



LEITLINK®

4GF Solar Powered (Ambient Light),
Cloud-Based Central Control System

DIG's *LEITLINK*® 4GF

WITH INTERNET CONNECTION FOR CLOUD-BASED COMMUNICATION



DIG's approach to irrigation monitoring and management is the new *LEITLINK*® technology with internet connection for cloud-based communication. That means that there's no hardware or software to install, no physical lines to place in your office, and more opportunities for enhanced capability, flexibility, and control.



LEITLINK® Technology

WATER MANAGEMENT CONTROLLER



DIG's *LEITLINK*® 4GF solar powered (ambient light), cloud-based water management controller offers modular hardware design with advanced communication and a simple program management software. Utilizing 4G technology with a MQTTS based communication protocol, the *LEITLINK*® 4GF controller is easy to use and program via the DIG *LEITLINK* site or the *DLINK*™ app.



EFFORTLESS ACCOUNT CREATION

To start, create an account on www.leitlink.com, install the *LEITLINK*® 4GF controller and link the controller to your site account. Add and link additional controllers and program each controller from the controller's onboard display or from the DIG site.

SIMPLE CONTROLLER MANAGEMENT

Once the user account is set and linked to an installed *LEITLINK*® controller, the controller icon will appear on the site program map. Selecting the controller icon will allow the user to assign a name, location, and group. Program and manage the controller along with any number of *LEITLINK*® controllers the user has access to.

PROGRAM MODIFICATION FLEXIBILITY

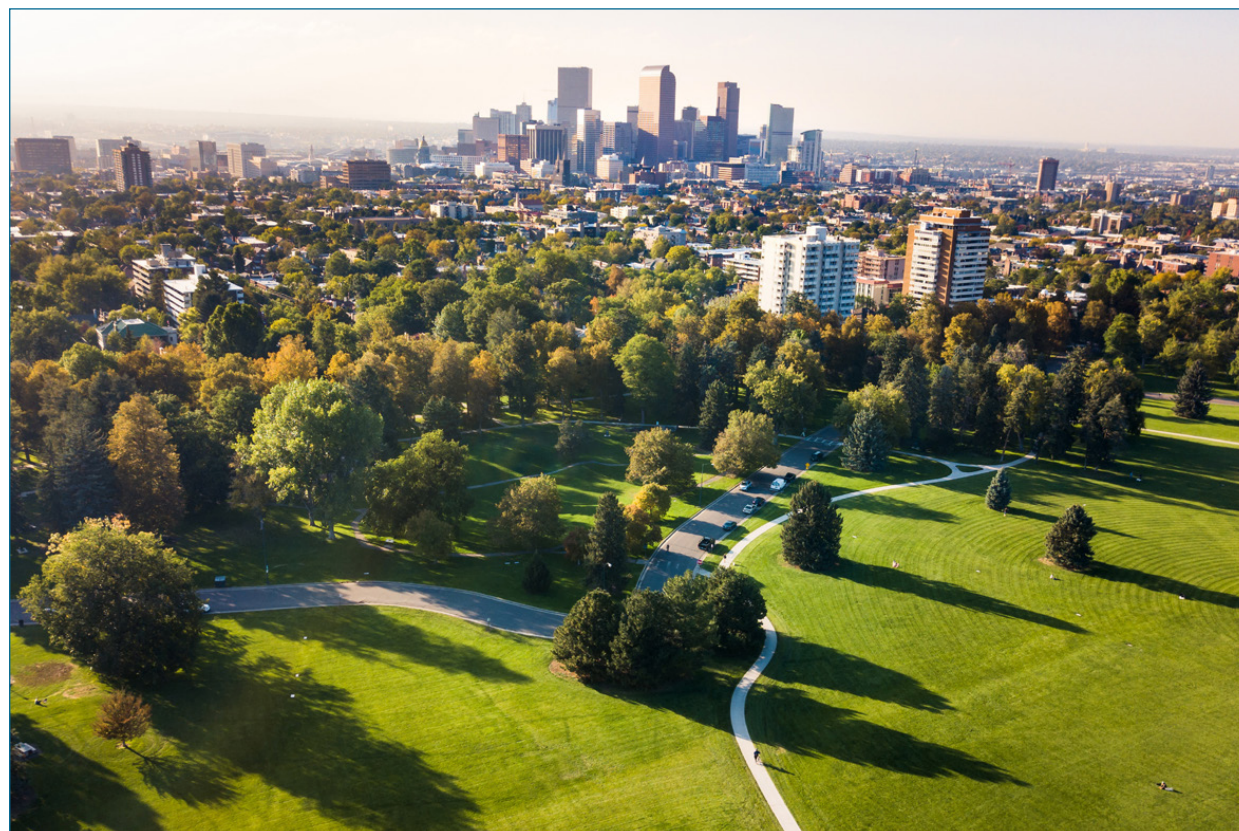
To modify a specific *LEITLINK*® controller, access your account. Select the controller icon and enter the controller site database to set a program, set flow and ET, update settings, review reports and history, or perform a manual run. Other users can also access and manage this specific *LEITLINK*® controller. When changes are made, the program sends that specific *LEITLINK*® controller information with the changes, utilizing 4G encrypted connection and the MQTT protocol.

