

Техническо предложение за **обособена позиция 2**

№	Наименование	Технически характеристики на всички елементи
<p>Всички специфицирани по-долу елементи и уреди са производство на V&C electronics s.r.l. – Италия; https://www.bc-electronics.it/home</p>		
1	<p>Уред за измерване на мътност</p> <p>➤ Сензор-трансмитер за мътност TU8525, работещ на нефело-метричен принцип в съответствие с EN 27027</p> <p>➤ Проточна клетка TU910 за монтаж в нея на сензора за мътност</p> <p>➤ Контролер BC6587 + оп. 9 - 36V DC - 091.428</p>	<p>TU8525</p> <ul style="list-style-type: none"> ■ Изм. диапазони: 0-4,000; 0-40,000; 0-400,0 NTU ■ Ел. захр: 9...36V DC; IP 68 ■ Т диап. на работа: -5 до +50°C ■ Макс. налягане: 6 бара при 25°C ■ Габаритни размери: L=143мм, D=40мм ■ Материал корпус: PVC ■ Кабел 10м.(макс 100м) <p><u>Изходи</u></p> <ul style="list-style-type: none"> ■ Аналогов 4-20 mA, галв. изолиран, макс. 600 Ом при 24V DC ■ Цифров RS 485 (Modbus RTU) <p>TU910</p> <ul style="list-style-type: none"> ■ Макс. налягане: 6 бара при 20°C ■ Присъединяване: за шлаух d 4/6мм. <p>BC6587 + 091.428</p>
2	<p>Уред за изм. на електропроводимост Моля, виж. забележка 5</p> <p>➤ Комбиниран 2-пров. електрод SZ3273.1 с вгр. Pt100 с 3м. кабел</p> <p>➤ Електронен трансмитер C3436, за монтаж в табло (DIN релса)</p>	<p>SZ3273.1</p> <ul style="list-style-type: none"> ■ Изм. обхват: 0 – 80mS ■ Гранични параметри: макс.10 бара; макс. +80°C ■ Вграден температурен сензор Pt100 ■ Мат-ли: Графитни електроди, Корпус от епоксидна смола <p>C3436</p> <ul style="list-style-type: none"> ■ Микропроцесорно управление; ■ Ел. захр: 9...36V DC; IP 40; ■ Т диап. на работа: 0 до +50°C ■ Отн. влажност: макс. 95% без кондензация ■ Изм. диапазони: 0-2,00; 0-20,00; 0-200,00; 0-2000 mS (µS) ■ Изм. диапазон Темп: -10...+110°C ■ Габаритни размери: 71 x 95 x 58мм. (4 DIN модула) ■ Темп. компенсация (Ръчна или Автоматична) <p><u>Входове</u></p> <ul style="list-style-type: none"> ■ Ел. проводимост - 2 или 4 проводни сензори на V&C ■ Температура – 3 проводен Pt 100 <p><u>Изходи</u></p> <ul style="list-style-type: none"> ■ 0/4-20 mA, галв. изол, Rмакс. 600 Ом. ■ Цифров RS 485 (Modbus RTU) ■ Размери: D=12, L=110мм.

ВЕНТЕХ ЕООД – ТЕХН. ПРЕДЛОЖЕНИЕ по ТТ001770 – ОБОСОБЕНА ПОЗ. 2

Доставка, монтаж, настройка и въвеждане в експлоатация на процесни контролно изм. прибор измерване на качествени показатели на питейна и отпадна вода на обекти на Софийска вода /

