CONDUCTIVITY CONTROLLER & TRANSMITTER

Model : CC 603 - 1

INTRODUCTION

To measure the ability of water to pass electrical flow through it is known as conductivity of water and directly proportional to the resistance of water. It directly depends on the concentration of conductive ions present in the water. The sources of origin for conductive ions are inorganic metals, such as Chloride, Carbonate, alkalis, Sulfide components and dissolved solids. Which is measured Simens per meter (S/m) in SI units and millimhos per centimeter (mmho/cm) in U.S units.

The CC 603 - 1 series of Conductivity Controller and Transmitter provides a reliable method of Monitoring, Controlling & Transmitting 4 - 20mA / RS 485 MODBUS RTU communication for interfacing to PLC, Data logger, HMI, etc.,. This product is suitable to measure Conductivity in water treatment, Electrolytic water cleaning, Chemical industries, food process, waste water treatment, textile industries & neutralization process, etc.,. This Conductivity Controller & Transmitter can measured using industrial conductivity sensors, temperature can be measured using temperature sensor. This Conductivity Controller & Transmitter has many user friendly and safety features which as follows.

APPLICATIONS

- ❑ Drinking water
- ❑ RO Water Treatment
- ❑ Sewage water
- ❑ Food industries
- ❑ Pharmaceutical
- ❑ Plating
- ❑ Healthcare

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(P.T.O)

FEATURES

- ✓ Economical, easy to calibrate and setup
- ✓ User selectable 5 ranges from 1µS to 200mS
- ✓ High accuracy
- ✓ Programmable auto/manual temperature compensation
- ✓ Optional isolated RS 485 communication with MODBUS RTU protocol
- ✓ Optional galvanically isolated 4 – 20mA output
- ✓ Adjustable cell constant for particular ranges
- ✓ Manual single or 2 point calibration
- ✓ 2 relay outputs with configurable individual H/L setting with 6 relay status
- ✓ Optional audible inbuilt buzzer output
- ✓ Universal supply voltage 90 to 270V AC/DC

TECHNICAL SPECIFICATIONS

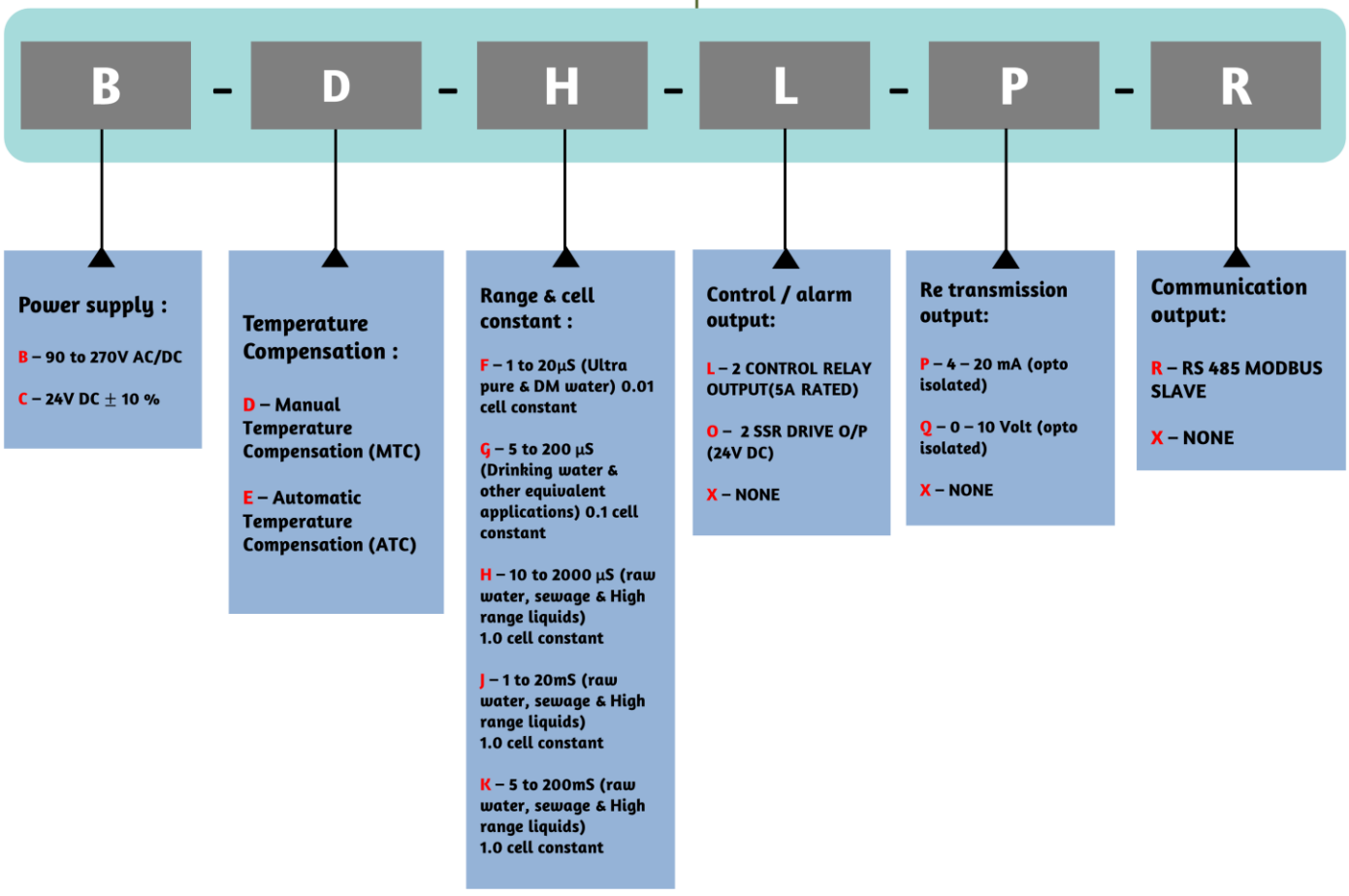
Model	CC 603 - 1
Display	4 + 4 Digit 0.5" & 0.39" 7 Seg RED LED Display
Range (anyone)	1 - 20µS, 5 - 200µS, 10 to 2000µS, 1 to 20mS, 5 to 200mS
Resolution	0.01µS to 0.1mS (depends on range)
Accuracy	± 1 % of range ± 1 digit
Cell constant*	0.01 / 0.1 / 1 (user selectable depends on range)
Temperature sensor	RTD - PT 100 (3 wire)
Temperature Co-efficient	0 to 3 % / °C (user adjustable)
Temperature Compensation	Manual / Automatic (-20.0 to +150.0°C)
Electrode Input	Conductivity cell on rear panel
Set Point - 1 & 2	Two Set Point with 6 Relay Status Selectable
Relay Output	Relay - 1 for Setpoint - 1, Relay - 2 for Setpoint - 2 with 5A Rating
Relay Hysteresis	0 to 500 counts (user adjustable) (only for High & Low control modes)
Relay Cyclic delay	0 to 100 seconds (user adjustable) (only for High & Low control modes)
Alarm Output (optional)	Inbuilt audible buzzer with front key reset
Optional Re. Tx. output	Galvanically Isolated 4 - 20 mA
Optional Comm. output	Isolated RS 485
Comm. Protocol	MODBUS RTU
Operating Environment	-10 to 50°C / 10 to 95 % RH Non Condensing
Power Supply	90 to 270V AC / DC 50Hz
Dimension	96 x 96 x 85 mm
Cutout Dimension	92 x 92 mm
Weight	350 grams (Approx.)