MAXIMIZE WATER CONSERVATION

The *LEITLINK*® is available in four configurations, each including weather-based programming and sensor capabilities that can maximize water usages and conservation.

LEITLINK® Features

- ✓ Advanced solar powered, cloud-based control unit with GPS that can interact via 4G utilizing an MQTTs based protocol
- ✓ Offers a cost-effective central controller solution suitable for small-to-large commercial installations without AC power
- ✓ Up to 32 stations with five common wires, two master valves, two independent fertilizer injectors, a rain sensor and up to six types of monitoring sensors per each zone without the need for an AC power hookup, batteries or a conventional solar panel mounting
- ✓ Built-in GPS that allows for controller visibility and location view via the DIG® LEITLINK website or DLINK™ app
- ✓ Allows users to interact with multiple systems with a registered account to manage and operate any number of controllers
- ✓ FCC and EU approved and supports one year of prepaid 4G service for wireless communication
- ✓ Available in two configurations with cloud-based connectivity or as an independent, stand-alone controller



Custom Programming



The *LEITLINK*® 4GF Solar Powered (Ambient light), Cloud-Based Controller has a large, colored display with self-guiding, icon-based programming and five durable sealed buttons for navigation. Password protection can be enabled to prevent unauthorized changes to the controller.

The *LEITLINK*® 4GF controller's custom programming includes 5 programs with a 7-day calendar, intervals from 1-39 days, odd/even days, or everyday rotation, and 8 start times per program with station durations of up to 23 hours and 59 minutes in 1-minute increments.

The *LEITLINK*® 4GF manual run allows for temporary manual programs, stored manual programs, and individual valve testing. Manual programs or individual valves are started through user interaction and will not start automatically.

The *LEITLINK*® 4GF supports weather-based programming through 4G connection. It obtains weather information from the cloud and, based on user-entered qualities, determines the program to run per valve.

The *LEITLINK*® 4GF supports up to six inline sensors per valve. Available sensors include flow sensors, temperature sensors, and moisture sensors. Further sensors will become available in the future.