№	Наименование	Технически характеристики на всички елементи
3	<p>Уред за измерване на остатъчен хлор Моля, виж. забележки 1, 2, 3 и 4</p> <p>➤ Електронен трансмитер CL3436, за монтаж в табло (DIN релса)</p> <p>➤ Преливен проточен блок, за монтаж на 1 сензор, SZ7231 Моля, виж. забележка 5</p>	<p>CL3436</p> <ul style="list-style-type: none"> ■ Микропроцесорно управление; ■ Ел. захв: 9...36V DC; IP 40; ■ Т diap. на работа: 0 до +50°C ■ Отн. влажност: макс. 95% без кондензация ■ Изм. диапазони св. CL: 0 - 2,00; 0 - 200,00; 0 - 2000 мг/л. (ppm) ■ Изм. диапазон Темп: -10...+110°C ■ Габаритни размери: 71 x 95 x 58мм. (4 DIN модула) ■ Темп. компенсация (Ръчна или Автоматична) <p><u>Входове</u></p> <ul style="list-style-type: none"> ■ Измервателен за свободен CL, ■ Измервателен за Температура <p><u>Изходи</u></p> <ul style="list-style-type: none"> ■ 0/4-20 mA, проп. на изм. ост. CL, галв. изолиран, макс. 600 Ом. ■ Цифров RS 485 (Modbus RTU) <p>SZ7231</p> <ul style="list-style-type: none"> ■ Необх. дебит пробна вода: припл. 10 – 30л/ч. ■ до 1бр. комб. потенц. сензор 110x12мм. за ост. хлор ■ до 1бр. темп. сензор 5мм. ■ Водна проба: Вход: за шлаух 4/6мм; Изход: за шлаух 10/14мм. ■ Габаритни размери: 150 x 90 x 40мм. Стенен монтаж ■ Необходимо свободно изтичане на пробата след блока
4	<p>Уред за измерване на температура Измерването на Температурата се извършва от комбинираният електрод SZ3273.1, (поз.2), който е и с вграден темп. сензор Pt100 и се отчита на C3436 (поз.2),.</p>	
5	<p>Вторичен прибор за събиране и предаване на данните от един измервателен прибор</p>	<p>CL3436, моля виж поз.3</p>
6	<p>Вторичен прибор (или комбинация от няколко такива) за събиране и предаване на данните от 1 /един/ до 4 /четири/ измервателни уреди</p>	<p>C3436 моля виж поз.2</p>
7	<p>Табло за монтаж до 2 /два/ измервателни уреди и вторичен прибор/и за събиране и предаване на данните от измерванията</p>	<p>BC9408.1 Монтажно табло за 1бр. CL 3436, IP65, Размери: 143 x 210 x 100 mm, PP,</p>
8	<p>Табло за монтаж до 4 /четири/ измервателни уреди и вторичен прибор/и за събиране и предаване на данните от измерванията</p>	<p>BC9491.1 Монтажно табло за 2бр. C 3436, IP65, Размери: 215 x 210 x 100 mm, PP</p>

ВЕНТЕХ ЕООД – ТЕХН. ПРЕДЛОЖЕНИЕ по ТТ001770 – ОБОСОВЕНА ПОЗ. 2

Доставка, монтаж, настройка и въвеждане в експлоатация на процесни контролно изм. прибори за измерване на качествени показатели на питейна и отпадна вода на обекти на Софийска вода АД

Забележки:

1. Не е включен калибровъчен разтвор за остатъчен хлор, тъй като:

При потенциостатния метод на измерване на остатъчен хлор е необходимо водната проба да е в непрекъснато движение около сензора. Поради тази причина калибрирането при този вид измерване се осъществява посредством калибриране на потенциостатния измервателен уред с преносим уред за измерване на ост. хлор, работещ на колориметричен принцип (DPD). Предлагащите на пазара калибровъчни комплекти са именно за уреди за измерване на ост. хлор по колориметричен принцип (DPD), но не и за директно калибриране на потенциостатен електрод/ сензор.

2. Поради изискването оферираният трансмитер за остатъчен хлор CL3436 да работи със съществуваща амперометрична клетка CS 120 на Jesco Dosiertechnik, в спецификацията на обособената позиция не е включен комб. потенциостатен електрод за измерване на остатъчен хлор.
3. Оферираният трансмитер за остатъчен хлор CL3436 е модифициран за работа със съществуваща амперометрична клетка CS 120 на Jesco Dosiertechnik на база единствено и само официално публикуваните и обществено достъпни технически характеристики на нова CS120.
4. Производителят на амперометрична клетка CS 120 препоръчва монтажа на вторичния прибор (в случая трансмитера CL3436) да е максимално близо до клетката, ето защо в този случай свързващия кабел между клетката и трансмитера не трябва да се удължава.
5. Преливния проточен блок, за монтаж на 1_сензор, SZ7231 се използва за монтаж на електрода SZ3273.1 за електропроводимост от поз.2

Turbidity probes. 4/20 mA and RS 485 output.

These unique probes have been designed to measure turbidity based on nephelometric method (ISO 7027 – EN 27027). The probes are available for submersible and in-pipe installations.

The measuring system consists of:

- Infrared light source,
 - 90 degree scattered light detector,
 - Detector of the clean lens status,
 - 2-wire 4/20 mA analog output,
 - RS 485 digital output
- Nozzle for the autoclean by external pressured air (TU 8325).

Through commands from the Personal Computer hyperterminal, the serial interface allows the measuring and check signals transmission, the scale selection, the analog or digital operating mode selection, the zero and sensitivity calibration.

