



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®* central irrigation controller with 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.

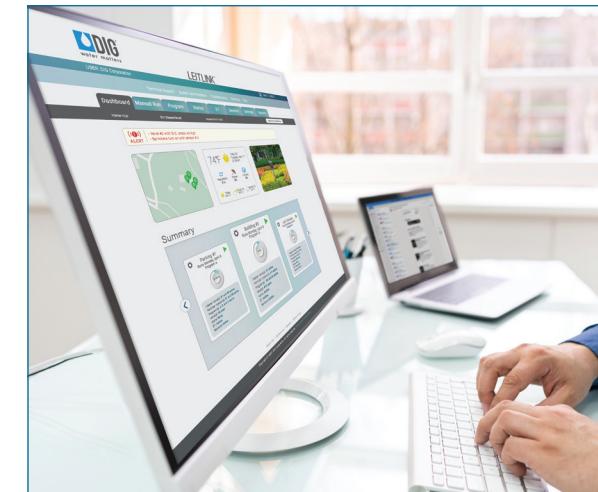


LEITLINK® Technology

WATER MANAGEMENT CONTROLLER



DIG's *LEITLINK®* 4GF solar powered (ambient light), cloud-based, water management controller offers a modular hardware design and simple program management. 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

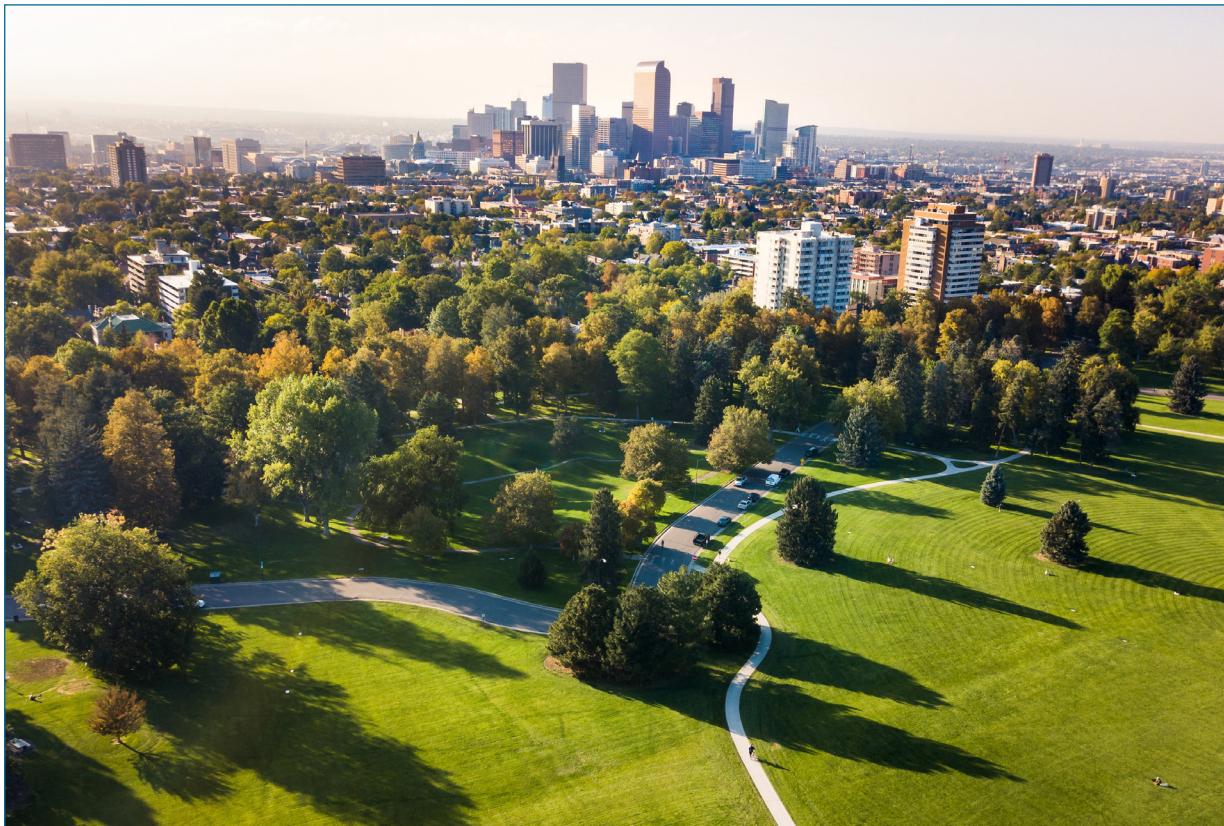
To modify a specific *LEITLINK®* controller, access your account, select the controller icon, and enter the controller site database to set a program, set flow and ET, update settings, review reports and history, or perform a manual run. Other users can also access and manage this specific *LEITLINK®*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

MAXIMIZE WATER CONSERVATION

The *LEITLINK®* is available in four configurations, each including weather-based programming and sensor capabilities that can maximize water usage 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 three years of prepaid 4G service for wireless communication
- ✓ Available in two configurations, either 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 4 programs with a 7-day calendar, intervals from 1-99 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.

