A150 and ARCOS^{TM} IoT Sensors

Product and Service Catalog

Ver 2.03

Archimedes Controls Corp.

Archimedes Controls Corp.   250 W. Tasman Dr. San Jose, CA 95134   Tel: +1 (888) 860-3644   www.ArchimedesControls.com   sales@ArchimedesControls.com

1

Version 2.03

Description

The A150 Environmental Sensor System is specifically designed and developed for the IoT applications like data centers, IT infrastructure, indutrial controls, automation, agriculture, food safety, transportation, environmental and building management to meet the demands for environmental and physical security, energy conservation, transparancy and visibility and remote management for next decades.

The following diagrams illustrate the high-level system architecture of A150 system.

A150 and ARCOS System Architecture

Archimedes Controls Corp.   250 W. Tasman Dr. San Jose, CA 95134   Tel: +1 (888) 860-3644   www.ArchimedesControls.com   sales@ArchimedesControls.com

2

Co-Lo or Private Data Center

IoT Edge Server

ARCOS™

https://
SMS/Email

SENSING PROBE EXAMPLES

Fever Det & NFC

4G

Temp/Humid

WiFi/ETH

AC Current

Built-in Wireless Sensors:
- Temperature/Humidity
- Tamper/Vibration/Move/Tilt/Shake
- Rock, Tree, Object Fall
- Disaster/Mudslide/landslide
- Water Leak

Access/Door

Water Leak

Tamper/ Move/Tilt/ Shake

Up to hundreds of sensors to 1 Km

Wireless Sensor with 2AA Batteries and 2 IO Ports

Power Consumption/ Wire Overheating

WiFi, Eth(SSL), 4/5G

CONTROLLER

Built-in Sensors:
-Temp/Humidity
-Airborne Particles
-Air Quality
-Smoke
-HCOC

4 IO Ports for Sensing Probes and 3rd Party Control Devices

A3rd Party Device | Relay | Airflow Speed | Water Level/Fuel Level

A150 and ARCOS System Diagram

Archimedes Controls Corp.   250 W. Tasman Dr. San Jose, CA 95134   Tel: +1 (888) 860-3644   www.ArchimedesControls.com   sales@ArchimedesControls.com

3

Key Functions and Features

The A150 System provides the following key functions and features:

(1)   Simple and easy-to-use user interface from a cloud service platform ARCOS^{TM}. With a simple training session, users can operate the entire system through its cloud-based GUI either locally or remotely, with a secure private communications link or via secured Internet. A150's customers can either host the ARCOS cloud server(s) privately or sign up to use Archimedes Controls' ARCOS cloud service.

(2)   ARCOS provides real time measurement data, alerts and dashboards. Historic data and warnings are displayed in graphs and tables as well as an analytics tool for customized reports and anomaly detection. Alerts notifications are sent to registered users via emails and SMS messages.

(3)   A150 system and ARCOS support the following environmental measurements and monitoring in real time: temperature and humidity, water leak (point and along a rope), access status, power consumption (AC and DC), airflow speed, tamper/vibration/tilt/move/displacement, disarster (mudslide/landslide, tree fall, large object fall, air quality and airborne particles (i.e., airborne particle counts from 0.3um to 10um, PM1.0, PM2.5, PM10, etc.) and atmosphere pressure.

(4)   A150 system and ARCOS support many 3rd party sensors (analog and digital), control devices (i.e. electric switch) via dry relays. All 3rd party sensor and device controls are configured by the two external ports on the Wireless Sensor/Transmitter and 4 IO ports on the Gateway/Controller by remotely configuring each port to a proper state (input, output, analog, digital, active high, active low) and trigger conditions (up to four).

(6)   ARCOS also provides user accounts management in multiple levels of privileges (user's information, notification priority, warning trigger points, user notification methods, etc.).

(7)   ARCOS supports user-defined warning alert thresholds for every monitoring point.

(8)   ARCOS provides a unique assets management tool for tracking and inventory searching.

(9)   ARCOS supports IP cameras and camera integration into ARCOS warning and alert notification system.

(10) ARCOS also provides a built-in analytics tool for customized display formats and reports.