Thanks to its 4/20 mA isolated output, the probe can be directly connected to a PLC or data logger, and configured in NTU, g/l, % or other.

The probe can be connected to B&C Electronics controller BC 7335, BC 7635, BC 7635.010, BC 7687 or BC 6587, which provide the power, the measuring readout, 2 set-points, the alarm relay and the holding function for an external cleaning cycle.

Some most common applications of this probe include: water quality monitoring, municipal and industrial water treatment and aquaculture.

Principle of operation

The turbidity follows the back nephelometric method (ISO 7027 – EN 27027).

A light beam is sent to the sample through an optical lens.

The 90 degree scattered light by suspended particle is collected by the probe through a second lens and it is converted in an electric signal proportional to the turbidity of the sample.

The probe uses an infrared light and the measuring is not affected by the color of the sample.



TU 8325

TU 8525

Technical specifications

Scale: 0/4,000 – 0/40,00 – 0/400,0 NTU

Sensitivity NTU: 70/130 %

Zero NTU: ± 0,400 NTU all scales

Power supply: 9/36Vdc

Analog output: 4/20 mA isolated current Loop

Load: 600 Ω max. at 24Vdc

Digital output: RS 485

Room temperature: -5/50 °C

Max. pressure: 1 bar at 25 °C (TU 8325); 6 bar at 25 °C (TU 8525)

Autoclean: by pressure air 3 bar max (TU 8325)

Dimensions TU 8325: L=165 mm total, D= 60 mm

Dimensions TU 8525: L=143 mm total, D= 40 mm

Body: PVC

Cable: 10 m (100 m max.)

Protection: IP 68

The technical specifications may be changed without notice

Accessories

BC 8701 RS485/USB converter for power supply through PC connection

Accessories for TU 8325

0012.450043 Extension pipe adapter

0012.000624 Swivel mounting + 0012.450043

0012.440040 33 m PVC tubing for pressured air

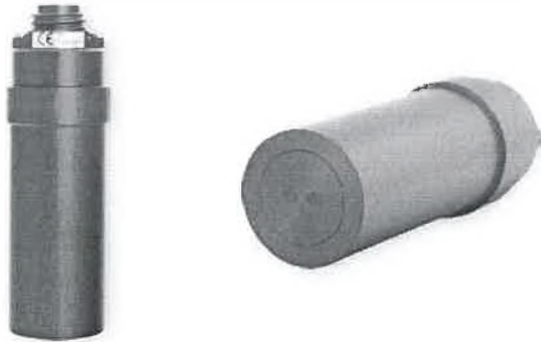
Accessories for TU 8525

TU 910 Overflow cell

YAT75M0021 Flow Tee assembly for in-pipe installation

Measuring probes in flow / overflow

In line sensors are available in various solution, so to satisfy all applications.



Technical Specifications (common to all probes)

Measuring method: Nephelometric

Response time: 10 s

Internal sensor: for empty cell and dirty lens checking

Preamplifier: built-in

Power: ± 12 Vdc from TU 7685

Ambient Temperature: 0/50 °C

Sample Temperature: 0/50 °C

Sample Pressure: 6 bar max. a 20 °C

Connector: IP 67

Optical window material: Acrylic

Pipe Tee for direct inline mounting: 2" (DN 50)

Diameter: 40 mm

Cable length: 150 m max.

For very precise measures and low Turbidity values, as required by most drinking water application, we suggest to install the probe in the overflow cell **TU 910**.

The cell is equipped with a flow regulator to avoid air bubbles, which can come from grab samples under pressure. Cleaning the cell is extremely simple, and it can also be used for calibrations with Formazine.

Sensors can also be installed in pipes, and B&C provides special adapters and Tee assembly. Please contact our Sales Department for more details.

TU 810 - TU 8105

Technical Specifications

Measuring method: Nephelometric (ISO 7027 - EN 27027)

Range: 0/4000 NTU

Resolution: 0.001 on scale 0/4.000 NTU
0.01 on scale 0/40.00 NTU
0.1 on scale 0/400.0 NTU
1 on scale 0/4.000 NTU

Accuracy: $\pm 5\%$ of reading on 0/400 NTU
 $\pm 10\%$ of reading on 400/4,000 NTU

Light source: LED I.R. 890 nm

TU 810 material: Body in PVC - O Ring: NBR (Acrylat Nitrile)

TU 8105 material: Body in PVDF - O Ring: NBR (Acrylat Nitrile)

TU 820

Technical Specifications

Measuring method: Nephelometric (USEPA 180 1)

