



**CONTROLS & SYSTEMS**  
*Industrial and Building Automation*

Solution Partner

Automation

SIEMENS

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**AUTOMATION & CONTROL**

***SYSTEMS INTEGRATOR***

**Controls&systems** was born of the vision to provide excellence and innovation in automation solution Technology. The mission statement of controls & systems is to develop control & automation Systems based on sound scientific principles which is fundamental in improving the quality & efficiency of processes in user industries.

All the control solution developed by controls & systems incorporate the latest microprocessor based instrumentation for automation. This is done in collaboration with M/s. [Siemens](#) one of the world leaders in Controls & Automation. Our control technologies to maximize system benefits to help the customers achieve manufacturing competitiveness in all their business operations.

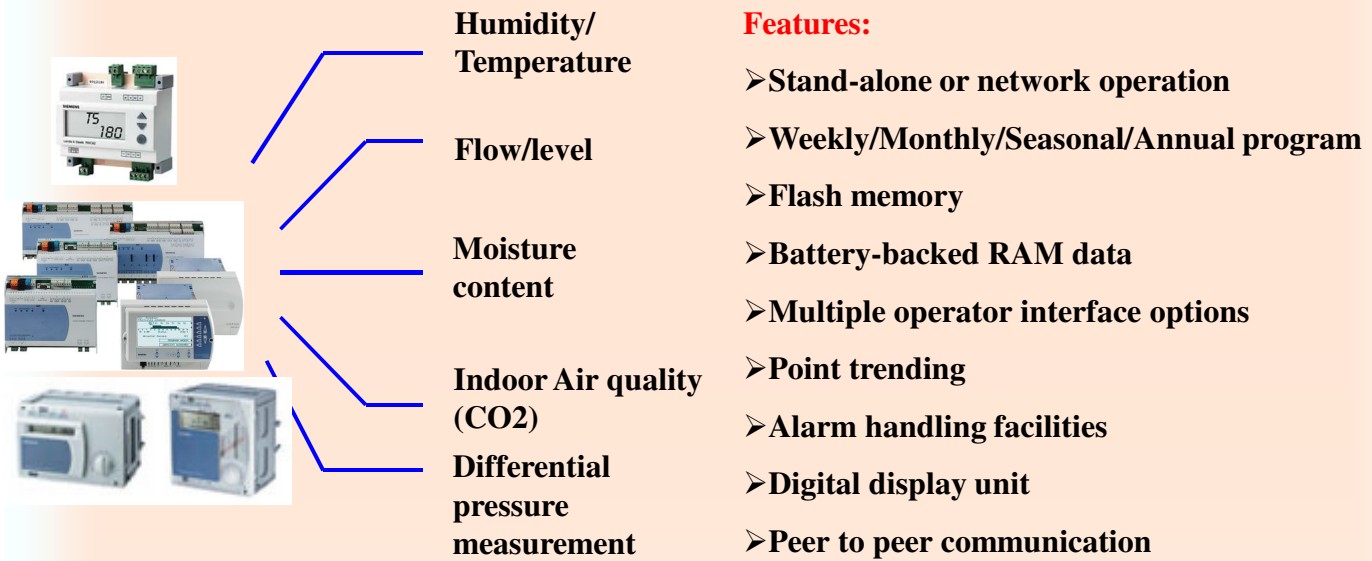
### **Key sectors of application would be**

- ❖ Textile Mills
- ❖ Tea Industries
- ❖ Cement Industries
- ❖ Pulp & paper Industries
- ❖ Foundry Industries
- ❖ Petro-Chemical Industries
- ❖ Food Industries
- ❖ Pharmaceutical Industries
- ❖ Hotels, Hospitals & Commercial Establishments
- ❖ Green Houses and Commercial Buildings
- ❖ Iron & Steel Industries
- ❖ Sugar Factories
- ❖ Power plant

# Total plant control

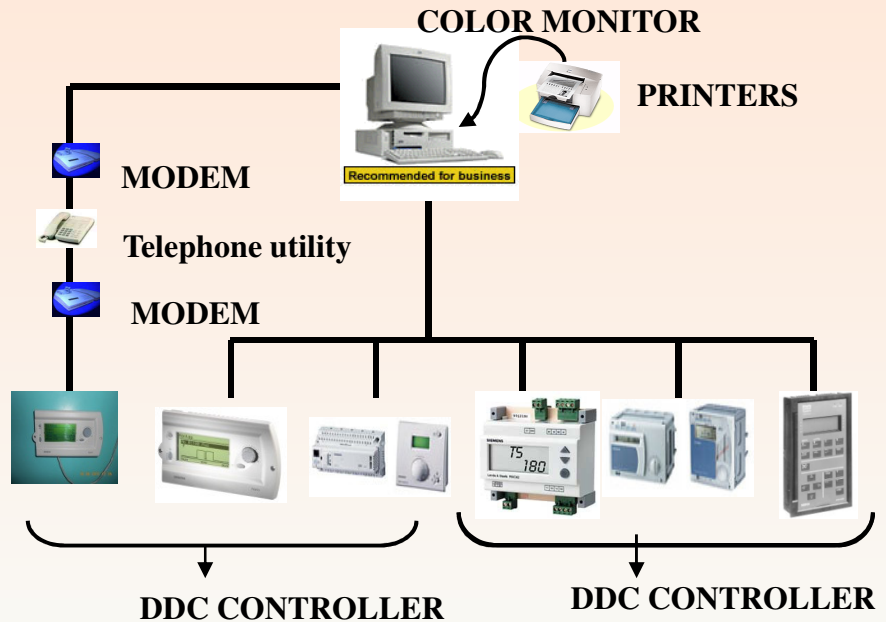
Presenting the Desigo family of Direct Digital Control

