-Series Decoders are not compatible with residential valves like the Rain Bird HV, DV, DVF, ASVF, JTV, JTVF, and Drip Control Zone Kit with ASVF/DV valves

Models

- FD-101TURF: Field Decoder interfacing signal line and valve
- FD-102TURF: Field Decoder interfacing signal line and valve or one pair of valves
- FD-202TURF: Field Decoder interfacing signal line and 2 valves or 2 pair of valves
- FD-401TURF: Field Decoder interfacing signal line and up to 4 individual valves
- FD-601TURF: Field Decoder interfacing signal line and up to 6 individual valves
- LSP-1TURF: Line Surge Protection
- SD-210TURF: Sensor Decoder interfacing signal line and analog or digital decoders

DPU-210 Decoder Programming Unit
For ESP-LXD, MDC/MDC2 and SiteControl FD-Turf Two-Wire Decoders

- Decoder Programming Unit tests and verifies operation of the ESP-LXD, MDC/MDC2, or SiteControl FD Series Field Decoders. Also allows for re-programming decoder addresses for maximum site set-up flexibility

DPU-210

The Intelligent Use of Water.™

TBOS-II™

Commercial Control for Battery-Powered Systems

Features

- Convenient durable option for providing uninterrupted irrigation while AC-power is not available
- Field transmitter and control module have external optical connectors for easy plug-in
- Seven advanced programming features, the TBOS-II™ cuts setup time and eliminates repeat trips to the controller, resulting in water-efficient programs and lower operating expenses
- Master Valve: Extra support for stations that require a back-up to minimize water leaks or need extra water pressure
- Basic programming includes 3 independent programs with flexible days cycles including custom even, odd, odd-31 and 1-6 day program cycles for maximum flexibility
- 8 start times per program per day and Run-time from 1 minute to 12 hours in 1-minute increments
- Independent station operation allows simultaneous start times or sequential start times based on system hydraulic capacity
- One TBOS field transmitter programs an unlimited number of TBOS Control Modules
- Field transmitter and control module have external infrared connectors for easy plug-in
- ESP-LXD, and ESP-LX Modular Controllers

Valve Compatibility

- TBOS potted latching solenoid is compatible with all Rain Bird valves in the DV, DVF, ASVF, PGA, PEB, PESB, GB, EFB-CP, BPE and BPES series
- The TBOS solenoid adapters will adapt the potted latching solenoid for use in retrofit applications with non-Rain Bird valves such as Irritrol® (Hardie/Richdel) and Buckner® valves or Champion® and Superior® valve actuators
- Tipping Rain Gauge wire: 18 – 26 awg

TBOS-II Control Module

- Available in 4 models: 1, 2, 4 and 6 stations
- Operates one valve per station
- Station timing: 1 minute to 12 hours in 1-minute increments with a 365-day calendar. Stations can be assigned to multiple programs
- Active sensor connection accommodates Rain Bird® RSD-BEx Rain Sensor
- Operates with only one 9V alkaline battery (Energizer™ and Duracell™ are recommended) type 6AM6 (international standard) or 6LR61 (European standard): battery not included
- Battery life is one year with a high-quality 9V alkaline battery
- IP-68 rated waterproof case for reliable operation under water
- Dimensions: 3.8 x 5.1 x 2 inches (9.5 x 13.0 x 5.3 cm)
- Weight: 17.64 ounces (500 g)
- Maximum wire run between the module and solenoid:

Wire Size	Maximum Distance
18 AWG (0.75 mm^2)	32 ft (10 m)
16 AWG (1.5 mm^2)	100 ft (30 m)

- C-Tick approved

TBOS-II Field Transmitter

- Field transmitter required for programming control module
- Dimensions: 2.8 x 6.3 x 1.2 inches (7.0 x 16.0 x 3.0 cm)
- Weight: 8.81 ounces (250 g)
- Operating temperature: 14 to 149° F (-10° to 65° C)
- C-Tick approved

TBOS Potted Latching Solenoid

- Two 18 gauge (0.75 mm^2) wires are supplied: 23.6 inches (60 cm) long
- Fits Rain Bird valves: DV, DVF, ASVF, PGA, PEB, PESB, GB, EFB-CP, BPE and BPES Series
- 150 psi (10 bar) maximum operating pressure
- Dimensions: 1.4 x 2.4 x 1.5 inches (4.0 cm x 6.0 cm x 4.2 cm)