Range: 0/400 NTU

Resolution: 0.001 on scale 0/4.000 NTU
0.01 on scale 0/40.00 NTU
0.1 on scale 0/400.0 NTU

Accuracy: $\pm 5\%$ of reading on 0/400 NTU

Light source: Tungsten lamp 2200 °K

Average life of the lamp: 100,000 hours

Sensor sensitivity: 600 nm

Material: Body in PVC - O Ring: NBR (Acrylat Nitrile)

Cables

SZ 9481 Cable 10 m + connector

SZ 9483 Cable 30 m + connector

Technical Specifications

Applications: in flow measurement

Flow of sample: 0.2/25 l/min.

Temperature: 0/50 °C

Temperature of sample: 0/50 °C

Pressure of sample: 6 bar max. a 20 °C

Material: PVC

Collar nut thread diameter: 2 1/2"

Fittings: 1/4"

Tubing: PVC 4x6 mm l=5m

The **BC 6587** and **BC 7687** controllers are used when it is necessary to add to any transmitter the display, control, alarm and the automatic sensor cleaning functions. The 0-20 mA or 4-20 mA signal from the transmitter is sent to the instruments who perform the above functions.

In some cases, it is necessary to measure the value before and after the process. BC 6587 and BC 7687 are able to display and control the difference of the measurements of the two transmitters operating with the same full scale.



Main features

Range

-9999 / +9999

The instruments allow the configuration of the minimum and the maximum value of the scale and decimal point position.

Measuring unit

The user may select one of the proposed measuring units: %, NTU, FTU, mg/l, g/l, ppm, μ S, mS, pH, mV, or edit any custom unit.

Display

The multi-line graphic display shows the values of the measures and the messages which guide the user through set-up, configuration and during normal operation.

Keyboard

There are dedicated keys to directly access zero and sensitivity calibration as well as set point configuration.

Operating mode

The meters can operate in automatic, measure or simulated mode so to facilitate start-up or maintenance.

Two filters software

The user can set two filters in order to obtain a stable reading and a faster response to the variations of the measurement in the process.

Two analog outputs

Can be addressed to any input and programmable 0/4 – 20 mA on two points of the scale. They allow PID control or transmission of the measured values.

Two On/Off regulators

Independent and addressable to any input with programmable set point on the scale.

PID output

During PID control through the analog output, the level of the actuation is displayed.

The user can select an FM regulation (pulse frequency) or WM (pulse width) addressed to the assigned relay.

Alarm

The relay is dedicated to min/max values of the measures, the excessive activation of relays and the presence of the logic inputs.

Logic inputs

Two free voltage contacts can generate a hold or alarm condition.

Autocleaning

A relay is dedicated to an external device for the sensor self-cleaning. This function is fully programmable through the controllers' software.

Universal power supply

From 85 to 264 Vac, 50/60 Hz.

The low voltage option allows to power the unit from 9 to 36 Vdc or from 12 to 24 Vac, 50/60 Hz.

Easy installation

All 6587 series of controllers have IP65 protection rating.

They are suitable for wall mounting, or for DIN rail and handrail by means of optional accessories.

Series 7687 has an IP65 front panel and it is designed for customers who prefer panel mounting.

Compatible and versatile

The analyzers are compatible with all B&C Electronics' probes with analog output and can be used with any transmitter or sensor with 0-20 mA or 4-20 mA output in all applications.

