

# Systematic Controls Corporation



INSTRUMENTATION  
AND  
CONTROL FOR:

LEVEL

PRESSURE

TEMPERATURE

pH

TRANSDUCERS

ANNUNCIATORS

VALVE  
AUTOMATION  
SYSTEM

INTEGRATION





# Systematic Controls Corporation

*Automation Process Control Systems Worldwide*

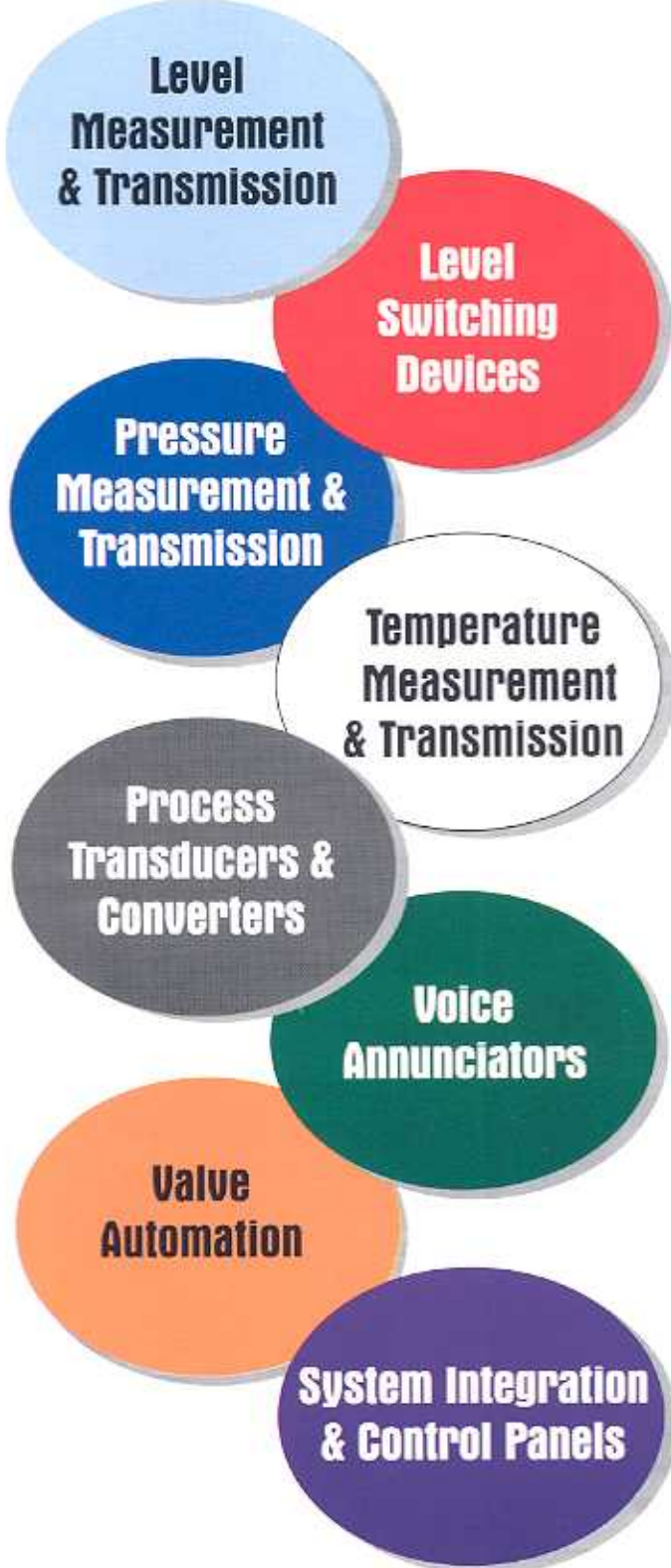
Systematic Controls is a major supplier to the industrial control market worldwide. We have a broad product line of standard control devices to meet demanding customer requirements. Our products in this diverse market provide another example of our customer-driven, problem solving capabilities.

Our professional staff is ready to help customers with products that work best for their unique applications, and quick shipment of products. Following up at any time and guaranteed applications are inherent in our legendary customer service.