❑ Private cloud-based software management
❑ Site view, dashboards, 3D heat map, warnings, historic charts, property assets management, etc.
❑ Accessible from anywhere via secured link for alarms, videos, data
❑ Alerts to emails and mobile phones via SMS
❑ User privileged accounts
❑ AI and ML based video detection
❑ Supports integration to existing warning system

ARCOS IoT Sensors Management

Archimedes Controls Corp.   250 W. Tasman Dr. San Jose, CA 95134   Tel: +1 (888) 860-3644   www.ArchimedesControls.com   sales@ArchimedesControls.com
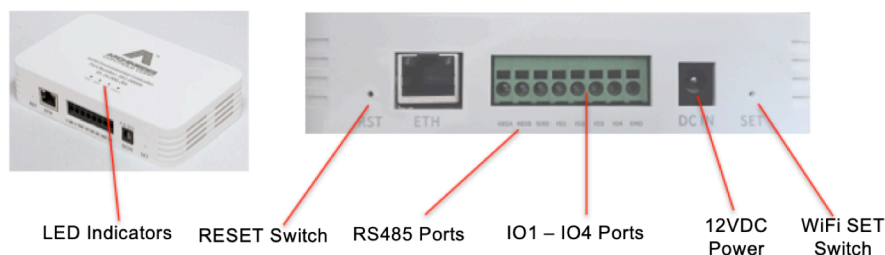
4

A150 System

A150 system platform consists two main hardware bases – Wireless Sensor/Transmitter and Gateway/Controller. Each Wireless Sensor/Transmitter including a built-in temperature and humidity sensor, optional water leak detector and tamper/vibration/tilt/shake/move detector, and two external ports which accept the following sensing probes:

- Extended Range Temperature and Humidity Probe: for applications beyong normal environemtnal monitoring, such as industrial temperature/humidity oven, machinary automation, manufacturing process data recording, greenhouse monitoring, etc.

- Access Probe: for monitoring door/entrance open/close status such as equipment rack/cabinet access, entrance door, closet door, building window and storage room, etc.

- Tamper/Vibration/Shake/Move/Tilt probe: for monitoring unauthorized vibration and tampering (tamper, shake, tilt, move, displacement, etc.).

- Inductive AC or DC Current Probe: for monitoring AC or DC electrical current for power consumption, power condition and power line events without breaking power wire. Both wired and wireless versions are available for AC current monitoring while only wired version is available for DC current monitoring. The wireless version (WAC) uses energy harvesting technology, so no battery is needed. It also monitors the wire temperature to prevent wire overheating. The wired version (AC60) can be used on either device while the DC version (DC200) can only be used on Gateway/Controller.

- Water Leak Detection Probe: for a path of 10 ft, 50 ft or100 ft., if there is any water or specific liquid greater than 1" diameter along any portion of the sensing cable, then a warning message will be generated to alert the user. The Water Leak sensing probe can be placed and fixed on floor (either wood or concrete), around a water pipe, aroud a window or a door, underneath of a rack/cabinet, etc. where water leak monitoring is desired.

- Others: custom sensing probes are available upon request.

Each Gateway/Controller includes an optional built-in airborne particle monitor (AQ). It also serves as a gateway for the wireless sensors and external probes for up to 100 devices. Multiple Gateway/Controllers also form a wireless meshed network with sensors to provide redundancy. All sensing probes support both the Wireless Sensor/Transmitter as well the Gateway/Controller.

Each Gateway/Controller provides three (3) general purpose IO ports and one analog input port (0.0V – 10.0V). The general purpose IO ports can be remotely programmed via ARCOS for either digital input or digital output, either active high or active low, or analog input (0.0V to 3.3V for IO4). Dry relays are available for controlling 3rd party devices when IO ports are configured as digital output.

In addition, power over Ethernet (PoE) is available for connecting to a PoE router port.

LED Indicators   RESET Switch   RS485 Ports   IO1 – IO4 Ports   12VDC Power   WiFi SET Switch