Applications

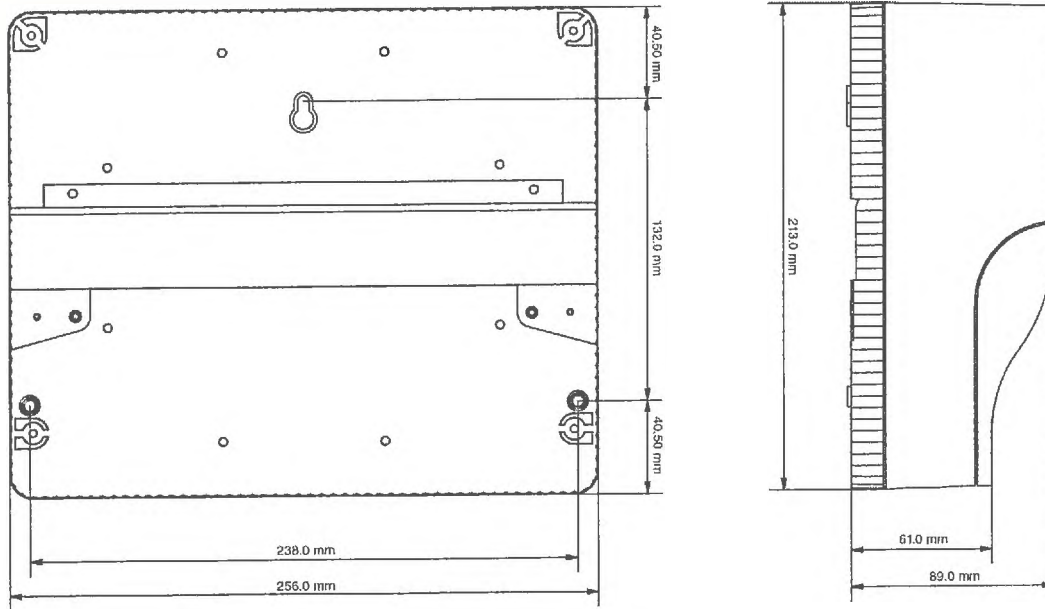
- Aquaculture
- Chemical industry
- Drinking water
- Electroplating
- Fertirrigation
- Food and beverage
- Paper and pulp
- Pharmaceutical
- Printing industry
- Swimming pools
- Textile industry
- Underground water
- Water treatment

Technical specifications

Inputs:	4-20 mA, 0-20 mA active or passive single or differential
Power supply for passive transmitters:	24Vdc (50 mA max)
Zero:	± 10 %
Sensitivity:	12.5 % ÷ 250 %
Resolution:	1 digit
Accuracy:	0.2 %
Repeatability:	0.1 %
Non-linearity:	0.1 %
Dual filter software:	0.4 ÷ 50.0 seconds for small and large variations
Dual analog output:	0-20 mA / 4-20 mA Rmax 600 Ω
Dual set point HI/LO:	ON/OFF - PID - PFM - PWM, SPST relays
Hysteresis:	0 ÷ 10 %
Delay:	0 ÷ 100.0 seconds
Alarm:	SPDT relay with delay 0 ÷ 100.0 seconds
Cleaning function:	off / autoclean / manual, relay SPDT repetition time 0.1 ÷ 100.0 hours cleaning time 1.0 ÷ 60.0 seconds holding time 0.0 ÷ 20.0 minutes
SPST and SPDT relay contacts:	220V - 5 A resistive load
Operating temperature:	-10 ÷ 60 °C
Humidity:	95% without condensation
Power supply:	85 ÷ 264Vac - 50/60 Hz 9 ÷ 36Vdc, 12 ÷ 24Vac (option 091.42x)
Terminal blocks:	removable
Weight:	1360 g (BC 6587) 450 g (BC 7687)
Enclosure:	ABS, IP 65 protection (BC 6587) Metallic, IP 65 front panel only (BC 7687)
Dimensions:	256x230x89 mm (BC 6587) 98x98x104 mm, 90x90x95 mm panel cutout (BC 7687)
EMC/RFI conformity:	EN 61326
Registered design:	002564666-002 (BC 6587) 002564666-003 (BC 7687)

The technical specifications could be changed without notice.

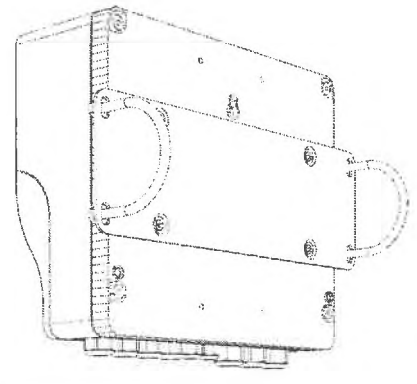
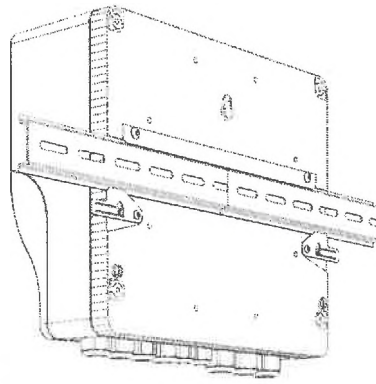
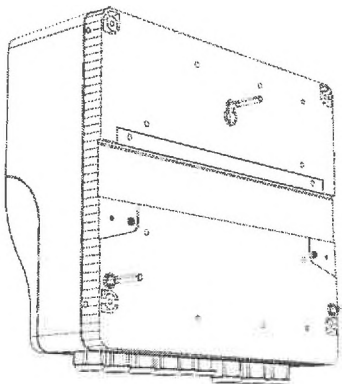
Series 6587 dimensions and installation



