LUMEL
EVERYTHING COUNTS

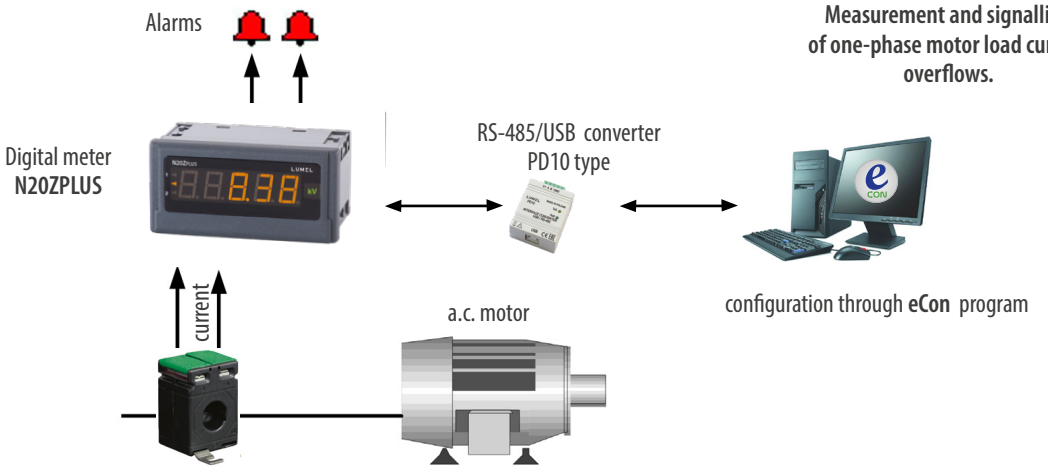
N20Z PLUS
- DIGITAL PANEL METER WITH RS-485

- Measurement of voltage, a.c. current or frequency,
- Three-colour LED display (5 digits, 14 mm high).
- **Digital output RS-485 - Modbus RTU protocol.**
- Two alarm outputs of OC type.
- Programmable parameters through RS-485 interface using the free eCon software:
  - 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.

Electrical Safety CAT III

CE

EXAMPLE OF APPLICATION



FEATURES

MOD BUS · eCon · IP65 · Ind · three-colour display

INPUTS

AC · Hz

OUTPUTS

2x RS 485

GALVANIC ISOLATION

Supply · RS 485

TECHNICAL DATA

INPUTS

Input type	Measuring range	Parametrs	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	± (0.02% of range+ 1 digit)

N20ZPLUS - DIGITAL PANEL METER WITH RS-485

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TECHNICAL DATA

OUTPUTS

Output type	Features
Alarm outputs	• 2 alarm outputs of OC type

DIGITAL INTERFACE

Interface type	Transmission protocol	Modes	Baudrate
RS-485	MODBUS RTU	8N2, 8E1, 8O1, 8N1	4.8, 9.6, 19.2, 38.4, 57.6, 115.2 kbit/s

EXTERNAL FEATURES

Readout field	5 digit LED display - 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 x 48 x 64 mm	panel cut-out: $92^{+0.6}$ x $45^{+0.6}$ mm
Protection grade (acc. to EN 60529)	from frontal side: IP65	from terminal side: IP 10

RATED OPERATING CONDITIONS

Supply	85...253 V a.c. / d.c., 20...40 V a.c. / 20...60 V 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

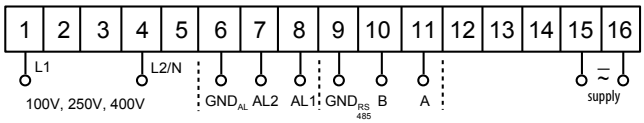

Fig. 1 Electrical connections of the N20ZPLUS meter with the measurement of voltage and frequency.

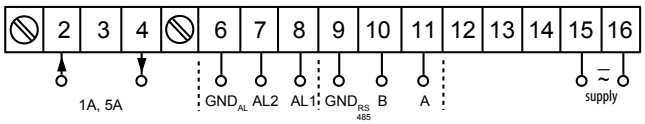

Fig. 2 Electrical connections of the N20Z meter with the measurement of current.

ORDERING

TABLE 1. ORDERING CODE:

N20ZPLUS -	X	X	XX	XX	X	X
Input:						
100 V	1					
250 V	2					
400 V	3					
1 A	4					
5 A	5					
frequency 20...500 Hz	6					
Supply:						
85...253 V a.c./d.c.		1				
20..40 V a.c./20..60 V d.c.		2				
Unit:						
unit code number acc. to table 2			XX			
Version:						
standard				00		
custom-made				XX		
Language:						
Polish / English					M	
Acceptance test:						
without additional quality requirements						0
with an extra quality inspection certificate						1
with an extra calibration certificate						2
acc.to customer's request*						X

* only 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	obr
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	XX	on order[1]
14	Ah	31	hPa		
15	kAh	32	kPa		
16	m/s	33	MPa		

[1] -only after agreeing with the manufacturer

ORDERING EXAMPLE:

The Code N20ZPLUS - 3 1 01 00 P 0 - means: N20ZPLUS meter with voltage input on 400 V, supply 85... 253 V a.c., standard version, user's manual in English, without aditional quality requirements. Unit „V"

N20ZPLUS-19_en

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