

**Control parameters**

**Fruit areas**

Humidity  
 Temperature  
 Ethylene  
 co2 level  
 Oxygen  
 Nitrogen

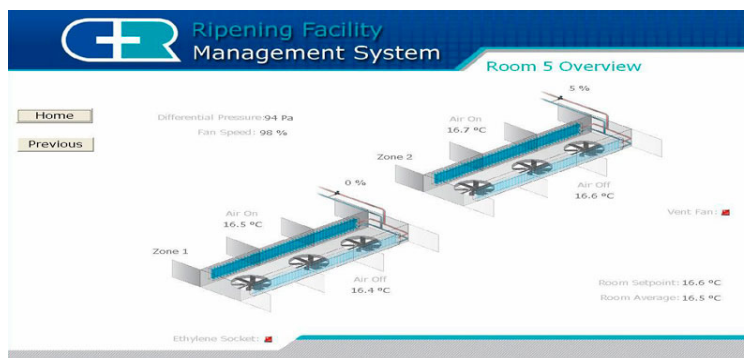
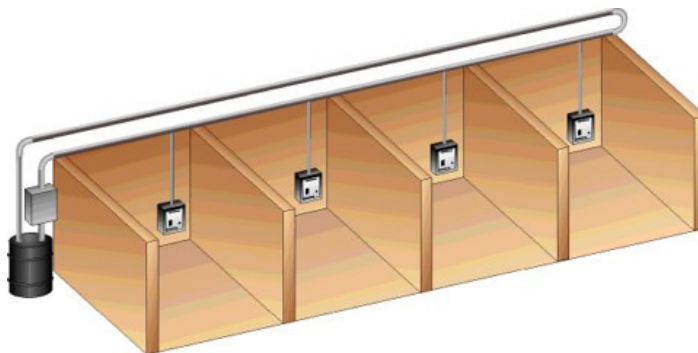
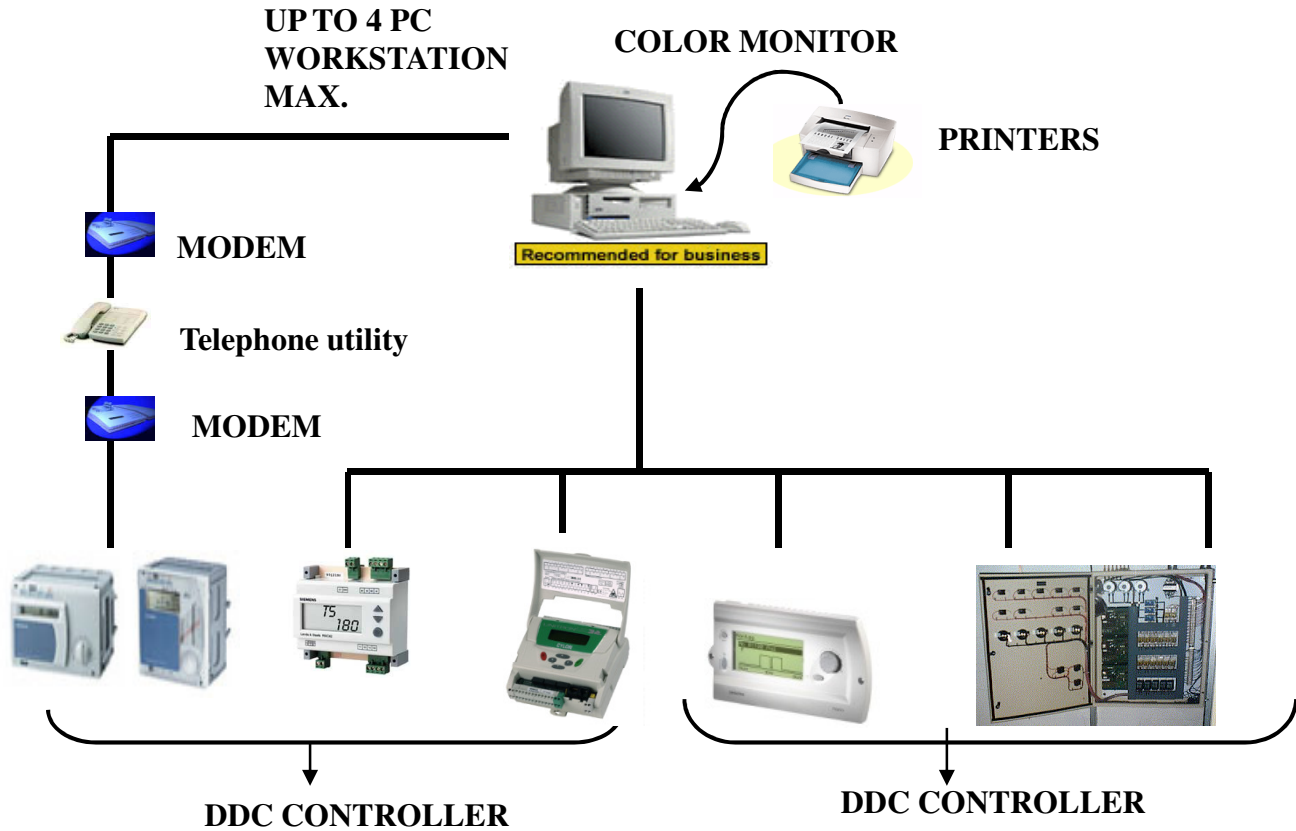
fruit/ ripeing/banana/mano/apple  
 cold storgae, vegtable /marine  
 Multipurpose storage etc

