



**Scaleton™  
Sets The Standard  
In Corrosion  
Resistance**

## Model 1099™ Chemical Process Controller

- Designed to provide accurate scale weights and automated use reports in water and wastewater treatment
- Ability to monitor up to 16 scales (load cells)
- Capable of operating drum, platform and ton scales in the same system
- Indicator can display the following data:
  - Gross weight - Total including container for each or all scales
  - Net weight - Of contents for each or all scales
  - Daily usage - Amount used during previous day
  - Amount used - Amount used since container was full
  - Days until empty - At current feed rate
  - Feed rate - Current rate in pounds, kilograms, gallons, or liters, with a range of 99,999 maximum reading



**5 YEAR  
FULL  
WARRANTY  
ON ALL PRODUCTS**

### Standard Features

- NEMA 4X, UL approved enclosure to provide protection from acids
- One to four independent channels
- Two displays: Large LED display (.56" h) to show numeric result; 2 line, 16 character LCD display, backlit for easy reading to display menu and functions
- Keyboard is arranged with 20 keys: 10 function, and 10 numeric keys
- Keyboard and display provide audible, tactile and visual confirmation
- Nominal Power Ratings; 120/240 VAC, 50/60 Hz, 0.10/0.05A
- Power and input/output cables are sealed with plastic strain relief



### Description

The Scaleton™ Model 1099™ Chemical Process Controller is central to the Scaleton Industries, Ltd. "Total Electronic System" which provides more accurate scale weights and automated use reports of chemicals used in the treatment of municipal drinking and industrial water, as well as municipal and industrial wastewater treatment.

The Model 1099™ used in conjunction with Scaleton's electronic base scales will reduce or eliminate most of the problems associated with the use of water and wastewater treatment chemicals such as: under dosing, over dosing, need for round-the-clock monitoring, accurate record keeping requirements, worker safety, environmental concerns, and equipment deterioration due to a highly corrosive environment.

The Model 1099™ provides a way of assisting the operator in the batching process of chemicals used to prepare day-tanks, such as pumping several chemicals into a tank mounted on a scale base and mixing them together prior to dosing the desired chemical solution into the water system. Four adjustable high or low alarm levels with NO/NC relay contact closures are provided.

Our Model 1099™ can operate 4 scales with 4 individual channels. It will monitor up to 4 groups of scales with each group using one channel for a total of 16 load cells. It is also capable of operating different types of scales (drum, platform, ton) used in the same system provided that the number of load cells does not exceed 16.

The Model 1099™ will send all reporting information to a printer, recorder, or scada system and can provide permanent records of daily usage, amount used, days till empty, and the feed rate of four different scale bases, thereby preventing the system from running out of chemicals when the plant is unmanned. Set-point relays to control transfer and metering pumps can prevent over filling or under filling of day tanks. The unit can automatically regulate chemicals going into a tank, which is generally a safer and more accurate mode of operation. This reduces worker exposure and possible contact with chemicals.

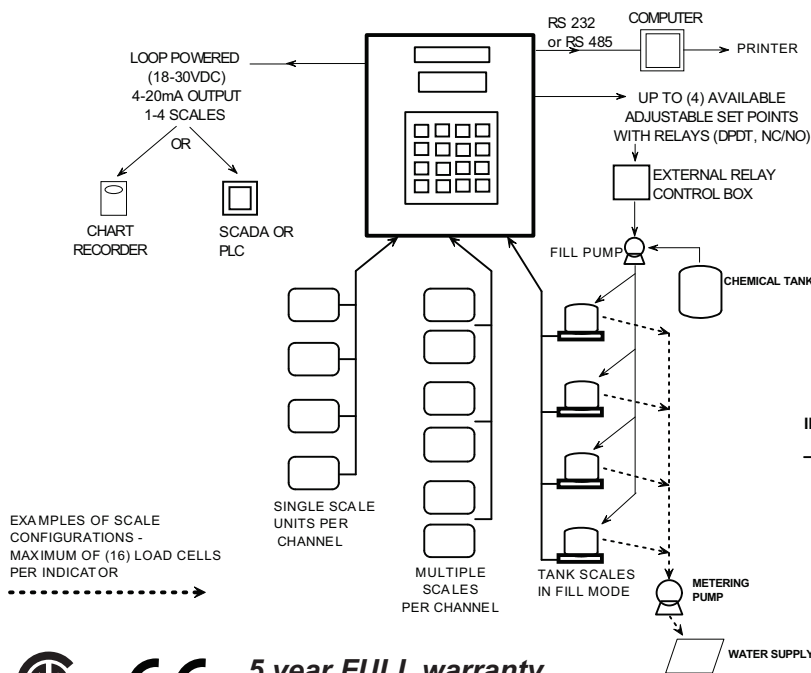
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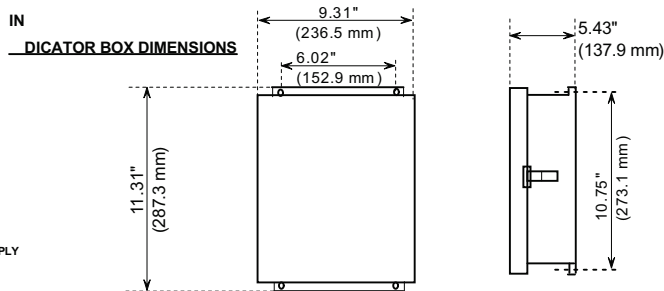
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## APPLICATION DIAGRAM MODEL 1099 CPC