Experienced sales personnel, service engineers and trained service staff are ready to trouble shoot your application in person and facilitate repairs on site if necessary.

As leaders in product design and innovation, we have implemented a Quick Ship service that, depending upon product, will guarantee shipment as quick as 24 hours. It is one more way we can save each customer time and money.

Modern safety dual diaphragm, space technology sensors, and unique ultrasonic transmitters with RS232C output signals are some of the advanced control products for the future. They are being designed and produced at Systematic Controls today. We have the products and service that deliver value to the industrial markets we serve.



Made in USA



*Performance Not Promises*

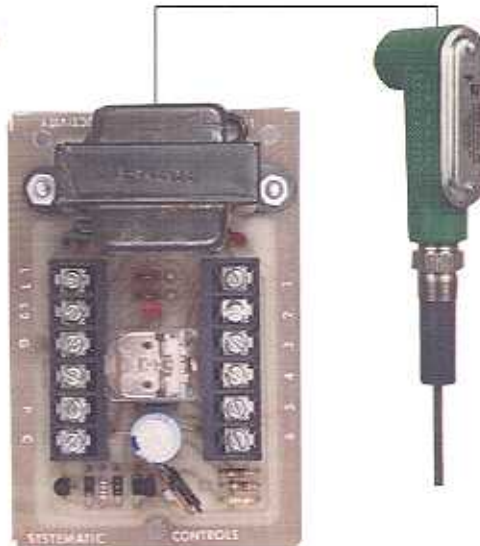
# Level switches

## Conductivity Level Switch Series 700

### Features:

- Compact solid state design
- Pump up or pump down internal latch
- Non-sparking low probe voltage
- Electrolysis free low AC probe current
- SS 316 sensor rods, NEMA 4X Enclosure
- Simple, low cost installation
- No electronics in probe head
- Fast delivery, low cost

*High pressure 2000 psi  
High temp. 550 deg.  
F optional probe*

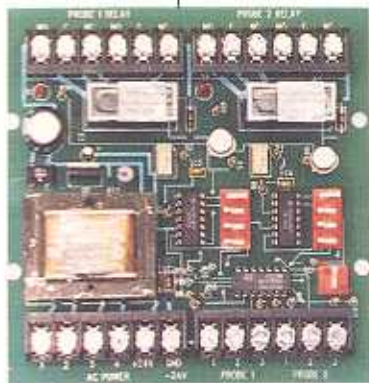


*Multi-probe Assy. for max. of 5 level switching positions in one probe unit, including ground.*



### General technical data:

PROBE VOLTAGE:	7VAC
PROBE CURRENT:	Max. 15mA
PROBE SENSITIVITY:	0-60,000 ohms (steam condensate)
PROBE TO CONTROL BOX DISTANCE:	1000' max.
RELAY CONTACTS:	DPDT 2Amp. @ 115VAC
POWER SOURCE:	105-130VAC 60Hz, 1.0 VA
CONTROL BOX ENCLOSURE:	NEMA 4X
WETTED PARTS PROBE:	SS316, PVC (optional Teflon)



## RF "Radiocon" Level Switch

### Features:

- Not affected by material build-up on probe
- Rugged construction of probe and control box
- Effective with almost every kind of liquid or powder
- Stainless steel 316 probe (optional Teflon liner)
- Up to 1000' cable length, probe to control box
- Single or dual probe control box
- No maintenance, low cost, fast delivery

### General technical data:

PROBE HEAD HOUSING:	Ex-proof, NEMA 4,7,9
CONTROL UNIT HOUSING:	NEMA 4X (optional: Ex-proof)
POWER SOURCE:	115/220 VAC, 24VDC, 2VA
CONTROL UNIT OUTPUT:	On/Off, DPDT, 2Amp. @ 115VAC
TIME DELAY OUTPUT:	1 sec. to 2 Hrs: adjustable in field
MAX. TEMP. (PROCESS):	250 deg.F, @ 100 psi
PROCESS CONNECTION:	3/4" NPT, SS316 & Teflon wetted parts.

