

T201 SERIES

ISOLATED, CONTACT-LESS, LOOP POWERED CURRENT TRANSDUCERS



- Input: Selectable range through dip-switches from 5A to 40 / 100 A, single or double polarity
- Output: Voltage (V) or Current (mA)
- Loop power supply
- Low consumption < 21 mA
- Hall effect or Magnetic Principle (patented technology)
- Rectified average, Magnetic balance, TRMS Measurement
- Accuracy class: 0,2 / 0,5 %
- Wide configuration range
- Direct use without shunt for pulse current
- Compact dimension

 Made in Italy 

 **SENECA**
www.seneca.it

T201 SERIES

Loop powered standard and magnetic induction Current Transducers

	T201	T201DC	T201DC100
		PATENED TECHNOLOGY 	PATENED TECHNOLOGY
	AC Current transformer to DC current (4..20 mA - loop powered)	DC Current transducer to DC current (4..20 mA - loop powered)	Passive current transducers 100 Adc for 4..20 mA current loop

Order Codes	T201	T201DC	T201DC100
-------------	------	--------	-----------

TECHNICAL SPECIFICATIONS

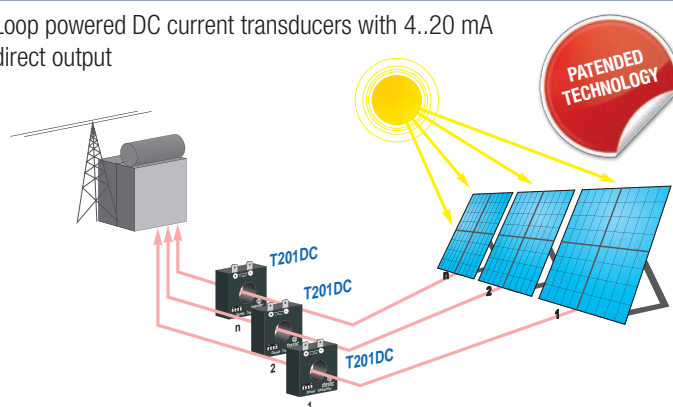
GENERAL DATA			
Power Supply	Loop powered (5..28 Vdc)	Loop powered (6..100 V)	Loop powered (6..100 V)
Consumption	< 21 mA	< 21 mA	< 21 mA
Isolation	1 kVdc (bare conductors)	1 kVdc (bare conductors)	1 kVdc (bare conductors)
Protection Degree	IP20	IP20	IP20
Response Time	100 ms (without filter) 2.5 s (with filter)	100 ms (without filter) 600 ms (with filter)	100 ms (without filter) 600 ms (with filter)
Accuracy Class	0,2%	0,2%	0,2%
Thermal Drift	< 150 ppm/K	< 150 ppm/K	< 150 ppm/K
Setting	DIP switches	DIP switches	DIP switches
Operating Temperature	-20..+65°C	-10..+65°C	-10..+65°C
Connectors	Removable terminals	Removable terminals	Faston (6,3 x 0,8 mm)
Max Conductor Diameter	12,5 mm	12,5 mm	17 mm
Dimension (w x h x d)	40 x 40 x 20 mm	40 x 40 x 20 mm	68 x 97 x 26 mm
Mounting	35 mm DIN rail	35 mm DIN rail	35 mm DIN rail / screws
INPUT DATA			
Channel Nr	1	1	1
Range	AC Current: 5, 10, 15, 20, 25, 30, 35, 40 A	DC Current: 0..5, 0..10, 0..20, 0..40, -5..5, -10..10, -5..20, -10..40 A	DC Current: 0..10 A, 0..25 A, 0..50 A, 0..100 A (unipolar); -10..0..+10 A, -25..0..+25 A, -10..0..+50 A, -25..0..+100 A (bipolar)
Measuring Type	Rectified Average	Magnetic Balance	Magnetic Balance
Max Overcurrent	800 A	800 A	2000 A (pulse)
Bandwidth / Frequency	20..1.000 Hz		
Crest Factor	2	1,2	1,2
OUTPUT DATA			
Channel Nr	1	1	1
Range	4..20 mA (2 wires)	4..20 mA (2 wires)	4..20 mA (2 wires)
Resolution	infinita	12 bit	12 bit
STANDARD			
Approvals	CE	CE, european patent	CE, european patent
Norms	EN60688/1997 +A1 +A2 EN61000-6-4/2002-10 EN61000-6-2/2006-10 EN61010-1/2001	EN61000-6-4/2002-10 EN61000-6-2/2006-10 EN61010-1/2001	EN61000-6-4/2002-10 EN61000-6-2/2006-10 EN61010-1/2001

