



C90 INDICATOR/CONTROLLER



THE IDEAL SOLUTION FOR PROCESS CONTROL IN WATER TREATMENT



Measuring:

- pH
- Redox
- Dissolved Oxygen
- Conductivity
- Residual Chlorine
- Turbidity
- Temperature
- MLSS
- Chlorine Dioxide

THE MICROPROCESSOR AT THE HEART OF THIS ROBUST WALL MOUNTED IP65 RATED RANGE ENSURES EASE OF USE, ACCURACY, STABILITY AND VERSATILITY WHEN USED SINGLY OR AS PART OF AN INTEGRATED MEASUREMENT AND CONTROL SYSTEM

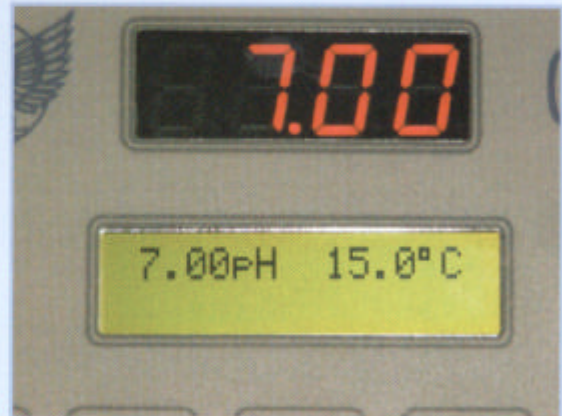
THE INSTRUMENT

The C90 series is designed to operate with the complete range of pHOENIX sensors for a host of determinands including Dissolved Oxygen, pH, Redox, Turbidity, Conductivity, MLSS, Chlorine and Chlorine Dioxide. Developed initially for use in the rigorous conditions within the water industry the C90 is equally suited to applications in many other industries. Primarily a single parameter instrument, the C90 also offers temperature display with every measurement.

Dual Display

The C90 is a full function microprocessor based instrument configured to its measurements by its firmware. There are two displays:

- (a) a large easy to read LED for measurement value and
- (b) a two line LCD for alarm, calibration and diagnostic functions.



Sensor Diagnostics

During any calibration sequence the C90 measures and records sensor performance against ideal values.

Signal Output and Control Set Points

The C90 range has a 4-20mA isolated output which can be configured to any segment of the measuring range of the instruments. Two relays are provided as standard which can be configured via the keypad for above or below set point alarm with the facility of latching or non-latching actions. A time proportional feature is also available on one of the set points.

Automatic Compensation

The C90 has the facility for manual or automatic temperature compensation on all of the sensor systems. The correction slope for each parameter is stored in the instrument memory but can be adjusted through the "service menu". Temperature measurement is made by an extremely accurate semiconductor device and the measured temperature is displayed on the LCD.

Power Loss Protection

All critical information is stored in a non-volatile EEPROM. In the event of a power loss this information is retained for power up irrespective of the time delay. Also in the event of power loss the C90 will restart automatically when power is restored.

Auto Clean

A number of the sensors used with the C90 have the facility for auto clean either by wiper, compressed air, or water jet and sometimes a combination of all three. The C90 provides controls and operates the cleaning cycle frequency of the auto clean through the menu. During the cleaning process the preceding output signal is "frozen" until the procedure is complete.

C90 GENERAL SPECIFICATION

Enclosure	-	IP65
Display	-	4 digit LED parameter display plus 16 x 2 LCD for function and alarm viewing
Accuracy	-	± 0.5% full scale
Repeatability	-	± 0.02% (2 bits)
Units	-	As per sensor specification, e.g. mg/l, FTU, µS, pH, etc.
Temperature Drift	-	± 0.1% FS/deg. C
Storage Temperature	-	-20 to +60°C
Operating Temperature	-	0-50 deg. C
Calibration	-	As per requirements of sensor. N.B. Some parameters can be calibrated using secondary standards
Diagnostics	-	Probe offset and zero drift
Voltage	-	220/110v AC or 12/24v DC
Processor	-	High speed 8 bit
Analogue O/P	-	4-20mA isolated
Alarm Relays	-	2 off relays 5 amp alarms set via software for upward, downward latching and non latching operation with time proportional option (on request)

OTHER STANDARD C90 FEATURES

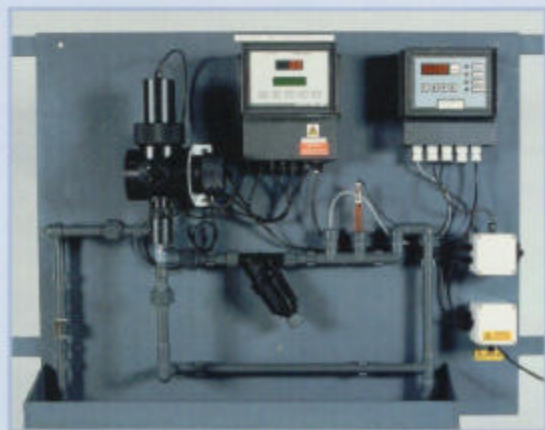
- * Loss of sample detection
- * Calibration data retention
- * Real Time Clock
- * Calibration Record
- * Security Code Access

MODELS IN THE C90 SERIES

Dissolved Oxygen	- C90/200	Turbidity (Low & Medium)	- C90/500
pH	- C90/300	Mixed Liquor	- C90/600
Redox	- C90/300R	Residual Chlorine	- C90/800
Conductivity	- C90/400	Chlorine Dioxide	- C90/800C

RANGE OF SENSORS

In any water quality measurement the key to reliability is the accuracy, stability and robustness of the sensor. pHOENIX have laid special emphasis on the development and selection of products that meet these criteria. Depending upon the application sensors are available in insertion, flow or dip type configurations with automatic temperature compensation, automatic probe cleaning and in some cases automatic calibration. The following illustrations show a selection of pHOENIX sensors suitable for water related applications but for more detailed information request the appropriate data sheet.



C90 based Water Quality Monitor

pHOENIX C90 SENSORS

DISSOLVED OXYGEN



Dip Type



Floating Ball

Features

- Multi range % Sat & mg/l
- Auto Temp Comp
- Auto Clean option
- Auto Cal
- -5 to 45°C operating temp.

Data Sheet: Series 200

TURBIDITY



Flow Line

Dip Type also available

Features

- Multi range Low 0-1 to 0-100 FTU
- Medium 0-100 to 0-1000 FTU
- Temperature compensated -5 to 45°C
- Auto Clean option
- Auto Cal with secondary standards

Data Sheet: Series 500

pH & REDOX



Dip Type



Flow Line

Features

- Multi range
- 0-14 pH
- 0-1000 mV Redox
- Auto Temp Comp
- Auto Clean option
- Auto Cal
- 0-100°C operating temp.

Data Sheet: Series 300

MLSS



Dip Type with Auto Clean

Features

- Multi range
- 1-5000 to 1-20000 mg/l
- Auto Clean as standard
- ± 5% accuracy
- Auto Cal by secondary standards

Data Sheet: Series 600

CONDUCTIVITY



Dip Type

Flow Line

Features

- Multi range
- 0-1 to 0-100000 µS
- Auto Temp Comp
- Auto Cal
- Operating Temp up to 100°C

Data Sheet: Series 400

CHLORINE/CHLORINE DIOXIDE



Features

- Multi range
- 10-2 to 0-10 mg/l
- Auto Temp Comp -5 to 45°C
- Auto Cal
- pH compensation as option

Data Sheet: ISE's

Your Local Agent:



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