BESTOBELL AQUATRONIX
SINCE / DEPUIS 1953

LTH Electronics

BXD17 Series

Analytical instrumentation for your measurement applications.

Features

- Single parameter instrument with temperature measurement capabilities
- Custom IP66 NEMA 4X (144 x 144mm) enclosure
- Versatile enclosure design - can be panel, surface / wall and pipe mounted
- Large informative LCD backlit display (Size 3.75'' – 240 x 128 pixels)
- Simple intuitive menu structure with soft tactile function buttons
- Replacement for our entry level controllers (BC9, BP9, CDM9 Series)
- Push in connection technology simplifies installation
- Software upgradable via SD card slot – Future proof

BXD17 series

The BXD17 is a microprocessor controlled instrument range offering individual controllers for the contacting conductivity, electrodeless (inductive) conductivity, pH / redox (ORP) and dissolved oxygen measurement parameters. To achieve this, the instrument utilises a clear multifunction LCD to display the primary and temperature readings, show operational status and to provide an intuitive user interface while multilingual text displays can be selected from a choice of English, French, Spanish and Italian.

As standard the instrument is a simple to install IP66 rated NEMA 4X wall-mount instrument, however with the addition of a suitable mounting kit it can also be installed as a panel-mount or pipe-mount instrument.

The instrument has two onboard volt-free normally open-relays with adjustable setpoint value and hysteresis. Either one can be set to activate on a high, low or band operation allowing the instrument to be used in a variety of dosing and control operations. Additional setpoint functions include delayed activation dose alarm timer, proportional and accumulation dosing (electrodeless conductivity only), cleaning cycle (pH and dissolved oxygen only). The relay status is indicated on the instrument display.

Additionally, the instrument features one industry standard, isolated, 0/4-20mA current output enabling the instrument to transmit the primary reading for remote monitoring purposes with features including adjustable scaling, selectable on-error states and loop fault detection.

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Also included are two digital inputs operating on closed or open contact which allows the instrument to be triggered by No Flow, Low Tank Level, Interlock or Off-Line functions that force the relays to deactivate and the current output to a pre-defined state.

Depending upon the version purchased the instrument is powered either by 90-265vAC or 12-30vDC.

The BXD17 has a Micro SD card slot allowing the user to upgrade to the latest software available should the need arise.

Contact our sales department with your requirements.

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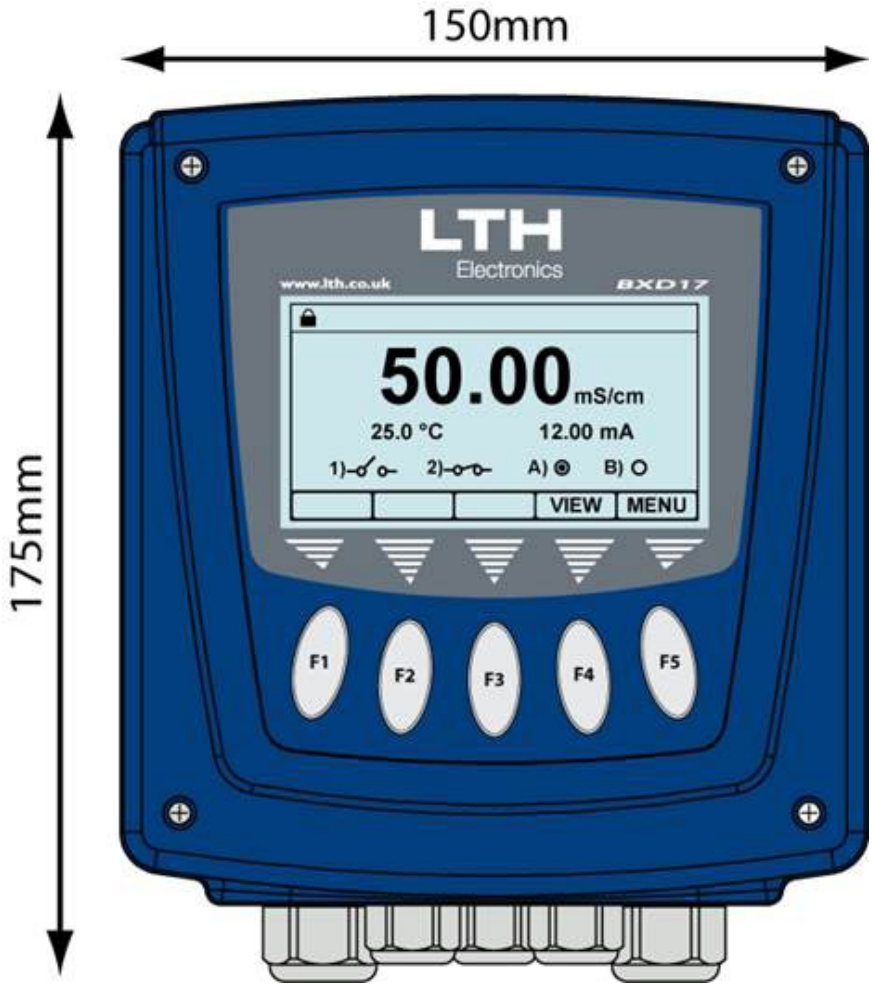
BXD17 series specification

