

# N20Z DIGITAL PANEL METER

## FEATURES:

- PD14** Programmer
- Program LPConfig**
- IP65**
- Linear char.
- 3-color display**



- Measurement of voltage, a.c. current or frequency,
- Three-colour LED display (5 digits, 14 mm high).
- Two alarm outputs of OC type.
- Programmable parameters through the PD14 programmer:
  - recounting of indications (individual characteristic),
  - two alarms of OC type operating in 6 working modes,
  - kind of measured signal: a.c. or a.c. + d.c. (True RMS),
  - display colour programmable in three intervals,
  - precision of displayed results (decimal point),
  - thresholds of displayed overflows,
  - highlight of the unit,
  - measurement averaging time.

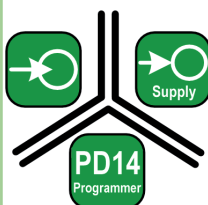
## INPUTS:

- AC
- Hz

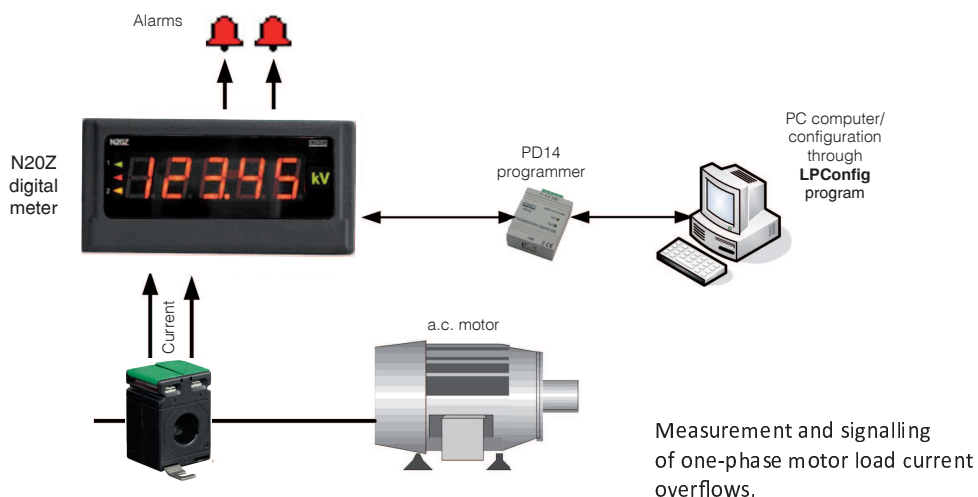
## OUTPUTS:

- 2 x

## GALVANIC ISOLATION:



## EXAMPLE OF APPLICATION



## INPUTS

Kind of input	Measuring range	Parameters	Basic error
Voltage input	1...100...120 V 2.5...250...300 V 4...400...480 V	Input resistance: > 2 MΩ	± (0.5% of range + 1 digit)
Current input	0.01...1...1.2 A 0.05...5...6 A	Input resistance: 50 mΩ ± 10% Input resistance: 10 mΩ ± 10%	± (0.5% of range + 1 digit)
Frequency (in the range of voltages: 24...480 V)	20...500 Hz	Input resistance: > 2 MΩ	± (0.2% of range + 1 digit)

## OUTPUTS

Kind of input	Features
Alarm outputs	• 2 alarm outputs of OC type

## EXTERNAL FEATURES

Readout field	5 digital LED displays. Indication range -19999...99999 Digit height: 14 mm	Three-colour display (changes of colour depend on the displayed value): red, green, orange.
Weight	< 0.25 kg	
Overall dimensions	96 × 48 × 64 mm	Panel cut-out: 92 <sup>+0,6</sup> × 45 <sup>+0,6</sup> mm
Protection grade (acc. to EN 60529)	From frontal side: IP65	From terminal side: IP10

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### RATED OPERATING CONDITIONS

Supply	85...253 V a.c. (45...65 Hz) or d.c., 20...40 V a.c. (45...65 Hz) or d.c.	Power consumption < 6 VA
Temperature	Ambient: -10...23...55°C	Storage: -25...85°C
Relative humidity	< 95%	Condensation inadmissible
Operating position	any	

### SAFETY AND COMPATIBILITY REQUIREMENTS

Electromagnetic compatibility	noise immunity	acc. to EN 61000-6-2
	noise emissions	acc. to EN 61000-6-4
Safety requirements		acc. to EN 61010-1

### CONNECTION DIAGRAMS

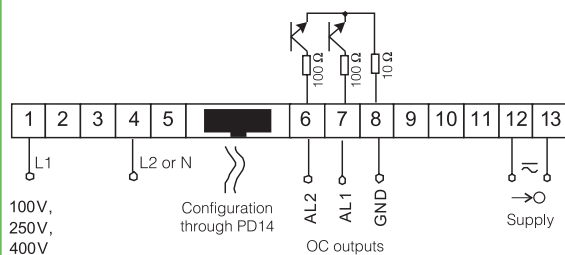


Fig. 1 Electrical connections of the N20Z meter with the measurement of voltage and frequency.