Systems which gives you energy smart buildings and industrial plants ---



## Features

- Graphical display unit.
- Equipment Monitoring and Control via graphics.
- Security provision.
- Report generation.
- Real-time data display.
- Run times of various equipments to generate preventive maintenance schedule.
- Controls of various parameters from a single control room



The desigo family range can control humidity, temperature, ventilation, lighting, access, elevators escalators & monitoring of fire, intrusion and detection in any building. These services can be fully integrated into single building management systems./ industrial management systems.

With the desigo you can choose how you want to control your building/industrial, now and in the future, how you want to interact with your system, who operates it and what services you want With your system.

Building control systems and solutions facilitate rapid recovery of investment cost through energy savings and resource protection.

# Sensing & Control - Instruments that match your every need

## Thermostats

Complete comfort for any environment

### Features

- Digital/Analog control.
- Single stage modulating .
- All version have heat anticipator.
- Slide switch allows manual control.
- Dual diaphragm sensing element or remote.
- Innovative PI control algorithm.
- Simple to use & Easy to install.

### Digital Thermostats



### Room Thermostat



### Fan coil thermostat



## Humidity & Temperature controllers

### Features

- Remote sensing up to 1000 ft
- Flexible, cost effective control with up to four stages of output and up to two sensor inputs
- Models available with proportional and integral outputs: 4-20mA, and 135 ohms
- Digital/Analog control

### Analog Humidity controller



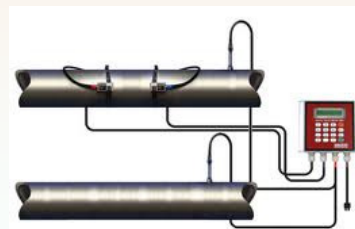
### Digital Humidity controller



### Digital Temperature controller



### BTU meter



*Perfect solution to help maintain comfortable Temperature & Humidity levels in buildings, factories, Processes etc.,*

# Instrumentation & control

- *products with consistent quality, lower cost & better service*

## Indoor air quality products

Clear indoor air for healthy, productive Living eliminates 95% of allergens dust & tobacco smoke, Chemical Odor, and odors from cooking, bacteria, Removes volatile organic compounds present in indoor air.



## Co2 sensor/voc controllers



## Actuators & valves



Complete reliability for HVAC control a wide range of reliable damper actuators & pneumatic/electric valves to meet your HVAC requirements.

Two way /three way FCU & AHU valves  
With actuators

Mixing /diverting valves

Steam control valve  
Modulating / on/off control actuators

Damper actuator spring and without spring actuators

Fire damper actuators



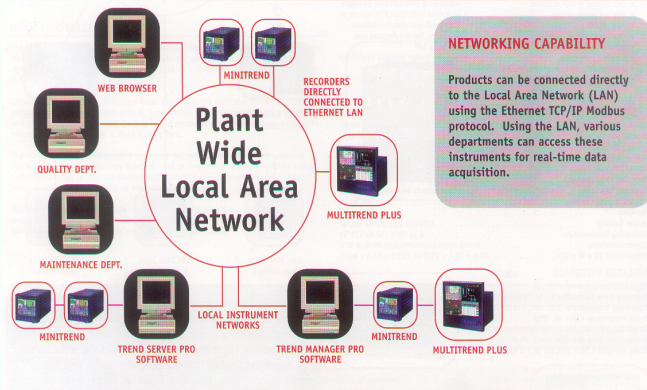
# Recorders and Data Acquisition

## 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, up to 8 Retransmission outputs, Data logging
- Roll or fanfold chart on the same cassette
- Periodic Reports on chart, comm or PC

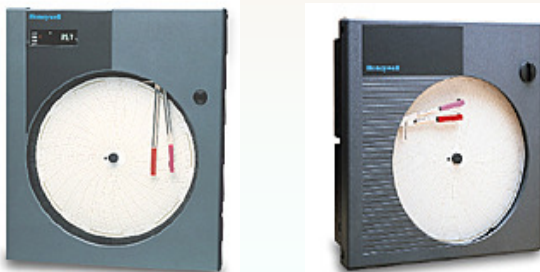
## Strip chart Recorders



### 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



# Process Control

## PH/TDS/Conductivity control:-

A range of analyzers and transmitters for use with to measure pH,ORP,or Sodium,chloride or Flouride.