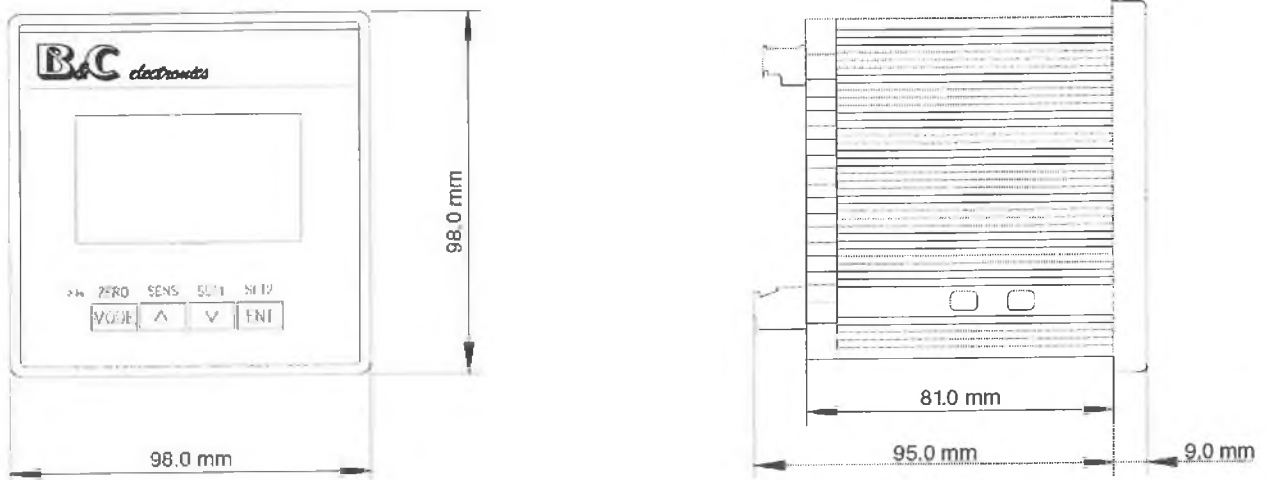
Wall

DIN rail

Handrail



Series 7687 dimensions



Electrical Conductivity probes

Two electrodes



SI 301

In-line E. Conductivity probe.

Applications: from 0 to 2 mS

Cell constant: $K=1 \text{ cm}^{-1}$

Body: PVC

2 Electrodes: 316 S.Steel

Thread: 1" BSP

Operating temperature: 40 °C max.

Operating pressure: 3 bar max. at 25 °C

Option: non standard materials and cell constant.

SI 3013

In-line E. Conductivity probe

Applications: from 0 to 2 mS

Cell constant: $K=1 \text{ cm}^{-1}$

Body: Polypropilene

2 Electrodes: 316 S.Steel

Thread: 1" BSP

Operating temperature: 50 °C max.

Operating pressure: 3 bar max. at 25 °C

Option: non standard materials and cell constant.



SI 308T

In-line E. Conductivity probe + Pt100

Applications: for high purity water.

Cell constant: $K=0.01 \text{ cm}^{-1}$

Body: PVC

Electrodes: 316 S.Steel

Temperature sensor: Pt100

Thread: 1" BSP

Operating temperature: 50 °C max.

Operating pressure: 3 bar max. at 25 °C

Cable: 3 mt



SZ 3252

Three black Platinum band electrodes, $K=1 \text{ cm}^{-1}$, epoxy body, cable 1.5 m with BNC connector.

Applications: portable instruments, laboratory.



SZ 3271

Two graphite electrodes, $K=1 \text{ cm}^{-1}$, epoxy body L=110 mm D=12 mm, cable 1.5 m with BNC connector.

Applications: In-line up to 10 bar and 80 °C, range 0/80 mS.

SZ 3273.1

Two graphite electrodes, $K=1 \text{ cm}^{-1}$, built-in Pt100, epoxy body L=110 mm D=12 mm, cable 3 m.

Applications: in-line up to 10 bar and 80 °C, range 0/80 mS.

SZ 3273.4

Two graphite electrodes, $K=1 \text{ cm}^{-1}$, built-in NTC 10K, epoxy body L=110 mm D=12 mm, cable 3 m.

Applications: in-line up to 10 bar and 80 °C, range 0/80 mS.

The **C 3436** conductivity /TDS transmitter is the best solution for the installations where it is necessary the retransmission of the measures at distance.

