



## ES Series Single Phase Energy Meters

The ES Series measures active energy consumption directly and accurately in single phase systems and shows total active energy consumption.

The most important features of the series are **reliability, affordability, small size, and easy installation.**

It can send energy consumption information to the pulse collectors and other devices with digital inputs through its pulse output.

Via the version with RS-485 Modbus interface other parameters such as **voltage, current** and **active power** can be monitored remotely.

- 32A and 80A versions
- Direct connection without current transformer
- Class 1 - Active Energy measurement
- MID-approved measurement standard (Optional)
- Sealable terminal block
- RS-485 Modbus communication and energy pulse output options



MID

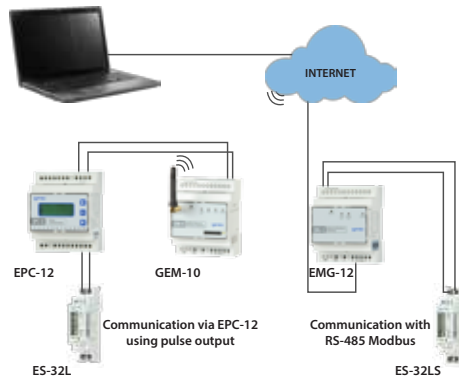


## Usage Areas

- Shopping malls
- Airports
- Railway Stations
- Factories
- Building Complexes
- Malls
- Hospitals
- Schools
- Holiday Villages
- Marinas
- Industrial Exhibition Halls
- Hotels

## SPECIFICATIONS

	ES-32LS	ES-32L	ES-80LS	ES-80L
<b>ENCLOSURE</b>				
Protection Class			IP51	
Weight	60gr/pcs.		60gr,74gr (with CT-80D)/pcs.	
Display	6+1 digit LCD			
<b>MEASUREMENTS</b>				
Active Energy Range	0-999999.9 kWh			
Accuracy	± 1% Class 1			
Nominal Current	In=5A		In=40A	
Starting Current	0,02A		0,08A	
Minimum Current	0,25A		0,8A	
Transfer Current	0,5A		2A	
Highest Current	32A		80A	
Burden (Input Load)	0,5 VA			
Surge Voltage Test	4kV 1.2/50 ms IEC 1000-4-5			
Burst Test	4kV IEC 61000-4-4			
<b>SUPPLY</b>				
Operating Voltage	230 VAC - 20%+15%			
Operating Frequency	50/60 Hz			
Power Consumption	<2W			
<b>INPUT/OUTPUT STRUCTURE</b>				
Pulse Output	-	1000Imp./kWh	-	1000Imp./kWh
Pulse Width	-	Ti=20ms.	-	Ti=20ms.
<b>AMBIENT CONDITIONS</b>				
Operating Temperature	-25 / +55°C			
Over Voltage Category	III			
Pollution Degree	II			
Type	Indoor			
Ambient Humidity	90%			
<b>STANDARDS</b>				
Applied Standards	EN 62052-11, EN 62053-21			
Applied Certificates	MID measurement certificate			
<b>CONNECTIONS</b>				
Mounting	Rail Mounting DIN En50022			
Connection Terminals	Screw type			
<b>COMMUNICATION</b>				
Communication Interface/ Protocol	RS-485 / MODBUS RTU	-	RS-485 / MODBUS RTU	-



## HEADQUARTERS

Address: Dudullu OSB; 1. Cadde; No: 23 34776 Ümraniye - İSTANBUL / TÜRKİYE Tel: +90 216 313 01 10 Fax: +90 216 314 16 15 Sales Fax: +90 216 365 71 71  
E-mail: [impex@entes.com.tr](mailto:impex@entes.com.tr) Web: [www.entes.com.tr](http://www.entes.com.tr) E-bulletin membership: [ebulten@entes.com.tr](mailto:ebulten@entes.com.tr) Coordinates: 40,995852 N, 29,178398 E

## INTERNATIONAL BRANCH OFFICES

İSTANBUL : [impex@entes.com.tr](mailto:impex@entes.com.tr) Tel: +90 216 313 01 10 Fax: +90 216 314 16 15  
NETHERLANDS : [info@entes.eu](mailto:info@entes.eu) Tel: +31 412 - 644319  
GREECE : [infohellas@entes.eu](mailto:infohellas@entes.eu) Tel: +30 2310 706999 +30 2310 707296  
GERMANY : [info@enteselektronik.com](mailto:info@enteselektronik.com) Tel: +49(0) 7022-931992-0

© ENTES Elektronik Cihazlar İmalat ve Ticaret A.Ş.

