

# E/NTES



## MPR-1 Series New Generation Network Analyzers

MPR-1 Series **DIN type** network analyzers are designed for the measurement of electrical parameters on machines and switch gear panels. By means of its **design without a screen**, it is a **cost-effective** measurement device series for energy monitoring software.

Thanks to **the communication feature** of devices, energy measurements can be monitored from a single monitoring center.

MPR-1 series can detect the status of devices in the field with digital inputs and provide control of devices (breakers, switches, contacts, etc.) with digital outputs and relays.

- DIN rail mounting
- Cost-effective by means of its design without a screen
- 256 event record
- 4 MB memory and LOG record
- Detailed measurement up to 51 harmonics
- Current & voltage unbalance measurement



## SPECIFICATIONS

	MPR-14S	MPR-15S-22	MPR-16S-21	MPR-17S-23
<b>ENCLOSURE</b>				
Dimensions	DIN4 Rail Mounting			
Protection Class	Terminals: IP20, Front: IP40			
<b>MEASUREMENT</b>				
Voltage				
Measurement Range	10-300 VAC (L-N), 10-480 VAC (L-L)			
Measurement Range with VT	10 V - 999,9 kV			
Accuracy	0.5% ± 1 Digit			
Input Impedance	> 1 MΩ			
Burden	< 0,5 VA			
<b>Current</b>				
Nominal Current	In: 5A / 1A			
Minimum Current	5 mA			
Measurement Range	50 mA - 5,5 A			
Measurement Range with CT	50 mA - 10.000 A			
Accuracy	0.5% ± 1 Digit			
Burden	< 1 VA			
Overload Current	1,2 x In			
Short Time Overload (1 sec)	10 x In			
<b>Power / Energy</b>				
Active Power	0 - 1 GW ; 1% ± 1 Digit			
Reactive Power	0 - 1 GVA ; 2% ± 1 Digit			
Apparent Power	0 - 1 GVA ; 1% ± 1 Digit			
Power Factor	± 1.00 ; Accuracy ± 0,02			
Active Energy	0 - 99 999 999 kWh or MWh; Accuracy 1% (Class 1)			
Reactive Energy	0 - 99 999 999 kVAh or MVAh; Accuracy 2% (Class 2)			
Apparent Energy	0 - 99 999 999 kVAh or MVAh; Accuracy 1% (Class 1)			
Total Harmonic Distortion	-	L - L Voltage (%THD-U); L - N Voltage (%THD-V); Current (%THD-I)		
Individual Harmonics	-			2-51 Voltage (V) and Current (I)
Voltage and Current Unbalances	-			●
Demand Period	1,5,10,15,20,30,60 min			
Frequency	45-65 Hz			
Sampling Rate per Period	128			
<b>SUPPLY</b>				
Operating Voltage	95-270 VAC/DC (12-50 VDC for MPR-1X-D series)			
Operating Frequency	50/60 Hz			
Power Consumption	< 5 VA			
<b>COMMUNICATION</b>				
Interface / Protocol	RS 485 / Modbus RTU			
Transfer Rate	2400 - 115200 bps			
<b>MEMORY</b>				
Internal Memory Size	4 MB			
<b>INPUTS and OUTPUTS</b>				
Digital Input				
Pulse Width	20 - 500 ms			
Operating Voltage	5...30 VAC/DC			
Switching Current	max 50 mA			
<b>Digital Output</b>				
Supply Voltage	-	5-30 VDC (Open Collector)	-	5-30 VDC (Open Collector)
Pulse Width	-	20 - 1000 ms	-	20 - 1000 ms
Pulse Duty	-	20 - 1000 ms	-	20 - 1000 ms
<b>Relay Output</b>				
Relay Output	-		1 NO, 250 VAC / 5 A	-
<b>Analog Output</b>				
Current Output	-			0 - 20 mA, 4 - 20 mA, 0 - 24 mA
Voltage Output	-			0 - 5 V, 0 - 10 V, ± 5 V, ± 10 V
<b>CONNECTIONS</b>				
Mounting Type	Rail Mounting			
Connection Terminals	Screw terminal with socket			
Connection Types	3P4W, 3P3W, 3 Phase Aron, 3P4W (balanced), 3P3W (balanced)			
<b>AMBIENT CONDITIONS</b>				
Ambient Temperature	-10 / + 70°C			
Storage Temperature	-20 / + 80°C			
Overvoltage Category	III			
Pollution Degree	II			
Maximum Ambient Humidity	90%			
<b>STANDARDS</b>				
Standards	EN 61557-12, EN 61326-1, EN 61000-6-2, EN 61000-6-4, EN 62053, EN 60068, EN 61010			

## HEADQUARTERS

Address: Dudullu OSB; 1. Cadde; No: 23 34776 Umraniye - ISTANBUL / TURKIYE Tel: +90 216 313 01 10 Fax: +90 216 314 16 15 Sales Fax: +90 216 365 71 71  
E-mail: contact@entes.eu Web: www.entes.eu Coordinates: 40,995852 N, 29,178398 E

## INTERNATIONAL BRANCH OFFICES

ISTANBUL : contact@entes.eu Tel: +90 216 313 01 10 Fax: +90 216 314 16 15  
INDIA : contact@entes.in Tel: +91 981 - 2980004  
GREECE : contact@entes.eu Tel: +30 2310 706999 +30 2310 707296  
GERMANY : kontakt@enteselektronik.com Tel: +49(0) 7022-931992-0

© ENTES Elektronik Cihazlar İmalat ve Ticaret A.Ş.

