SDS Series Irrigation Controllers

Specifications & Functions

CONTROLLERS

* SDS-50:
	+ 48 Station, 48 DataValve™ capacity
	+ Operates up to four valves at once, plus master valve/pump, plus auxiliary
* SDS-100:
	+ 96 Station, 96 DataValve™ capacity
	+ Operates up to eight valves at once, plus master valve/pump, plus auxiliary

TWO-WIRE & MULTI-CORE

* DataCoil™:
	+ - Combined solenoid coil and two-wire decoder. Connects directly to the two-wire cable. Communicates its status to controller every 3 seconds for simplified two-wire fault finding
		- Adapter to suit Rain Bird and Hunter valves
		- Shortened plunger to suit Toro / Irritrol valves
		- Two-Way and Latch models available
* RelayCube™ module available for multi-wire or mixed installations:
	+ RelayCube modules are available with 24 outputs for use with conventionally wired systems. SDS-50 may attach up to 2 RelayCubes. SDS-75 and SDS-100 may attach up to 4

SENSORS

* 12 Programmable Two-Wire DataNodes™ - connects directly to the two-wire path:
	+ Moisture sensors (one per program, up to 4)
	+ Water meters (up to 7)
	+ Moisture sensors (one per program, up to 4)
	+ Pause program
	+ Stop Program
	+ Rain Off
	+ KWH meter (1 only)
	+ Frost Sensors (2 zones)
* 7 Direct controller sensor inputs connect to the controller terminal strip
	+ Analog pressure sensor — High, intermediate & low programmable set points and delays
	+ Analog tank level sensor (available in SDS-100 model only)
	+ Water meter - digital (max pulse frequency 0.25hz, or 4 seconds)
	+ Low pressure
	+ Intermediate pressure (skips to next station in program sequence)
	+ High pressure
	+ Program start
* Moisture Sensors (Two Wire):
* User defined moisture set-points can be entered into an SDS Series controller. Once the set point has been hit, program start will override.
* 4 per controller. Installation in multiple locations or single location with multiple depths.

WEATHER STATIONS

* Fully integrated with Signal Weather Stations
	+ WeatherHawk Signature Series
	+ Possible integration of multiple weather stations via SignalCloud
	+ Assign irrigation sites to weather station
	+ Automated program percentages based on ET and rainfall

FEATURES

* 8 Independent programs:
	+ 4 start times per program
	+ Programs can run concurrently
	+ Selectable pump per program, plus one auxiliary, plus one booster pump
	+ 2 independent frost programs
	+ Fertigation programs
* No separate decoders – Decoders have been miniaturised and embedded within the coil
* DIY repairs due to modular design of SDS plug-in boards
* Simplified two-wire diagnostics with two-way communication every 3 seconds between all field devices and the controller
* Program watering settings in Time, Volume (litres) and Precipitation (mm)
* 14 day calendar, true odd/even and cyclic scheduling options
* Loop program for propagation
* Run times in Hr : Min : Secs
* Exclusive HydroSector™ program for matched precipitation zones (Hydrozoning)
* Valves can be assigned to any station by keypad entry, Central Control software or SmartPhone / Tablet Apps
* PumpNodes connected anywhere along the two-wire cable to activate pump-start relays
* Auxiliary pump for chemical/fertigation program
* Individual pumps can be assigned for each program
* Option to assign a secondary boost pump to selected stations
* Water flow, pressure and system electrical current draw displayed on controller, PC and Mobile software simultaneously
* Monitor flow deviation with fault alert. Skips to next station, then shuts down program after third skip if the alert stays active
* Various programmable delays in programs to compensate for hydraulic anomalies.

For example; slow closing valves, ramp-down of pumps and low or high pressure spikes

* Leak detection with fault alert
* Australian designed and manufactured

COMMUNICATION

* Internet Connectivity Options:
	+ 4G (LTE) modem
	+ External Wi-Fi module
	+ External ethernet module
* SignalCloud Web-Based Central Control Software:
* Allows for an unlimited number of users/controllers
* Australian-based AWS servers
* Available on PC, Mac, Linux, Android and iOS
* Provides direct connection to sites. Featured modules include: virtual keypad / programming / rewiring / reports / status / uploaded plans / program overview / log
* Interactive Google Maps Interface
* Allows administrator to assign low / standard / high user levels
* Faults sent directly to email and provided as push notifications on mobile
* Graph and report actual water usage against a budgeted total. Exportable CSV file
* Allocate up to 15 PINs to operators and log users activities
* Group command feature to rain on/off and change program percentages
* Full log of last 1000 activities for each controller
* Cloud-Based Software automatically updates
* SignalCloud Mobile - SmartPhone & Tablet App (iPhone, iPad & Android):
	+ - Downloadable from App Store / Google Play
		- Login using a SignalCloud account or via local mode with controller Device ID & password
		- Real-time remote access to controller keypads using LINK technology
		- Fault alerts though App
		- Status screen provides quick overview of all programs
		- Quick-command console for easy station tests
		- Interactive Google Maps interface for field testing
		- Ability to rain-off entire groups of sites (or all sites) with one command
		- Virtual wiring list to assign (multiple) valves to stations
		- View site PDFs (if enabled through SignalCloud.com)