The *LEITLINK*® 4GF supports monthly budgeting of 0%-200%

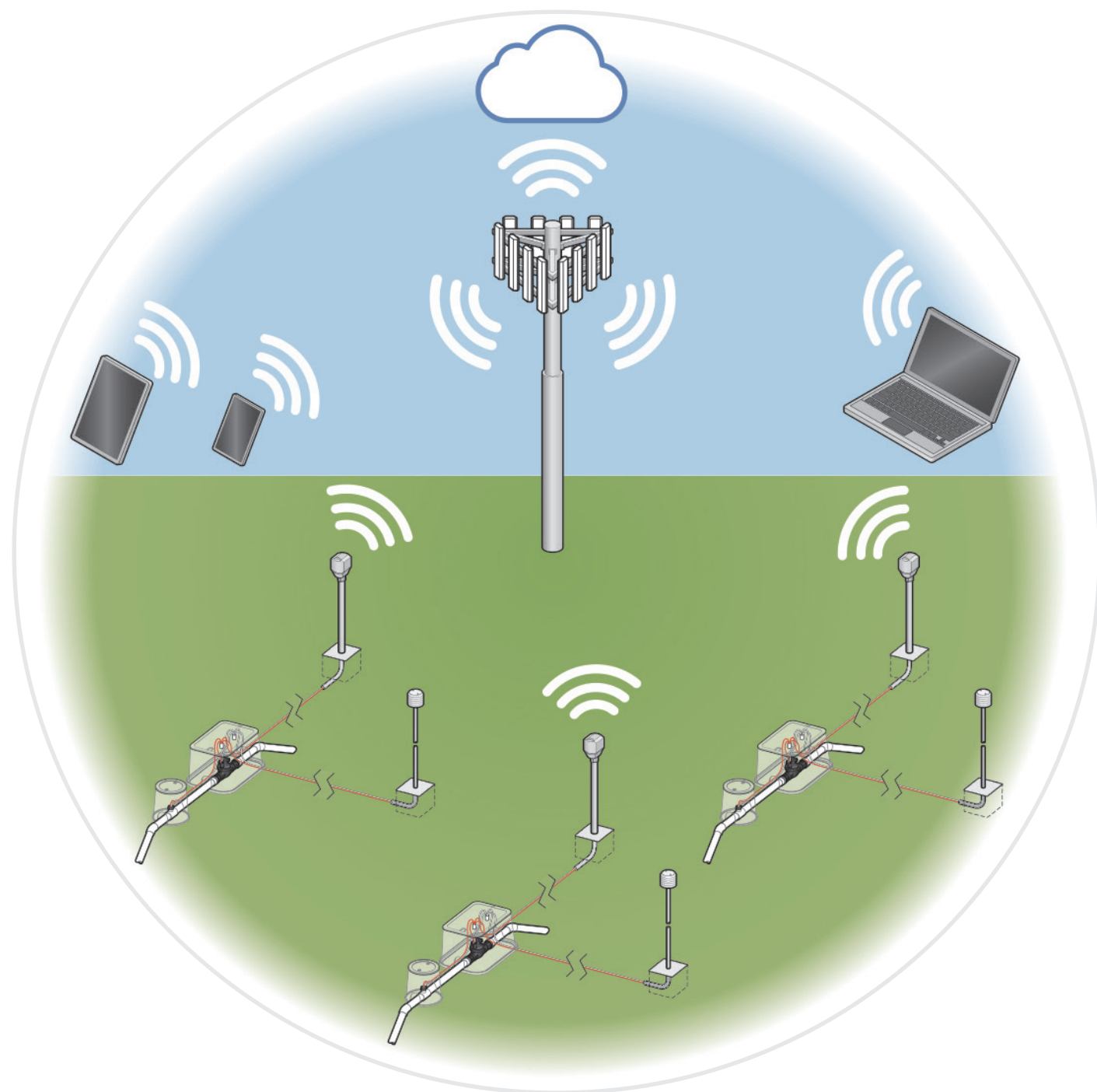
0-200%

monthly
budgeting

LEITLINK® 4GF MQTTS based protocol



The LEITLINK® 4GF is an advanced solar powered, cloud-based control unit with GPS that can interact via 4G utilizing an MQTTS based protocol.



Self-guiding icon-based programming

REPORTS

The *LEITLINK*® 4GF accumulates history and creates reports that are detailed to the customer through the DIG LEITLINK website or D-Link app. Some reports are accessible directly from the controller. Reports that the controller provides include water usage, power management, fertilizer usage, and water savings when an ET system is active. When sensors are installed, the controller create reports based on historical information of the sensor.

PATENTED TECHNOLOGY INLINE SENSOR ADDITION

The *LEITLINK*® 4GF's patent covers the ability to add sensors to the system directly with each valve. Sensors are connected to the same two-wire connection that valves are connected to and can be added at any time, with the ability to link multiple sensors to the solenoid actuator circuit. Setup on the controller is required when adding a sensor.

SECURITY

On-controller security consists of a six-character password that once set will be required for all further entries to the controller. For over-the-air security, users must register the controller to their account on the DIG LEITLINK website. Once registered, they are able to grant specific access privileges to other users for multiple-user control of a single controller.

CONSTRUCTION

Controller housing is heavy-duty, vandal-resistant, waterproof, and constructed from super tough Polycarbonate resin, enduring extreme hot, cold, wet or dry weather. The controller's conformal coded, removable hardware is enclosed in a modular waterproof housing design and equipped with a non-volatile memory that can hold all programs indefinitely without needing batteries or AC power at a temperature range of 14-140°F (-10-60°C).



Colored display with five durable buttons

WEATHER BASED

Supports location-based weather information gathering through the cloud. With ET activated and custom information entered, the unit will modify scheduling in accordance with the SWAT protocol.

