



CONDUCTIVITY CONTROLLER

Ideal for plating rinse water

MODEL CC-97 (wall mounted)

BENEFITS:

- **Conserve rinse water - up to 85%**
- **Eliminate rejects from spotty rinsing**
- **Reduce waste treatment load**
- **Reduce sewer use charges**

FEATURES:

- **Corrosion resistant enclosure**
Wall mount NEMA 12 enclosure
LED lamps: POWER ON, VALVE OPEN
- **Submersion sensor - dual range**
0 to 500 micromhos
500 to 5,000 micromhos
Variable set-point
- **Solenoid valve**
Nylon (glass reinforced), 1" NPT
24 volt for safety

What it does -

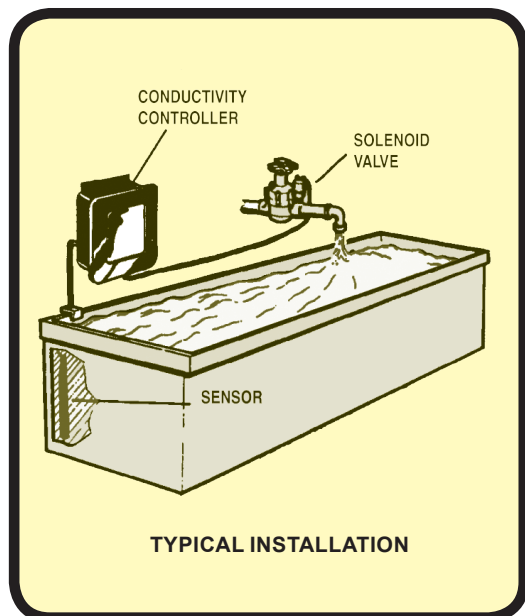
The CC-97 controller is a fully automatic system which will greatly reduce the amount of water used in continuous flow rinse tanks. At the same time, it automatically maintains water quality, ensuring effective rinsing in water up to 180°F (82°C).

How it works -

The three parts of the system are easily installed. Submersible conductivity sensor is adjusted to either of the two microsiemen scales and immersed in rinse tank. Controller set-point is then selected. Generally, rinse water contamination is caused by chemicals being "dragged in" and salts that are dissolved from the parts being rinsed. These solutions ionize and can be measured and controlled by their electrical conductivity. Rinse water cannot flow into the tank until the contamination level rises above the set-point. Sensor then signals for solenoid valve to open and add fresh water. When the dilution lowers the contamination to below the set-point, the solenoid valve will close. Indicator lights on controller signal operating power and valve position.



MODEL CC-97 WALL MOUNTED SYSTEM



TYPICAL INSTALLATION

WATER CONDUCTIVITY

ppm (NaCl)	Microsiemens	Water Quality
1 - 150	2 - 300	D. I.
10 - 20	20 - 40	Demineralized
20 - 100	40 - 200	Soft
100 - 300	200 - 600	Medium
300 +	600 +	Hard

For specifications, refer to next page.



SPECIFICATIONS

MODEL CC-97 CONTROLLER SYSTEM	
CONTROLLER - NEMA 12 wall mount, NEMA 3 panel mount	
Input power	Choice of 120 or 240 VAC, 50/60 Hz. Automatic voltage regulation insures operation of the systems from 105-125V or 210-250V respectively.
Output to valve	24 volts @ 600 milliamps AC (stepdown transformer included)
Maximum power consumption	@ 117V, 12 watts (103 milliamps)
Lights	LEDs indicate POWER (red) and VALVE (yellow)
Electrical installation	Either hard wire with 5/8" conduit or plug-in with 2.4M (8 ft.), 18 gauge, 3-conductor plug (supplied with 120V systems only)
Enclosure dimensions	7¼"H x 7¾"W x 5"D (184mm H x 197mm W x 127mm D)
Shipping weight	8 lbs. (3.6 kg)
Ranges	5-500 micromhos (for high quality water) 500-5000 micromhos (for normal tap water) } field select
ON - OFF span	Approximately 5% of set-point
SUBMERSION SENSOR	
Temperature compensation	Automatic to 180° F (82° C)
Materials	Epoxy and 316 stainless steel
Cord	10 foot (3 M), 22 ga., 4-conductor, vinyl jacketed
Solenoid valve operating pressure	10 - 100 PSI (69-690 kPa)
SOLENOID VALVE - Nylon (glass reinforced), 24 VAC	
Operating pressure	10 - 100 PSI (69-690 kPa)
Connections	1" NPT inlet, 1/2" NPT conduit

TO ORDER

MODEL	MOUNT	POWER	PRICE CODE NO.
CC-97	Wall mount NEMA 12	120V/1/60 240V/1/50-60	56-0552 56-0552 B

REPLACEMENT ITEMS

DESCRIPTION	PRICE CODE NO.
Submersion sensor replacement (dual range CC models)	56-0554
1" solenoid valve	56-0108 A

