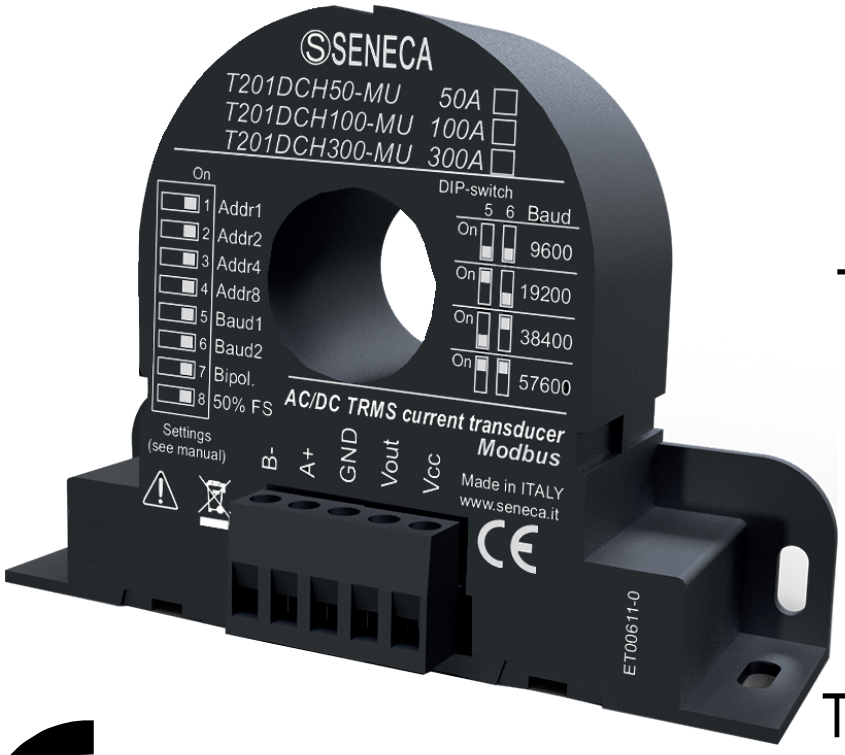
INSTALLATION MANUAL

T201DCH50-MU (HW2 version)
T201DCH100-MU (HW2 version)
T201DCH300-MU (HW2 version)

True RMS or DC bipolar AC/DC current transducer with ModBus RTU protocol and analogue/digital output

EN



T201DCH50-MU

T201DCH100-MU

T201DCH300-MU

CE

ISO 9001:2015

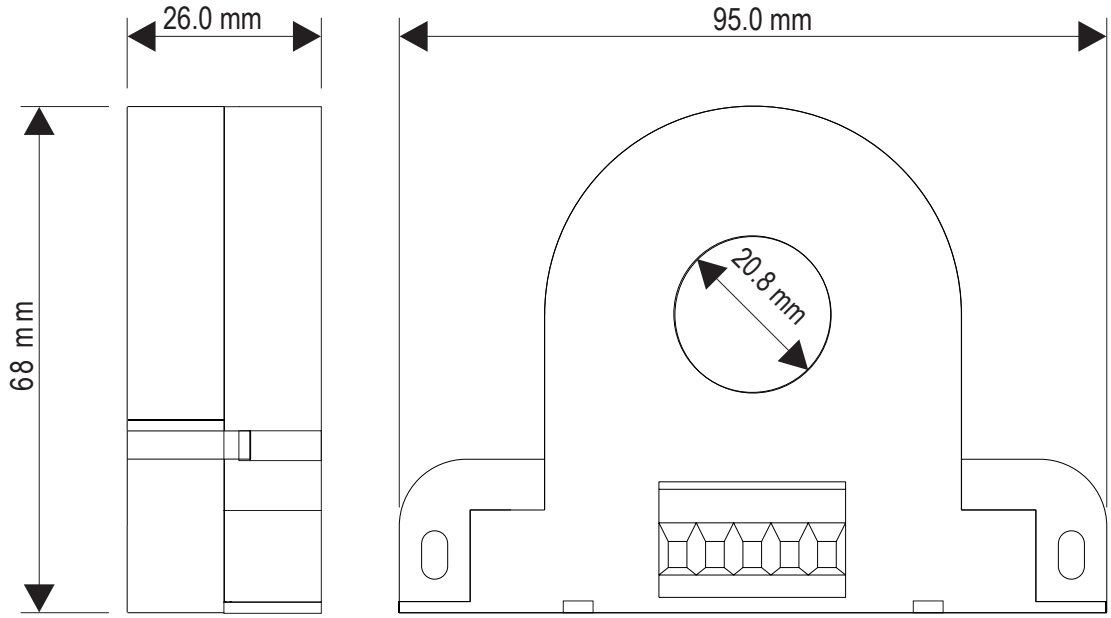
SENECA

SENECA s.r.l.
Via Austria, 26 – 35127 – PADOVA – ITALY
Tel. +39.049.8705355 - 8705359 - Fax +39.049.8706287

