LTH Electronics

www.lth.co.uk

BC9 Series

Electrodeless Conductivity Controllers

Features

- IP66 surface mounting enclosure
- Low cost maintenance free system
- Cooling tower bleed and proportional feed
- Solution concentration with optional 0-5% NaOH range
- Rinse water control

The BC9 series of electrodeless conductivity controllers are designed for use in applications where sensor fouling occurs. The electrodeless or inductive method of measuring conductivity provides a maintenance free measurement system at a competitive price when using the BC9 series controllers with the LTH Electronics ECS/20 series of electrodeless conductivity sensors.

The controllers are housed in an IP66 surface mounting enclosure with a 3.5 digit LCD display. Four measurement ranges can be selected: - 1.999 mS/cm, 19.99 mS/cm, 199.9 mS/cm & 1999 mS/cm. Note that 1.999 mS/cm = 1999 µS/cm. An optional version is available with the output scaled 0–5% NaOH (Sodium Hydroxide).

The BC9 series comprises of four models as follows:
The BC9 has a single changeover relay, with a fully adjustable high or low control set point that can be used for a variety of dosing and bleeding applications.

The BC92 has a second relay that gives a time proportioning output that is particularly useful for corrosion inhibitor dosing. A 10% to 100% linear proportional dose can be set using a graduated potentiometer.

The BC93 has a second relay, with a fully adjustable high or low control set point that can be used for a variety of dosing and bleeding applications. It can also be configured as an alarm device to operate a safety valve or klaxon.

The BC94 has a second relay, configured as a dose alarm device, perhaps used to operate a safety valve or klaxon. The timer can be set from 1–60 minutes. If any single dose exceeds the set time, the dose relay and LED is de-energised, the alarm relay is energised and the alarm LED flashes. A low-tank switch input can also activate the alarm condition.

The BC92, BC93 and BC94 variants provide an industry-standard isolated two wire 0/4–20 mA output signal for remote monitoring. The output span can be expanded to cover 0–50% of the operating range.

Specification

BC9 Series

Range of measurement and control
0–1.999mS/cm, 0–19.99mS/cm
0–199.9mS/cm, 0–1999 mS/cm
(useable range limited to 0-1000mS.cm)

Option:
0–5% NaOH

Display
3.5 digit backlit LCD

Accuracy of measurement
1% of reading ±2 digits

Temperature compensation
Selectable in or out, base of 25ºC, slope 2%/ºC range: 0–100°C when used with a sensor with a PT1000 RTD.

Primary control relay
Adjustable set point with volt free contacts (5A 250vAC). Hysteresis 1% fsd. A Red LED indicates the relay is energised. User selectable high/low operation. The set point value is displayed using a push button switch.

Secondary control relay (BC92)
Time proportioning action, settable from 10–100% of primary relay on time can be set using a graduated potentiometer. Volt free contacts (5A 250vAC). A Red LED indicates the relay is energised.

Secondary control relay (BC93)
Adjustable set point with volt free contacts (5A 250vAC). Hysteresis 1% fsd. A Red LED indicates the relay is energised. User selectable high/low operation. The set point value is displayed using a push button switch.

Secondary control relay (BC94)
Adjustable dose alarm timer. Volt free contacts (5A 250vAC). A flashing red LED indicates the relay is energised. A low-tank switch input can also activate the alarm condition.

Output signal (BC92, BC93 & BC94)
Fully isolated 0/4–20 mA DC into a maximum load of 300 ohms.

Ambient temperature
0–50°C for full specification

Power supply
100–120v or 200–250vAC 50/60Hz.

Power consumption
Less than 5VA

Housing
Surface mounting ABS

Protection
IP 66

Weight
Less than 800 grams

Dimensions
156 x 176 x 60mm

LTH Electronics Ltd, Chaul End Lane, Luton, Bedfordshire. LU4 8EZ England
Telephone: +44 (0)1582 593693 Fax: +44 (0)1582 598036
email: sales@lth.co.uk web: www.lth.co.uk

LTH Electronics

www.lth.co.uk

Order Codes

Type No	Part No	Description
BC9	1173	IP66 surface mounting electrodeless conductivity indicator/controller with single relay output.
BC9	1198	IP66 surface mounting electrodeless conductivity indicator/controller, with single relay output. **Scaled for 0-5% NaOH**
BC92	1174	IP66 surface mounting electrodeless conductivity indicator/controller with current output and proportional feed relay output for cooling tower applications
BC93	1175	IP66 surface mounting electrodeless conductivity indicator/controller with 2 relays & single 4-20 mA current output.
BC93	1199	IP66 surface mounting electrodeless conductivity indicator/controller with 2 relays & single 4-20 mA current output. **Scaled for 0-5% NaOH**
BC94	1221	IP66 surface mounting electrodeless conductivity indicator/controller, relay 1 on/off relay, relay 2 is a dose alarm relay & a single 4-20mA current output.
BC94	1206	IP66 surface mounting electrodeless conductivity indicator/controller, relay 1 on/off relay, relay 2 is a dose alarm relay & a single 4-20mA current output. **Scaled for 0-5% NaOH.**

CE These products comply with current European Directives

Issue: 1010/BON