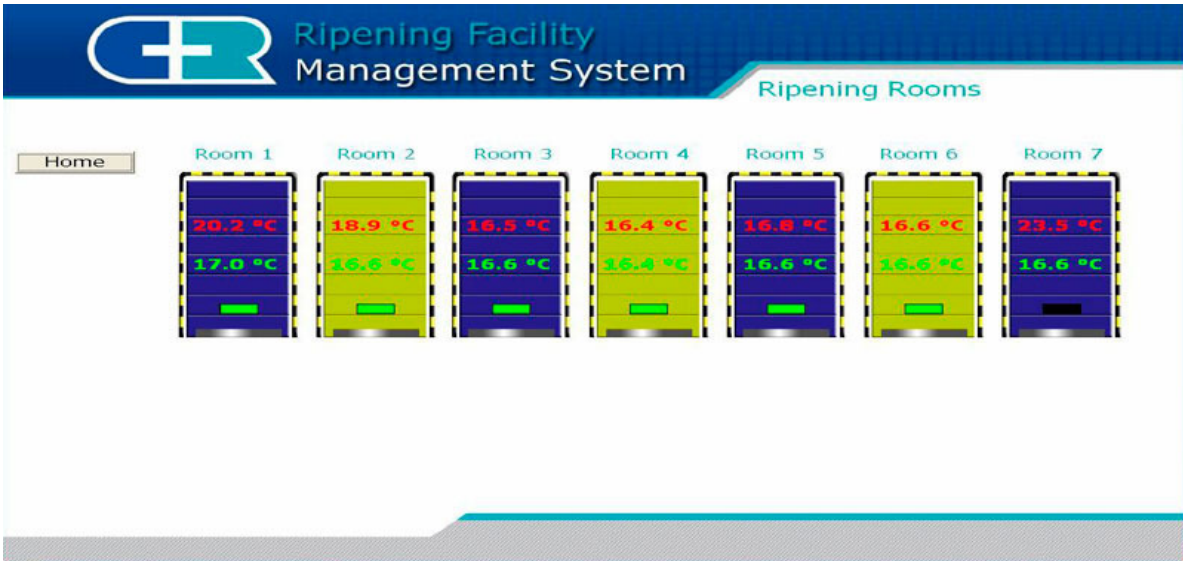
**The perfect solution  
 to balance  
 product quality and operating cost**



## Centralized monitoring and control

### Graphical interface







## Combined CO<sub>2</sub>, HUMIDITY , TEMPERAYURE TRANSMITTER

Humidity 0-10Vdc -0-100% Rh  
 Co2 0-10Vdc -0-2000ppm  
 Temperature -0-10Vdc -0-50C or -35 to +35C