Wireless Sensor/ Transmitter

STATUS LED – Blinks during power on self test

External Probe Connectors P2 and P3

TX LED – Blinks when the Sensor is transmitting

Note:
Works with A150
Gateway/Controller

Specifications

Parameter	Nominal Range
Main functions	▪ One built-in digital temperature/humidity sensor ▪ Two ports for external sensing probes P2 and P3. ▪ Optional built-in tamper/tilt/shake/move detector (-TAMP) ▪ Optional built-in water leak detector (-WL) ▪ Disaster detection version (-DST) - mudslide/landslide/tree fall/rock fall/large object fall/displacement, no external ports.
Avilable external sensing probes (up to two)	▪ Extended range temperature & humidity: -40°C to +100°C temperature and 0 to 100% relative humidity measurements ▪ Access and door open/close status (RA) ▪ Tamper/tilt/shake/move sensor (TAMP) ▪ Water leak detection (WL10, WL50, WL100) ▪ AC current monitoring (AC60)
Cable length for external probes	Standard 0.5 meter or custom cable length
Data transmission	Ultra low power proprietary wireless network with patented technologies.
Battery type	Two UL listed AA Lithium batteries, included
Battery operational life	Up to 10 years
User interface	ARCOS – A cloud or private server based GUI with an analytics tool
Data storage	Cloud based service or private server
Sensor size	75 x 75 x 19.5 (mm)
Weight	120 g
Environmental	RoHS

Temperature Measurement Specifications

Parameter	Test Condition	Min.	Typ.	Max.	Unit
Temperature measurement range	Built-in	-20	–	+50	°C
Temperature measurement resolution	Built-in		0.1		°C
Data refresh rate	Change > 0.5°C		30		Sec
Temperature accuracy	15 to 40 °C		±0.5		°C
	0 to 15°C and 40 to 60°C		±1		°C
Response time			30		Sec

Archimedes Controls Corp.   250 W. Tasman Dr. San Jose, CA 95134   Tel: +1 (888) 860-3644   www.ArchimedesControls.com   sales@ArchimedesControls.com

6

Humidity Measurement Specifications

Parameter	Test Condition	Min.	Typ.	Max.	Unit
Humidity measurement range	Built-in	0	–	100	% rH
Humidity measurement resolution			1		% rH
Humidity accuracy	20 to 80 % rH		±4.5		% rH
	Otherwise		±6		
Humidity hysteresis			±1		% rH
Data refresh rate	Change > 5%		30		Sec

Available External Probes:

(T&RH) Extended Temperature & Humidity Probe

External Temperature and Humidity Probe for the Wireless Sensor Transmitter

Temperaure & Humidity Probe (T&RH) Measurement Specifications

Parameter	Test Condition	Min.	Typ.	Max.	Unit
Extended temperature measurement range	External T&RH probe	-20		+80	°C
Temperature measurement resolution			0.1		°C
Data refresh rate	Change > 0.5°C		30		Sec
Temperature accuracy	15 to 40 °C		±0.5		°C
	0 to 15°C and 40 to 60°C		±1		
Temperature response			30		Sec

Parameter	Test Condition	Min.	Typ.	Max.	Unit
Humidity measurement range	External T&RH probe	0	–	100	% rH
Humidity measurement resolution			1		% rH
Humidity accuracy	20 to 80 % rH		±4.5		% rH
	Otherwise		±6		
Humidity hysteresis			±1		% rH
Data refresh rate	Change > 5%		30		Sec

Archimedes Controls Corp.   250 W. Tasman Dr. San Jose, CA 95134   Tel: +1 (888) 860-3644   www.ArchimedesControls.com   sales@ArchimedesControls.com

7

(RA)
Access Probe

Access detector or door open/close status, used on both wireless sensor transmitter and A150 Gateway/Controller
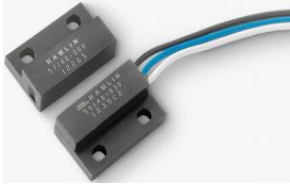
Parameter	Type	Min.	Max.	Accuracy	Unit
Door open/closed detection	Door access status	Closed	Open	N/A	Open/Close

(WLxxx)
Water Leak Detection

Detecting any standing water in any place along the cable.
WL10 (10 ft); WL50 (50 ft); WL100 (100 ft)

Parameter	Type	Min.	Max.	Accuracy	Unit
Water leak detection	Sensing cable length	10	100	15 mm DIA x 2.5 mm water puddle	Ft

(AC60)
AC Current Probe

Specifications

Parameter	Type	Min.	Max.	Accuracy	Unit	Used On
Current	AC current	0	60	<±5%	A	Sensor, Controller

Archimedes Controls Corp.   250 W. Tasman Dr. San Jose, CA 95134   Tel: +1 (888) 860-3644   www.ArchimedesControls.com   sales@ArchimedesControls.com

