



ME110NSR (With communication)

- Measurement data transmission, as well as measurement and display of various elements : AC current , AC voltage, active/reactive power, power factor, frequency, active/reactive energy, voltage harmonics, current harmonics etc.
- Easy construction of network systems: CC-Link, Modbus communication

Specifications

		Multi-measuring instrument				
Model name		ME110NSR-C		ME110NSR-MB		
Phase wire system		1P2W/1P3W/3P3W (Common use)	3P4W	1P2W/1P3W/3P3W (Common use)	3P4W	
Measuring elements (accuracy)	Current	Instantaneous value (0.5%)	●×3(1, 2, 3)	●×5(1, 2, 3, N, AVG)	●×3(1, 2, 3)	●×5(1, 2, 3, N, AVG)
		Demand (0.5%)	●×3(1, 2, 3)	●×5(1, 2, 3, N, AVG)	●×3(1, 2, 3)	●×5(1, 2, 3, N, AVG)
	Power	Voltage (0.5%)	●×3(12, 23, 31)	●×4(12, 23, 31, AVG)*1	●×3(12, 23, 31)	●×4(12, 23, 31, AVG)*1
		Instantaneous value (0.5%)	●	●×4(Σ, 1, 2, 3)	●	●×4(Σ, 1, 2, 3)
		Demand (0.5%)	●	●×4(Σ, 1, 2, 3)	●	●×4(Σ, 1, 2, 3)
		Apparent power (0.5%)	—	●×4(Σ, 1, 2, 3)	—	●×4(Σ, 1, 2, 3)
		Reactive power (0.5%)	●	●×4(Σ, 1, 2, 3)	●	●×4(Σ, 1, 2, 3)
		Power factor (2.0%)	●	●×4(Σ, 1, 2, 3)	●	●×4(Σ, 1, 2, 3)
	Frequency (0.5%)	●	●	●	●	
	Active energy (1.0%)	○	○	○	○	
	Reactive energy (2.0%)	○	○	○	○	
	Current harmonics (2.5%)	○(THD, h1...h13)	○(THD, h1...h13)	○(THD, h1...h13)	○(THD, h1...h13)	
Voltage harmonics (2.5%)	○(THD, h1...h13)	○(THD, h1...h13)	○(THD, h1...h13)	○(THD, h1...h13)		
Ratings	Rated voltage	110/220V 50-60Hz (Only 220V for 1P3W)	63.5/110~254/440V 50-60Hz	110/220V 50-60Hz (Only 220V for 1P3W)	63.5/110~254/440V 50-60Hz	
	Rated current	AC 5A				
Maximum scale	Scale setting	Auto scale display by setting primary voltage/current, active/reactive power scale, power scale single/double deflection				
	Settable standard maximum scale	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>● Voltage scale</p> <p>3P3W/1P2W</p> <ul style="list-style-type: none"> 150V(110V) Direct 300V(220V) Direct 300V(220V) 600V(440V) </div> <div style="width: 45%;"> <p>1P3W</p> <ul style="list-style-type: none"> 1500V(1100V) 3000V(2200V) 4500V(3300V) 9000V(6600V) 750kV(550kV) </div> <div style="width: 45%;"> <p>3P4W</p> <ul style="list-style-type: none"> 300V(220V) Direct only </div> <div style="width: 45%;"> <p>● Current scale</p> <ul style="list-style-type: none"> 1P2W : Max scale = 0.5kW×VT ratio×CT ratio 1P3W : Max scale = 1kW×CT ratio 3P3W : Max scale = 1kW×VT ratio×CT ratio 3P4W : Max scale = Specific power×VT ratio×CT ratio <p>● Reactive power scale : active power scale×1/2</p> <p>● Power factor scale : LEAD0.5~1~LAG0.5</p> <p>● Frequency scale : 45Hz~55Hz or 55Hz~65Hz</p> </div> </div> <p>*Instrument rated voltage with VT is fixed at 110V. *Primary voltage should be set with VT.</p>				
Alarm setting	Upper limit setting	A, DA, V, W, DW, cosφ, var, Hz, HI, HV				
	Lower limit setting	A, DA, V, W, DW, cosφ, var, Hz				
	Setting accuracy	±1.0%				
Loading	Input circuit	Voltage circuit : 0.1VA/phase(@ 110VAC), 0.2VA/phase(@ 220VAC) Current circuit : 0.1VA/phase				
	Auxiliary power	11VA(@ 110VAC), 14VA(@ 220VAC) 6W(@ 100VDC)				
Communication	Communication	CC-Link communication		RS485 (ModBus) communication		
	Communication system	Broadcast polling system		ModBus RTU		
	Transmission speed	10M/5M/2.5M/625k/156kbps		2400,4800,9600,19200,38400bps		
	Transmission path format	Bus format		Multi-dropped connection		
	Communication distance	50m (10Mbps)~1200m (156kbps)		1000m		
	Number of units connected	Max 42 units (Remote device station)		Max 31 units		
Back up		Stored in EEPROM (nonvolatile memory) : setting value, max/min value, active/reactive energy				
Auxiliary power		AC100-240V ±15% 50-60Hz/DC75-140V				
Weight		0.5kg	0.5kg	0.5kg	0.5kg	
Enclosure		Thermoplastic self-extinguish (UL94V0)				
Operating temperature		-5~50°C (Average operating temperature : below 35°C)				
Operating humidity		85% RH max (no condensation)				
Storage temperature		-20~60°C				
Standard		EN 61010-1/2001, EN61000-6-4/2001, EN61000-6-2/2001				

- including max, and min. value
- including max value
- counting value

Note #1 : Phase voltage measurable (1N, 2N, 3N)

Remarks : 1. Accuracy of current, active/reactive power is at standard max scale value.

2. When used for 1P2W, accuracy of active power, active power demand & reactive power can exceed 0.5 due to the influence of power factor.

3. When input voltage falls to 11V, voltage related elements are displayed as follows : (Current is measured even when there is no voltage input)

· Voltage, active/reactive power : "0" is displayed.

· Power factor : "1" is displayed.

· Frequency, current/voltage harmonics : "____" is displayed. (For 3P4W, "____" is displayed when they fall to 80V (@ rated voltage110V) or 160V (@ rated voltage 220V).)

How to order

Model name	Phase wire system	English version	Number of units
ME110NSR-C	3P3W	ENGLISH	5 units