For manuals in other languages and configuration software, visit:
www.seneca.it/products/t201dch50-mu - www.seneca.it/products/t201dch100-mu - www.seneca.it/products/t201dch300-mu

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MODULE LAYOUT



Dimensions LxHxD 95 x 68 x 26 mm; **Weight:** ≈ 120 g; **Enclosure:** PA6, black

SIGNALS VIA LED ON FRONT PANEL

LED	STATUS	LED meaning
PWR/COM Green	ON	The device is powered correctly
PWR/COM Green	Flashing	Communication via USB port
D-OUT Yellow	ON	Digital output activated

PRELIMINARY WARNINGS

The word **WARNING** preceded by the symbol ⚠ indicates conditions or actions that put the user's safety at risk.

The word **ATTENTION** preceded by the symbol ⚠ indicates conditions or actions that might damage the instrument or the connected equipment.

The warranty shall become null and void in the event of improper use or tampering with the module or devices supplied by the manufacturer as necessary for its correct operation, and if the instructions contained in this manual are not followed.

⚠	**WARNING**: The full content of this manual must be read before any operation. The module must only be used by qualified electricians. Specific documentation is available from: www.seneca.it/products/t201dch50-mu / www.seneca.it/products/t201dch100-mu / www.seneca.it/products/t201dch300-mu
	The module must be repaired and damaged parts replaced by the Manufacturer. The product is sensitive to electrostatic discharges. Take appropriate measures during any operation.
	Electrical and electronic waste disposal (applicable in the European Union and other countries with recycling). The symbol on the product or its packaging shows the product must be surrendered to a collection centre authorized to recycle electrical and electronic waste.

ASSEMBLY

The device can be mounted in any position, in compliance with the expected environmental conditions. Use the accessories supplied for fixing on a DIN rail.

Attention: magnetic fields of considerable magnitude can alter the measurement: avoid proximity to permanent magnetic, electromagnetic fields, or ferrous masses which induce strong alterations of the magnetic field; possibly, if the zero error is greater than the declared error, try a different arrangement or change orientation.

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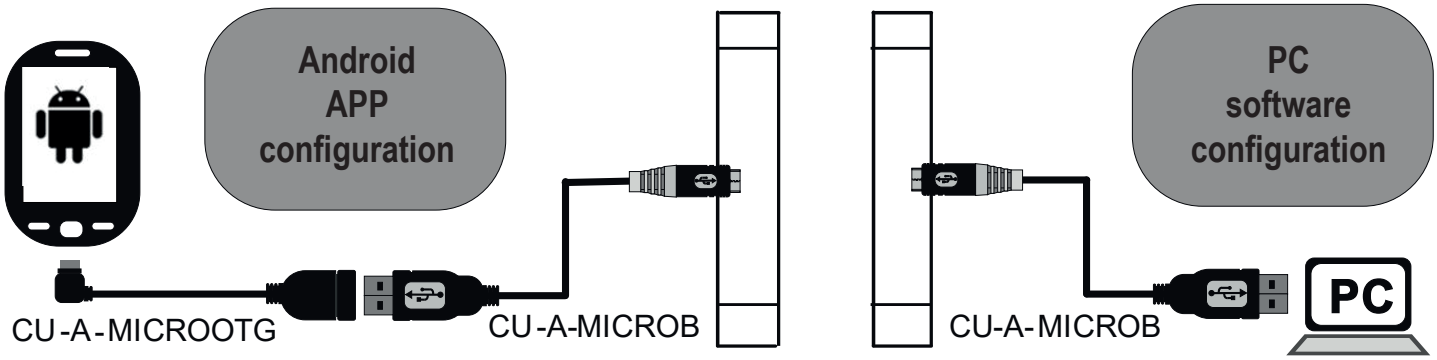
TECHNICAL SPECIFICATIONS

