

HCTC20 TRANSDUCER OF RMS CURRENT OR VOLTAGE

INPUTS:



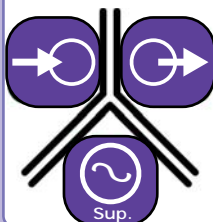
- Continuous conversion of RMS current or voltage without constant component
- Standard d.c. current or d.c. voltage output signal
- Small dimensions
- 0.2 accuracy class

OUTPUTS:

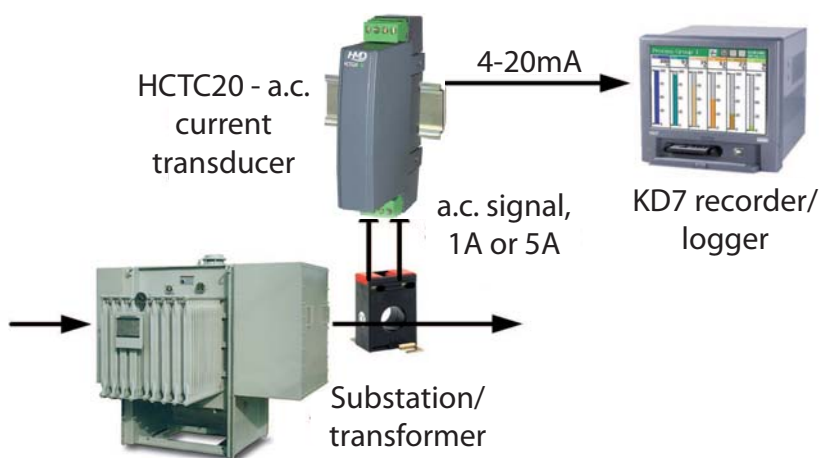
0..20 mA

0..10 V

GALVANIC ISOLATION:



Example of application



Measurement and archiving of the a.c current. Measured data are retransmitted to the recorder/data logger.

INPUTS

Input:	Frequency of the input signal	Input signal min..max value	Short dura! on overload (5s)	Admissible peak factor
Voltage	45..65..500Hz	0..0.01..1.2 Un	2 Un (max. 1000V)	2
Current		0..0.01..1.2 In	10 In	

MEASURING RANGES

Input kind	Measuring range	Accuracy class
Voltage	60, 100, 150, 250, 400, 500, 600 Va.c.	Accuracy class: 0.2
Current	1A (X/1 A a.c.), 5A (X/5 A a.c.)	Additional errors: In mul! plica! on of the class index (k): Ifrom ambient temperature change: <0.5 k/10K Ifexternal magne! c fi eld: <1 k Ifrequency of the input signal: <1 k/100 Hz

OUTPUTS

Output kind	Properties	Remarks
0..5 mA	$R_{load} \leq 2000 \Omega$	Response time: 0.5 sec
0..20 mA	$R_{load} \leq 500 \Omega$	
4..20 mA		
0..10 V	$R_{load} \geq 500 \Omega$	



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External features

Weight	0.125 kg	
Dimensions	22.5 x 120 x 100 mm	
Protection grade (acc. to EN 60529)	ensured by the housing: IP50	from the terminal cover: IP20
Fixing	on a 35 mm rail	
Maximal wire section	2.5 mm ² for execution with screw socket-plug terminals	1.5mm ² for execution with inseparable socket terminals

Rated operating conditions

Supply voltage	85...253 V a.c./d.c or 20...40 V a.c./d.c.	power consumption: 4 VA
Temperature	ambient: -20...+55°C	storage: -25...+85°C
Relative humidity	≤ 95%	inadmissible condensation
Operating position	any	
External magnetic field	0...400 A/m	
Transducer preheating time	15 min	

Safety and compatibility requirements

Electromagnetic compatibility	Noise immunity	acc. to EN 61000-6-2
	Noise emissions	acc. to EN 61000-6-4
Isolation ensured by the housing	double	acc. to EN 61010-1
Isolation between circuits	basic	
Pollution grade	2	
Installation category	for operating voltages in relation to the ground up to 300V: III	
	for operating voltages in relation to the ground up to 600V: II	
Altitude above sea level	<2000 m	

Connection diagrams

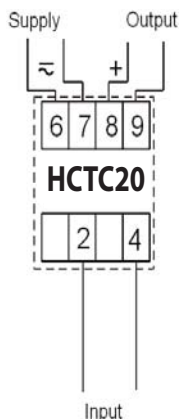


Fig.1 Direct measurement of voltage

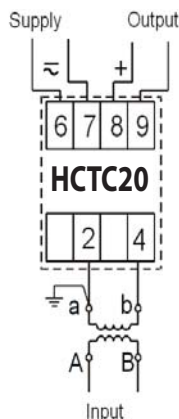


Fig.2 Indirect measurement of voltage by means of a voltage transformer

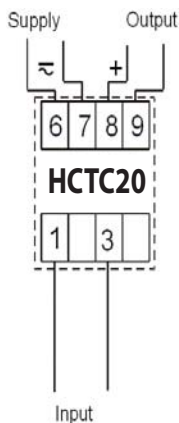


Fig.3 Direct measurement of current

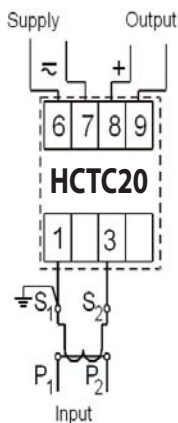


Fig.4 Indirect measurement of current by means of a current transformer

Ordering

Table 1. Ordering codes :

HCTC20 -		XX	X	X	X	XX	X
Input range :							
0..60 V		01					
0..100 V		02					
0..150 V		03					
0..250 V		04					
0..400 V		05					
0..500 V		06					
0..600 V		07					
0..1 A		08					
0..5 A		09					
Output range :							
0..5 mA						1	
0..20 mA						2	
4..20 mA						3	
0..10 V						4	
Supply :							
85...253 V a.c./d.c.							1
20...40 V a.c./d.c.							2
Kind of terminals :							
inseparable with screws							1
socket-plug with screws							2
Version :							
standard							00
custom-made							XX
Acceptance tests :							
without extra requirement							8
without an extra quality inspection certificate							7
acc. to customer's request*							X

* - after agreeing with the manufacturer

Order example :

The code HCTC20 - 09 3 1 1 00 8 means :

- HCTC20** - transducer of RMS current or voltage
- 09** - input signal 5A (X/5A)
- 3** - output signal 4..20 mA
- 1** - supply voltage : 85...253 V a.c./d.c.
- 1** - with inseparable screw terminals
- 00** - standard execution version
- 8** - without extra requirements

SEE ALSO:

PROGRAMMABLE TRANSDUCER



HCU12

TRANSDUCER SUPPLIED FROM A CURRENT LOOP



HC15

DIGITAL PANEL METER



HI20

MICROPROCESSOR CONTROLLER



HR20