TBOS Solenoid Adapters

- Easy to install
- Black adapter for plastic valves allows the TBOS potted latching solenoid to be used with selected Irritrol (Hardie/Richel) and Buckner valves
- Brown adapter for brass valves allows the TBOS potted latching solenoid to be used with selected Champion and Superior valve actuators

Models

- TBOS-II Control Modules:
  - TBOS2CM1: 1 station control module
  - TBOS2CM2: 2 station control module
  - TBOS2CM4: 4 station control module
  - TBOS2CM6: 6 station control module

- TBOS-II Field Transmitter:
  - TBOS2FTUS: Field Transmitter (US)
  - TBOS2FTSAU: Field Transmitter (AUS)

TBOS-II Control Module and Field Transmitter

TBOS Potted Latching Solenoid and Solenoid Adapters

Internet Connected Water Meters (ICWM) NEW

Advanced Single-Jet Technology Water Meters

Features

- 5 year data plan works anywhere the Verizon wireless network reaches avoiding costs of network integration.
- Digital register with web interface for water usage data collection and analysis including monthly water budgeting and over-usage alerts.
- Extreme low flow accuracy starting 0.1 gpm to easily identify leaks.
- Wide operating temperature range.
- Lead free NSF61 compliant.
- Low flow, backflow and high usage re¬ports and alerts.
- 5 year data service plan + 5 year warranty included.
- Compact design for tight installations with no upstream or downstream straight pipe requirements.
- Single moving element and no strainer requirement for low maintenance.
- Brass body for durable, long-lasting performance.
- Unaffected by sand or small debris in line.
- High resistance to freezing.
- 100% submersible for flexible usage.
- ICWM075S durable composite plas¬tic model also available with for long-lasting, maintenance free life

Certifications

- FM Approved (ICWM600S).
- NSF Standard 61 Compliant.
- AWWA C712 Standard.

Models

- ICWM075S: 5/8" with 1" NPSM end connection
- ICWM100S: 1" with 1.25" NPSM end connection
- ICWM150S: 1.5" with flange end connection
- ICWM200S: 2" with flange end connection
- ICWM300S: 3" with flange end connection
- ICWM400S: 4" with flange end connection
- ICWM600S: 6" with flange end connection
- ICWMREG: Universal Register Only

Notes:

* *Spool connections are available to adjust lay length.*

Internet Connected Water Meters (ICWM)

Dimensions, Weight, Materials, and Connection Size					
Model	**Size (in)**	**Lay Length**	**Weight (lbs)**	**Body Material**	**End Connection**
ICWM075S	⅝" x ¾"	7.5"	1	Composite	1" NPSM
ICWM100S	1"	10.75"	5.6	Low lead Bronze	1.25" NPSM
ICWM150S	1.5"	7.87"	10	Low lead Brass	Oval Flange
ICWM200S	2"	9.78"	12	Low lead Brass	Oval Flange
ICWM300S	3"	11.8"	32	Low lead Brass	Round Flange
ICWM400S	3"/ 4"	13.75"	48	Lead free Bronze	3"/4" Flange
ICWM600S	4"/ 6"	17.75"	89	Lead free Bronze	4"/6" Flange

Notes:

* Spool connections are available to adjust lay length.

Operating Specifications										
Model	**Size (in)**	**Max Operating Pressure (PSI)**	**Min Test Flow (GPM)**	**Normal Op Range**		**Safe Max Op Capacity (GPM)**	**Max Cont Duty (GPM)**	**Head Loss @ SMOC (PSI)**	**Head Loss @ Max Cont Duty (PSI)**	**Standards Reference**
				Min (GPM)	**Max (GPM)**					
ICWM075S	⅝" x ¾"	230	0.0625	0.125	30	30	24	13	NA	"AWWA C712-15 NSF-61/372"
ICWM100S	1"	230	0.125	0.5	70	50	35	8	NA	
ICWM150S	1.5"	230	0.250	0.500	105	NA	88	7.25	NA	
ICWM200S	2"	230	0.250	0.75	165	NA	130	7.25	NA	
ICWM300S	3"	230	0.50	0.75	350	NA	175	7.25	NA	
ICWM400S	3"/ 4"	230	0.75	1.5	500	NA	350	7.25	NA	
ICWM600S	4"/ 6"	230	1.00	2.00	1000	NA	600	9.5	NA	

Controllers

Large 8-digit display
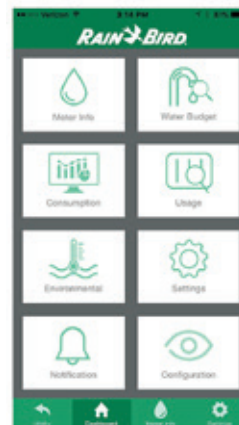
Contractor Portal

Accurate Readings

FMD Series Landscape Water Meters

Manage What You Measure!

