

Main features

Dual input from:

- pH electrode (Glass or Antimony)
- ORP electrode

Input from Pt100 3 wires

pH/mV/Temperature readout

Dual filter software

Operating mode: automatic and manual

Calibration parameters display

Set-point and alarm conditions display

Automatic or manual temperature compensation

Dual isolated output:

- 0/20 mA or 4/20 mA selectable
- pH/ORP/°C selectable

Dual set-points (pH/ORP selectable) with selectable action:

- ON/OFF
- PFM proportional Pulse Frequency Modulation
- PWM proportional Pulse Width Modulation with hysteresis, functions
- Continuous/flashing alarm
- Min/max and set-points timing alarm relay
- Autoclean relay

- EEPROM parameters storage
- Automatic overload protection and reset
- Extractable terminal blocks
- 96X96 (1/4" DIN) housing

Accessories

The controller is suitable for all pH and ORP sensors of B&C Electronics, including those with microtransmitter 080102.1.

Applications

- pH + ORP measuring
- chromate and cyanide treatment plants
- swimming pool
- autoclean sensors
- PFM / PWM regulations



Technical Specifications

in addition to those common in the series 7685

Sensor type

Glass pH/Antimony pH/ ORP

Glass electrode

Zero: 0.0 mV at pH 7 ±2 pH

Slope: 59.16 mV/pH 25 °C 80/110 %

Antimony electrode

Zero: -325 mV at pH 7 ±2 pH

Slope: 50 mV/pH 25 °C 70/140 %

ORP electrode

Zero adjustment: ±1000 mV

Sens. adjustment: 80/110 %

Input scales

* pH: 0.00/14.00 ±0.01 pH

* ORP: -1000/+1000 mV ±1 mV

* Software filter 90%RT: 0.4/20.0 s for small/large variations

Temperature

Measuring and compensation range: -10/+110 °C

Zero adjustment: ±2 °C

Set point A and B

* ON/OFF action 0.00/14.00 pH -1000/1000 mV

PFM and PWM action

Proportional band: 0.00/1.50 pH 0/150 mV

Pulse frequency: 0/120 pulse/min (PFM)

Pulse Period: 0/99.9 sec (PWM)

* Function: Min/Max

Analog output N° 1 and N° 2

* Input corresponding to the analog output : pH/mV/°C

* Output range: 0-20/4-20 mA (it can be made to represent any segment of the measuring scale)

Options

091.4143 9/36VDC power supply

7685 Series microprocessor-based

General information

The **7685 Series** includes all of the most complete and most performing analyzers of B&C Electronics.

They include all of the following measures:

- **pH - ORP**
- **Conductivity - Resistivity**
- **Free residual chlorine, combined and total**
- **Residual chlorine dioxide**
- **Residual dissolved ozone**
- **Dissolved oxygen**
- **Turbidity and Suspended Solids**
- **Residual dissolved Sulfide/Sulfite**
- **ISE**

All controllers are manufactured in robust aluminum enclosures DIN 43700, with front panels in polycarbonate. Their reliability and precision, along with their functionality, make them easy to use in all applications. Finally, 7685 Series guarantees one of the best performance-price ratio in the marketplace.

Common features

Selectable input.

Input from RTD Pt100 3 wires.

Temperature readout.

Dual filter software.

Operating mode: automatic and manual.

Calibration parameters display.

Set-point and alarm conditions display.

Automatic or manual temperature compensation
0/20 mA or 4/20 mA programmable isolated output.

Dual set-point with hysteresis, delay and min/max programmable functions.

Min/max and set-points timing alarm relay.

Software: 3 access levels, user friendly, keyboard lock, watch-dog EEPROM parameters storage.

Automatic overload protection and reset.

Extractable terminal blocks.

96X96 (1/4" DIN) housing.

Technical Specifications

common to all instruments of the 7685 Series

Temperature

Input: RTD Pt100 2/3 wires

Set point A and B:

Operation: ON/OFF

Hysteresis: adjustable

Delay: 0.0/99.9 s

* Function: Max/Min

Relay contacts: SPDT 220V 5 A (resistive load)

Alarm:

Low/High: adjustable

Delay: 0.0/99.9 s

* Relay status: activated/deactivated

* Alarm on max. operating time of set-point A/B: ON/OFF

* Max operating time of set-point A/B: 0/60 minutes

* Relay contacts: SPDT 220V 5 A (resistive load)

Analog output N° 1

* Input corresponding to the analog output (option 091.371x): selectable

* Output range: 0-20/4-20 mA (it can be made to represent any segment of the measuring scale)

Response time: 2.5 s for 98%

Isolation: 250Vac

Load: 600 ohm max

Analog output N° 2 (option 091.371x)

* Input corresponding to the analog output: selectable

* Output range: 0-20/4-20 mA (it can be made to represent any segment of the measuring scale)

Response time: 2.5 s for 98%

Isolation: 250Vac

Load: 600 ohm max

Configuration (*)

The above parameters indicated by asterisks "*", may be selected in the Configuration menu

General Specification

Alphanumeric display: 1 line x 16 characters

Operating temperature: 0/50 °C

Humidity: 95% without condensation

Power supply: 110/220Vac ± 10% 50/60 Hz

Isolation: 4 kV between primary and secondary (IEC 348)

Power: 5VA max.

Terminal block: extractable

Weight: 850 g

Dimensions: 96 x 96 x 155 mm

Options

091.701 RS 232 isolated output
The output sends the data to the serial port of the computer.

091.404 24Vac power supply

091.414X 9/36VDC power supply

The technical specifications could be changed without notice