



# N27P Network Meter

## Digital Multifunction Meter



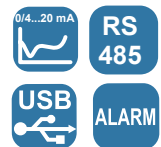
### Feature



### Inputs



### Output

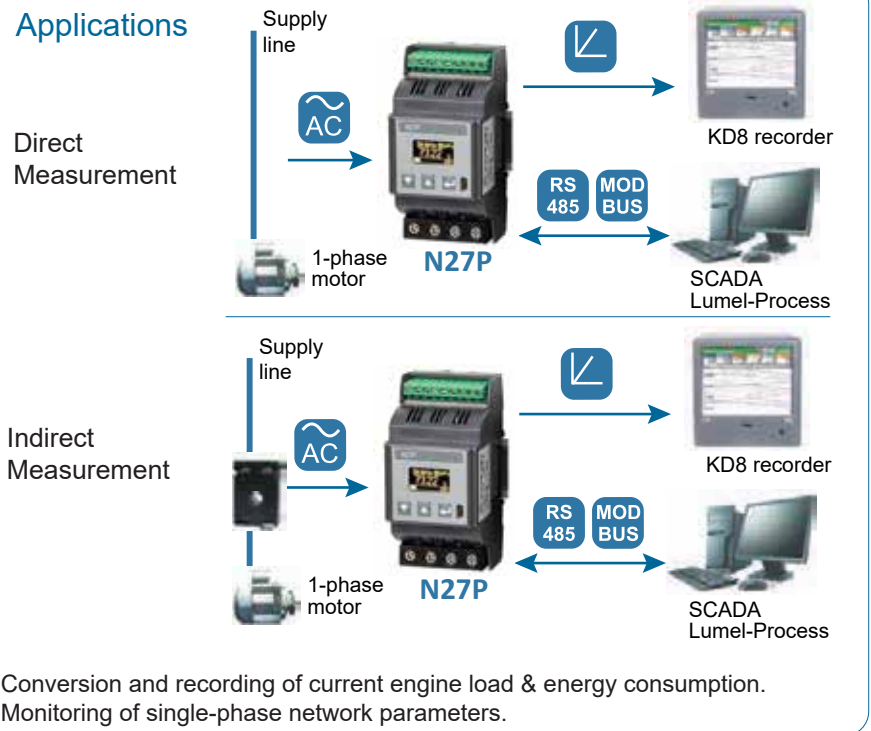


### Galvanic Isolation



- Measurement of 1-phase network parameters: U, I, f, P, Q, S, PF, tg fi, fi, Ep, Eq.
- Universal measuring input: 1/5 A, 100/400 V or 32/63 A, 100/400 V.
- Programmable analog output 0/4....20 mA.
- RS485 Modbus RTU Slave interface.
- Programmable current and voltage transformer ratios.
- Meter configuration using button or eCon software (through USB).
- Modern graphical display in OLED technology for viewing in adverse conditions.

### Applications



Measured Value	Range	Basic Error	
Current IN	1 A 5 A 32 A* 63 A*	0.005 ... 1.200 A~ 0.025 ... 6.000 A~ 0.160 ... 38.40 A~ 0.315 ... 75.60 A~	±0.2%
Voltage L-N	100 V 400 V	5 ... 120 V 20 ... 480 V	±0.2%
Frequency (f)		45.0...66.0...100 Hz	±0.2%
Active Power (P)	version 1/5 A version 32/63 A	-2.88 kW ... 1.00 W ... 2.88 kW -32.29 kW ... 1.00 W ... 32.29 kW	±0.5%
Reactive Power (Q)	version 1/5 A version 32/63 A	-2.88 kvar ... 1.00 var ... 2.88 kvar -32.29 kvar ... 1.00 var ... 32.29 kvar	±0.5%
Apparent Power (S)	version 1/5 A version 32/63 A	1.40 VA...2.88 KVA 1.40 VA...32.29 VA	±0.5%
PF		-1...0...1	±0.5%
Tangens φ		-1.2...0...1.2	±1%
φ		0...359	±1%
Active Energy (Ep)		0 ... 999 999.9 kWah or 9 999.999 MWh	±0.5%
Reactive Energy (Eq)		0 ... 999 999.9 kvarh or 9 999.999 Mvarh	±0.5%

\* Concerns the version for Direct Measurement



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### Outputs

Output type	Properties
Relay	1-2 x (depending on the meter version) programmable relay output, NOC, Load Capacity 250V~/0.5 A~, number of cycles 1 x 10 <sup>5</sup>
Analog	lack or 1 x (depending on the meter version) programmable analog output 0/4...20mA, R <sub>load</sub> = 0...250 Ω

### Digital interfaces

Interface type	Transmission protocol	Mode	Baud rates
RS-485	MODBUS RTU	8N2, 8E1, 8O1, 8N1	4.8; 9.6; 19.2; 38.4, 57.6, 115.2 kbit/s
USB 1.1 / 2.0 (for meter configuration)	MODBUS RTU	8N2	9.6 kbit/s