Note: 1.* cell constant selection for Measuring ranges as follows
1) For 1 - 20µS(Ultra pure & DM water) 0.01 cell constant selectable
2) For 5 - 200µS(Drinking water & other applications) 0.1 cell constant selectable
3) For 10 - 2000µS, 1 - 20mS & 5 - 200mS(raw water, sewage & High range liquids) 1 cell constant only
2. Online Conductivity sensor is Optional. It depends on application, working temperature, type of fitting & cable length
3. Due to continuous product improvements, Published specifications may change with out notice

(P.T.O)

ORDERING INFORMATION FOR ONLINE CONDUCTIVITY CONTROLLER/ TANSMITTER

MODEL : CC 603 - 1 - B -D-H- L- P - R



S.NO.	Ordering code	Power supply	Temperature Compensation	Range & cell constant	Control / alarm output	Re transmission output	Communication output
1	CC 603-1-B-D-H-L-P-R	90 to 270V AC/DC	MANUAL	10 to 2000µS (raw water, sewage & High range liquids) 1.0 cell constant	2 CONTROL RELAY OUTPUT(5A RATED)	4 – 20 mA (opto isolated)	RS 485 MODBUS SLAVE
2	CC 603-1-B-D-H-L-X-X	90 to 270V AC/DC	MANUAL	10 to 2000µS (raw water, sewage & High range liquids) 1.0 cell constant	2 CONTROL RELAY OUTPUT(5A RATED)	NONE	NONE
3	CC 603-1-B-D-H-L-P-X	90 to 270V AC/DC	MANUAL	10 to 2000µS (raw water, sewage & High range liquids) 1.0 cell constant	2 CONTROL RELAY OUTPUT(5A RATED)	4 – 20 mA (opto isolated)	NONE
4	CC 603-1-B-D-H-X-P-R	90 to 270V AC/DC	MANUAL	10 to 2000µS (raw water, sewage & High range liquids) 1.0 cell constant	NONE	4 – 20 mA (opto isolated)	RS 485 MODBUS SLAVE
5	CC 603-1-B-D-H-X-P-X	90 to 270V AC/DC	MANUAL	10 to 2000µS (raw water, sewage & High range liquids) 1.0 cell constant	NONE	4 – 20 mA (opto isolated)	NONE
6	CC 603-1-B-D-H-X-X-R	90 to 270V AC/DC	MANUAL	10 to 2000µS (raw water, sewage & High range liquids) 1.0 cell constant	NONE	NONE	RS 485 MODBUS SLAVE
7	CC 603-1-B-D-H-X-X-X	90 to 270V AC/DC	MANUAL	10 to 2000µS (raw water, sewage & High range liquids) 1.0 cell constant	NONE	NONE	NONE

SANSEL INSTRUMENTS AND CONTROLS

SANSEL CALIBRATION LABORATORIES

ISO/IEC 17025 Accredited Calibration Laboratory by NABL CC - 2879

(Thermal, Mechanical, Electro-Technical, Dimension Parameters)

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ISO 9001