ALERT NOTIFICATIONS

Supports flow, temperature, moisture, ET, rain, freeze sensors. When set threshold is reached in real time, an alert is sent via email or text message notifications. All sensors can be overridden by the user for any reason including watering suspensions and temporary manual runs.

LIGHTNING PROTECTION

The *LEITLINK*® 4GF offers advanced lightning protection that isolates the main electronic hardware from external electrical ground, offering protection from ground currents and/or proximity to lightning strikes.

LEIT USB KEY

The LEIT USB KEY is required to initialize the *LEITLINK* controller display. The *LEITLINK* uses the rechargeable LEIT USB KEY as an external power source to light up the display as well as to internally charge the super caps.

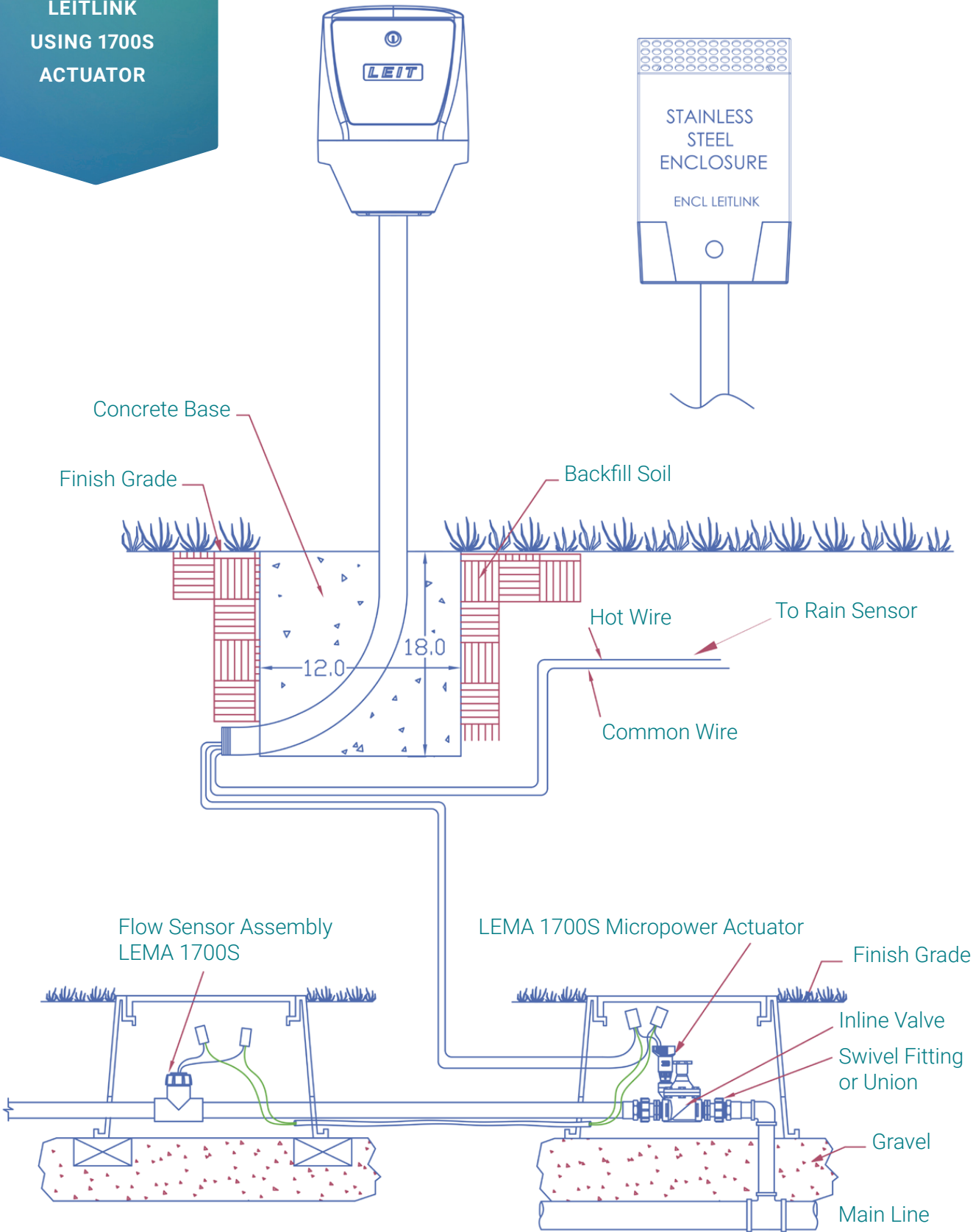
VERSATILITY

The *LEITLINK*® 4GF operates with the LEMA 1700S solenoid actuator, which can link with up to six sensors including *FLOWLINK*, FST-XXX, ¾" to 2" flow sensor, TSKIT-48I temperature sensor assembly, and four others. The LEMA 1700S solenoid actuator can also use one of seven valve adapters to mount on most brand name valves.