Thanks to a "current loop" 4-20 mA isolated output and RS485 serial interface, the transmitter can be easily connected to the most common PLC or other remote supervision and control systems.

The calibration of the sensor and the configuration of the transmitter can be done locally or remotely via the serial interface.



Main features

Range

$\wedge \div 2.000/20.00/200.0/2000 \mu\text{S}$
 $\vee \div 2.000/20.00/200.0/2000 \text{ mS}$
 $0 \div 1.000/10.00/100.0/1000 \text{ ppm}$
 $0 \div 1.000/10.00/100.0/1000 \text{ ppt}$
 $-10.0 \div 110.0 \text{ }^\circ\text{C}$, $14.0 \div 230.0 \text{ }^\circ\text{F}$

Display

It shows the values of the measures and the messages that guide the user in the various stages of set-up and configuration.

Keyboard

I tasti includono quelli dedicati alla taratura di zero e di sensibilità.

Temperature compensation

The transmitter performs the manual or automatic temperature compensation.

Calibration

Standard solutions are stored in the transmitter's memory and they are automatically recognized during calibration.

Filter software

The user can set two filters in order to obtain a stable reading and a faster response to the variations of the measurement in the process.

Analog output

The 4-20 mA current loop is galvanically isolated, so that can be interfaced directly to a PLC or data acquisition cards.

Serial interface

The isolated RS485 serial interface allows connection to a PLC, terminals or PC, using the B&C (ASCII) or Modbus RTU protocol.

The B&C (ASCII) protocol allows the transmission of measures and the management of calibration and configuration.

The Modbus RTU protocol features the 03 function for data acquisition.

The digital and analog mode can be used simultaneously.

Logic input

The free voltage contacts can create the hold condition.

Power supply

The transmitter is $9 \div 36 \text{ Vdc}$ current loop powered, directly from a PLC, from data acquisition boards or by a power supply in series between the analog output and the acquisition apparatus.

Easy installation

The small size of the transmitter and the removable terminal blocks facilitate the installation in control cabinets or waterproof enclosures for DIN Rail components.

Sensors

The transmitter is compatible with all 2 and 4 electrodes conductivity probes offered by B&C Electronics.

Temperature is measured by means of Pt100 3 wires probes.

applicazioni

- Primary water
- Food industry
- Paper and pulp
- Chemical industry
- Pharmaceutical
- Electroplating
- Printing industry
- Textile industry
- Irrigation and agriculture
- Swimming pools
- Safety
- Water treatment
- Surface treatment

Technical specifications

Inputs:	2 or 4 electrodes cells Pt100
K cell:	0.1 - 0.5 - 1.0 - 10
Temperature coefficient:	0.00 ÷ 3.50 %/°C
TDS/EC conversion factor:	0.450 ÷ 1.000
Reference temperature:	20 / 25°C
Zero:	± 10 %, ± 5 °C, ± 9 °F
Sensitivity:	60 ÷ 160 %
Resolution:	1 digit
Accuracy:	0.2 %
Repeatability:	0.1 %
Non-linearity:	0.1 %
Filter software:	large signal: 2 seconds small signal: 1 ÷ 20 seconds
Analog output:	4-20 mA, Rmax 600 ohm
Operating temperature:	0 ÷ 50 °C
Humidity:	95 % without condensation
Power supply:	9/36Vcc
Terminal blocks:	extractable
Weight:	250 g
Enclosure:	IP 40
Dimensions:	71x95x58 mm (4 DIN modules)
Registered design:	002564666-001
EMC/RFI conformity:	EN 61326

The technical specifications could be changed without notice.

Installation accessories



BC 9404.1

Enclosure for 1 transmitter

Dimensions: 143x210x100 mm

Protection: IP65

Wall mounting: with BC 9491.1 brackets, to be ordered separately



BC 9408.1

Enclosure for 2 transmitters

Dimensions: 215x210x100 mm

Protection: IP65

Wall mounting: with BC 9491.1 brackets, to be ordered separately



BC 9412.1

Enclosure for 3 transmitters

Dimensions: 298x260x140 mm

Protection: IP65

Wall mounting: with BC 9491.1 brackets, to be ordered separately

The **CL 3436** transmitter is the best solution for the installations where it is necessary the retransmission of the measures at distance.

The sensors in our catalog allow the measurement of the main oxidizing substances, such as residual free chlorine, combined and total chlorine, chlorine dioxide, dissolved ozone, hydrogen peroxide and peracetic acid.