*Series 2002 RF level switch with "SELF-TEST" feature ensures 100% performance test of all components in the system on demand!*

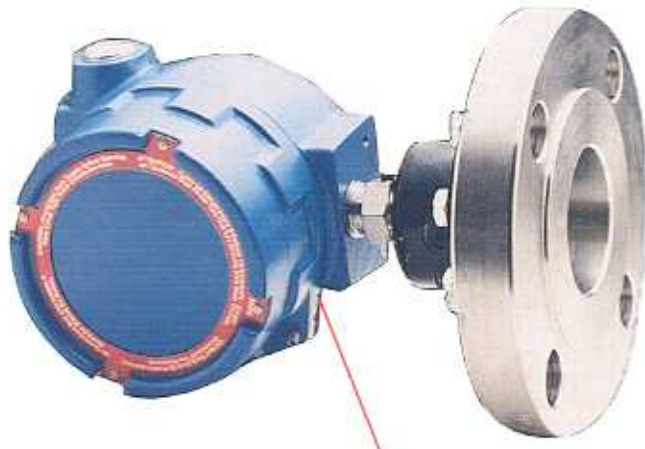


# Level & Pressure Transmitters

## DP Type, Strain Gauge Level & Pressure Transmitters Series 300

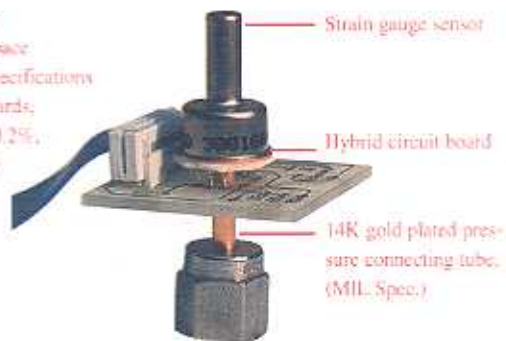
### Features:

- High accuracy & stability
- Dual diaphragm isolating unit (safest in the industry)
- Standard stainless steel diaphragm unit, Teflon coated
- Dual temp. compensation (in sensor and in housing)
- Ease of installation and service
- Wide range selection (30" vacuum to 5000 psig)
- Modern 2-wire system, 4-20mA isolated output signal
- Simple field calibration
- Low cost, fast delivery



### Super Sensor:

Derived from aero-space technologies, with specifications similar to MIL standards, and the accuracy of 0.25% @ 0.1% repeatability



*Extended diaphragm level transmitter for measuring level in tanks having very viscous materials and the tendency to clog standard transmitters with recessed ports*



## Series 300 Transmitters Safest in the Industry Today!

The dual diaphragm capsule consist of 2-SS316 diaphragms welded on the circumference, and then Teflon coated. The capsule is filled with silicone oil. This unit will prevent process liquid in the tank from escaping, thus preventing serious damage to the plant and the environment. (avail. for std.transmitters only)



**Diaphragm Capsule**

### General technical data:

ENCLOSURE:	Ex-proof, NEMA 4,7,9
OPERATING TEMP.:	-50 to +200 deg. F (optional 600F with capillary tube)
TEMP. COMPENSATION RANGE:	-40 to +180 deg. F (probe and housing)
OPERATING HUMIDITY RANGE:	0-100% RH
PRESSURE RANGES:	0-1 psig to 0-5000 psig (large selection)
OVER PRESSURE RATING:	3 times rated range
ZERO ELEVATION & SUPPRESSION:	approx. 25% of range
OUTPUT SIGNAL:	4-20mA
SUPPLY VOLTAGE:	18-30VDC, 2-wire system
MAX. LOOP RESISTANCE:	1000 ohms
ACCURACY:	0.25% of calibrated span
REPEATABILITY:	0.1% FSD
PROCESS CONNECTION:	1" NPT, Flange 1", 2", 3" 4" ANSI 150# RF
WETTED PARTS:	SS316, monel, Hastelloy C, Teflon