Models & configurations

Model	Product Description
LEITLINK® 4G, Cloud & Weather Based Controller	
LEITLINK 4GF-08	LEITLINK® 4G, Cloud & Weather Based, Solar Powered Controller
LEITLINK 4GF-16	LEITLINK® 4G, Cloud & Weather Based, Solar Powered Controller
LEITLINK 4GF-24	LEITLINK® 4G, Cloud & Weather Based, Solar Powered Controller
LEITLINK 4GF-32	LEITLINK® 4G, Cloud & Weather Based, Solar Powered Controller
LEITLINK® Stand-Alone Controller	
LEITLINK FS-08	LEITLINK® Solar Powered Controller
LEITLINK FS-16	LEITLINK® Solar Powered Controller
LEITLINK FS-24	LEITLINK® Solar Powered Controller
LEITLINK FS-32	LEITLINK® Solar Powered Controller
LEMA 1700S Micro Powered Solenoid Actuator	
LEMA 1700S	Powered Solenoid Actuator w 11/16"-12 thread
LEMA 1700S-10	Powered Solenoid Actuator w 11/16"-12 thread (Pack of 10)
LEMA 170S Micro Powered Solenoid Actuator with Control Valve	
LEMA 170S-075	Power Solenoid Actuator w/ 3/4" FNPT inline globe valve
LEMA 170S-100	Power Solenoid Actuator w/ 1" FNPT inline globe valve
LEMA 170S-150	Power Solenoid Actuator w/ 1 1/2" FNPT inline globe valve
LEMA 170S-200	Power Solenoid Actuator w/ 2" FNPT inline globe valve
FST FLow Control T Assembly Sensors	
FST-075	Flow Control T Assembly w/ 3/4" PVC slip
FST-100	Flow Control T Assembly w/ 1" PVC slip
FST-150	Flow Control T Assembly w/ 1 1/2" PVC slip
FST-200	Flow Control T Assembly w/ 2" PVC slip
Temperature Sensor	
TSKIT-48	Column mounted temperature sensor
Accessories	
LEIT USB Key	Rechargeable LEIT USB Key
MCOLXS	35" high mounting column
MCOLXL	51" high mounting column
ENCL LEITLINK	SS enclosure

