INSTALLATION MANUAL

T201DC100

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 via QR-CODE shown on page 1.
	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.

DOCUMENTATION

SENECA

QUALITY MANAGEMENT SYSTEM
ISO 9001:2015

SENECA s.r.l.; Via Austria, 26 – 35127 – PADOVA – ITALY; Tel. +39.049.8705359 - Fax +39.049.8706287

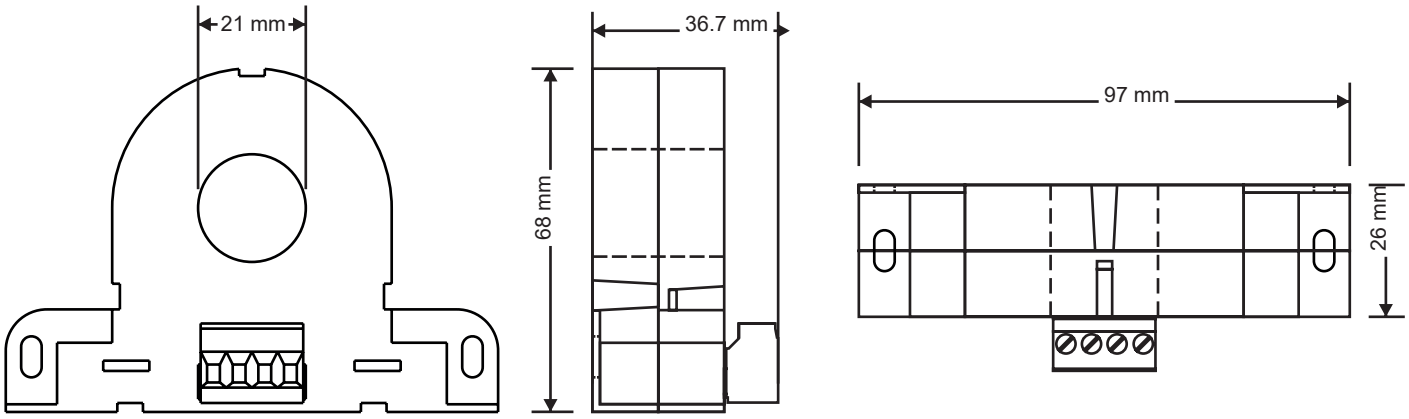
CONTACT INFORMATION

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

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MODULE LAYOUT



Container: Material PA6 black colour.

PRELIMINARY INSTRUCTIONS FOR USE

T201DC100 can be mounted in any position and place, in compliance with the expected environmental conditions. Use the supplied accessory in the case of DIN rail mounting.

N.B.: Magnetostatic fields of considerable magnitude can alter the measurement: please avoid installing the module permanent magnets, electromagnets or ferrous masses that induce strong alterations in the magnetic field; if the zero error is greater than the declared one, try a different arrangement or orientation.