### External features

Readout field	OLED display	
Weight	0.2 kg	
Overall dimensions:	53 / 110 / 60 mm.	Mounting on a 35mm DIN rail
Protection grade	For housing: IP40	For terminals: IP00

### Rated Operating Conditions

Power Supply.	85...253 V a.c. 40...400 Hz / 90...300 V d.c.	Power consumption: in supple circuit ≤ 5 VA in voltage circuit ≤ 0.2 VA in current circuit: for undirect meas. ≤ 0.05 VA for direct meas. ≤ 2.5 VA
Temperature	ambient: -10...23...55°C	storage: -30°...70°C
Relative humidity	25...95%	inadmissible condensation
Operating position	vertical	
Standart conversation time	1.2 s	
Maximal conversation time	2.2 s	
Preheating time	15 min	
External magnetic field	0...40...400 A/m	
Shotr duration overload (1s)	voltage input: 2 U <sub>N</sub> (max.1000V)	Current input: 1.2 I <sub>N</sub>
Sustained overload	voltage input: 1.2 U <sub>N</sub>	Current input: 1.2 I <sub>N</sub>

### Safety And Compatibility Requirements

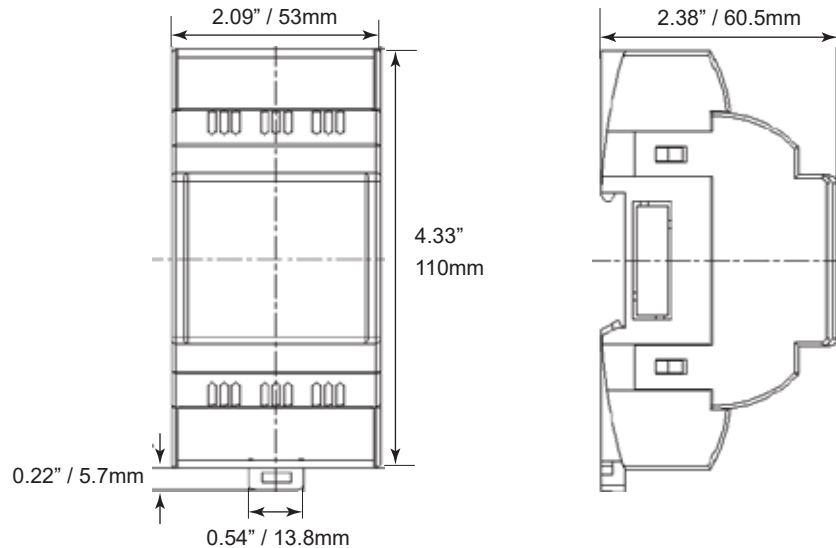
Electromagnetic compatibility	Noise immunity	acc. to EN6 1000-6-2
	Noise emissions	acc. to EN6 1000-6-4
Isolation between circuits	basic	acc. to EN6 1010-1
Pollution grade	2	
Installation category	III (for voltages above 300V category II)	
Maximal phase-to-earth working voltage	for supply circuit: 300 V	
	for measuring input 600 V - cat. II (300 V - cat. III) for other circuit: 50 V	
Altitude above sea level	< 2000 m	



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### Dimensions



### Ordering Information

Rail Mounted -1 Phase Network Meter - RN27P	X	X	XX	X	X
1A / 5A AC	1				
32A / 63A AC	2				
<b>Outputs</b>					
2 relays		1			
1 relay and 1 analog 0/4...20mA		2			
<b>Version</b>					
Standard			00		
Custom-made*			XX		
<b>Language</b>					
English				E	
Polish				P	
Other*				X	
<b>Acceptance tests</b>					
Without extra quality requirements					1
With an extra quality inspection certificate					0
Ass. to customer requirements*					X

\* after agreeing with the manufacturer

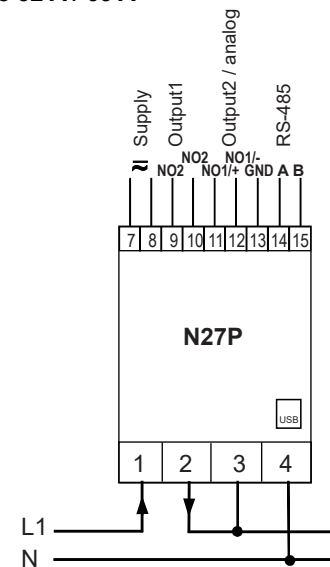
### Order example:

The code N27P - 1 1 00 E 0 means:

- N27P** - meter of network parameters N27P type
- 1 - version for indirect measurement for the range 1A/5A
  - 1 - with 2 relay outputs
  - 00 - standard option
  - E - English language
  - 0 - without extra quality requirements

### Connection Diagram

#### Range 32 A / 63 A



#### Range 1 A / 5 A