Features

- Lower cost than comparable brass flow meters and most plastic flow sensors.
- Passive management of irrigation using the meter's register dial.
- Delivers precise accuracy with flow ranges from 0.25 gpm to 160 gpm.
- Landscape Water Meter allows the property manager to avoid higher costs associated with tiered water rates.
- Landscape Water Meters are an integral part of an overall water efficient irrigation system.
- Supports California AB1881 and 20/20, LEED, Sustainable Sites Initiative, and the EPA WaterSense Program.
- Rebates offered by Water Agencies.
- Satisfies NSF/ANSI standard 61 Annex G.

Mechanical Properties

- Multi-Jet Totalizing Landscape Water Meter with analog register dial readout (minimum volumetric resolution of 0.1 gallons).
- Brass body and glass-filled nylon construction provide maximum protection against high pressure surges, physical damage and corrosion.
- Not to be used with an unfiltered water source containing potential debris (lakes, ponds, wells, or other unfiltered sources).
- Exposing the Landscape Water Meter, full of water, to temperatures below freezing can lead to permanent damage. To winterize the meter, allow it to drain through a downstream drain valve.

Models

FM0625B: ⅝" with coupling inlet dimension x ¾" NPT outlet.
FM075B: ¾" with coupling inlet dimension x 1" NPT outlet.
FM100B: 1" with coupling inlet dimension of 1" NPT.
FM150B: 1½" with coupling inlet dimension of 1½" NPT.
FM200B: 2" with coupling inlet dimension of 2" NPT.

FMD Series Landscape Water Meters

Rain Bird FMD Series Landscape Water Meters Suggested Operating Range

The following tables indicate the suggested flow range for Rain Bird FMD Series Landscape Water Meters. Rain Bird Sub-Meters will operate both above and below the indicated flow rates. However, good design practice dictates the use of this range for best performance. Landscape Water Meters should be sized for flow rather than pipe size.

FMD Landscape Water Meter Operating Specifications

Model	Sub-meter Size	Flow Range	Body Thread (D)
FM0625B	⅝"	0.25 to 20 GPM	¾" x ¾"
FM075B	¾"	0.50 to 30 GPM	1" x 1"
FM100B	1"	0.75 to 50 GPM	1" x 1"
FM150B	1½"	1.5 to 100 GPM	1½" x 1½"
FM200B	2"	2.0 to 160 GPM	2" x 2"

Notes:

- *Maximum operating pressure is 150 psi for all models.*
- *Maximum working water temperature is 80° F for all models.*
- *Maximum operating air temperature is 105° F for all models.*
- *Measurement accuracy at minimimum flow is +/- 3% for each model.*

FMD Landscape Water Meter Pressure Loss (psi)

Model	Sub-meter Size	1 GPM	5 GPM	7.5 GPM	10 GPM	15 GPM	20 GPM	25 GPM	30 GPM	40 GPM	50 GPM	60 GPM	70 GPM	80 GPM	90 GPM	100 GPM	120 GPM	140 GPM	160 GPM
FM0625B	⅝"	0.5	1.5	4.0	6.0	10.0	15.0	X	X	X	X	X	X	X	X	X	X	X	X
FM075B	¾"	0.2	0.7	1.5	3.2	5.0	7.0	10.0	15.0	X	X	X	X	X	X	X	X	X	X
FM100B	1"	X	0.1	0.3	0.5	1.4	2.0	3.2	4.5	7.8	13.0	X	X	X	X	X	X	X	X
FM150B	1½"	X	X	X	0.2	0.3	0.5	0.9	1.2	1.5	3.2	4.5	6.0	8.0	10.1	13.0	X	X	X
FM200B	2"	X	X	X	X	0.1	0.2	0.3	0.8	0.9	1.5	1.9	2.6	3.3	4.0	5.0	7.0	9.6	13.0

The Intelligent Use of Water.™

Flow Sensors and Transmitters

Maxicom,[2]® SiteControl, IQ, ESP-LX Series Controllers or IQ™

Features (Sensors)