# RF Probe Type Level Transmitter Series 400

## Features:

- Minimum effect of material build-up on probe, Liquids only
- Isolated 4-20 mA output signal
- Sensing probe to 40' long
- Automatic Temp. Compensation
- Simple, Low cost installation
- Non-Interacting zero & span adjustment
- Self-Contained Ex-Proof Enclosure
- Low cost, fast delivery



**Ground rod**  
optional feature for non-metallic tanks and special applications.

## General technical data:

ENCLOSURE:	Ex-proof, NEMA 4,7,9
MEASURING RANGE:	6" to 40'
MAX. TEMP. SENSOR:	250 deg. F @ 100 psig
MAX. TEMP. ELECTRONICS:	-40 to 150 deg. F
OUTPUT SIGNAL:	4-20 mA Isolated
SUPPLY VOLTAGE:	18-30VDC, 2-wire system
POWER CONSUMPTION:	Approx. 0.6VA
MAX. LOOP RESISTANCE:	600 ohms @ 24VDC
REPEATABILITY:	0.1%
LINEARITY:	0.3% of range
PROCESS CONNECTION:	3/4" NPT (optional 2" or 3" flange 150#ANSI, PVC, or SS316; sanitary)
WETTED PARTS STANDARD:	SS316, Teflon

# Series 800 Ultrasonic Level Transmitters

## Features:

- Measurement ranges up to 30' (Optional 100')
- Non-Contact sensing for any liquids or slurries
- Microprocessor based electronics
- Programmable zero & span by BCD switches at ground level or prior to installation
- Automatic temperature compensation
- Isolated 4-20mA output (optional RS-232 Series 815 and 835)
- Self-testing
- Very narrow trans.beam (10-13 deg.)
- Memory protection following power loss
- Low cost, fast delivery



**Series 825**  
Self-contained



**Series 835**  
Remote Electronics

## General technical data:

RANGE:	Series 825-25', Series 835 - 30' (optional to 100')
ACCURACY:	0.3% of span
POWER:	Standard 115VAC (optional 230VAC, 24VDC) 5VA
OUTPUT SIGNAL:	4-20mA into 600 ohms (optional RS-232C)
ENCLOSURE:	Series 825 -Ex-proof NEMA 4,7,9 Series 835 - NEMA 4X (optional Ex-proof, NEMA 4,7,9)
SENSOR MATERIAL:	PVC, Teflon, Kynar, 316 Stainless
PROCESS CONNECTION:	Series 825- 2" NPT (optional 3" flange) Series 835 - std. 3" flange (optional 3/4" NPT)
TEMP. RANGE:	-20 to 180 deg. F
SENSOR BLIND ZONE:	18", 12" for 825, 815 (no signal reading in this zone)

# Temperature Transmitters & Special Devices

## Temp. Transmitter RTD Sensor, Series 500

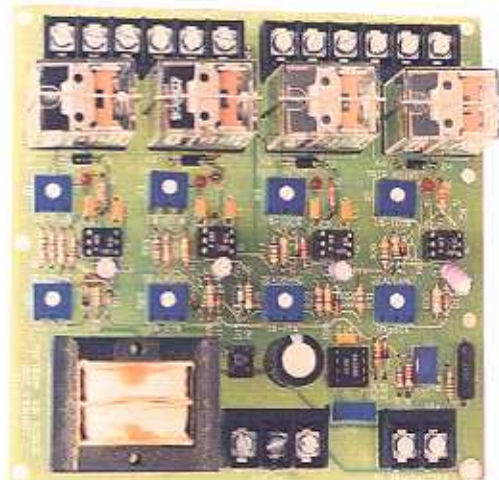
### Features:

- Simple, reliable electronic circuitry
- Most compact circuit board available
- Modern 2-wire system 18-30 VDC
- Isolated 4-20mA output signal
- Standard RTD input type PT100
- Fast delivery
- Very competitive price



