

LUMEL

P20Z TRANSDUCER OF RMS CURRENT OR VOLTAGE

INPUTS:



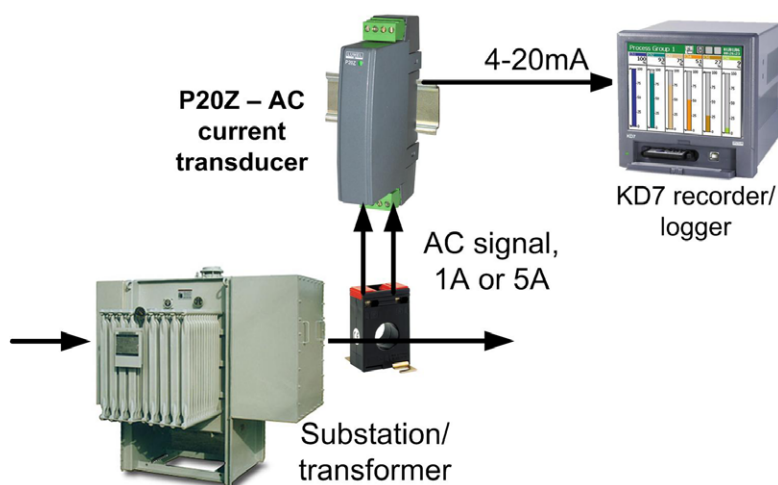
OUTPUTS:

- 0..10
V
- 0..20
mA
- 0..5
mA
- 4..20
mA



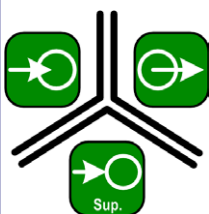
- ✓ Continuous conversion of RMS current or voltage without constant component
- ✓ standard d.c. current or d.c. voltage output signal
- ✓ Small dimensions
- ✓ 0.2 accuracy class

EXAMPLE OF APPLICATION



Measurement and archivization of the AC current. Measured data is retransmitted to the recorder/data logger.

GALVANIC ISOLATION:



INPUTS

Input kind	frequency of the input signal	input signal min..max value	Short duration overload (5s)	admissible peak factor
voltage		0..0.01..1.2 Un	2 Un (max. 1000V)	2
current	45..65..500Hz	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 AC	Accuracy class: 0.2 Additional errors: In multiplication of the class index (k): • from ambient temperature change: <math><0.5 k/10K</math> • external magnetic field: <math><1 k</math> • frequency of the input signal: <math><1 k/100 Hz</math>
current	1A (X/1 A a.c.), 5A (X/5 A a.c.)	

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	$R_{load} \geq 50 \Omega$	

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EXTERNAL FEATURES

Weight	0.125 kg	
Dimensions	22.5 x 120 x 100 mm	
Protection level (acc. to EN 60529)	ensured by the housing: IP50	from the terminal cover: IP20
Fitting	on a 35 mm rail	
Maximal wire section	2.5 mm ² for execution with screw socked-plug terminals	1.5 mm ² for execution with inseparable socked 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%	condensation inadmissible
Working 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 emission	acc. to EN 61000-6-4
Insulation ensured by the housing	double	acc. to EN 61010-1
Insulation between circuits	basic	
Pollution degree	2	
Installation category	for working voltages in relation to the ground up to 300V: III	
	for working voltages in relation to the ground up to 600V: II	
Altitude above sea level	<2000 m	

CONNECTION DIAGRAMS

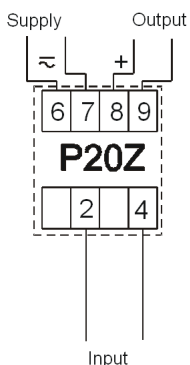


Fig 1. Direct measurement of voltage

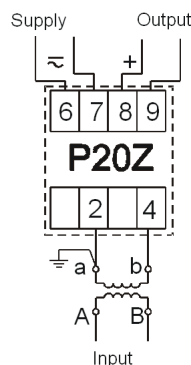


Fig 2. Indirect measurement of voltage by means of a voltage transformer

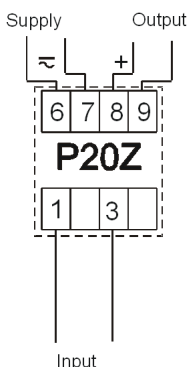


Fig 3. Direct measurement of current

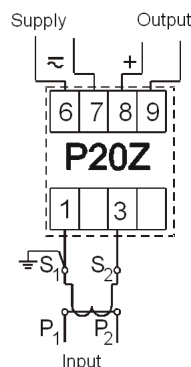


Fig 4. Indirect measurement of current by means of a current transformer

ORDERING

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..20 mA		2				
4..20 mA		3				
0..10 V		4				
Supply voltage						
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	
Kind of execution:						
standard						00
custom-made*						XX
Acceptance tests:						
without extra requirements						8
with an extra quality inspection certificate						7
acc. to customer's agreements						X

* - the code will be established by 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
8 - without extra requirements

SEE ALSO:

LPConfig

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. For more details check DIGITAL METERS catalogue or our website.



Check our offer of different transducers in MEASURING TRANSDUCERS catalogue or on our website.



For more information about products check Product Guide 2009 catalogue or visit our website.

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