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TECHNICAL SPECIFICATIONS

NORMS	**EN61000-6-4** Electromagnetic emission, in industrial environment. **EN61000-6-2** Electromagnetic immunity, in industrial environment. **EN60950** Safety **N.B:** use with copper conductor, in environments with pollution degree 2 and with class 2 power supply unit.
CONNECTIONS	Removable 4-way screw terminals, 5 mm pitch, for loops: 4 ÷ 20 mA
OVERVOLTAGE CATEGORY	Bare conductor Category III (up to 300 V) Insulated conductor Category III (up to 600 V)
INPUT SCARES	- Monopolar 0 - 10 A, Bipolar -10 - 0 - +10 A - Monopolar 0 - 25 A, Bipolar -25 - 0 - +25 A - Monopolar 0 - 50 A, Bipolar -10 - 0 - +50 A - Monopolar 0 - 100 A, Bipolar -25 - 0 - +100 A
AC OVERRIDE F (35 Hz)	- Measurable peak value: -30 - +120 A - Double half-wave rectified: -20 - 80 A - Single half-wave rectified: -10 - 40 A
ENVIRONMENTAL CONDITIONS	Temperature: -20°C ÷ +70°C Humidity: 10% ÷ 90% non-condensing. Storage temperature: -40°C ÷ + 85°C Protection degree: IP20
CONNECTIONS	Extractable terminal pitch 5 mm, cables ≤ 2.5 mm², for loops 4 ÷ 20 mA Tightening torque 7.0 Lb•inch = 0.8 N•m 21 mm through-hole for power cable
POWER SUPPLY OUTPUT	
TYPE	Passive current loop 4 ÷ 20 mA
LIMITS	Internal over-temperature fault: 3.5 mA Under-range / Over-range: 3.6 / 21.0 mA Valid measurement: 3.8 / 20.5 mA
LOOP VOLTAGE MIN. - MAX.	6 V ÷ 28 V
OTHER PROTECTIONS	Reverse polarity Loop current limitation in case of failure Over-temperature protection
PRECISION	
MAXIMUM ERRORS	- Measuring section: 0.1 % + 14 mA - Output section: 0.05 % + 4 µA
TEMPERATURE COEFFICIENT	< 150 ppm/K
ERROR FOR EMI	< 50 µA, test on bare bar Ø 10 mm
SPEED RESPONSE	Without filter: 100 ms With filter: 600 ms

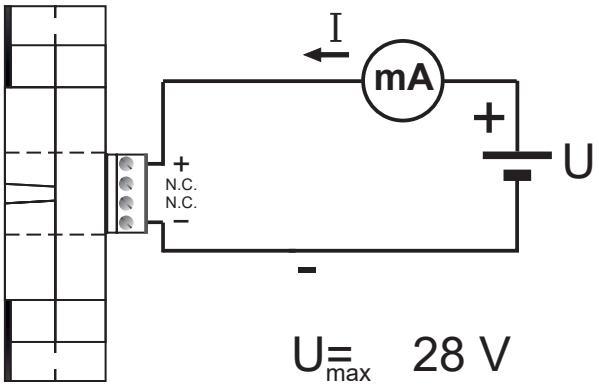
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ELECTRICAL CONNECTIONS

⚠ ATTENTION

Please, turn off the power supply before wiring.

CURRENT OUTPUT FOR LOOP 4 ÷ 20 mA

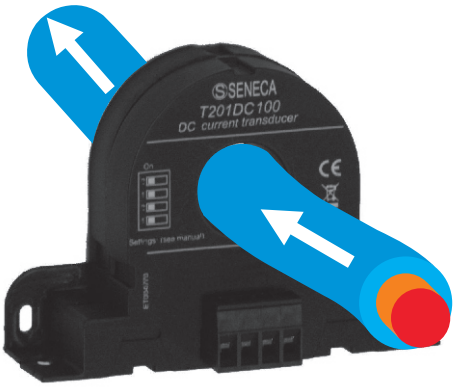


t is possible to connect directly on the 4 ÷ 20 mA loop in T201DC100 output a maximum voltage of 28 V.

CURRENT INPUT

⚠ ATTENTION

Please, install the module as shown in the figure. Pay attention to the direction of the current flow.



To measure the current passing through the cable, insert the cable into the central hole of the T201DC100 (as shown in the figure opposite). The maximum current that can be measured by T201DC100 is 100A. To increase the current measurement sensitivity, insert the cable several times into the central hole of the T201DC100, creating a series of coils. The current measurement sensitivity is proportional to the number of turns Example: You set the full scale, wrap the wire around the hole 5 times, obtaining 4 coils. The full scale will be 5 times lower and the measurement will be more sensitive.

Arrange the coils symmetrically to preserve the precision of the instrument.

DIP-SWITCH SETTINGS

Use the dip-switches to choose the monopolar or bipolar scale and whether or not to activate the filter.

Monopolar Scale					Bipolar Scale					Filter				
1	2	3	4	Scale	1	2	3	4	Scale	1	2	3	4	Filter
				0–10 A	●				-10–10 A					Disable
		●		0–25 A	●		●		-25–25 A				●	Enable
	●			0–50 A	●	●			-10–50 A					
	●	●		0–100 A	●	●	●		-25–100 A					