\* Integral electronics/sensor design,one or two point calibration,auto Buffer recongnition

## PH electrode with transmitter



## Conductivity/TDS/salt concentration analyzer



Temperature compensation unique to each reagent  
Automatic calculation for percent rejection and percent passage, ratio, and difference  
Concentration measurement for specific chemicals  
A flexible display that reflects the appropriate unit of measurement TDS, conductivity, resistivity, concentration, calculated values.

## Boiler/Furnace –Temperature,Steam pressure,Steam Temperature ,dying process controller etc:-

- Clear and informative operator interface
- Easy to setup and operate
- Straightforward installation and maintenance
- Single-button tuning for precise control
- Fuzzy logic overshoot surpression



# Field Instruments

## Multi Variable Flow Transmitter & switches



- **SMV 3000 Multivariable Transmitter.** The SMV 3000 measures differential pressure, absolute pressure, and temperature to calculate compensated flow rates. Because all of these variables can be measured with a single instrument fewer pipe intrusions are necessary, reducing the chance of leaks. SMV 3000 can reduce the cost of calculating compensated flow rates by as much as 60 percent.

Measuring pressures, temperatures, and flows effectively, accurately, and economically are the hallmarks of Honeywell Smartline Transmitters. This comprehensive range of technically advanced field instruments offers major advantages for improving your process, complying with regulations and attaining high-quality standards. In addition, the life-cycle costs of buying and maintaining these sturdy instruments is lower than other comparable products.

## Pressure transmitter and switches



## Humidity and Temperature transmitter



Smart Temperature Transmitters. Smart technology (Accur. +/- 0.01% of span-Digital STT350). Temperature by RTD or TC. Support for 4 wire RTD and differential measurements. Head, DIN rail or flame proof housing mount. Loop powered.

# Energy Management Systems

## Maximum Demand controller



Minimize your energy costs by controlling your  
Maximum demand with this low cost controller

Non-domestic electrical power users often have to pay a maximum demand charge in addition to the usual charge for the number of units consumed.

## Power meter/load manager

Single unit capable of measuring single or multi-phase power lines (up to 3-phase / 4-wire lines)



## KW hr meter



## Automatic Power factor controller



## Power transducer



## Precise motor frequency regulation

variable frequency drives uses the latest IGBT frequency inverter technology for more efficient motor operation. These compact, lightweight drives are easy to install

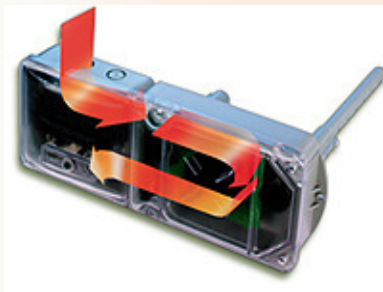
and provide significant energy savings. Plus, they're built to last, allow easy commissioning and start-up





## Intelligent Fire Alarm systems

Intelligent smoke sensing in textile area  
**spark detector**  
**Beam detector**  
**Thermal detector**  
**Co2 detector**  
WRS , blom room , cotton, yarn gowdown  
And other waste collection area



## Intelligent Advantages



- 1.Early Detection Minimizes Losses
- 2.Alarm Verification to rule out false and nuisance alarms
- 3.Exact pinpointing of location helps accelerate fire fighting operation
- 4.Intelligent annunciation facilitates early and easier evacuation.
- 5.Continuous Monitoring and health check of systems for reliability and easy maintenance
- 6.On-line diagnostics to check the state of each detector periodically
- 7.Systems available for small,Medium or large complexes



## CCTV & Access control

**Access Control System** consists of Badge printing system, Card readers, Access reader with video intercom, Door controllers, Door equipment with magnetic door contact and door opener, Emergency door equipment, Server and Workstations



