

# N17Z RAIL-MOUNTED DIGITAL METER

## FEATURES:

PD15

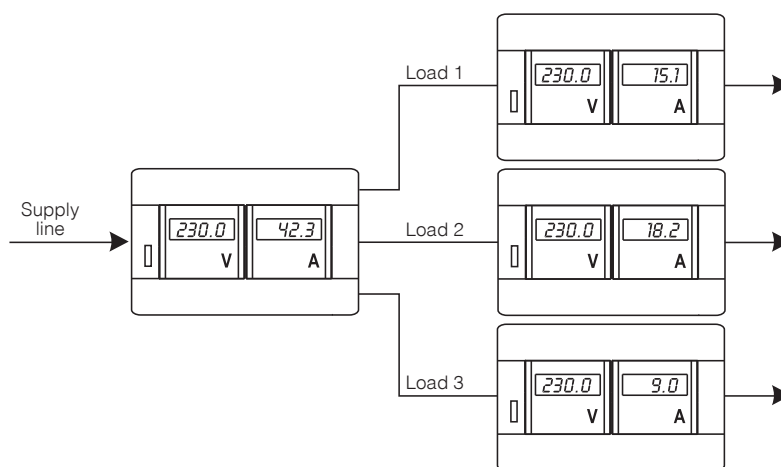


- Measurement of true RMS current and voltage.
- Measurement of frequency.
- Direct or indirect measurement.  
Current and voltage ratio programming by means of PD15.
- Assembling of meters on a 35 mm rail,
- Meter overall dimensions enable the assembly together with typical connection elements used in power engineering.
- 3 or 4-digit display in red or green colour.

## INPUTS:



## EXAMPLE OF APPLICATION



## INPUTS

Kind of input	Measuring range	Parameters	Basic error	
Voltage input	1...100 V 3...300 V 5...500 V	Input resistance: $\geq 600 \text{ k}\Omega$ Input resistance: $\geq 1.8 \text{ M}\Omega$ Input resistance: $\geq 3 \text{ M}\Omega$	0.5% of range + 1 digit	Frequency of measuring signal: 30...500 Hz
Current input	0.01...1 A 0.05...5 A 0.1...10 A 0.4...40 A	Input resistance: $20 \text{ m}\Omega \pm 10\%$ Input resistance: $4 \text{ m}\Omega \pm 10\%$ Input resistance: $2 \text{ m}\Omega \pm 10\%$ Input resistance: $0.5 \text{ m}\Omega \pm 10\%$	0.5% of range + 1 digit	Frequency of measuring signal: 30...500 Hz
Frequency	30...500 Hz	Input resistance: $\geq 3 \text{ M}\Omega$	0.1% of range + 1 digit	Amplitude of measuring signal: 5...600 V

## EXTERNAL FEATURES

Readout field	3 LED displays - digit height: 14 mm - red or green, indication range: -199...999 4 LED displays - digit height: 10 mm - red or green, indication range: -1999...9999	
Weight	< 0.25 kg	
Overall dimensions	52.5 × 90 × 64.5 mm	Bezel: 52.5 × 45 mm
Protection grade (acc. to EN 60529)	IP20	
Fixing	on a 35 mm rail	acc. to EN 60715

## RATED OPERATIONS CONDITIONS

Supply voltage	230 V 50/60 Hz $\pm 10\%$ , 110 V 50/60 Hz $\pm 10\%$ , 24 V 50/60 Hz $\pm 10\%$ , 24 V d.c. $\pm 10\%$ ,	Power consumption < 6 VA
Temperature	ambient: -10...23...50°C	Storage: -25...85°C
Relative humidity	< 95%	Condensation inadmissible
Operating position	any	

## GALVANIC ISOLATION:



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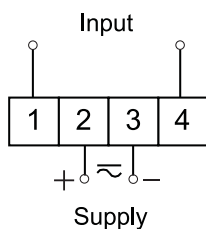
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## SAFETY AND COMPATIBILITY REQUIREMENTS