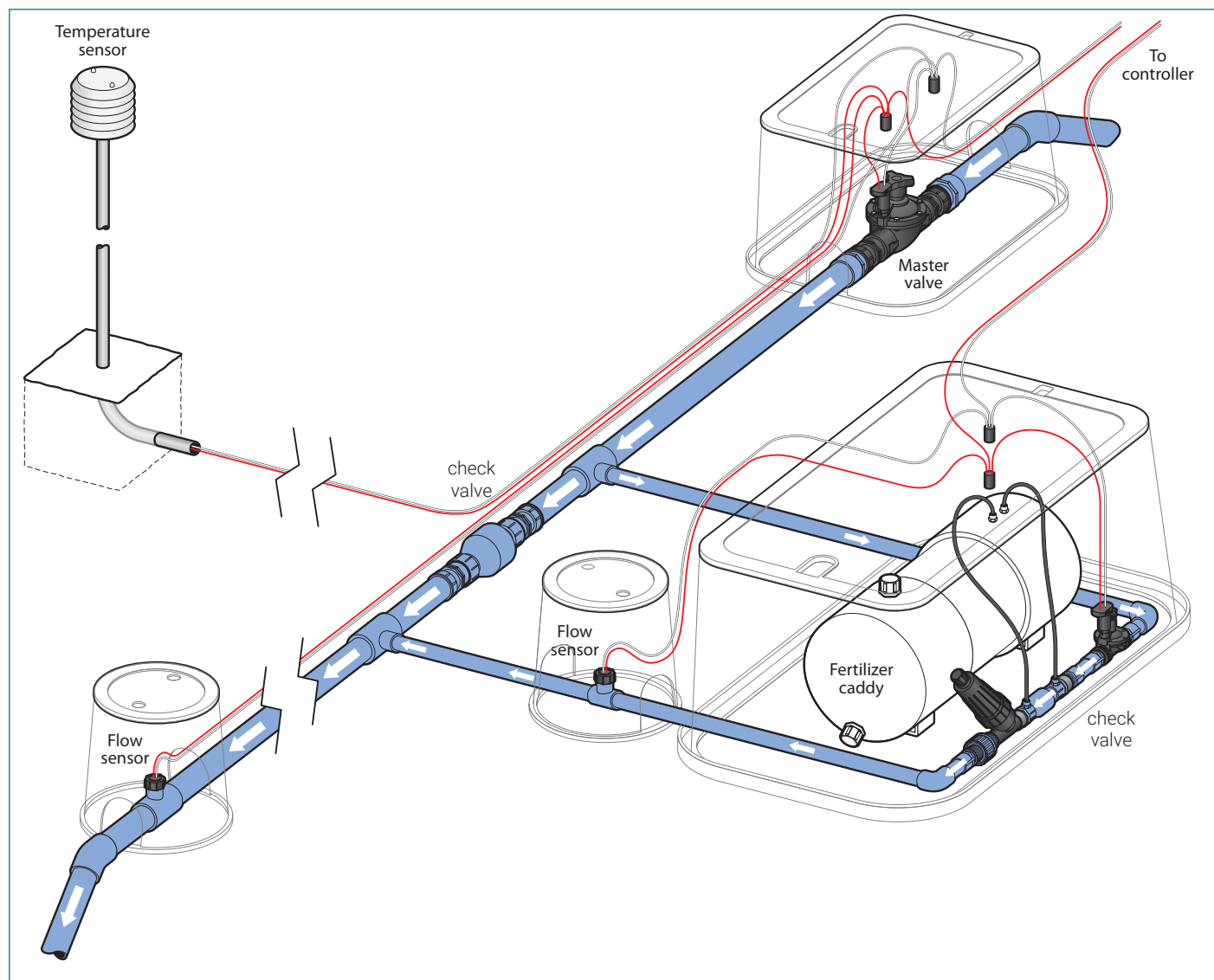
TYPICAL SYSTEM
INSTALLATION
LEITLINK
USING 1700S
ACTUATOR



Up to six sensors per valve



The *LEITLINK*® Solar Powered (Ambient light), Cloud-Based controller can monitor up to six sensors per each valve utilizing a patented technology, including *FLOWLINK*™, a digital flow sensor, *TEMPLINK*™ temperature sensors and other sensors for real time operation. The sensors are connected to the *LEITLINK*® controller via the LEMA 1700S solenoid actuator and are designed to track, monitor, and spot any deviation or problem with the irrigation system.



Temperature sensors for real time operation

TEMPERATURE SENSOR

The *TEMPLINK*™ temperature sensor uses relative humidity and temperature to obtain accurate readings from up to 100' of the LEMA 1700S solenoid actuator. When any of the *TEMPLINK*™ temperature sensor measured parameters go above a preconfigured threshold, the *LEITLINK*® system will analyze the information and send the first alert notification to the appropriate system user(s). This information advises the user that rapid environmental changes are developing within the *LEITLINK*'s controller location. If environmental changes such as temperature continue to increase rapidly within the configured threshold, a second notification is sent, and the valve associated with this sensor will turn on. If more than one sensor detects this condition, additional zones will open automatically.

FLOW SENSOR

The *FLOWLINK*™ digital flow sensor is connected to the *LEITLINK*® controller via the LEMA 1700S solenoid actuator and allows the controller to track, monitor, and act on flow. Once installed and added to the *LEITLINK*'s programming, the *FLOWLINK*™ measures, in real time, flow of the specified valve when running. If flow conditions do not match expected high or low flow conditions, the controller can stop irrigation and/or send out email or text notification alerts to users of the encountered issue.

The *FLOWLINK*™ digital flow sensor is available from 3/4" to 2" and consists of a four-blade rotating paddle design with TEFLON type bearings for high constant torque and improved accuracy that is less prone to be fouled by water borne debris.