## Home /office /shop security systems:

### HOME SECURITY SYSTEM

24 X 7 World-wide protection for your home through mobile



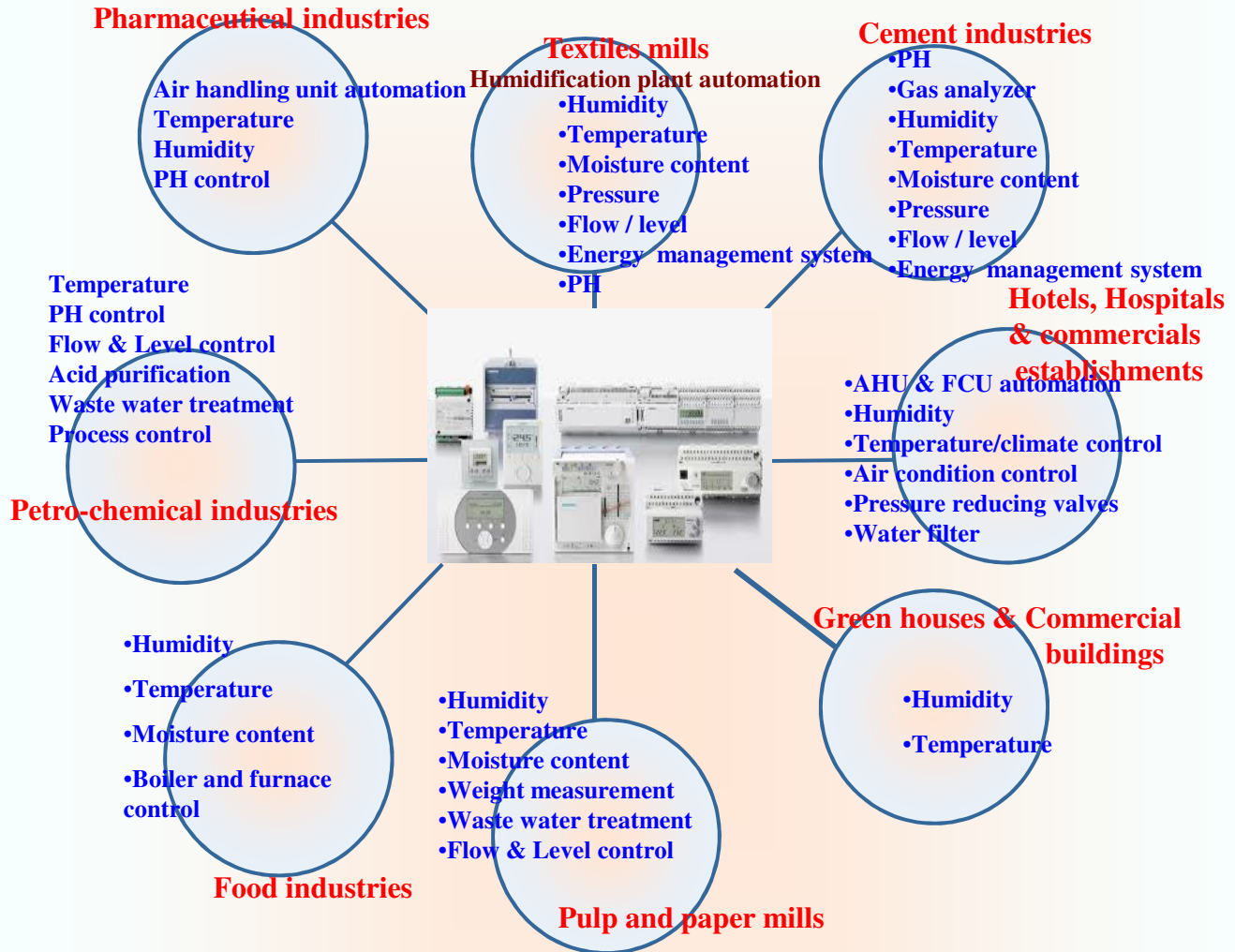
Micro HSS is an advanced Home Security System which can be installed at one's residence. This Security System sends SMS alerts to the registered user's mobile, anywhere in the world, regarding incidents such as forcible door intrusion, motion detection, gas leakages or fire outbreaks at his residential premises. These SMS alerts can be received not only by the registered user but also others whom the user may choose to register, through the 'Add-on' Facility.

#### Micro HSS - Premium

- It overall controls 13 Zones or areas
- One registered user and 3 Add-on User
- Inbuilt Two way voice communication
- SMS alert on Emergency through wireless remote key fobs and also through Telematics.
- SMS Alert to registered user and Add-on users on Door Intrusion, Fire, Gas, Motion.
- Sensor status (active/inactive) via SMS
- SMS Alert can be activated /deactivated using remote
- SMS Alert on power failure and restoration
- ON/OFF electrical device using remote and Mobile phone.
- Add-on sensors
- Battery backup facility
- Transfer of control to any user globally
- SMS Alert and missed calls from system to the register user and add-on user

Accessories	
Standard	Optional
Door Sensor - 4	Door Sensors - 3
Gas Sensor - 1	Motion Sensor - 1
Fire Sensor - 1	Fire Sensor - 1
Telematics - 1	RAS - 1
Hands free - 1	
Remote - 2	
Battery - 1	
RAS - 1	

# Automation solutions which you can start with, live with and grow with



Controls & Systems

Systems integrator by :

CONTROLS & SYSTEMS  
Industrial and Building Automation

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