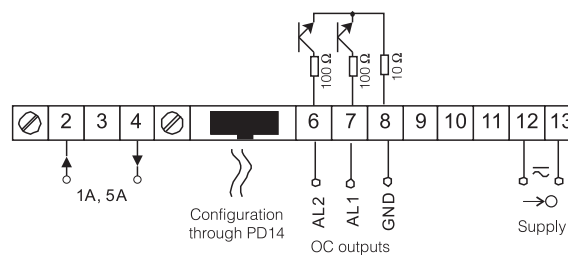


Fig. 2 Electrical connections of the N20Z meter with the measurement of current.

**SEE ALSO:**



Free LPConfig program for programming LUMEL'S products. Available on our website.



Current transformers from 5 A to 6 kA.



N14 meter for measurement of three-phase network parameters.

### ORDERING

TABLE 1. ORDERING CODES:

	N20Z -	X	X	XX	XX	X
<b>Input:</b>						
100 V		1				
250 V		2				
400 V		3				
1 A		4				
5 A		5				
Frequency: 20...500 Hz		6				
<b>Supply:</b>						
85...253 V a.c./d.c.			1			
20...40 V a.c./d.c.			2			
<b>Unit:</b>						
unit code number acc. to table 2				XX		
<b>Version:</b>						
standard						00
custom-made*						XX
non standard settings						99
<b>Acceptance tests:</b>						
without extra requirements						8
with an extra quality inspection certificate acc. to customer's request*						7
						X

\* - after agreeing with the manufacturer

TABLE 2. CODES OF HIGHLIGHTED UNIT:

Code	Unit	Code	Unit	Code	Unit
00	without unit	17	μm	34	bar
01	V	18	mm	35	rad
02	A	19	cm	36	Ω
03	mV	20	m	37	kΩ
04	kV	21	km	38	%
05	MV	22	l	39	°
06	mA	23	l/s	40	turns
07	kA	24	l/h	41	rps
08	MA	25	ms	42	rpm
09	°C	26	s	43	rph
10	°F	27	h	44	m/h
11	K	28	N	45	km/h
12	Hz	29	kN	46	imp
13	kHz	30	Pa		
14	Ah	31	hPa		
15	kAh	32	kPa	XX	on order <sup>1)</sup>
16	m/s	33	MPa		

1) - after agreeing with the manufacturer

Highlight of the measured unit	ON
Kind of input	AC
Averaging time	5 s
Upper overflow of measurement	99999
Lower overflow of measurement	-19999
Individual characteristic	ON
Parameter <i>a</i> of the individual characteristic	0.1
Parameter <i>b</i> of the individual characteristic	0
Kind of the alarm output 1 operation	on
Upper value to switch the alarm 1 - Aon	40.00
Lower value to switch the alarm 1 - Aoff	0.00
Kind of the alarm output 2 operation	n-on
Upper value to switch the alarm 2 - Aon	44.00
Lower value to switch the alarm 2 - Aoff	40.00

- means: N20Z meter with voltage input on 400 V, supply: 85...253 V a.c., executed acc. to given detailed parameter description by the user, without extra quality requirements („mV” unit - acc. to table 2),

### ORDER EXAMPLES

#### Example 1

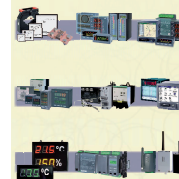
The code **N20Z - 3 1 01 00 8** - means: N20 meter with voltage input on 400 V, supply: 85...253 V a.c., without extra quality requirements, „V” unit

#### Example 2

The code **N20Z - 3 1 03 99 8 + description**

Parameter	Range/Value
Displayed colour of the upper measured value	red
Displayed colour of the median measured value	green
Displayed colour of the lower measured value	orange
Upper threshold - KpH	44.00
Lower threshold - KpL	40.00
Decimal point	000.00

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