### General Technical Data:

RTD INPUT:	3-wire, platinum PT100 DIN standard
OUTPUT:	4-20mA
MINIMUM SPAN:	50 deg. F
MAXIMUM SPAN:	1200 deg. F
POWER SUPPLY:	18-30VDC approx. 0.6VA
MAXIMUM LOOP RESISTANCE:	650 ohms
ACCURACY:	0.3% FSD
REPEATABILITY:	0.1%
OPERATING TEMP. (BOARD):	-40 to 150 deg. F
ENCLOSURE:	Ex-proof NEMA 4,7,9
ACCESSORIES:	RTD sensor (optional: Thermowell)



## “Quad-Control” Transducer Series 444

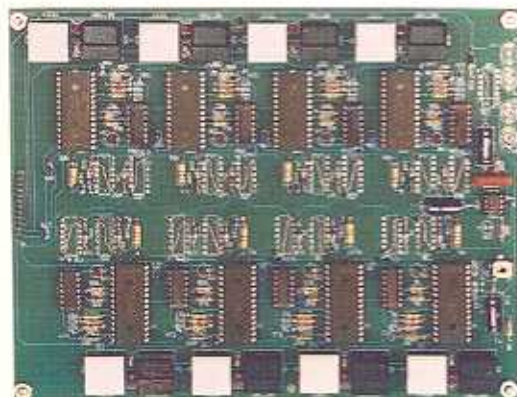
### Features:

- Four user adjustable set points over the entire range of 4-20mA
- Output per set point: SPDT, 2Amp.
- Set point position indicated by LED
- Adj. deadband 1-20% of span
- Optional: programmable 2-middle set points for differential control mode (pump up/pump down)
- Low cost, fast delivery

## Voice Alarm System Annunciator Series 9000

### Features:

- Speaks alarm condition, no confusion with bells or sirens
- Standard annunciator circuitry
- Modern digital voice storage, no tapes to wear out
- Unlimited number of messages
- Can be integrated into existing plant PA system
- Custom voice programming – any message up to 20 seconds
- Price competitive to old-fashioned annunciators



# Actuated Valve Specialists

Division of Systematic Controls Corporation

## Valve Automation

### Features:

- Three way diverting or mixing flow arrangements
- Available in bronze, stainless, or PVC material
- Available with pneumatic, electric, or hydraulic actuators
- Optional Equipment: Solenoids, positioners, limit switches, speed controls, and mufflers
- Available in 110 VAC, 24 VDC, 12 VAC, 220 VAC
- Fast delivery, low cost



### Features:

- Electric actuation of quarter turn valves
- Voltages available 110 VAC, 220 VAC, 24 VDC, 12 VDC
- Available as on/off or modulating control
- Electric fail safe design



### Features:

- Compact pneumatically automated valves
- Available materials: Bronze, Carbon, Stainless, PVC, Kynar, Fiberglass, Alloy 20
- Optional Equipment: Positioners 3-15 PSI; Electropneumatic positioners, 4-20mA; Solenoids, and limit switches
- Sizes from 1/4" to 10", other sizes P.O.A.



### Features:

- Fully automated on/off control valve, 90 degree rotation
- Accessories: Positioners, limit switches, solenoids
- Built to customer's specifications
- Fail safe options: open, close, or last position
- Actuator: Double acting or spring return
- Valves: Variety of materials, bodies, connections, sizes

# A Short Visit to Our Plant

## Training Center



The picture on the left shows part of our complete, sophisticated and modern training facility located in our main production area. Visitors can simulate live applications under different conditions, and learn fast about our products. Contact us for seminar dates or a visit.

## Test Area



The picture on the left shows the pressure calibration station. Mechanical and digital electronic test instruments have an accuracy of 0.1% FSD and are traceable to NIST standards in calibration accuracy.

## Other Products Supplied by Systematic Controls

*Compact control valves packages. Direct mount of valve to actuator*



*Magnetic and Mass flow meters*



*Solid state process recorders: temp, flow, press., pH, level, events*



*I/P Transducers*



*Digital process indicators, Controllers, recorders, Transducers*



*pH, Level  
Flow, Temp.  
Pressure*

*Industrial pH Probes and Transmitters*



Let's plug you into the world of process control, electronics, and automation. We have what it takes to do it all.

## Systematic Controls Corporation

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