

P20Z TRANSDUCER OF RMS CURRENT OR VOLTAGE

INPUTS:



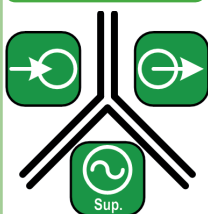
- Continuous conversion of RMS current or voltage without constant component
- Standard d.c. current or d.c. voltage output signal
- Small dimensions
- 0.2 accuracy class

OUTPUTS:

0..20
mA

0..10
V

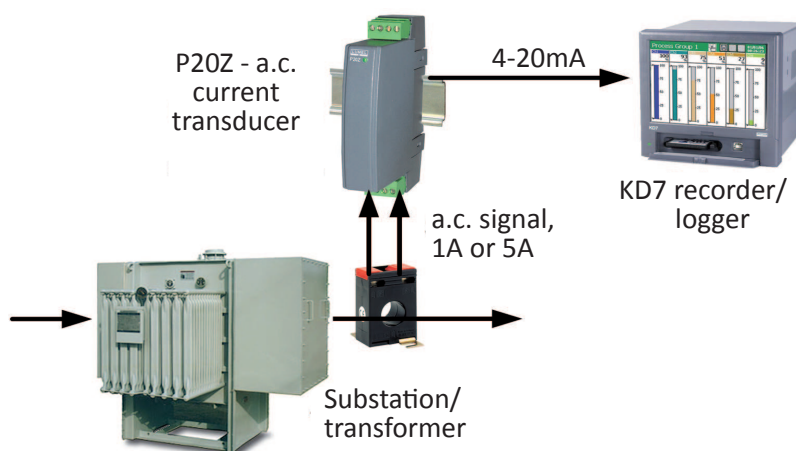
GALVANIC ISOLATION:



Export department:
English: +48 68 32 95
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German: +48 68 32 95 305
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Fax: +48 68 32 54 091
e-mail: export@lumel.com.pl

LUMEL S.A.
ul. Sulechowska 1
65-022 Zielona Góra
POLAND
WWW.LUMEL.COM.PL

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 duration 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 V a.c.	Accuracy class: 0.2
Current	1A (X/1 A a.c.), 5A (X/5 A a.c.)	Additional errors: In multiplication of the class index (k): •from ambient temperature change: <0.5 k/10K •external magnetic field: <1 k •frequency 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	$R_{load} \geq 500 \Omega$	

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..23..55°C	storage: -25..85°C
Relative humidity	≤ 95%	inadmissible condensation
Operating position	any	
External magnetic field	0..40..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

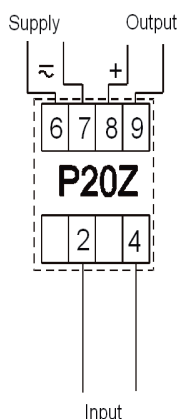


Fig.1 Direct measurement of voltage

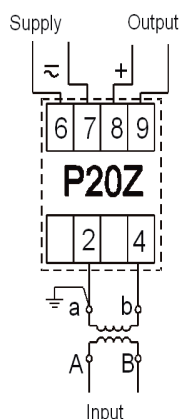


Fig.2 Indirect measurement of voltage by means of a voltage transformer

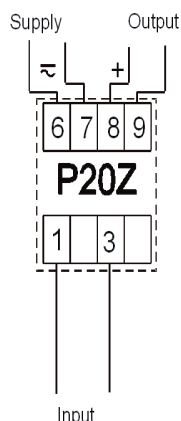


Fig.3 Direct measurement of current

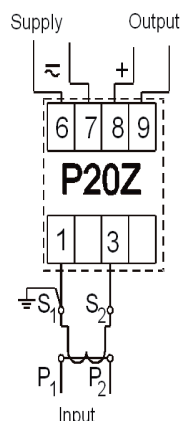


Fig.4 Indirect measurement of current by means of a current transformer

ORDERING

TABLE 1. ORDERING CODES:

P20Z -	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..20mA					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 requirements						8
with an extra quality inspection certificate						7
acc. to customer's request*						X

* - after agreeing with the manufacturer

Order example:

The code **P20Z - 09 3 1 1 00 8** means:

- P20Z** - transducer of RMS current or voltage
- 09** - input signal 5A (X/5A)
- 3** - output signal 4..20mA
- 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:



Free LPConfig software for easy programming of LUMEL's products. Available on our website



PD14 programmer - unit for programming LUMEL's products, with USB connection, LPCon compatible.



Programmable digital meter of d.c. current and d.c. voltage N30H.



For more information about LUMEL's products please visit our website: www.lumel.com.pl

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