8

Gateway/Controller

General

Parameter	Nominal Range
Wireless sensors communication	Proprietary encrypted radio
ARCOS cloud server networking	WiFi or Ethernet or 3G/4G mobile data
Network security	Optional Ethernet encryption
Number of wireless sensors transmitters supported	>100
IO ports	3 cloud configurable IO ports, one analog input port, one multi-purpose combo port
Working environment temperature	-10 to 50°C
Power supply	UL/FCC listed power adapter or PoE
Environmental	RoHS

Built-in Atmosphere Air Pressure

Specifications

Parameter	Nominal Range
Measurement range	30,000 Pa - 126,000 Pa (absolute)
Accuracy	$\pm$ 200 Pa
Response time	Reach 90% of ultimate value within 1 sec.
Recommended operating temperature	0 to 50°C
Working environment, relative humidity	10 to 90%
Storage temperature	-10 to 60°C

Archimedes Controls Corp. 250 W. Tasman Dr. San Jose, CA 95134 Tel: +1 (888) 860-3644 www.ArchimedesControls.com sales@ArchimedesControls.com

9

A150 System and ARCOS | IoT Powered Environmental Security Monitoring

General Purpose IO Ports

Specifications

Parameter	Nominal Range
Number of GPIOs	Three digital GPIOs and one analog input
Configuration	Cloud configurable
Types of GPIO	IO1 to IO3: - Digital input active low (DIAL): - Digital input active high (DIAH); - Digital output active low (DOAL); - Digital output active high (DOAH); - Analog input (Ainp): (0.0 – 3.3VDC); IO4: - Analog input: (0.0V to 10.0VDC)
Analog measurement accuracy	$\pm$ 0.05V
Analog measurement resolution	0.01V
Measurement	Every 30 sec
Input impedance	>3.9K ohms
Output sink or source current (DOAL, DOAH)	10 mA for driving a dry relay (DR)

Available Options

(AQ)
Built-in Air Quality

Specifications

Parameter	Nominal Range	Unit
Measured Air Particle Size	0.3, 0.5, 1.0, 2.5, 5.0, 10 / PM1.0, PM2.5, PM10	um / PM
Response Time	2	min
Operating Temperature	0 to 50	°C
Flammable Gas (FG)	H2, LPG, CH4, CO, propane Detection range: 200 – 10,000 Resolution: 10	ppm
Operating Humidity	0 to 99	%
Options	Upon request (i.e. CO2, VOC, specific gas, etc.)	

(DC200)
DC Current Probe

Specifications

Parameter	Type	Min.	Max.	Accuracy	Unit	Used On
Current	DC current	0	200	<$\pm$5%	A	Controller

Archimedes Controls Corp. 250 W. Tasman Dr. San Jose, CA 95134 Tel: +1 (888) 860-3644 www.ArchimedesControls.com sales@ArchimedesControls.com

10

(WLxxx)
Water Leak Detection

Detecting any standing water in any place along the cable.
WL10 (10 ft); WL50 (50 ft); WL100 (100 ft)

Parameter	Type	Min.	Max.	Accuracy	Unit
Water leak detection	Sensing cable length	10	100	15 mm DIA x 2.5 mm water puddle	Ft

(AC60)
AC Current Probe

Specifications

Parameter	Type	Min.	Max.	Accuracy	Unit	Used On
Current	AC current	0	60	<±5%	A	Sensor, Controller

(DR)
Dry Relay
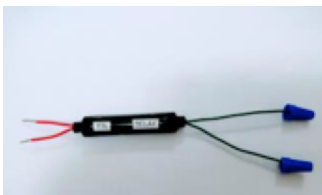
For controlling 3rd party control devices, etc. Used on Controller only

Parameter	Type	V On	V Off	Switching Voltage/Current	Operating Temperature
Dry relay	TTL driven reed relay	>2.25V	<0.5V	200V AC or DC	-40°C to +85°C
	SPST	Normal open		250mA	Non-polarized on both TTL and relay sides

(AS)
Airflow Speed

Specifications

Parameter	Nominal Range
Measurement range	0 to 10m/s
Accuracy (at 25°C)	±5% of full scale
Response time	Reach 90% of ultimate value within 1 sec.
Recommended operating	15 to 35°C
Working environment, relative humidity	10 to 90%
Storage temperature	-10 to 60°C

Archimedes Controls Corp.   250 W. Tasman Dr. San Jose, CA 95134   Tel: +1 (888) 860-3644   www.ArchimedesControls.com   sales@ArchimedesControls.com

