

INSTALLATION MANUAL

T201DCH50-M

T201DCH100-M

T201DCH300-M

AC/DC TRUE RMS or DC BIPOLAR CURRENT TRANSDUCER
WITH RS485 PORT AND MODBUS RTU PROTOCOL



T201DCH50-M



T201DCH100-M



T201DCH300-M

SENECA

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Manuals and configuration software are available at website:

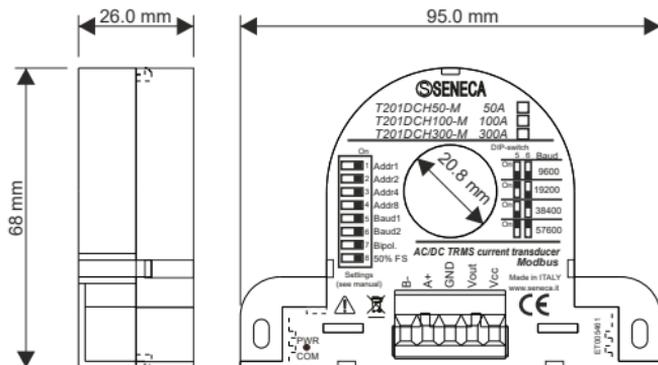
www.seneca.it/products/t201dch50-m or

www.seneca.it/products/t201dch100-m or

www.seneca.it/products/t201dch300-m

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MODULE LAYOUT



Dimensions (L×H×W)	95 x 68 x 26 mm
Weight	120 g.
Case	Material PA6, Black color.
Mounting	Free-standing or on IEC EN60715 DIN rail with 2 accessories included.

LED SIGNALLING ON FRONT PANEL

LED	State	LEDs Meaning
PWR COM (Green)	On/Off	Power supply presence / The device is powered off
	Blinking	Communication presence on RS485 port.

TECHNICAL SPECIFICATIONS

STANDARDS	EN61000-6-4 Electromagnetic emission, industrial environment EN61000-6-2 Electromagnetic immunity, industrial environment EN61010-1 Safety
INSULATION	When a sheathed wire is used, the insulation voltage is set by sheath properties. On a bare wire, it's stated to 3 kV _{rms} .
ENVIRONMENTAL CONDITIONS	
Temperature	-20°C – +70°C.
Humidity	10% – 90% not condensing.
Altitude	Up to 2000 m a.s.l
Storage temperature	-40°C – +85°C.
Protection degree	IP20.
CONNECTIONS	Removable 5-way screw terminals, 5,08 mm pitch, for cables up to 2.5 mm ² . Through hole 20.8 mm (0.8 Inch) diameter.
COMMUNICATION PORT	RS485 serial port on screw terminals A+ and B-.

TECHNICAL SPECIFICATIONS

POWER SUPPLY	On screw terminals Vcc and GND.	
<i>Tension</i>	11.5 – 28 V $\overline{\text{=}}$.	
<i>Power absorbed</i>	21 mA (without load).	
INPUT	On through hole 20.8 mm diameter.	
<i>Type of measure</i>	AC/DC True RMS or Bipolar DC	
<i>Peak factor</i>	2	
<i>Pass-band</i>	1 kHz	
<i>Over-current</i>	2000 A impulsive, 300 A continuous.	
<i>Current-carrying capacity</i>	AC/DC True RMS (DIP7=OFF)	DC Bipolar (DIP7=ON)
<i>T201DCH50-M</i>	0 – 25A or 0 – 50A	- 25 – +25A or - 50 – + 50A
<i>T201DCH100-M</i>	0 – 50A or 0 – 100A	- 50 – +50A or -100 – +100A
<i>T201DCH300-M</i>	0 – 150A or 0 – 300A	-150 – +150A or -300 – +300A
OUTPUT	On screw terminals Vout and GND.	
<i>Type</i>	0 – 10 V $\overline{\text{=}}$, Minimum load $R_{\text{LOAD}} = 2 \text{ k}\Omega$.	
<i>Protections</i>	Reversal polarity protection and over-voltage protection	
<i>Resolution</i>	13 bit (10000 points)	
<i>EML error</i>	< 0.5%	
<i>Temperature coeff.</i>	< 200 ppm/ $^{\circ}\text{C}$	
<i>Measure hysteresis</i>	0.2% of full-scale	
<i>Response time</i>	With «Fast» filter 800 ms. With «Slow» filter 2000 ms.	
<i>Type</i>	<i>Precision Under 2% of full-scale</i>	<i>Precision Over 2% of full-scale</i>
<i>T201DCH50-M</i>	1% of full-scale at 50/60Hz, 23 $^{\circ}\text{C}$	0.5% of full-scale at 50/60Hz, 23 $^{\circ}\text{C}$
<i>T201DCH100-M</i>		
<i>T201DCH300-M</i>		
OVER-VOLTAGE CATEGORY	<i>Bare conductor</i> <i>Insulated conductor</i>	CAT. III 300 V CAT. III 600 V