STANDARDS	**EN61000-6-4** Electromagnetic emissions, industrial environment. **EN61000-6-2** Electromagnetic immunity, industrial environment. **EN61010-1** Safety.	
INSULATION	Using an insulated conductor, its sheath determines the insulation voltage. An insulation of 3 kVac is guaranteed on bare conductors	
ENVIRONMENTAL CONDITIONS	*Temperature*: -20 – + 70°C *Humidity*: 10%– 90% non condensing. *Altitude:* Up to 2000 m above sea level *Storage temperature:* -40 – + 85°C *Degree of protection:* IP20.	
ASSEMBLY	35mm DIN rail IEC EN60715	
CONNECTIONS	Removable 5-way screw terminals, 5 mm pitch for cable up to 2.5 mm^2 micro USB	
POWER SUPPLY	Voltage: on Vcc and GND terminals, 11.5 – 28 Vdc; Absorption: Typical: 21 mA (LOAD EXCLUDED)	
COMMUNICATION PORT	RS485 serial port on terminals A+ and B-; or on USB port	
INPUT (on 20.8 mm through hole)	*Type of measurement*: AC/DC TRMS or DC Bipolar *Crest factor*: 2 *Pass-band:* 1 kHz *Overload:* 2000 A impulsive, 3 x I_N continuing	
CAPACITY	**AC/DC True RMS (DIP7=OFF)**	**DC Bipolar (DIP7=ON)**
T201DCH50-MU	0 – 25A or 0 - 50A	-0 – +25A or -50 - +50A
T201DCH100-MU	0 – 50A or 0 - 100A	-50 – +50A or -100 - +100A
T201DCH300-MU	0 – 150A or 0 - 300A	-150 – +150A or -300 - +300A
ANALOGUE OUTPUT on Vout and GND terminals	*Type*: 0 – 10 Vdc, minimum load R_{LOAD} =2 kΩ. *Protection*: Reverse polarity protection and over voltage protection *Resolution:* 13 bit (10000 points) *EMI error:* < 0.5% *Temperature coefficient*: < 200 ppm/°C *Hysteresis on measurement*: 0.2% of full scale *Response speed:* RMS: with 'Fast' filter 1400 ms, with 'Slow' filter 2900 ms. Bipolar: with 'Fast' filter 78 ms, with 'Slow' filter 650 ms. **The type of output can be selected via software**	
DIGITAL OUTPUT on Vout and GND terminals	*Type*: active, 0 – Vcc, maximum load 50 mA **The type of output can be selected via software**	
ACCURACY	**below 2% of full scale**	**above 2% of full scale**
T201DCH50-MU	1% of full scale at 50/60 Hz, 23°C	0.5% of full scale at 50/60 Hz, 23°C
T201DCH100-MU		
T201DCH300-MU		
OVERVOLTAGE CATEGORIES	*Bare conductor:* CAT. III 300 V *Insulated conductor:* CAT. III 600 V	

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USB PORT

The module is designed to exchange data according to the modes defined by the MODBUS protocol. It has a micro USB connector and can be configured using applications and/or software programs. The USB communication has priority over the RS485 communication.
The USB serial port uses the following communication parameters: **38400,8,N,1**
The USB communication port responds exactly like the RS485 port with the exception of the communication parameters. During the use of the USB port, the 485 bus will be inactive; it will reactivate automatically a few seconds after the release of the USB port. EASY SETUP is the software to use for the configuration. For further information go to the website on the cover.



Check that the device in question is included in the list of products supported by the Easy Setup APP in the store.

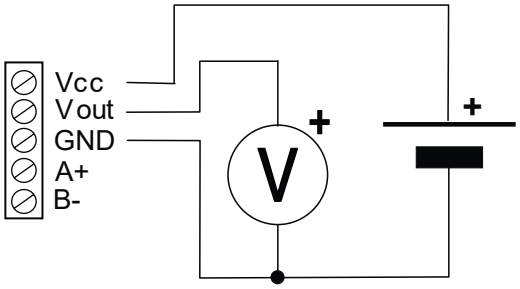
SETTING THE DIP-SWITCHES

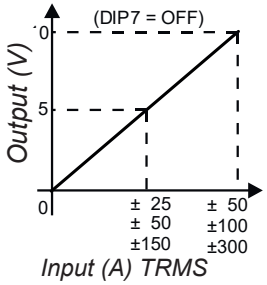
The position of the DIP-switches defines the Modbus communication parameters of the module: Address and Baud Rate
The following table shows the values of the Baud Rate and the Address according to the setting of the DIP-switches:

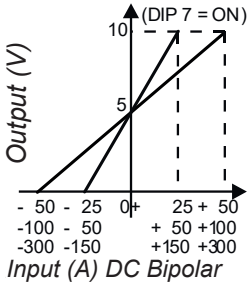
DIP-Switch status								
POSITION 1 2 3 4	ADDRESS	POSITION 5 6	BAUD RATE	POSITION 7	TYPE OF MEASUREMENT	POSITION 8	MEASURING SCALES	
	#1		9600		AC/DC true RMS		Full scale	
	#2		19200		DC Bipolar		Half scale	
	#3		38400	DIP-switches must be set while the module is not powered on in order to avoid damaging it.			KEY	
• • • • • •	#...		57600					
	#14	The instrument is supplied configured for 50 A (DCH50), 100 A (DCH100) and 300A (DCH300), with 800 ms filter inserted and TRMS mode selected.					ON	
	#15						OFF	
All dip-switches set to OFF: parameters from flash memory. See the USER manual								

Note: When DIP switches 3 to 8 are OFF, the communication settings are taken from programming (EEPROM).

ELECTRICAL CONNECTIONS







CONTACT INFORMATION

Technical support	support@seneca.it	Product information	sales@seneca.it

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