11

(A10)
Wireless AC Current Probe
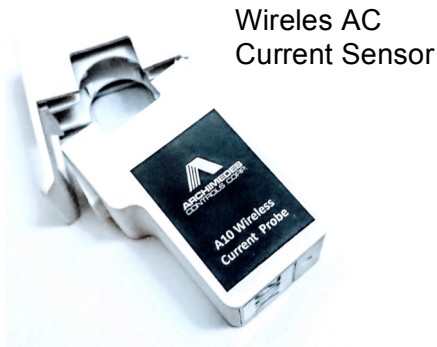
Wireles AC
Current Sensor

Key Features

- A simple and innovative power management tool for IT and industrial control
- Completely wireless, and no batteries are required
- Works on <380VAC power line, up to 60A
- Clamp to one of the AC power lines (hot or neutral). No wiring is required
- Small size, plug and play, no tools required to operate
- Works with A150 Gateway/Controller
- Supported by cloud-based ARCOS^{TM} management platform
- Cloud-based data storage and display
- Monitors the wire temperature to prevent power wire overheating

A150 Gatewav/Controller

Real time power consumption monitoring is one of the critical power management tasks for today's industries such as data centers, IT rooms, manufacturing, building and facility management, etc. A10 wireless power consumption monitoring sensor is the latest innovation from Archimedes Controls powered by patent pending wireless power and data transmission technologies. This unique device is also supported by ARCOS^{TM} cloud platform and offers a true plug and play, maintenance free power management tool for many environment and applications.

1) **Easy to Use** - Plug and play, clamp on any commercial and residential AC power line. 100% wireless and no batteries are required.
2) **Automatically Measures** – AC current every 15 sec and sends measurement data to ARCOS^{TM}
3) **ARCOS**^{TM} – A cloud-based management tool for local and remote data access, recording and archiving, warning notification at pre-determined thresholds.
4) **Maintenance Free** – Battery free operation and powered by energy harvesting technology for over 10 years of continuous operation.

Technical Specifications

Working Voltage: 1VAC - 380 VAC
Measurement Current: 2.5A – 60A; Accuracy: < $\pm$3%
Measurement Resolution: 0.1A
Maximum transmit distance (outdoor): 100m/328 ft
Measurement Rate: every 15 sec continuously

Wire Temperature Measurement: -20°C to 60°C
Operating Temperature: -20°C to 60°C
Operating Humidity: 0 to 90% RH
Dimensions: 65mm x 32 x 22mm/2.5" x 1.25" x 0.87"
Weight: 60g/2.12oz

Power Consumption Histogram
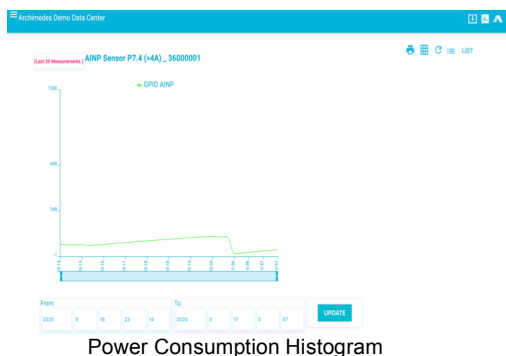
AC/DC Current

UPS Power Consumption Monitoring

Archimedes Controls Corp.   250 W. Tasman Dr. San Jose, CA 95134   Tel: +1 (888) 860-3644   www.ArchimedesControls.com   sales@ArchimedesControls.com