CONDUCTIVITY MONITOR / CONTROLLER

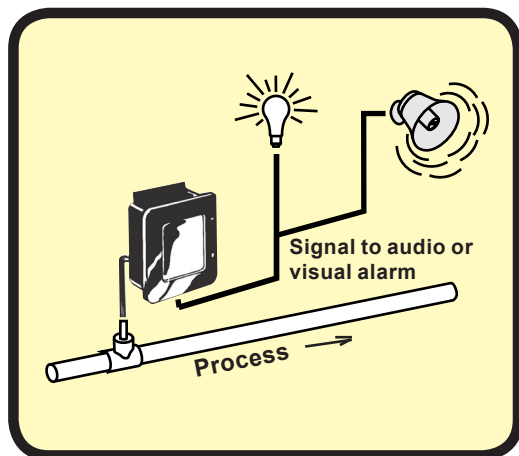
**IDEAL FOR: D.I. WATER / WASTE TREATMENT / REVERSE OSMOSIS
LABORATORIES / POWER PLANTS / ELECTRONICS**



MODEL CCM-57 PANEL MOUNTED SYSTEM

ANALOG MODEL CCM-57

- Corrosion resistant enclosure**
Panel mount NEMA 3 enclosure
(optional wall mount plate)
Seven microsiemen ranges available
LED lamps: ABOVE or BELOW set-point
Adjustable set-point, 0-100% full scale
"PUSH-TO-TEST" set-point check
- In-line sensor**
316SS, epoxy, TFE
¾" NPT, 1¼" lg., 100 PSI max. at 212°F (100°C)
- Solenoid valve with 115 V to 24V transformer**
Nylon (glass reinforced), 1" NPT
24 VAC for safety
(Optional, required for use as controller)



TYPICAL MONITOR - ALARM SYSTEM

What it does -

The CCM-57 Monitor / Controller is a precision instrument which accurately measures solution conductivity in a variety of micro-siemens ranges. It is ideal for reverse osmosis water treatment systems, as well as applications in laboratories, plating, electronics production and general industrial process control. The CCM-57 is exceptionally reliable and includes many convenient features such as push button set-point check. When used as a Monitor/Controller, optional solenoid valve and transformer are required.

How it works -

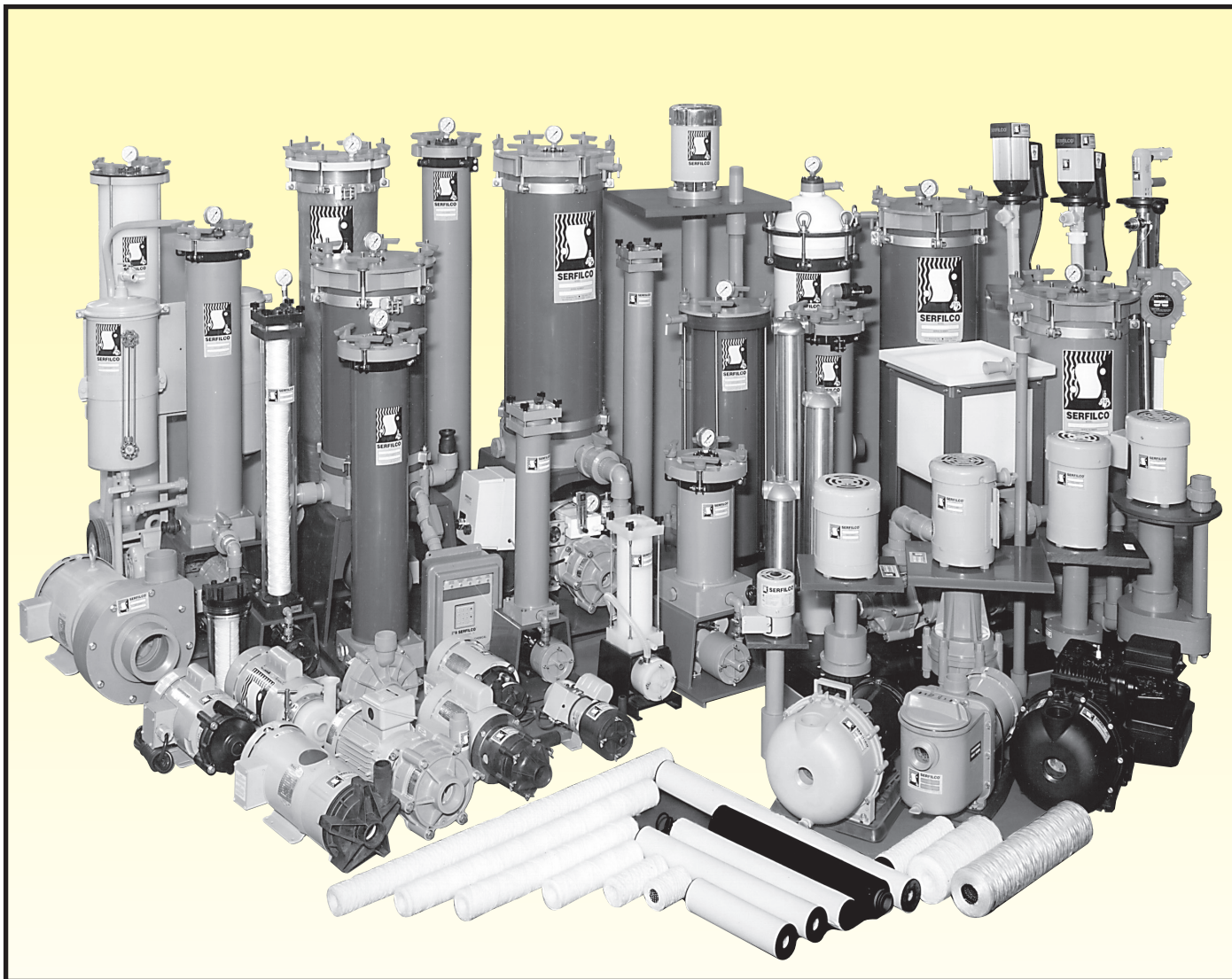
Rugged 316 stainless steel sensor is mounted in a pipeline tee or directly in the side of a tank. The attached sensor cable (10' standard, 25' optional) is connected to the instrument. Desired conductivity set-point is then easily adjusted using the push button on the front panel and a potentiometer on the internal circuit board. By changing a jumper on the circuit board, the 10 amp alarm relay can be activated by choice of increasing or decreasing readings.