Display	3.75” 240 x 128 dot LCD module
Display backlight	Can be set to flash to indicate the instruments alarm status.
Languages	English, French, Spanish and Italian
Buttons	5, silicone rubber tactile feedback micro-switched
Digital inputs	2 contact inputs for remote activation of user defined operations. Can be configured to operate in either normally open or normally closed modes. (All versions except the BOD17)
Off-Line facility	The relays are de-energised and the current output is held at a user defined level.
Current output specification	Single current output, selectable 0-20mA or 4-20mA into 750 ohms max, fully isolated to 2kV. Expandable across full operating range and offset anywhere in that range. Loop fault detection.
Current output user calibration	± 0.01mA, 2 point 0/4 and 20 mA for remote monitor calibration.
Setpoints and control relays specification	2 normally open fully configurable setpoints with volt free contacts for each relay. Rated at 5A @ 30vDC / 5A @ 250vAC.
Setpoint modes	High, low, band, delay timer adjustable from 00:00 to 59:59 mm:ss. Dose alarm timer, with supplementary initial charge function. Both adjustable from 00:00 to 59:59 mm:ss.
Temperature accuracy	± 0.5 °C
Operator adjustment (temperature)	± 50 °C or ± 122 °F
Range of temperature compensation	-10 °C to +150 °C (+14 °F to + 302 °F) for full specification.
Ambient operating conditions	Temperature -20 to +55°C, relative humidity 5 to 95%, non-condensing.
Ambient temperature variation	± 0.01% of range / °C (typical)
MicroSD card interface	Enables on site upgrading of instrument software. SD, SDHC and SDXC-FAT32 cards supported.
EMC	2014/30/EU using BS EN 61326-1: 2013.
Low voltage directive	2014/35/EU using BS EN 61010-1: 2010.
RoHS directive	2011/65/EU using BS EN 50581:2012.
Power supply	Universal 90-265vAC, 10W max. LV Option 12–30vDC, 5W max.
Instrument housing	UL 94-V0 PC/ABS. Coloured Pantone 281C Front panel 144 x 144mm (Panel-cut out: 138 x 138mm) Depth behind panel: 77mm maximum Hinged / retained front
Ingress protection rating (IEC 60529 protection rating)	IP66
Weight	Maximum 800 grams (instrument only)


150mm
175mm
LTH
Electronics
www.lth.co.uk
BXD17
50.00 mS/cm
25.0 °C
12.00 mA
1)
2)
A)
B)
VIEW
MENU
F1
F2
F3
F4
F5


42mm
77mm

BCD17 contacting conductivity

- Displays conductivity, resistivity, PPM and temperature units
- Measured process & temperature can be displayed together
- Auto range or single range operation
- Automatic temperature compensation
- Programmable cell constant

The contacting conductivity input allows connection with LTH contacting conductivity cells with a cell constant of K=0.01, 0.1, 1.0 and 10.0. It is also possible to use other manufacturer's conductivity cells with a cell constant between K= 0.005 and 15.00. This offers a wide operating range of conductivity measurement µS/cm (micro Siemens/cm) to solution concentration measurements of up to 999.9mS/cm (Millisiemens/cm). The BCD17 can be set for single range, or auto range measurement.

Automatic temperature compensation is available as standard. For applications where temperature compensation needs to be applied to the measurement the linear slope is adjustable for changes due to dissolved salts. For applications where temperature compensation is not required it can be switched out.