12
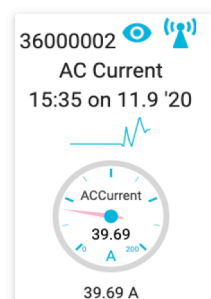
(LiqLvl)
Liquid/Fuel Level Monitor
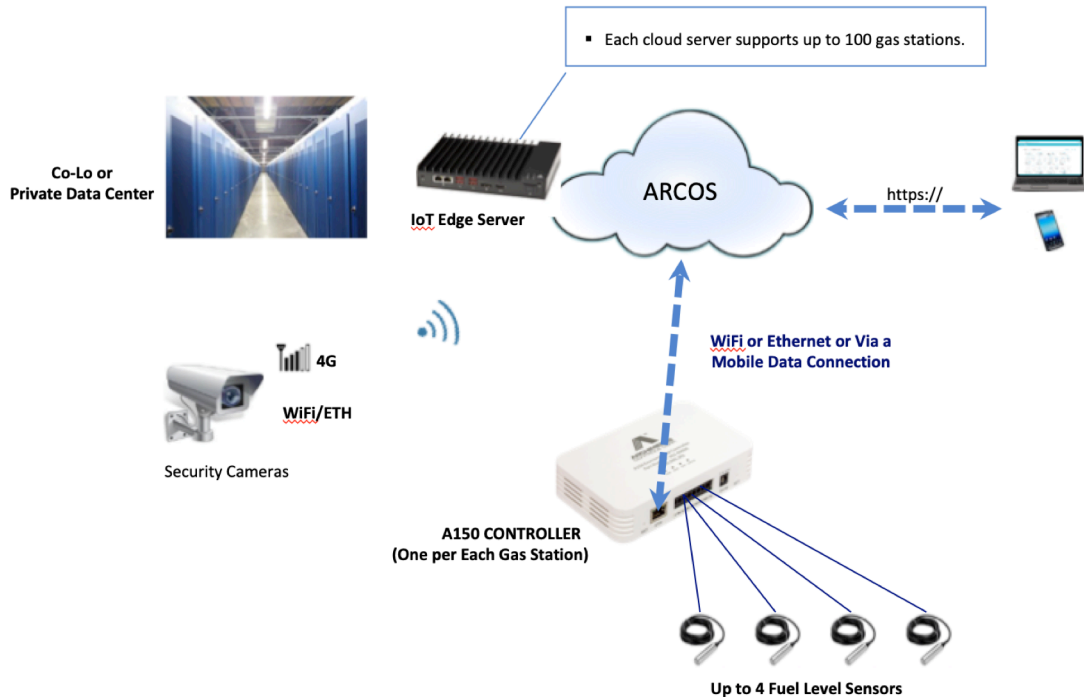
Description

- **Liquid and Fuel Level and Leak Monitoring**
  - ✓ Measures and monitors liquid and fuel (water, gasoline and diesel) level for consumption and leak in a tank or a storage
  - ✓ Measures every 15 seconds automatically.
  - ✓ Tank or storage height: 0 to 5,000 mm (0 – 5 m)
  - ✓ Measurement resolution: 2.0 mm level change
  - ✓ Measurement accuracy: < 1% of full scale
  - ✓ Temperature compensated measurements for improved accuracy
  - ✓ Operating Temperature: -20 C to +60 C
  - ✓ Suitable for transport trucks and storage tanks

- **System Technical Specifications**
  - ✓ Used with A150 Gateway/Controller, maximum 4 Liquid/Fuel Level sensors per Gateway/Controller
  - ✓ Networking: WiFi, Ethernet (PoE), 4G cellular data modem
  - ✓ Power: 12V battery backup, AC/DC adapter, PoE, solar
  - ✓ Operating Environment: -20 C to +60 C

- **ARCOS Cloud Service**
  - ✓ Remote monitoring via ARCOS cloud services or private server.
  - ✓ Pre-set alarm trigger levels. Alarms are sent via emails and/or text messages.
  - ✓ View and search current and historic data.
  - ✓ Archived data and historic alarms for operation analysis and improvement.
  - ✓ Warns user when water leak is detected or liquid level is dropped by pre-determined amount due to leak or usage.
  - ✓ Built-in analytics tool for custom reports and anomaly detection.
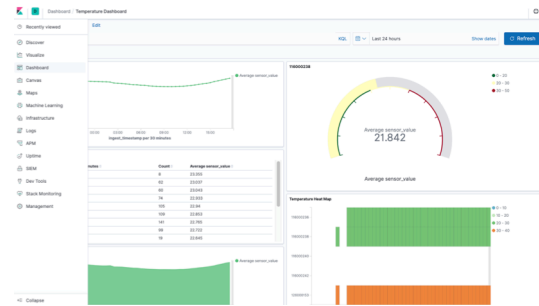

- Each cloud server supports up to 100 gas stations.