# Model 1099™ Chemical Process Controller General Specifications



**5 year FULL warranty  
on ALL products!**

<b>Indicator:</b>	<b>1099™ C.P.C.</b>
<b>Channels:</b>	1 to 4 independent weighing channels with independent input/output controls
<b>Inputs:</b>	1 to 4 channels with a maximum of (16) 350 ohm load cells
<b>Display:</b>	LED digital display of .56" high, one line, for weight values Backlit LCD alphanumeric display, two lines with 16 characters each
<b>Display Units:</b>	Pounds, kilograms, gallons or liters
<b>Accuracy:</b>	±0.1% to ±0.25% of full capacity
<b>Range:</b>	Zero to a maximum reading of 99,999
<b>Keyboard:</b>	10 function keys and 10 numeric keys Audible, tactile and visual confirmation
<b>Power &amp; Memory:</b>	Nominal Power Ratings; 120/240 VAC, 50/60 Hz, 0.10/0.05A Redundant memory back-up, with a unique battery and solid state memory system. Resistant to interference from pagers, cell phones, radios and other electronic devices
<b>Enclosure:</b>	NEMA 4X, UL Approved Enclosure
<b>Shipping Weight:</b>	8 lbs.

## Options

- Loop powered 4-20 mA signals: 1 - 4 separate signals outputting either net weight or rate of feed, 400 ohms max. (one 4-20 mA signal is standard, three more are optional)
- Set points: A maximum of 4 set points on up to 4 channels. (1 on each channel or up to 4 on 1 channel)
- Serial Ports: (1) RS232 Serial Port or (1) RS485 Serial Network Port
- Audible alarm

## Typical Specifications

*Chemical Process Controller and "Indicator" are considered synonymous for the purpose of bidding specifications.*

The Indicator shall be housed in a NEMA 4X, UL approved enclosure. Indicator shall independently monitor up to 4 channels, with a maximum of 16 load cells per indicator, and also provide information on the total of up to 4 channels. Each channel shall display NET REMAINING, DAILY USAGE, TOTAL AMOUNT USED, RATE OF FEED, DAYS UNTIL EMPTY, TARE WEIGHT, AND GROSS WEIGHT. A Data Log Function shall store the DAILY USAGE for each of the previous 10 days. Digital Display shall have a 2 line, 16 characters per line, alphanumeric LCD display at least 0.56" high for weight value. Indicator shall have 10 numeric and 10 function key pad with audible, tactile and visual confirmation, while all operations are menu prompted for ease of use. Indicator shall be capable of operating at nominal voltages of 120/240 VAC. Indicator shall be virtually immune to interference from commonly used electronic devices in the workplace, such as pagers, cell phones and radios, or other electronic devices. Indicator shall have a redundant memory back-up so that it does not need to be reprogrammed in the event of a power loss. Accuracy of indicator is 0.25% of full scale capacity, or better. Indicator must be CSA certified.

**Indicator shall be a Model 1099™ as manufactured by Scaleton Industries Ltd., Plumsteadville, PA.**