Operating voltage	AC 24 V, DC 15...35 V
Analog output, signal	DC 0...5 V, DC 0...10 V
Measuring range, temperature	0...50 °C, -35...35 °C
Measuring range, humidity	0...100 % r.H.
Measuring range	CO <sub>2</sub> : 0...2000 ppm
Ambient temperature, operation	0...50 °C
Connection, electrical	Screw terminals
Degree of protection	IP30
Dimensions (W x H x D)	90 x 100 x 36 mm



## **MSR Electronic Germany Oxygen O2 Gas Sensor Transmitter**

MSR Electronic Germany, presents gas sensor transmitter for Oxygen O<sub>2</sub>.

### **FEATURES**

- Electro-chemical, diffusion based sensing element, with Gel based electrolyte
- Measuring range: 0 -25 % Vol
- Continuous monitoring
- Easy maintenance / calibration
- Reverse polarity, short circuit protected
- Long life sensor
- Low zero point drift
- Poisoning stable
- 4 - 20 mA analog signal output (standard), 2 - 10 V analog signal (selectable)
- modular, plug-in PCB and sensing element (low maintenance, low calibration cost)
- good response time



## HUMIIDTY & TEMPERATURE SENSOR –SIEMENS MAKE



Operating voltage	AC 24 V $\pm$ 20 %
Power consumption	1 VA
Measurement range humidity	0...100 % r.h.
Output signal humidity	DC 0...10 V
Time constant t <sub>90</sub>	approx. 20 s
Measurement accuracy at 20 °C	5...95 % r.h.: $\pm$ 1 % r.h.
Sensing element humidity	capacitive humidity sensor
Measurement range temperature	0...+50 °C / -35...+35 °C
Output signal temperature	DC 0...10 V
Time constant t <sub>63</sub>	approx. 20 s
Sensing element temperature	Pt1000
Connection	4-wire
Degree of protection (housing)	IP65

**CENTRALIZED CONTROL SYSTEMS -SCADA**



## **MSR Electronic Ethylene sensor transmitter and monitoring system for Food processing, ripening chamber (banana, mango, fruits), Cold Storage**

MSR Electronic offer analog / digital ethylene sensor + transmitter, for measuring and control of ethylene concentration in cold storage, banana ripening chamber, ripening room, warehouse, food process industry.

### **Features:**

- 0-2000 ppm measuring range
- Semiconductor based sensing technology (dual beam gold-plated, NDIR infra-red technology also available)
- 4-20mA analog signal output (digital version also available)
- reverse polarity, short circuit protected,
- plug-in sensor cell (for easy service and replacement), replaceable PCB
- Expected life > 5years
- Available in IP44, (IP65 also available)
- temperature, vibration, dust compensated measurement
- very low cross sensitivity



## Recorders and Data Acquisition

### Paper less recorders



#### Features

- Paperless Recording with Real-Time Measured Data Display
- 2, 4, or 6 Input Channels upto 64
- Ethernet 10-Base T Connection for FTP and Web Compatibility
- Up to 6 Digital Inputs and Digital Outputs
- PC or Front Panel Configuration
- Data Storage to 3.5" (1.44 MB) Floppy Disk
- Standard DIN Mounting for Direct Replacement of 100mm Chart Recorders

- 24 Analog inputs
- Accuracy 0.05%
- Configurable chart speed
- Options to include up to 36 logic inputs,48 alarm s inputs
- 36 relays,communication,math functions,upto 8 Retransmion
- outputs, Datalogging
- Roll or fanfold chart on the same cassette
- Periodic Reports on chart,comm or PC

### Strip chart Recorders



#### Features

- Accuracy  $\pm 0.35\%$  or  $\pm 0.1\%$  Span (by Model)
- Up to 2 Inputs
- Fully User Configurable, No Jumpers or Rotary Switches
- Universal Power Supply
- Wide Choice of Output Types: SPDT, Solid State Relay, and Open Collector Outputs, plus Alarms
- Optional Digital Inputs with Control or Alarm Options for Switching Control Modes from a Remote Contact Closure

### Circular Chart Recorders