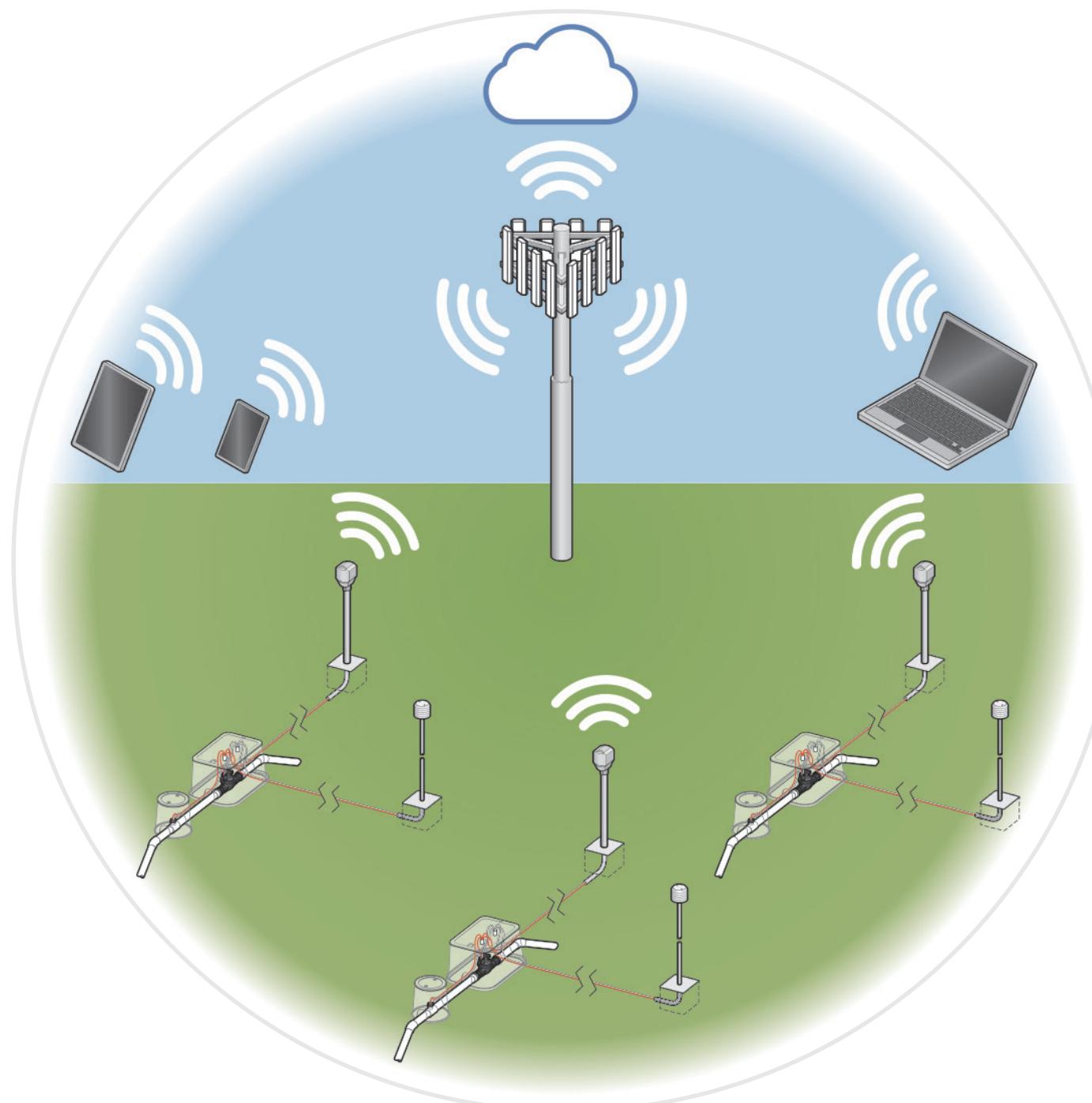
The LEITLINK® 4GF supports monthly budgeting of 0%-200%

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 detailed reports that are available to the customer through the DIG *LEITLINK* website, D-Link app, or accessible directly from the controller. Reports include run history, water usage, fertilizer usage, and water savings when an ET system is active. When sensors are installed, the controller creates 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 via 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. Further programming 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 coated PCBA is enclosed in a modular waterproof housing design and equipped with 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 quick charge the super caps.