• Simple six-bladed impeller design
• Designed for outdoor or underground applications
• Available in PVC, brass or stainless steel construction
• Pre-installed in tee or saddle mounted insert versions

Operating Specifications (Sensors)

• Accuracy: +- 1% (full scale)
• Velocity: 1/2-30 feet (0.15 - 9.2 meters) per second depending on model
• Pressure: 400 psi (27.5 bars) (max) on metal models; 100 psi (6.9 bars) (max) on plastic models
• Temperature: 220° F (105° C) (max) on metal models; 140° F (60° C) (max) on plastic models

Features (Transmitters)

• Programmable from a computer (PT322 – Maxicom and SiteControl Systems only – not required for ESP-LXMEF or ESP-LXD)
• Reliable solid-state design, available with or without LCD display
• Operates with MAXILink,™ and (hard-wire) two-wire satellite systems
• Easy-to-program, menu-driven design
• Mounted in optional NEMA enclosure (PT3002 only)

Operating Specifications (Transmitters)

• Input required:
    - 12-30 VDC/VAC on PT322
    - 12-24 VAC/VDC on PT 3002
• Output: Pulse output
• Operating Temp: -4° F-158° F (-20° C to 70° C)
• Units: Domestic and International units available on PT3002

Dimensions

• PT322: 3.65" x 1.75" x 1.0" (93mm x 44m x 25mm)
• PT3002: 3.78" x 3.78" x 2.21" (96mm x 96mm x 56mm)
• FS100P: 3.50" x 3.94" x 1.315" (89mm x 100mm x 33mm)
• FS150P: 5.0" x 5.16" x 2.38" (127mm x 131mm x 60mm)
• FS200P: 5.63" x 5.64" x 2.88" (143mm x 143mm x 73mm)
• FS300P: 6.50" x 6.83" x 4.23" (165mm x 173mm x 107mm)
• FS400P: 7.38" x 7.83" x 5.38" (187mm x 199mm x 137mm)
• FS100B: 5.45" x 4.94" x 2.21" (138mm x 126mm x 56mm)
• FS150B: 6.5" x 5.19" x 2.5" (165mm x 132mm x 64mm)
• FS200B: 4.25" x 8.35" x 2.94" (108mm x 212mm x 75mm)
• FS350B: 7.13" x 3"(diameter) (181mm x 76mm (diameter))
• FS350SS: 7.13" x 3"(diameter) (181mm x 76mm (diameter))

Configuration

• **For ESP-LXD Decoder Systems,** the Flow Sensor is installed with a Two-Wire Decoder Sensor Decoder (SD210TURF)
• **For ESP-LXMEF Systems,** the Flow Sensor is attached to the FSM-LXME Flow Smart Module
• **For (Hard Wire) Two-Wire Satellite Systems (Maxicom²® and SiteControl),** the Flow Sensor is installed with a Pulse Transmitter and a Rain Bird Pulse Decoder (DECPULLR)
• **For Link Radio Satellite Systems (Maxicom² and SiteControl),** the Flow Sensor is installed with a Pulse Transmitter (no pulse decoder required)
• **For ESP-SITE Satellite Systems (Maxicom²),** the Flow Sensor is installed with a Pulse Transmitter (no decoder required)
• **For SiteControl Decoder Systems,** the Flow Sensor is installed with a Two-Wire Decoder Sensor Decoder (SD210TURF)
• Surge protection (FSSURGEKIT) is recommended for Maxicom & SiteControl systems – One at the Pulse Transmitter, and if more than 50' of wire run, one at the Flow Sensor. FSSURGEKIT is not compatible with ESP-LXMEF and ESP-LXD Controllers
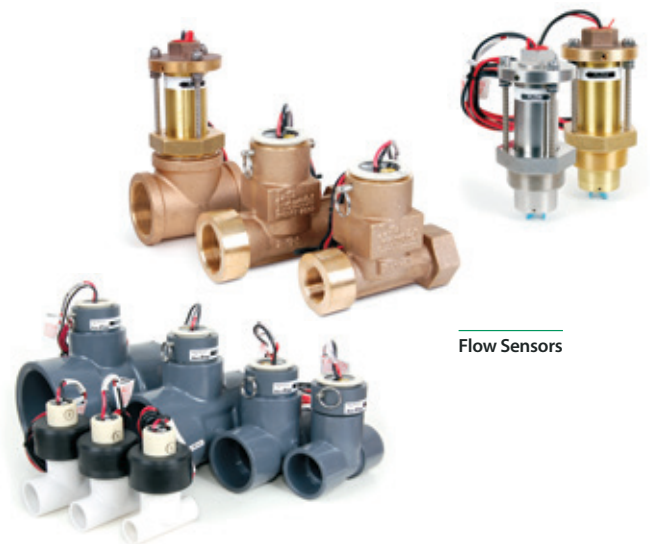
Flow Sensors