PRELIMINARY WARNINGS



Before performing any operation is mandatory to read the full contents of this manual. The module may only be used by qualified and skilled technicians in the field of electric installation. Specific documentation is available for download at website: www.seneca.it/prodotti/t201dch50-m or www.seneca.it/prodotti/t201dch100-m or www.seneca.it/prodotti/t201dch300-m.



Only the Manufacturer is authorized to repair the module or to replace damaged parts. The product is susceptible to electrostatic discharge, take appropriate countermeasures during any operation.



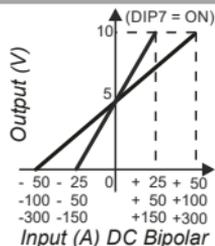
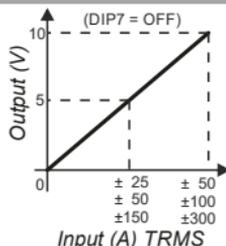
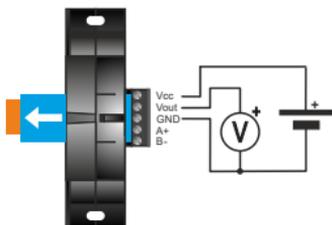
No warranty is granted in connection with faults resulting from improper use, from modifications or repairs carried out by Manufacturer-unauthorized personnel on the device, or if the content of this user Manual is not followed.

PRELIMINARY WARNINGS



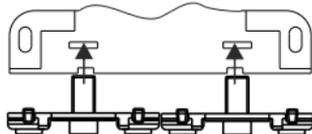
Disposal of electrical & electronic equipment (applicable throughout the EU and other countries with separate collection programs). The symbol found on this product or on its packaging, indicates that this product it must be handed over to an authorised collection point for **the recycling of electrical and electronic equipments**.

ELECTRICAL CONNECTIONS



MOUNTING

2 accessories, included, for DIN rail mounting



The device can be located in any position and place, in accordance with the operating conditions above stated. Use the included hooking bracket when fixing to a DIN rail.

WARNING: High-strength magnetic fields may change the output value: let avoid closeness to permanent magnets, electromagnets or iron bulks that cause such a modification of the surrounding magnetic field; try a different arrangement or orientation if zero error was greater than expected.

CONFIGURATIONS

SW				Address	SW		Baud Rate	SW		Type of measure	8	Scale of measure
1	2	3	4		5	6		7	7			
↑				#1			9600			AC/DC True RMS		Full scale
	↑			#2	↑		19200	↑		DC Bipolar	↑	Half scale
↑	↑			#3		↑	38400	DIP-switches must be set with the power supply NOT connected to avoid module damaging.		KEY		
↑	↑	↑		#13	↑	↑	57600					
	↑	↑	↑	#14								
↑	↑	↑	↑	#15				the instrument is factory configured for the range 50 A (DCH50), 100A (DCH100) and 300A (DCH300), with filter 800ms and AC/DC True RMS type of measure.				
				From Flash			From Flash			From Flash		
All switch OFF = parameters from Flash memory. See User Manual.												

CONTACTS

Technical support

Support@seneca.it

Product Informations

sales@seneca.it