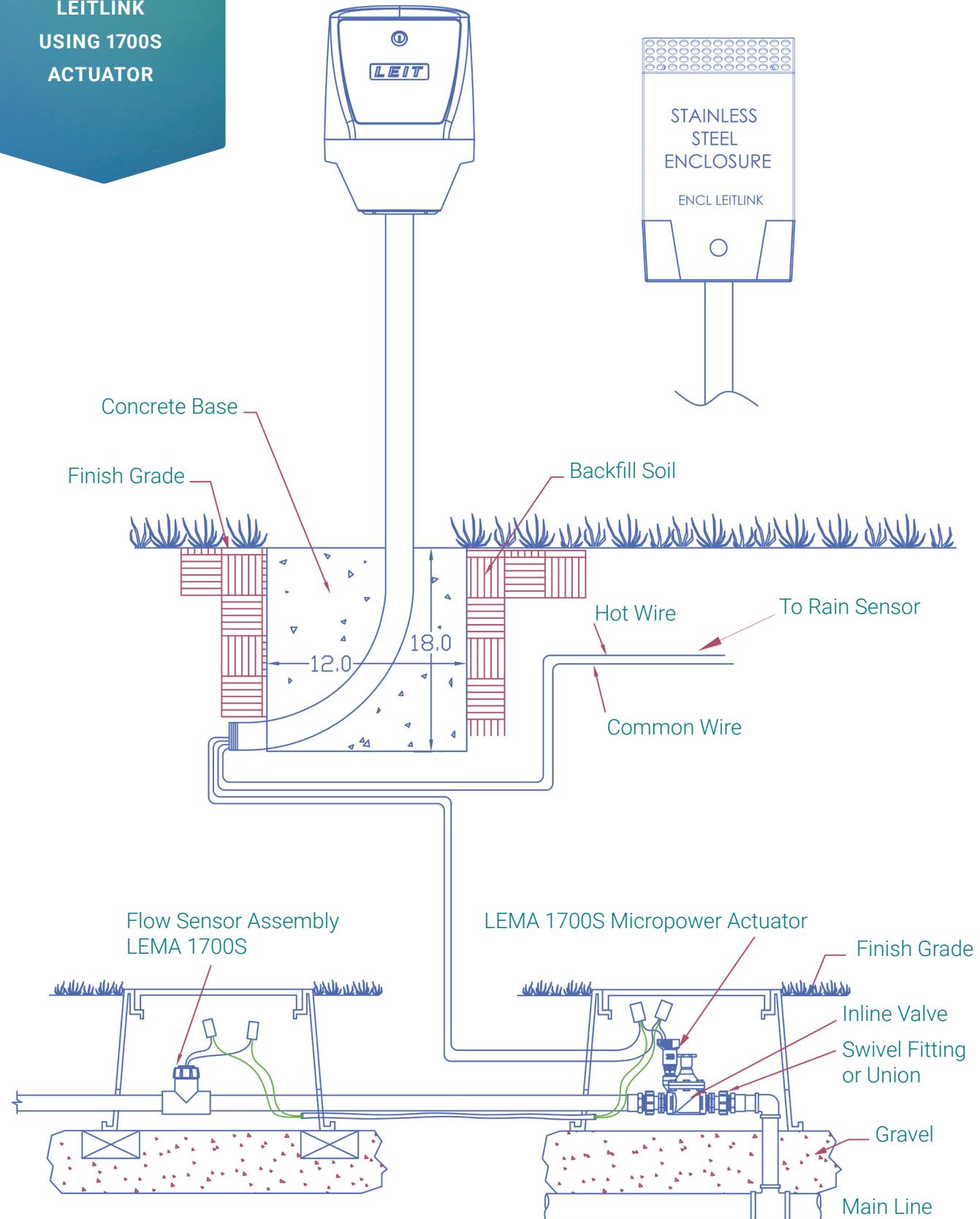
VERSATILITY

The *LEITLINK*® 4GF operates with the LEMA 1700S solenoid actuator, which can link with up to six sensors including FLOWLINK, FST-XXX, $\frac{3}{4}$ " 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 |