FERTILIZER PORTS

The *LEITLINK*® 4GF includes two additional ports for fertilizer application. The opening and closing of the ports are controlled by the DIG LEMA 1700S solenoid actuator and the *FLOWLINK*™ flow sensor can be installed inline and used to measure fertilizer flow. Programming is available to control application of liquid chemical fertilizers or cleaners from two different sources simultaneously to a specific valve or to the entire system according to a preset setting, assigned program time or by flow using DIG Add-It™ Automatic Proportional Fertilizer Injectors.

LEITLINK® 4GF

LEITLINK® Configuration Options	LEITLINK® 4G, Cloud & Weather Based, Ambient light, Solar Powered Controller*			
	LEITLINK® 4GF-08	LEITLINK® 4GF-16	LEITLINK® 4GF-24	LEITLINK® 4GF-32
Ambient light, solar powered	✓	✓	✓	✓
Patented technology	✓	✓	✓	✓
Stand-alone	✓	✓	✓	✓
Maximum number of controllers	Unlimited	Unlimited	Unlimited	Unlimited
Number of stations	Up to 8	Up to 16	Up to 24	Up to 32
Master valve/pump	2	2	2	2
Fertilizer injector	2	2	2	2
Sensors	up to 60	up to 120	up to 168	up to 216
Column or SS pedestal mounting	✓	✓	✓	✓
SS enclosure type	✓	✓	✓	✓
LEIT USB key to enter	✓	✓	✓	✓
Password protected	✓	✓	✓	✓
2.8" color screen display	✓	✓	✓	✓
Warranty	4 years	4 years	4 years	4 years
Solenoid actuator used	LEMA 1700S	LEMA 1700S	LEMA 1700S	LEMA 1700S
Maximum 12 gage wire length of 4500' (1371 m) one way	✓	✓	✓	✓
AC power or battery	No	No	No	No
FCC and EU Approved	✓	✓	✓	✓
Communications				
Website login: www.leitlink.com	✓	✓	✓	✓
Cloud based with 4G	✓	✓	✓	✓
Built-in GPS	Yes	Yes	Yes	Yes
DLINK™ smartphone APP compatible	✓	✓	✓	✓
Reports	✓	✓	✓	✓
Alert notifications via email or text	✓	✓	✓	✓
Weather based, ET based scheduling	✓	✓	✓	✓
1-year prepaid sim card with 4G connection	✓	✓	✓	✓

Configuration options

LEITLINK® Configuration Options	LEITLINK® 4G, Cloud & Weather Based, Ambient light, Solar Powered Controller*			
	LEITLINK® 4GF-08	LEITLINK® 4GF-16	LEITLINK® 4GF-24	LEITLINK® 4GF-32
Number of Sensor Input Capabilities				
Digital flow sensor (3/4" up to 2")	Up to 10	Up to 20	Up to 28	Up to 36
Temperature sensor	Up to 8	Up to 16	Up to 24	Up to 32
Moisture sensor	Up to 8	Up to 16	Up to 24	Up to 32
Rain sensor	✓	✓	✓	✓
Freeze sensor	✓	✓	✓	✓
Programs				
# of programs	4	4	4	4
# of start times	Up to 32	Up to 32	Up to 32	Up to 32
Runtime	Up to 24 hours	Up to 24 hours	Up to 24 hours	Up to 24 hours
Delay between valve starts (user)	✓	✓	✓	✓
Monthly budget	5% to 200%	5% to 200%	5% to 200%	5% to 200%
Weekly, odd/even, cyclical	✓	✓	✓	✓
Monthly program deactivation	✓	✓	✓	✓
Manual operation by valve or by program	✓	✓	✓	✓
Bilingual software	✓	✓	✓	✓
Operation Features				
Simultaneous station operation	✓	✓	✓	✓
# of simultaneous stations	up to 8	up to 16	up to 24	up to 32
Open circuit diagnostic detection	✓	✓	✓	✓
Wire short diagnostic detection	✓	✓	✓	✓
Flow monitoring & management per valve	✓	✓	✓	✓

*Available in two configurations with cloud-based or as an independent, stand-alone controller.



LEITLINK APPLICATIONS

Municipalities, public agencies, school campuses, airports, cemeteries, gated communities and farms.



Get in Touch



DIG CORPORATION
1210 Activity Drive • Vista, California 92081
800.322.9146 • 760.727.0914 • fax 760.727.0282
www.digcorp.com