

TDS CONTROLLER & TRANSMITTER

Model : TDS 602 - 1



INTRODUCTION

The TDS 602 - 1 series of TDS Controller and Transmitter provides a reliable method of Monitoring, Controlling & Transmitting 4 - 20mA / RS 485 MODBUS RTU communication for interfacing to PLC, Data logger. This product is suitable to measure TDS in water treatment, Electrolytic water cleaning, Chemical industries, food process, waste water treatment, textile industries & neutralization process, etc.,.

This TDS Controller & Transmitter can be measured using industrial TDS sensors, temperature can be measured using temperature sensor. This TDS Controller & Transmitter has many user friendly and safety features which are as follows.

APPLICATIONS

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| ☐ Drinking water | ☐ Pharmaceutical |
| ☐ RO Water Treatment | ☐ Plating |
| ☐ Sewage water | ☐ Healthcare |
| ☐ Food industries | |

FEATURES

- ✓ Economical, easy to calibrate and setup
- ✓ User selectable 5 ranges from 1ppm to 200 ppt
- ✓ High accuracy
- ✓ Programmable auto/manual temperature compensation
- ✓ Optional isolated RS 485 communication with MODBUS RTU protocol
- ✓ Optional galvanically isolated 4 – 20mA retransmission 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 with front key reset
- ✓ Universal supply voltage 90 to 270V AC/DC

TECHNICAL SPECIFICATIONS

Model	TDS 602 - 1
Display	4 + 4 Digit 0.5" & 0.39" 7 Seg RED LED Display
Cell constant*	0.01 / 0.1 / 1(user selectable depends on range)
Range (anyone)	1 - 20ppm, 5 - 200ppm, 10 to 2000ppm, 1 to 20ppt, 5 to 200ppt
Accuracy	± 1 % of range + 1 digit
Resolution	0.01ppm to 0.1ppt (depends on range)
Temperature sensor	RTD - PT 100 (3 wire)
Temperature Coefficient	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
Communication Protocol	MODBUS RTU
Operating Environment	-10 to 50°C / 10 to 95 % RH Non Condensing
Power Supply	90 to 270V AC / DC 50Hz
Enclosure	ABS Plastics
Dimension	96 x 96 x 85 mm
Cutout Dimension	92 x 92 mm
Weight	350 grams (Approx.)

Note:

1.* cell constant selection for selected ranges as follows

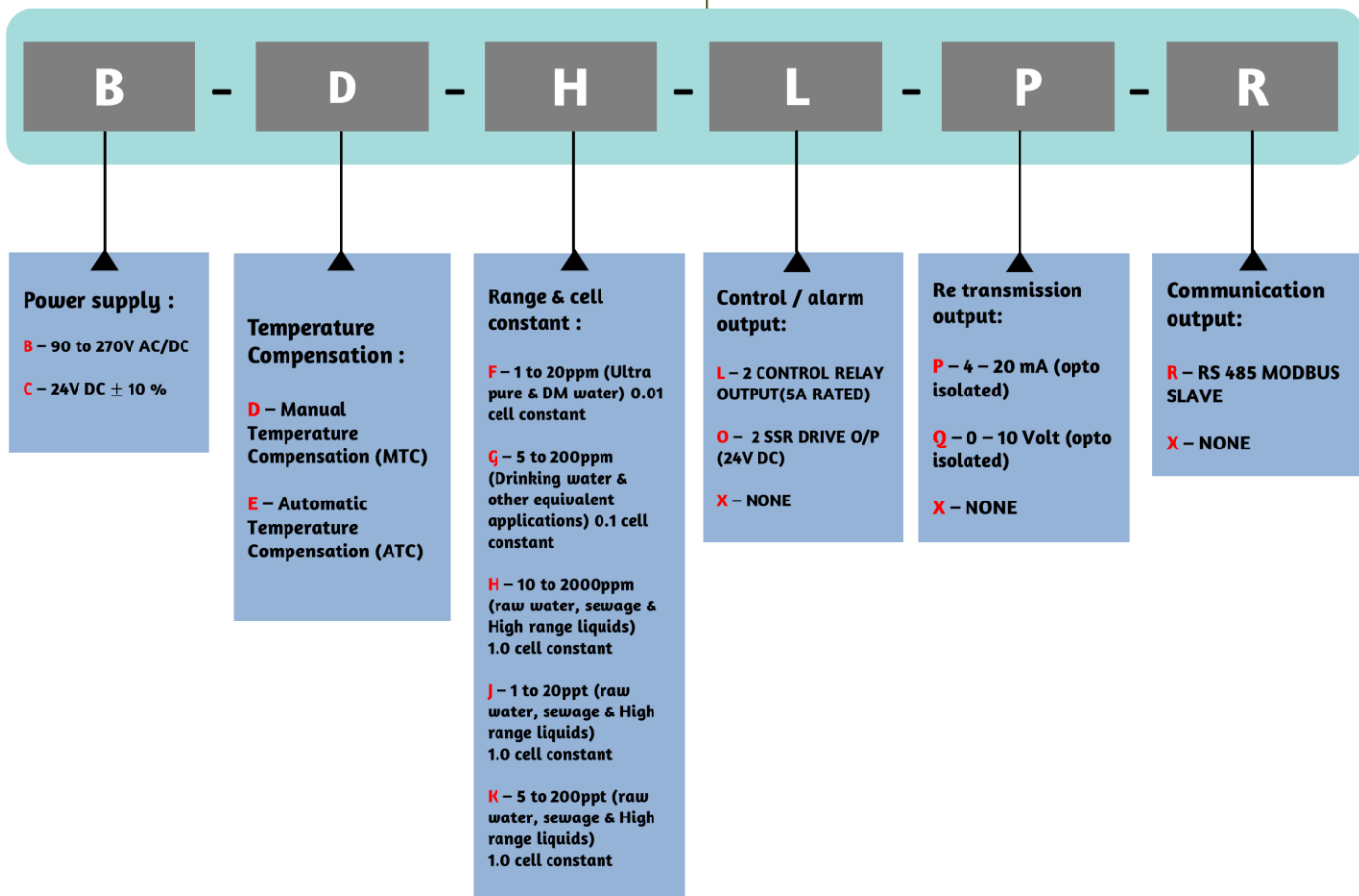
- 1) For 1 - 20ppm(Ultra pure & DM water) 0.01 cell constant selectable
- 2) For 5 - 200ppm(Drinking water & other applications) 0.1 cell constant selectable
- 3) For 10 - 2000ppm, 1 - 20ppt & 5 - 200ppt(raw water, sewage & High range liquids) 1 cell constant only

2. Online TDS sensor is Optional. It depends on application, working temperature, type of fitting and cable length

3. Due to continuous product improvements, Published specifications may change with out notice.

ORDERING INFORMATION FOR ONLINE TDS CONTROLLER/ TRANSMITTER

MODEL : TDS 602 - 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	TDS 602-1-B-D-H-L-P-R	90 to 270V AC/DC	MANUAL	10 to 2000ppm (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	TDS 602-1-B-D-H-L-X-X	90 to 270V AC/DC	MANUAL	10 to 2000ppm (raw water, sewage & High range liquids) 1.0 cell constant	2 CONTROL RELAY OUTPUT(5A RATED)	NONE	NONE
3	TDS 602-1-B-D-H-L-P-X	90 to 270V AC/DC	MANUAL	10 to 2000ppm (raw water, sewage & High range liquids) 1.0 cell constant	2 CONTROL RELAY OUTPUT(5A RATED)	4 - 20 mA (opto isolated)	NONE
4	TDS 602-1-B-D-H-X-P-R	90 to 270V AC/DC	MANUAL	10 to 2000ppm (raw water, sewage & High range liquids) 1.0 cell constant	NONE	4 - 20 mA (opto isolated)	RS 485 MODBUS SLAVE
5	TDS 602-1-B-D-H-X-P-X	90 to 270V AC/DC	MANUAL	10 to 2000ppm (raw water, sewage & High range liquids) 1.0 cell constant	NONE	4 - 20 mA (opto isolated)	NONE
6	TDS 602-1-B-D-H-X-X-R	90 to 270V AC/DC	MANUAL	10 to 2000ppm (raw water, sewage & High range liquids) 1.0 cell constant	NONE	NONE	RS 485 MODBUS SLAVE
7	TDS 602-1-B-D-H-X-X-X	90 to 270V AC/DC	MANUAL	10 to 2000ppm (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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