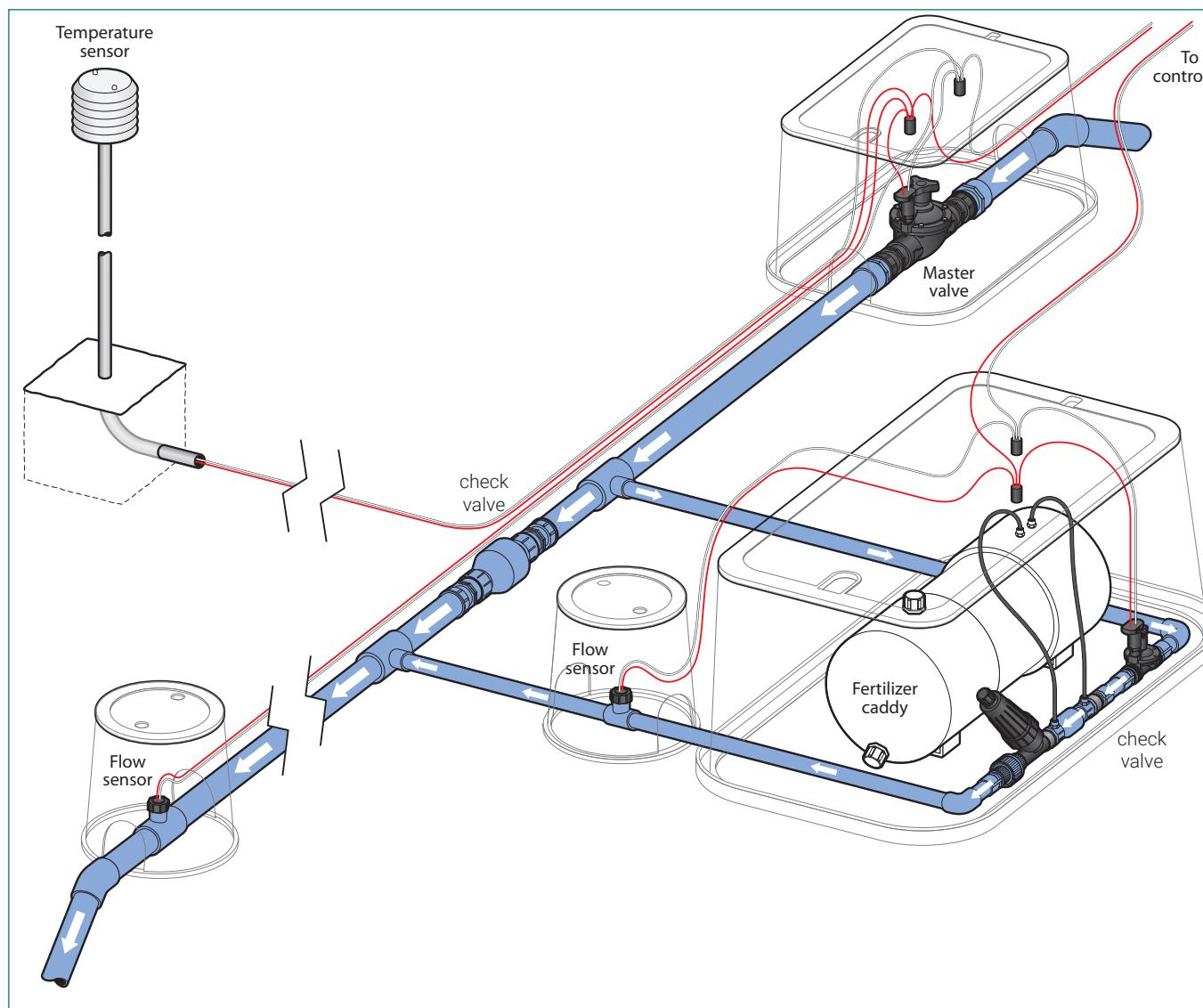
**TYPICAL SYSTEM
INSTALLATION
LEITLINK
USING 1700S
ACTUATOR**



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.



Sensors and Fertilizers

TEMPERATURE SENSOR

The **TEMPLINK™** temperature sensor uses relative humidity and temperature to obtain accurate readings locally. 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®** 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®** 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 notification alerts to users of the encountered issue.

The **FLOWLINK™** digital flow sensor is available from $\frac{3}{4}''$ to $2''$ and consists of a four-blade rotating paddle design with TEFLO 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 programming 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 64 | up to 128 | 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 | ✓ | ✓ | ✓ | ✓ |

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 |
| 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