Co-Lo or Private Data Center

IoT Edge Server

ARCOS

https://

4G

WiFi/ETH

Security Cameras

WiFi or Ethernet or Via a Mobile Data Connection

A150 CONTROLLER
(One per Each Gas Station)

Up to 4 Fuel Level Sensors

Archimedes Controls Corp.   250 W. Tasman Dr. San Jose, CA 95134   Tel: +1 (888) 860-3644   www.ArchimedesControls.com   sales@ArchimedesControls.com

13

ARCOS -
Cloud Server with
ARCOS Management Software
(public or private)

IoT Edge Server

This Cloud Server manages all system data, records and analytics in local as well as cloud-based storage for user sharing, remote monitoring, and management. Its WEB based architecture allows multi-user and multi-location access, both locally and remotely. The data center operator can log in through a secured VPN to view, control, and manage every aspect of the data center's environmental conditions.
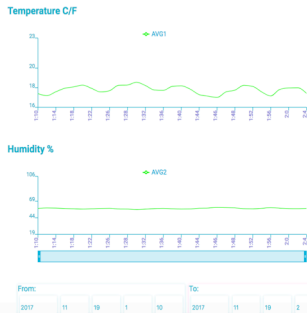
ARCOS GUI Examples

Archimedes Controls Corp.   250 W. Tasman Dr. San Jose, CA 95134   Tel: +1 (888) 860-3644   www.ArchimedesControls.com   sales@ArchimedesControls.com

14

XTV5110 Thermal Face Temperature Monitoring System

Main Applications

- AI-based human face temperature measurement system using thermal imaging and deep learning technologies for rapid face temperature screening to help fight COVID-19.
- Measures human face temperature quickly and accurately in business and commercial settings to minimize potential transmission of coronavirus.
- Indicates and alerts when elevated forehead temperature is measured.
- Identifies whether a facemask is on.
- Plug and play, easy installation and operation.
- Sends alert notification emails and/or mobile SMS along with pictures.
- Sends backup records at scheduled frequency.
- Built-in speaker and microphone for voice alert and communication.
- Two bases and mounting gears available – desktop and wall mount.
- Supports 3rd party visitor/employee management system.
- Designed for public and private buildings to screen visitors and employees, i.e. offices, hotels, schools, ticketing boxes, shop, stores, malls, restaurants, train and bus stations, etc.

Key Features

1. **Easy to Use** - Plug and play for receptionist area to quickly identify anyone with elevated face temperature.
2. **Support Bases** - Various bases and mounting gears for any type of environment settings.
3. **Alerts and Notifications** - Real time normal and fever alerts. Elevated temperature data are sent via emails and/or SMS along with pictures.
4. **Data Backup** – Sends recorded data at scheduled frequency to user designated file servers
5. **ARCOS** – A cloud-based management tool for remote data access, recording and archiving, warning notification at pre-determined thresholds.
6. **Power** – Powered by 12VDC adapter. Optional battery package available for non-interrupted operations.
7. **Data Storage** – 2 GB RAM and 16GB Flash memory.
8. **Imaging Sensors** – Dual lens RGB + IR camera. 2.0 megapixel + 1.3 megapixel
9. **Door Lock/Unlock Function** – Used to lock/unlock entrance door system based on the combination of face temperature measurement and NFC access card (13.56MHz). NFC reader/writer is included.

Technical Specifications

Measurement Range: 35.7°C to 42°C / 96.3°F to 107.6°F
Accuracy: < +0.3°C / +0.5°F
Resolution: 0.1°C / 0.1°F
Sensor Type: Infrared sensor + RGB camera
Display: 8" LCD touch screen
Network: WiFi (802.11b/g/n 2.4G), SIM card (LTE), Ethernet
Measurement Distance: 0.4 – 0.6m /1.3 – 2.0Ft

Detection Time: <2.0 sec
Network Protocol: TCP/IP, UDP
Operating Temperature: 15°C to 35°C/60F°C to 95°F
Operating Humidity: <90% RH
Power Supply: 12V AC adapter
Dimensions: 325mm x 135 x 30mm/12.7" x 5.3" x 1.2"
Weight: 1.8Kg/4.0 lb

Archimedes Controls Corp.   250 W. Tasman Dr. San Jose, CA 95134   Tel: +1 (888) 860-3644   www.ArchimedesControls.com   sales@ArchimedesControls.com