Thanks to a "current loop" 4-20 mA isolated output and RS485 serial interface, the transmitter can be easily connected to the most common PLC or other remote supervision and control systems.

The calibration of the sensor and the configuration of the transmitter can be done locally or remotely via the serial interface.



Специално модифициран за работа със същ. амперометрична клетка CS120 на Jesco Dos izetechnik

Main features

Range

0 ÷ 2.000/20.00/200.0/2000 mg/l

0 ÷ 2.000/20.00/200.0/2000 ppm

-10.0 ÷ 110.0 °C , 14.0 ÷ 230.0 °F

Display

It shows the values of the measures and the messages that guide the user in the various stages of set-up and configuration.

Keyboard

There are dedicated keys to directly access zero and sensitivity calibration.

Temperature compensation

The instrument performs the manual or automatic temperature compensation.

Calibration

To improve the potential life of the sensor, the transmitter allows to perform the zero and sensitivity calibration in a wide range.

Filter software

The user can set two filters in order to obtain a stable reading and a faster response to the variations of the measurement in the process.

Analog output

The 4-20 mA current loop is galvanically isolated, so that can be interfaced directly to a PLC or data acquisition cards.

Serial interface

The isolated RS485 serial interface allows connection to a PLC, terminals or PC, using the B&C (ASCII) or Modbus RTU protocol.

The B&C (ASCII) protocol allows the transmission of measures and the management of calibration and configuration.

The Modbus RTU protocol features the 03 function for data acquisition.

The digital and analog mode can be used simultaneously.

Logic input

The free voltage contacts can create the hold condition.

Power supply

The transmitter is 9 ÷ 36 Vdc current loop powered, directly from a PLC, from data acquisition boards or by a power supply in series between the analog output and the acquisition apparatus.

Easy installation

The small size of the transmitter and the removable terminal blocks facilitate the installation in control cabinets or waterproof enclosures for DIN Rail components.

Sensors

The transmitter is compatible with all chlorine, dissolved ozone, and other oxidizing sensors included in the B&C Electronics catalog.

Temperature is measured by means of Pt100 3 wires probe.

Applicazioni

- Aquaculture
- Chemical industry
- Drinking water
- Electroplating
- Fertirrigation
- Paper and pulp
- Pharmaceutical
- Printing industry
- Swimming pools
- Textile industry
- Underground water
- Water treatment

Applications

Inputs:	2 or 3 wires sensors Pt100
Polarization voltage:	-1000 ÷ 1000 mV
Measuring unit:	ppm o mg/l
Reference temperature:	20 °C
Temperature coefficient:	0.00 ÷ 4.00 %/°C
Zero:	± 20 %, ± 5° C, ± 9 °F
Sensitivity:	12.5 ÷ 250 %
Resolution:	1 digit
Accuracy:	0.2 %
Repeatability:	0.1 %
Non-linearity:	0.1 %
Filter software:	large signal: 1÷20 seconds small signal: 1÷20 seconds
Analog output:	4-20 mA, Rmax 600 ohm
Operating temperature:	0 ÷ 50 °C
Humidity:	95 % without condensation
Power supply:	9/36Vcc
Terminal blocks:	extractable
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SZ 72x1 – SZ 72x3

Overflow cells

This series of cells is made for the measurement of Free residual chlorine, Chlorine dioxide and dissolved Ozone with a potentiostatic sensor SZ 283.

The cell's manufacturing characteristics allow the sample to run through the potentiostatic electrode site with a constant velocity. The in-flow can be regulated through a check valve.

The models SZ 72x1 cell is for the potentiostatic electrode and the Temperature sensor, while the SZ 72x3 cell is also for additional pH and O.R.P. electrodes.

The supply includes the necessary tubing for grabbing the sample, along with wall mounting accessories.



SZ 7261



SZ 7231



SZ 7263



SZ 7233

Technical Specifications

Material: clear acrylic resin

Inlet: 1/4" fitting

Outlet: fitting for 10x14 mm tubing

Connection tubing: 2 m 4x6 tubing

Flow: about 10/30 litre/hour approx

Temperature: 0/50°C

SZ 7263 dimensions: diameter 65 x 150 mm

SZ 7261 dimensions: diameter 55 x 150 mm

SZ 7233 dimensions: 150 x 120 x 40 mm

SZ 7231 dimensions: 150 x 90 x 40 mm

Sensors site: diameter 12 mm for pH/ORP/Cl
diameter 5 mm for temperature

Suggested sensors: pH = SZ 165
ORP = SZ 275
Cl₂ = SZ 283
°C = SP 514

