Product Brief

Wireless 16-Zone Sprinkler Controller

RainBee16—Model #3016A

The RainBee16 lets you manage up to 16 irrigation zones from the convenience of home automation network controllers. Its flexibility allows control and monitoring of irrigation schedules locally or remotely through a PC, a tablet, a smart phone, or any web browser. Each valve can be controlled individually or in program sequences (up to four unique ones) that can be triggered with singular commands. Use of the RainBee16 promotes water conservation as it is designed to optionally form part of a larger ecosystem involving environmental sensors. The use of the ZigBee® protocol ensures compatibility with the emerging smart home of the future standards being deployed across the world.

Benefits

- Control of up to 16 zones provides ample capacity for even large commercial installations.
- Use of high current (1 Amp) triacs provides long-term reliability.
- Up to 8 program sequences, with any valve programmable from 1 second to over 3.5 hours.
- Derives its power from the same transformer used for the valves.
- Controlled via ZigBee®, a wireless RF protocol that is rapidly becoming the standard for energy management. Enables sprinkler systems to become part of the smart ecosystems of tomorrow.
- Small size and convenient connectivity means easy retrofit ability and low installation cost.
- Provides programmability on any of the outputs for up to 2 ancillary pumps.
- ZigBee® router, effectively extends the range of the network.

Specifications:

Electrical	
Operating Voltage:	24 VAC transformer (same as used for the irrigation valves)
Max. Load Current:	.4 Amps @ 24VAC per zone output
Connections:	Two detachable terminal strips accept 24 AWG to 18 AWG wire
Switch Contactors:	Solid-state (Triacs)
Mechanical	
Size:	4” W X 3” W X 1” H
Weight:	7.5 Oz.
Mounting:	Indoor or in suitable outdoor enclosure.
Operation	
Local Control:	No. Requires ZigBee® controller for setup and manual operation.
ZigBee® function:	Router

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OTHER SPECIFICATIONS:	
Indicators:	LED: Indicates network status and binding mode
ZigBee® function:	ZigBee Router—Manufacturer ID: 0x1075

HA Profile: (0x0104) Device ID: 0x0002 **On/Off Output**

Cluster ID	Cluster Name	Client/Server	Cluster Description
0x0000	Basic	Server	Attributes for determining basic information and setting and enabling device
0x0003	Identify	Server	Attributes and commands for putting a device into Identification mode
0x0006	On/Off	Server	Attributes and commands for switching device extended with manufacturer specific commands and attributes.

Manufacturer Specific Extensions to On/Off Server Cluster:	
Command ID	**Command Description**
0x0010	CU_ONOFF_RELAY_CMD_OFF: Turn a valve off
0x0011	CU_ONOFF_RELAY_CMD_ON: Turn a valve on
0x0012	CU_ONOFF_RELAY_CMD_TOGGLE: Toggle a valve (change to opposite state)
0x0013	CU_ONOFF_RELAY_CMD_SETRELAYS: Set a pattern on relays
0x0014	CU_ONOFF_RELAY_CMD_GETRELAYS: Get the relay pattern
0x0017	CU_ONOFF_RELAY_CMD_SKIPFW: Skip to the next valve
0x0018	CU_ONOFF_RELAY_CMD_SKIPBK: Skip to the previous valve
0x0019	CU_ONOFF_RELAY_CMD_PROG_ONOFF: Start/Stop a specific program sequence
0x001C	CU_ONOFF_RELAY_CMD_SETTIMERS: Set a timer bank
0x001D	CU_ONOFF_RELAY_CMD_GETTIMERS: Get a timer bank
0x001F	CU_ONOFF_RELAY_CMD_SETNAME: Set a relay name string
0x0020	CU_ONOFF_RELAY_CMD_GETNAME: Get a elay name string
Attributes	**Attribute Description**
0x0100	E_CLD_ONOFF_ATTR_ID_RELAY_COUNT: Number of valves in this device
0x0101	E_CLD_ONOFF_ATTR_ID_MODE: Mode register
0x0102	E_CLD_ONOFF_ATTR_ID_RELAY_STATUS: Bitmap of valve status
0x0103	E_CLD_ONOFF_ATTR_ID_PUMP_MODE: Bitmap of valves enabled for pump control
0x1004	E_CLD_ONOFF_ATTR_ID_RELAY_TIMERS: Array of timers (6 X 16)
0x1005	E_CLD_ONOFF_ATTR_ID_RELAY_NAMES: Array of Zone names (16 X 16)
0x1006	E_CLD_ONOFF_ATTR_ID_PERCENT: Percent adjustment to apply to timers