Controllers

Flow Sensor Transmitters
and Accessories

Flow Sensors and Transmitters (cont.)

Models

Brass TEE's
- FS200B: 2" (50mm) Brass Tee Flow Sensor
- FS150B: 1 1/2" (40mm) Brass Tee Flow Sensor
- FS100B: 1" (25mm) Brass Tee Flow Sensor

Plastic TEE's
- FS400P: 4" (110mm) PVC Tee Flow Sensor
- FS300P: 3" (75mm) PVC Tee Flow Sensor
- FS200P: 2" (50mm) PVC Tee Flow Sensor
- FS150P: 1 1/2" (40mm) PVC Tee Flow Sensor
- FS100P: 1" (25mm) PVC Tee Flow Sensor

Inserts
- FS350SS: 3" and higher, Stainless Steel Insert
- FS350B: 3" and higher, Brass Insert
- FSTINSERT: Replacement insert for Tee type sensors

Pulse Transmitters (not necessary with ESP-LX Controllers)
- PT322: Pulse Transmitter, no display
- PT3002: Pulse Transmitter, LCD display

Accessories
- PTPWRSUPP: Pulse Transmitter power supply
- NEMACAB: NEMA Enclosure for PT3002
- FSSURGEKIT: Flow Sensor surge protection kit
- DECPULLR: Pulse Decoder for two-wire satellites
- SD210TURF: Sensor Decoder for decoder systems
- FSMLXME: Flow Smart Module for ESP-LXME Series Controllers

Rain Bird Flow Sensor Suggested Operating Range

The following tables indicate the suggested flow range for Rain Bird Flow Sensors. Rain Bird Sensors will operate both above and below the indicated flow rates. However, good design practice dictates the use of this range for best performance. Sensors should be sized for flow rather than pipe size.

Model	Suggested Operating Range (Gallons / Minute)	Suggested Operating Range (Liters / Minute)	Suggested Operating Range (Cubic Meters / Hour)
FS100P	5.4 - 54	20 - 200	1.2 - 12
FS150P	5 - 100	19 - 380	1.1 - 23
FS200P	10 - 200	40 - 750	2.3 - 45
FS300P	20 - 300	75 - 1130	4.5 - 70
FS400P	40 - 500	150 - 1900	9 - 110
FS100B	2 - 40	7.6 - 150	0.5 - 9
FS150B	4 - 80	15 - 300	1 - 18
FS200B	10 - 100	38 - 380	2.3 - 23
FS350B	Depends on Pipe Type and Size - please reference Flow Sensors tech spec		
FS350SS			

RSD-BEx / RSD-CEx

Wired Rain Sensor

Features and Benefits
- Automatic rain shutoff prevents overwatering due to natural precipitation
- Robust, reliable design reduces service call backs
- Moisture sensing disks work in a variety of climates
- Different sensor mounts permit speed and flexibility on the job site
- Latching hinge maintains alignment

Mechanical Properties
- Multiple rainfall settings from ⅛"– ¾" (5 - 20 mm) are quick and easy with just the twist of a dial
- Adjustable vent ring helps control drying time
- High-grade, UV resistant polymer body resists the elements
- Available in rugged bracket version (RSD-BEx model comes with 5" latching aluminum bracket) or conduit version (RSD-CEx) for a clean and professional look
- Not compatible with ESP-SMT or ESP-SMTe controllers

Electrical Specifications
- Application: Suitable for low voltage 24 VAC control circuits and 24 VAC pump start relay circuits*
- Switch electrical rating: 3A @ 125/250 VAC
- Capacity: Electrical rating suitable for use with up to ten 24 VAC, 7 VA solenoid valves per station, plus one master valve
- Wire: 25' (7.6 m) length of #20, 2 conductor UV resistant extension wire
- UL, cUL listed; CE, C-Tick approved

* Not recommended for use with high voltage pump start, pump start relay circuits or devices.