Measurement input	Any LTH contacting conductivity cell. Other manufacturer's cells can be accommodated.
Connection cable	Up to 30 metres LTH type 54D cable
Measurement ranges	0-99.99 µS/cm to 0-999.9 mS/cm (K= 0.01 to 10.0). 0-99.99 KΩ/cm to 0-9.999 MΩ/cm (K= 0.01 to 1.0). 0-99.99 ppm to 0-99.99 ppt. (parts per thousand). See the following cell constant / range table for further information.
Cell constant adjustment	Fully adjustable from 0.005 to 15.00.
Cell constant calibration	± 50% of nominal cell constant.
Range selection	Internal single or auto range.
Conductivity accuracy	± 0.5% of range.
Linearity	± 0.1% of range.
Repeatability	± 0.1% of range.
Operator adjustment (conductivity)	± 10 % slope (gain) adjustment for solution calibration.
Range of temperature measurement	-50 °C to +150 °C (-58 °F to + 302 °F) for full specification.
Temperature accuracy	± 0.5 °C
Operator adjustment (temperature)	± 50 °C or ± 122 °F
Sensor input filter	Adjustable filter that averages the sensor input over a user selectable time (10sec – 5mins).
Temperature sensor	Pt1000 RTD input. Up to 30 metres of cable. Temperature sensor can be mounted in the sensor or separately.
Temperature compensation type	Automatic or manual, variable slope 0 - 9.99 %/°C
Temperature compensation base	Selectable at 20 °C or 25 °C.
Range of temperature compensation	-10 °C to +150 °C (+14 °F to + 302 °F) for full specification

Conductivity range	Nominal cell constant			
	0.010	0.100	1.000	10.00
0 to 99.99 µS/cm	✓	✓	✓	
0 to 999.9 µS/cm		✓	✓	✓
0 to 9.999 mS/cm			✓	✓
0 to 99.99 mS/cm			Note 1	✓
0 to 999.9 mS/cm				Note 1

Resistivity range	Nominal cell constant			
	0.010	0.100	1.000	10.00
0 to 99.99 kΩ-cm		✓	✓	
0 to 999.9 kΩ-cm	✓	✓		
0 to 9.999 MΩ-cm	✓	✓		

Total dissolved solids range	Nominal cell constant			
	0.010	0.100	1.000	10.00
0 to 99.99 ppm	✓	✓	✓	
0 to 999.9 ppm		✓	✓	✓
0 to 9999 ppm			✓	✓
0 to 99.99 ppt			✓	✓

Note 1: Maximum measurement range will be limited by the solution temperature. With the temperature compensation slope set to 2%/°C the range will derate linearly from full scale at 25°C to 50% of scale at 100°C.

Order codes

BCD17 conductivity instrument

Type	Stock No	Description
BCD17	1017	IP66 surface mounting conductivity instrument with 2 relays and single 4-20 mA current output. 90-265v AC supply.
BCD17LV	1024	IP66 surface mounting conductivity instrument with 2 relays and single 4-20 mA current output. 12-30v DC supply.

BED17 electrodeless conductivity instrument

Type	Stock No	Description
BED17	1217	IP66 surface mounting electrodeless conductivity instrument with 2 relays and single 4-20 mA current output. 90-265v AC supply.
BED17LV	1204	IP66 surface mounting electrodeless conductivity instrument with 2 relays and single 4-20 mA current output. 12-30v DC supply.

BPD17 pH / redox instrument

Type	Stock No	Description
BPD17	2017	IP66 surface mounting pH / redox instrument with 2 relays and single 4-20 mA current output. 90-265v AC supply.
BPD17LV	2024	IP66 surface mounting pH / redox instrument with 2 relays and single 4-20 mA current output. 12-30v DC supply.

BXD17 series mounting kits

Type	Stock No	Description
BXD17PAMK	6014	BXD 17 series panel mount kit, includes mounting bracket, mounting clips, fixing screws and seal.
BXD17PIMK	6024	BXD17 series pipe mount kit includes mounting plate, fixing screws and 2 x Jubilee clips. (50-100mm diameter).

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Head Office
241 Norseman Street
Toronto, ON M8Z 2R5
salesdesk@bestobell.com
1-800-668-3979
www.bestobell.com

Montréal Office
970 Montée de Liesse, #204
St.Laurent, QC H4T 1W7
ventes@bestobell.com
1-877-331-1225

Atlantic Office
166 North Side Road
Riverport, NS B0J 2W0
dmossman@bestobell.com
Tel: 902-529-0355

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Depuis 1953, Produits De Qualités Pour Détecter, Mesurer & Contrôler

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

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