15

Ordering Information

■   **Main Units – A150 Wireless Sensor Trasmitter and Gateway/Controller**

Ordering Number	Description	Notes
A150 Wireless Sensor Trasmitter		
▪ S01-00000 (standard) ▪ S01-00000-WL (with water leak option) ▪ S01-00000-TAMP (with tamper option) ▪ S01-00000-WL-TAMP (with water leak and tamper options) ▪ S01-00000-DST (disaster detection only) ▪ S01-00000-IO (with two IO ports)	▪ Standard Wireless Sensor Transmitter with built-in temperature and humidity monitoring. ▪ Optional built-in point water leak and/or tamper detection. ▪ Optional disaster detection version. ▪ Optional external ports (2) for external sensing probes.	**Built-in Options:** -WL: add built-in point water leak detect option -TAMP: add built-in tamper/tilt/shake/move detect option. -DST: add built-in disaster detect option. -IO: add two IO ports for external sensing probes. **Refer to External Sensing Probes section below for ordering external sensing probes.**
▪ S01-00000H-XX-XXX (refer to above options)	Same as above with high RF power for extended transmission distance up to 1km outdoor.	
A150 Gateway/Controller		
▪ S02-00000 (standard) ▪ S02-00000-IO (with 4 IO ports) ▪ S02-00000-AQ (with AQ option) ▪ S02-00000-IO-AQ (with 4 IO ports and AQ option)	▪ A150 Wireless Gateway/Controller. ▪ Optional GPIO ports, user selectable WiFi/Ethernet and built-in air quality and airborne particle monitoring.	Standard: WiFi only, no IO ports. **Options:** -IO: add 4 IO ports, user selectable WiFi and Ethernet. -AQ: add built-in air quality and airborne particle monitoring option -IO-AQ: add 4 IO ports, WiFi nd Ethernet selectable, built-in air quality and airborne particle monitoring options.
ANT-AF04505	High-gain (5.0dBi) RF antenna for extended wireless sensors and gateway communication distance up to 1km outdoor. Works with any version of S02-00000	One for each Gateway/Controller.

Archimedes Controls Corp.   250 W. Tasman Dr. San Jose, CA 95134   Tel: +1 (888) 860-3644   www.ArchimedesControls.com   sales@ArchimedesControls.com

16

■ **External Sensing Probes and Accessaries**

Used on Wireless Sensor/Transmitter's P2, P3 and/or Gateway/Controller	Descriptions	Notes
ACC-T&RH	External temperature and humidity sensing probe.	Used on Wireless Sensor/Transmitter only
ACC-WL10	Water leak detection rope of 10 ft in length.	Used on both Wireless Sensor/Transmitter and Gateway/Controller
ACC-WL50	Water leak detection rope of 50 ft in length.	Used on both Wireless Sensor/Transmitter and Gateway/Controller
ACC-WL100	Water leak detection rope of 100 ft in length.	Used on both Wireless Sensor/Transmitter and Gateway/Controller
ACC-AS	Airflow speed sensing probe (0.0 to 10.0 m/s)	Used on Gateway/Controller only
ACC-RA	Rack access sensing probe (rack door open/closure status).	Used on both Wireless Sensor/Transmitter and Gateway/Controller
ACC-AC60	AC ccurrent sensing probe (0 to 60A).	AC60 can be used on both Wireless Sensor/Transmitter and Gateway/Controller.
ACC-DC200	DC current sensing probe (0 to 200A).	Used on Gateway/Controller only.
ACC-DR	Dry relay for controlling 3rd party devices (auto dialer, siren, flash light, etc.).	Each Gateway/Controller supports up to 3/4 dry relays.
ACC-POE	Power over Ethernet adapter supporting 802.3 at/af for both type A and type B. When Ethernet connection is ordered.	Used on Gateway/Controller only.
ACC-TAMP	Tamper (vibration, shake, tilt, move, etc.) detection probe.	Used on both Wireless Sensor/Transmitter and Gateway/Controller.
ACC-A10	Monitoing AC current from 2.5A to 60A. Wireless and no batteries are required.	Sends data to Gateway/Controller wirelessly. Used with Gateway/Controller only.
ACC-LIQLVL5	Water/fuel level monitoring from 0 to 5000 mm. Up to 4 per Gateway/Controller.	Used on Gateway/Controller only.
ACC-XTV5110	Thermal Face Temperature Monitor with AI based mask detection	

■ **Cloud Management Software**

Edge Server and Cloud Software		
Model	Descriptions	Notes
ARCOS-SAAS	ARCOS cloud monitoring, control & management software	ARCOS cloud service (SaaS)
ARCOS-SERVER	IoT cloud edge server with ARCOS installed	A redundant backup server with ARCOS is recommended.

Archimedes Controls Corp. 250 W. Tasman Dr. San Jose, CA 95134 Tel: +1 (888) 860-3644 www.ArchimedesControls.com sales@ArchimedesControls.com

17