MAGNETIC INDUCTION




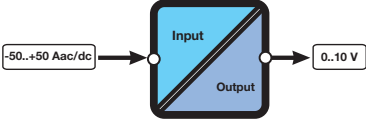
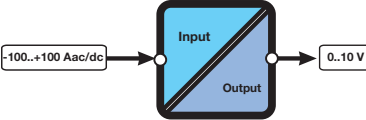
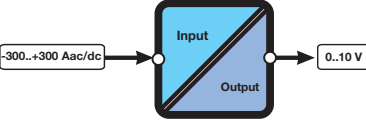
Current Transducers who use magnetic induction technology (international patent N ° Seneca PD2009A000005) are long-life devices due to the principle of measurement which avoids thermal drift and that exploits the generation of an induced current of the transducer output, through the variation of a magnetic field. It's possible their direct use without external shunts, even for pulse currents.

APPLICATION NOTE

Loop powered DC current transducers with 4..20 mA direct output



Loop powered Hall effect Current Transducers

	T201DCH	T201DCH100	T201DCH300
			
	AC/DC contactless TRMS direct and alternate current (± 50 A) transformers	AC/DC contactless TRMS direct and alternate current (± 100 A) transformers, Hall Effect	AC/DC contactless TRMS direct and alternate current (± 300 A) transformers, Hall Effect
			
Order Codes	T201DCH	T201DCH100	T201DCH100

TECHNICAL SPECIFICATIONS

GENERAL DATA

	T201DCH	T201DCH100	T201DCH300
Power Supply	12..28 Vdc	12..28 Vdc	12..28 Vdc
Consumption	< 21 mA	< 21 mA	< 21 mA
Isolation	1 kVdc (bare conductors)	1 kVdc (bare conductors)	1 kVdc (bare conductors)
Protection Degree	IP20	IP20	IP20
Response Time	Fast filter: 800 ms Slow filter: 2.000 ms	Fast filter: 800 ms 2.000 ms Slow filter:	Fast filter: 800 ms Slow filter: 2.000 ms
Accuracy Class	0,5 % f.s.	0,5% (over 2% of f.s.); 1 % under 2% of f.s.)	0,5% (over 2% of f.s.); 1 % under 2% of f.s.)
Thermal Drift	< 200 ppm/K	< 200 ppm/K	< 200 ppm/K
Setting	DIP switches	DIP switches	DIP switches
Operating Temperature	-10..+65°C	-10..+65°C	-10..+65°C
Connectors	Removable terminals	Removable terminals	Removable terminals
Max Conductor Diameter	20,5 mm	20,5 mm	20,5 mm
Dimension (w x h x d)	68 x 97 x 26 mm	68 x 97 x 26 mm	68 x 97 x 26 mm
Mounting	35 mm DIN rail / screws	35 mm DIN rail / screws	35 mm DIN rail / screws

INPUT DATA

	T201DCH	T201DCH100	T201DCH300
Channel Nr	1	1	1
Range	AC/DC Current A -50..+50 A	AC/DC Current -100..+100 A	AC/DC Current -300..+300 A
Measuring Type	TRMS	TRMS	TRMS
Hysteresis	0,1 % f.s.	0,1 % f.s.	0,1 % f.s.
Max Overcurrent	2000 A (pulse)	2000 A (pulse)	2000 A (pulse)
Bandwidth / Frequency	1 kHz	1 kHz	1 kHz
Crest Factor	1,2	2	2

OUTPUT DATA

	T201DCH	T201DCH100	T201DCH300
Channel Nr	1	1	1
Range	0..10 V	0..10 V	0..10 V
Resolution	12 bit	12 bit	12 bit

