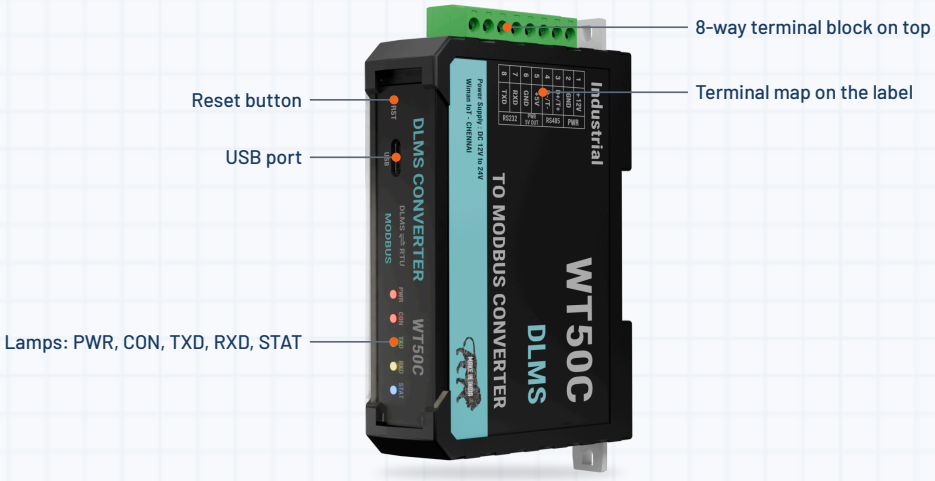
WT50C

DLMS to Modbus converter

Reads a DLMS/COSEM smart energy meter on RS-232, powers its port, and answers your PLC, SCADA or gateway as a Modbus RTU slave on RS-485 — no DLMS software on the master.



WT50C · DIN-rail housing

4	18	5 V	FC 04	12–24 V
meter makes	values + meter serial	out to the meter's port	Modbus input registers	DC supply

What it does

Meter in, Modbus out
The DLMS meter appears as an ordinary Modbus slave.

RS-485 to the master
Modbus RTU slave on terminals 3 and 4.

Secure, L&T, HPL and Capital
Premier 300 / 350, Saral 305 and ER300P profiles.

Five status lamps
Meter link and Modbus traffic shown apart.

RS-232 to the meter
Holds the DLMS session on terminals 7 and 8.

Powers the meter's port
5 V on terminals 5 and 6; no extra supply at the meter.

Plain input registers
Read with function 04; no DLMS stack on the master.

Set up from a PC
Meter password, address and profile, in a Windows tool.

Where it works

- Energy monitoring
- Sub-metering
- PLC and SCADA screens
- Building management
- Solar plants
- DG sets
- Remote monitoring
- Cloud, via a gateway

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A smart meter, read like any Modbus slave

The WT50C keeps the DLMS conversation with the meter; the Modbus master only polls input registers.

METER SIDE	
Protocol	DLMS/COSEM (IS 15959)
Interface	RS-232: RXD and TXD on terminals 7–8
Meter makes	Secure (Premier 300, Premier 350, Saral 305) · L&T ER300P · HPL · Capital
Meter port supply	5 V DC on terminals 5–6
MODBUS SIDE	
Interface	RS-485: D+/T+ and D−/T− on terminals 3–4
Role	Modbus RTU slave · input registers, function 04
Readings	Voltage, current and power factor per phase · total power factor · frequency · kW, kvar, kVA · kWh and kVAh import · kvarh lag and lead · meter serial number
SETUP AND SERVICE	
Configuration	Windows configuration tool: meter password, meter address and meter profile · from the customer portal
Front	Lamps PWR, CON, TXD, RXD, STAT · USB port · RST button
POWER AND HOUSING	
Supply	12–24 V DC on terminals 1 and 2
Housing	DIN rail · 8-way terminal block on top
Not a gateway	It answers Modbus polls; it does not keep or send readings to a server. To send meter data to a server, poll it from a Wiman gateway.

Terminals

WT50C

As printed on the label

POWER		RS-485		5 V OUT		RS-232	
+12V	GND	D+/T+	D−/T−	+5V	GND	RXD	TXD
1	2	3	4	5	6	7	8

Terminals 3–4 go to the Modbus master; 5–8 go to the meter's communication port, which the 5 V on 5–6 powers.

How it works

1 · Connects to the meter

It opens a DLMS association on RS-232 with the meter password and address set in the tool.

2 · Reads the values

It reads the meter's values in turn; STAT flashes once for each value read.

3 · Answers Modbus

The master polls input registers on RS-485; RXD lights for the request, TXD for the reply.

What the lamps say

CON

2 pulses every 3 s: meter connected. Even 500 ms blink: no meter — check the cable and the baud rate.

STAT

One flash per value read. Slow 1 s blink: the meter does not answer — check password, address and profile.

RXD and TXD

RXD then TXD: Modbus healthy. RXD alone: wrong slave ID or range. Both dark: no master, or D+ and D− swapped.

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Specifications may change without notice.
Configuration tool and guides: from the customer portal.