Your vision, automated

MCOM100TDS

CONDUCTIVITY/ TDS METER

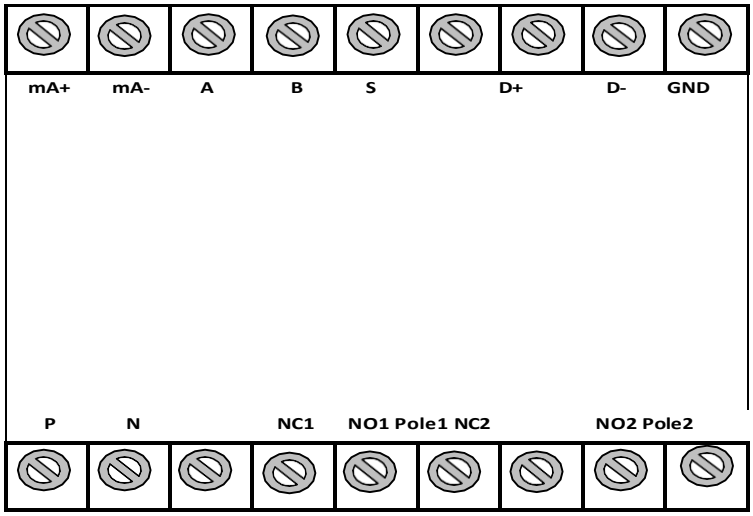
The MCOM100TDS is a compact, panel-mounted TDS & Conductivity controller designed for accurate online water quality monitoring. It features auto-ranging measurement up to 2000 µS/cm, dual relay outputs, optional 4–20 mA/RS485 Modbus communication, and a user-friendly 16×2 LCD display. With two-point calibration, LED alarms, and simple front-key programming, it is ideal for RO plants, water treatment, industrial utilities, and process monitoring applications.

MCOM100TDS

➢ TECHNICAL SPECIFICATIONS

Range (Auto ranging)	Conductivity- 0- 20 µS/cm, 200 µs/cm,2000 µs/cm TDS- 0-1000 PPM
Resolution	0.01, 0.1,1
Accuracy	±1 % of FSD
Alarms	LED indication for set points
Calibration	Two point calibration using front panel keys
Display	16 x 2 Alphanumeric LCD
Relay	Default Individual 5A 230V AC relays for two set points (over the entire range with settable points and hysteresis).
Output	4 – 20 mA (optional) RS485 Modbus (Optional)
Supply	230V AC 50Hz
Physical Dimensions	96 x 96 x 85
Enclosure	Plastic
Mounting	Panel

➢ INSTRUMENT INSTALLATION



mA+ = 4 to 20 mA input	**P** = 230V AC 50Hz Phase terminal
mA- = 4 to 20 mA ground	**N** = 230V AC 50 Hz Neutral terminal
A = sensor A (Pulse)	**NC1** = NC of Relay1
B = sensor B	**NO1** = NO of Relay1
S = sensor shield	**Pole1** = Pole of Relay1
D+ = RS485 D+ pin	**NC2** = NC of relay2
D- = RS485 D- pin	**NO2 =** NO of Relay2
GND = RS485 ground	**Pole2** = Pole of Relay2

➢ OPERATING INSTRUCTIONS

P	INC	DEC	ENT

*Above mentioned keys are used to set the parameters and enter password.

→ P = For Program mode and as shift key to select digit for editing.

→ INC = To increment editing digit or UP key for selecting previous option of settings.

→ DEC = To decrement editing digit or DOWN key for selecting next option of settings.

→ ENT = To save current parameter and switch to next parameter. Operating Range- Meter is auto ranging through the Range 0 -2000uS with ranges and resolution as described in the table.

Range	Resolution
0- 20 µS	0.01
20-200µS	0.1
200-2000uS	1

1. Program Mode

- Press Program key for 2 sec.
- Enter the mentioned password with use of Program key (as shift key to edit password) and INC, DEC keys. Press ENT key after editing the valid 4 digit password (for particular program mode).
- System password=1210
- RS485 Modbus password =1300
- Factory reset mode=1220
- Calibration mode password=1400

2. System Settings Mode

a. Set Point 1

- Set conductivity value 0-2000 for Relay1 operation

b. Hysteresis1

- Hysteresis for Relay1

c. Set Point 1

- Set conductivity value 0-2000 for Relay2 operation

d. Hysteresis1

- Hysteresis for Relay2

3. Modbus RS485 parameters

a. Baud Rate

- Baud rate setting for RS485 Modbus communication
- Supported Baud rates are
- 2400
- 9600
- 19200

b. Slave ID

- Baud rate setting for RS485 Modbus communication

c. Parity

- Parity settings for RS485 Modbus communication
- parity options of this device are
- ZERO
- EVEN
- ODD

4. Factory RESET:

Enter factory reset password to Reset all parameters to factory stated values.

5. Calibration Mode:

- To calibrate meter to standard conductivity/TDS solution
- To calibrate meter with standard meter (grab method)
- To remove offset in conductivity reading
- Follow the Calibration process as described here
- **CAL Offset –** Dry the sensor and place in air and wait till reading on display stabilized press ENT to save the offset. This method is well known as air zero calibration.
- **Cal Act-** Place the sensor in standard KCL solution of known conductivity and wait till meter shows stable reading then press enter to save.

Cal Set- Enter the conductivity/TDS of standard solution (or reading on reference meter for solution used to calibrate) and save the value using ENT key.

➢ GENERAL SAFETY INSTRUCTIONS & WARRANTY

This Operating manual contains basic instructions that must be followed during operation and maintenance of meter. Incorrect wiring leads to breakdown or damage to instrument, please read the operational manual clearly before installation.

- Make sure to remove AC power before connecting sensor/ inputs and outputs and before opening the meters housing or enclosure.
- Check for correct supply voltage before powering up the instrument.
- Avoid the meter to keep in continuous direct sunlight.
- Storage temperature 0 to 55℃.

❖ Warranty Terms

- We warrants that this instrument is free from defects in workmanship and materials under normal use and service as mentioned in the manual from the date of purchase from manufacturer. The hardware is under one year of warranty.
- The manufacturer is not liable (under this warranty) for defects caused by misuse, improper installation testing or calibration and any unauthorized attempt to repair or modify the instrument or any other cause of damage by fire, water damage or improper wiring.
- If instrument is unable to perform as specified in manual or any other queries regarding the instrument contact to our sales person.
- We would appreciate inclusion of additional information.

MODERN COMMUNICATION TECHNOLOGY
Sr. No. 23, Plot No. 1, Hissa No. 3/1, Behind Wadekar Industries, Narhe, Pune-411041, Maharashtra (India)
Email Id. ravi@mcomtechnology.com , Web: -www.mcomtechnology.com
CONTACT: +91 9405134829, 7769827105, 9595383766