Latching Hinge Maintains Alignment
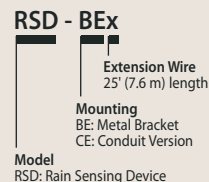
RSD-BEx

Dimensions
- RSD-BEx
  - Overall length: 6.5" (16.5 cm)
  - Overall height: 5.4" (13.7 cm)
  - Bracket hole pattern: 1.25" (3.2 cm)
- RSD-CEx
  - Overall length: 3" (7.6 cm)
  - Overall height: 2.75" (7 cm)

RSD-CEx

Models
- RSD-BEx: Rain sensor w/ latching bracket, extension wire
- RSD-CEx: Rain sensor w/ threaded adapter, extension wire

How To Specify

RSD - BEx

Extension Wire
25' (7.6 m) length

Mounting
BE: Metal Bracket
CE: Conduit Version

Model
RSD: Rain Sensing Device

The Intelligent Use of Water.™

Controllers

WR2 Series Wireless Rain + Freeze Sensors

Superior responsiveness to rainfall and cold temperatures, save up to 35% on water usage

Features & Benefits

- Enhanced antenna array provides superior signal reliability that overcomes most line-of-sight obstructions
- Sensor signal strength indicator enables one person set up, reducing installation time
- Convenient adjustment and monitoring of rain or freeze settings at the controller interface
- Simple battery replacement requiring no tools or need to disassemble sensor
- Highly intuitive icon-driven controller interface simplifies programming
- Easy to install, self-leveling sensor bracket mounts to flat surfaces or rain gutters
- Antennas concealed within the units for greater visual appeal and product robustness
- "Quick Shut Off" interrupts active irrigation cycle during a rain event

Electrical Specifications

- Application: suitable for use with 24 VAC controllers (with or without pump start / master valve)
- Electrical rating suitable for use with up to six 24VAC 7VA solenoids plus an additional master valve or pump start that does not exceed 53VA
- Controller Interface Wire: 30" (76 cm) length of #22 gauge (0.64 mm) UV resistant extension wire
- Certifications: UL, cUL, CE, C-Tick, and WEEE
- FCC approved spread spectrum 2 way radio transceivers with FCC Class B approvals
- Signal transmission distance of 700' (213.4 m) Line of Sight
- Battery life: four or more years under normal operating conditions
- 6 KV surge / lighting protection

Mechanical Properties

- Adjustable rainfall settings from 1/8" – 1/2" (3 – 13 mm)
- Adjustable low temperature settings from 33°F – 41°F (0.5° – 5°C)
- Three irrigation modes to select: Programmed, Suspend Irrigation for 72 hours, Override sensor for 72 hours

    Note: *The WR2-48 model replaces the Suspend Irrigation for 72 Hours mode with 48-Hour Irrigation Hold Active mode.*

- "Quick Shut Off" suspends active irrigation cycle within approximately two minutes
- High-grade, UV resistant polymer units resist harmful environmental effects

Models

- North America (916 MHz)
    - WR2-RFC: Rain + Freeze Combo
    - WR2-RFI: Rain + Freeze Controller Interface only
    - WR2-RFS: Rain + Freeze Sensor Only
    - WR2-48: Rain + Freeze Combo with 48-hour hold
- International (868 MHz)
    - WR2-RFC-868: Rain + Freeze Combo

Rugged self-leveling bracket maintains rain sensor orientation

Battery replacement requires no tools

Robust internal antennas for superior aesthetics

WR2 Series Wireless Rain/Freeze Sensors

Step 1

Program in seconds

Step 2

Determine best sensor location

Step 3

Install sensor easily using mounting bracket

SMRT-Y Soil Moisture Sensor Kit

Accurate • Reliable • Smart

Features and Benefits

• Turns any controller into a water saving smart controller

• Healthier landscapes less prone to nutrient depletion, fungus and shallow root growth

• Typical water savings exceed 40%

• TDT digital sensor enables highly accurate readings that are independent of soil temperature and electrical conductivity (EC)

• Displays soil moisture content , soil temperature and EC

• Corrosion-resistant in-ground sensor made of high-grade 304 stainless steel

Operating Specifications

• 25 Volts AC at 12W

• Operating temperature: -4°F to 158°F (-20°C to 70°C)

