## **Environmental Monitoring & Control System**



#### Monitor and Control

The EMCS can be configured to handle several different roles in your facility. It can act as a standalone monitor and data logging system as well as fully control your HVAC system for temperature, humidity and differential pressure with PID control.

#### Intuitive Full Featured Interface

- Full color HMI dashboard provides intuitive status and live data at-a-glance using a modern "active tile" interface. Alarms and Faults are displayed by coloration and flashing of active tile components.
  - Progressive software design resizes the HMI based upon the viewing device so mobile devices.
- Built in full power web server, BIG DATA database server and email server
- Real-time and historical trend graphs display how monitored values have changed over time
- Mobile alarm notifications and status updates available via SMS text or email messaging
- Remote operator access to HMI via PC, tablet or mobile device with Internet access
- 7" HMI touchscreen or use system "display-less" using a tablet or PC as interface.

Timestamp ~	Description	LvI	<ul> <li>Value</li> </ul>	∨ Type ∨	Sensor v	
9/25/2016 - 11:02 PM	Low Pressure Alarm in Room 3, Level 2 @ 0.1	2	0.00	Low	Pressure	
9/25/2016 - 11:02 PM	Low Pressure Alarm in Room 4, Level 2 @ 0.1	2	0.00	Low	Pressure	
9/25/2016 - 11:11 PM	Low Pressure Alarm in Compounding, Level 2 @ 0.1	2	0.00	Low	Pressure	
9/25/2016 - 11:11 PM	Low Pressure Alarm in Room 2, Level 2 @ 0.1	2	0.01	Low	Pressure	
9/25/2016 - 11:02 PM	Low Pressure Alarm in Room 2, Level 1 @ 0.25	1	0.01	Low	Pressure	
9/25/2016 - 11:02 PM	Low Pressure Alarm in Room 3, Level 1 @ 0.25	1	0.00	Low	Pressure	
9/25/2016 - 11:02 PM	Low Pressure Alarm in Room 4, Level 1 @ 0.25	1	0.00	Low	Pressure	
9/25/2016 - 11:02 PM	Low Pressure Alarm in Compounding, Level 1 @ 0.25	1	0.00	Low	Pressure	
					_	SO NRH

	75 NRH —			- 0.5 in WC	
	70 NRH				
Į,			Sunday, Sep 25, 21:07-27 @ Temperature: 69:67 @ RH; 63:83 @ Pressure: 0		
		50TAAAAAAAAA_	23:00 23:10		

#### Data Collection and Reporting

- Local or remote data logging of environmental sensor data, system statuses and alarming
- Strict data historian user security prevents unauthorized data access; while detailed audit trails record and report when specific data is accessed, and by whom and when optional Data Historian is installed.
- Full-color, dynamic reports and KPI dashboards can also be built-in.
- Use Excel® to query the on-board database to generate additional reports and graphing.

# MODERN BUILDING

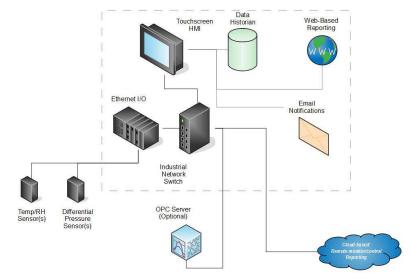
We have over 25 years of PLC, SCADA and HMI experience, providing you with a modern, sophisticated and complete solution to fit your needs.

#### REGULATORY COMPLIANCE

We understand how important regulatory compliance is to you. Our team has experience working with these regulations including 21 CFR Part 11 data security and USP 797 compounding environment standards.



## Typical System Infrastructure



#### **Flexible Sensor Choices**

- Can be easily expanded or minimized to cover anywhere from 1 to 20 zones
- Wide variety of sensors to meet the specific needs of your environment including:
  - o Standard Temperature, Humidity, Dew Point, Differential Pressure and Particle
  - o Pressure sensors can be mounted in ceiling or provided enclosure for ease of use
  - o Explosion-proof or Intrinsically Safe sensors available.
  - o NIST-certifiable
  - o Wash-down capable
  - o Choices in sensor accuracy to fit your requirements-and your budget

### Simple System Configurations and Options

- Easy system installation and setup.
- System can be expanded as needed and as plant requirements expand.
- Touchscreen can be wall-mounted (optional) or installed in the provided control enclosure.
- System can be web based (browser) with no touchscreen provided and viewed via PC, tablet or smartphone.
- BACnet and other protocol connectivity is available
- System requires 90-220VAC power and an internet connection is recommended for remote access, remote support and email or SMS text alerts and messaging.
- Base system provides turnkey installation for 4 monitored rooms

#### Contact Us:

- Web: www.designsolutionsusa.com
- Email: info@designsolutionsusa.com
- Phone: 847-587-9201



#### INDIVIDUALIZED ZONE CONTROL

Monitor or control temperature, humidity and differential pressure in upwards of 20 individual zones throughout your location.

#### MOBILE ALERTS

You can receive periodic system updates and system alarm notifications—via SMS, email, or both—no matter where you are.

# PROFESSIONAL SETUP

Full setup and installation services are available from Design Solutions to prepare, configure and install any of our EMCSs on your local network—whether on-site or remotely.