MODEL CCM-57 MONITOR (When used as controller, order optional solenoid valve and transformer)	
CONTROLLER - NEMA 3 panel mount with optional wall mount brackets	
Readout	2½" (63 mm) analog meter
Accuracy	± 2% of span
Sensitivity	0.05% of span
Repeatability	0.1% of span
Calibration check	Built-in (push to test)
Voltage output for chart recorder	0-10 VDC @ 5 mA max. (linear)
Relay function for alarm	Single set-point control continuously adjustable 0-100% of full scale Indicators: ABOVE (red) and BELOW (green) set-point LEDs Contact rating: SPDT 10 amp @ 250 VAC, 30 VDC. Relay operates increasing or decreasing reading (selectable)
Input power	115 VAC, 50-60 Hz, ± 15% (user changeable to 220 VAC)
Maximum power consumption	@ 115V; 3 watts (25 milliamps)
Dimensions	6" (152 mm) H x 4.8" (122 mm) W x 3.8" (96 mm) D
Ambient temperature range	-22° F (-30° C) to 140° F (60° C)
Shipping weight	2 lbs (0.9 kg)
IN-LINE SENSOR	
Temperature compensation	Automatic to 77°F (25°C) between 32° to 212° F (1 - 100°C)
Pressure / temperature limits	100 PSI (690 kPa) @ 212° F (100°C)
Bushing	Polypropylene threaded 3/4" NPT
Materials	316 stainless steel, EPDM, TFE
Cable	24 ga. shielded; 10' (3 meters) standard
Dimensions	Metal portion 1.2" (30 mm) L; 0.5" (13 mm) diameter
OPTIONAL SOLENOID VALVE - Nylon (glass reinforced), 24 VAC with separate 115V to 24V transformer	
Operating pressure	10 - 100 PSI (69-690 kPa)
Connections	1" NPT inlet, 1/2" NPT conduit
Output to valve	24 volts @ 600 milliamps AC (115V to 24V transformer included)

TO ORDER MONITOR		
MODEL NO.	MICROSIEMENS	PCN
CCM-57-20	O - 20	56-0555
CCM-57-50	O - 50	56-0556
CCM-57-100	O - 100	56-0557
CCM-57-200	O - 200	56-0558
CCM-57-500	O - 500	56-0559
CCM-57-2000	O - 2000	56-0560
CCM-57-5000	O - 5000	56-0569

OPTIONAL		ADD SUFFIX TO PCN
DESCRIPTION		
For 50 Hz, 220V monitor w/o cord		C
For use as Monitor / Controller		
Solenoid valve with transformer for 115V/60 Hz		A
Solenoid valve for 220V/50 Hz (requires 220V to 24V transformer)		B
Wall mount plate		56-0563
25 ft sensor cable		56-0565
In-line sensor replacement w/10' cable (CCM models)		56-0561
1" solenoid valve		56-0108 A

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