• Survival temperature: -40°F to 185°F (-40°C to 85°C)
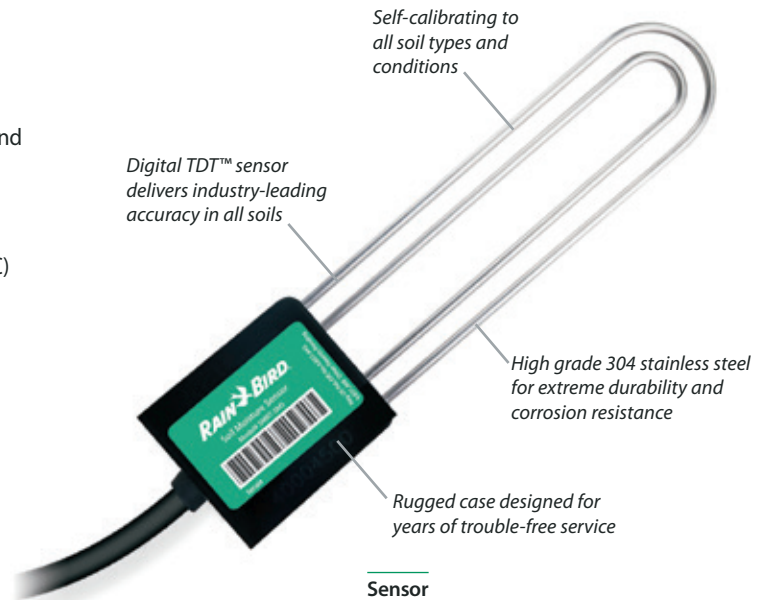
• Certifications: UL, CUL, C-TICK

Dimensions

• **Controller Interface**

  - W: 3.0" (76mm); H: 3.0" (76mm); D: 0.75" (19mm)

• **In-Ground Soil Moisture Sensor** (without wires)

  - W: 2.0" (50mm); L: 8.0" (200mm); D: 0.5" (12mm)

  - 18 AWG wire leads @ 42 in. (106.7 cm) length

SMRT-Y Kit

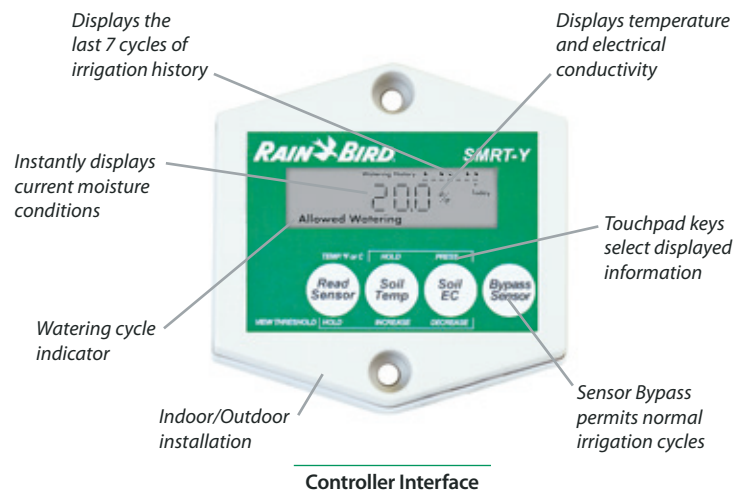• **Includes**

  - Controller Interface

  - In-Ground Soil Moisture Sensor

  - Anodized, rust-proof screws, 1.5"(two per package)

  - Wire nuts – 5 blue, 2 gray, 1 yellow

  - Multilingual instruction manual, "Quick Start" Guide and Soil Moisture sticker

Models

• SMRT-Y: Soil Moisture Sensor Kit

• **NEW FOR 2018:** All SMRT-Y models are RoHS compliant

Controllers

Self-calibrating to all soil types and conditions

Digital TDT™ sensor delivers industry-leading accuracy in all soils

High grade 304 stainless steel for extreme durability and corrosion resistance

Rugged case designed for years of trouble-free service

Sensor

Displays the last 7 cycles of irrigation history

Displays temperature and electrical conductivity

Instantly displays current moisture conditions

Touchpad keys select displayed information

Watering cycle indicator

Sensor Bypass permits normal irrigation cycles

Indoor/Outdoor installation

Controller Interface

SMRT-Y User Interface

Controller

Optional

2–3"

SMRT-Y Soil Moisture Sensor

Valve Box

Grease Cap Wire Connectors

The Intelligent Use of Water.™