STANDARD

	T201DCH	T201DCH100	T201DCH300
Approvals	CE	CE	CE
Norms	EN61000-6-4/2002-10 EN61000-6-2/2006-10 EN61010-1/2001	EN61000-6-4/2002-10 EN61000-6-2/2006-10 EN61010-1/2001	EN61000-6-4/2002-10 EN61000-6-2/2006-10 EN61010-1/2001

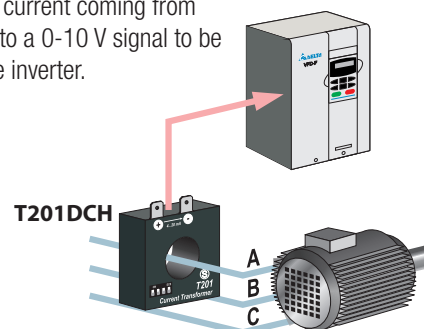
HALL EFFECT



When a magnetic field is applied perpendicularly to a conductor, a transverse voltage is generated to the direction of current flow. Hall effect transducers are used as alternative to the shunt when dealing with high voltages and high galvanic isolations.

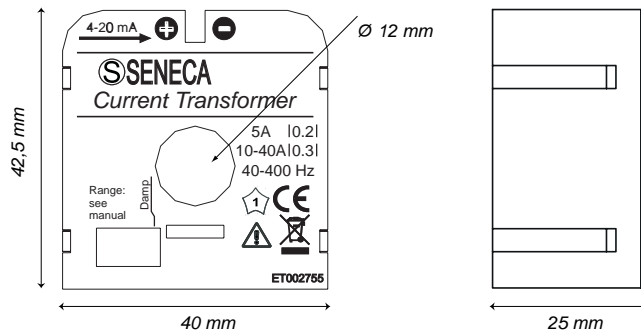
APPLICATION NOTE

The Hall effect Current Transformer turns the output current coming from electric motor into a 0-10 V signal to be connected to the inverter.

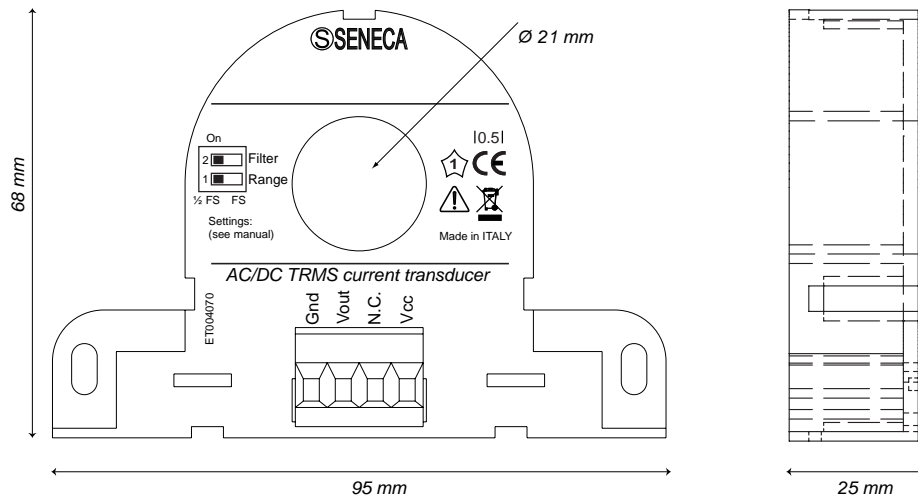


DIMENSION


T201 - T201DC - T201DCH



T201DC100 - T201DCH100 - T201DCH300



ACCESSORIES / SPARE PARTS

Order Code	Description
 A-DIN-T201	Plastic clip for DIN rail guide for T-Line products, 45x17 mm



via Germania, 34 • 35127 Padova - (I) - Tel. +39 049 87.05.359 (.408)
Fax +39 049 87.06.287 • www.seneca.it • info@seneca.it

The material in this document is for information only and is subject to change without notice. While reasonable efforts have been made in the preparation of this document to assure its accuracy, SENECA assumes no liability resulting from errors or omissions, or from the use of the information contained herein.