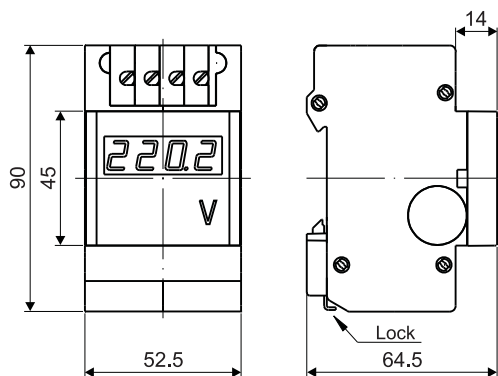
Electromagnetic compatibility	noise immunity	acc. to EN 61000-6-2
	noise emissions	acc. to EN 61000-6-4
Installation category	III	acc. to EN 61010-1
Pollution grade	2	
Phase-to-earth operating voltage	600 V a.c.	

## CONNECTION DIAGRAM



Electrical connections of N17Z meter.

## EXTERNAL DIMENSIONS



## SEE ALSO:



Current transformers from 5 A to 6 kA.



Analog meters of EA series fulfilling IP65 requirements from the frontal side.



N24 and N25 meters (indicators) for measurements of temperature, d.c. or a.c. voltage and current, and frequency.



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## ORDERING

TABLE 1. ORDERING CODES:

N17Z -	XX	X	X	X	X	XX	...
<b>Input:</b>							
100 V	00						
300 V	01						
500 V	02						
1 A	03						
5 A	04						
10 A	05						
40 A	06						
frequency 30...500 Hz on order*	07						
	XX						
<b>Number of digits:</b>							
3 digits, 14 mm high						3	
4 digits, 10 mm high						4	
<b>Display colour:</b>							
red						R	
green						G	
on order*						X	
<b>Supply:</b>							
230 V 50/60 Hz						1	
110 V 50/60 Hz						2	
24 V 50/60 Hz						3	
24 V d.c.						4	
on order*						X	
<b>Acceptance tests:</b>							
without extra quality requirements							8
with an extra quality inspection certificate							7
acc. to customer's request*							X
<b>Unit:</b>							
unit code number acc to the table 2							XX

**Description 1** (introduce in case of another indication than the meter input range) e.g. if for 5 we want the indication 300, write: 5/300.

**Description 2** (as standard, the meter measures the a.c.+d.c. signal, write if it is to be different)  
a.c. - only a.c. measurement  
or d.c. - only d.c. measurement

\* - after agreeing with the manufacturer

TABLE 2. CODES OF HIGHLIGHTED UNITS:

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

<sup>1)</sup> - after agreeing with the manufacturer

## ORDERING EXAMPLES:

### Example 1:

Code: **N17Z - 01 4 G 1 8 00** means:

- N17Z** - rail mounted digital meter
- 01** - voltage input: 3...300 V
- 4** - 4-digit display (10 mm high)
- G** - green display colour
- 1** - supply voltage: 230 V, 50/60 Hz
- 8** - without extra quality inspection requirements
- 00** - unit code acc. to the table 2: V

Meter for direct measurement with indications acc. to the input range. The meter measures True RMS signal (a.c.+d.c.)

### Example 2:

Code: **N17Z - 04 3 R 3 8 01 5/150 A a.c.:**

- N17Z** - rail mounted digital meter
- 04** - current input: 0.05... 5 A range
- 3** - 3-digit display (14 mm high)
- R** - red display colour
- 3** - supply voltage: 24 V, 50/60 Hz
- 8** - without extra quality inspection requirements
- 01** - unit code acc. to the table 2: A

**5/150 A a.c.** - the meter recounts the measuring range 0...5 A into 0...150 A. Programmed indication range: 0... 150 A. The meter measures only the a.c. signal (without the constant component)

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