

BAYLAN

ELECTRICITY METERS



BT.11

Three Phase Active Electronic Electricity Meter User Manual

BAYLAN ÖLÇÜ ALETLERİ SAN. ve TİC. LTD. ŞTİ.

Headquarters: A.O.S.B. 10032 Sk. No:16 Cigli - IZMIR / TURKEY
Production: A.O.S.B. 10053 Sk. No: 6 Cigli - IZMIR / TURKEY
Tel: +90(232) 497 97 00 • Fax: +90(232) 497 97 51 - 497 97 52 - 497 97 53
e-mail: info@baylanelektrik.com • web: www.baylanelektrik.com

IMPORTANT POINTS AND SAFETY

- Wiring the meter up to the network must be done by the person who has knowledge about both technical and safety warnings.
- The meter parts which are carrying voltage must not be touched for any reasons, electricity must be cut off while both wiring on and wiring off to the network.
- The outer surface of the meter must not be cleaned with cleaning agents containing abrasives.
- The suitability of the meter type to be installed should be checked by authorised personnel. Otherwise, your meter will be damaged due to incorrect meter selection and connection. The meters in this case are out of guarantee.
- Calibration and programming of the meter are done during manufacturing. Marketing is provided after each meter quality check. There is no maintenance or programming that the user can do.
- BAYLAN Electronic Electricity Meters is a superior technology product in compliance with world standards. All technical information and documents are in the company's own Intellectual properties and copyright's.

TECHNICAL SPECIFICATIONS

Model Name	BT.10
Meter Type	3-Phase, 4-Wire
Accuracy Class	B
Connection Type	Direct
Nominal Voltage (Un)	3x230/400 V
Operating Voltage Range	0,8 Un and 1,15Un
Reference Frequency	50 Hz ±%5
Starting Current (Ist)	20mA (0,04.Itr)
Minimum Current (Imin)	0,25 A
Transitional Current (Itr)	0,5 A
Nominal Current (In)	5 A
Maximum Current (Imax)	100 A
IP Rating	IP54 (Outside)
Protective Class	Two (2)
Humidity Ratio	Max. %95
Operating Temperature	-40 °C, +70 °C (3K7)
Mechanical Environment Class	M1
Electromagnetic Environment Class	E2
Voltage Circuit Power Consumption	< 2W, 10 VA
Current Circuit Power Consumption	< 4 VA
Electrostatic Discharges	Contact discharge 8kV, air discharge 15kV
Impulse Voltage	6 kV
Meter Constant	1000 imp/kWh
LCD Display	6+3
Communication	Optical 300-19200 Baud (EN 62056-21)
Battery Life	≥ 10 year / 4 year
RTC Accuracy	< 0,5sec/day (EN 62054-21)
Standards	EN 50470-1, EN 50470-3

GENERAL FEATURES

- Eight different time zones can be set during the day and saved in one of four different tariffs. It is possible to create different time zones and different tariffs for 4 different day types (weekdays, saturday, sunday and public holidays).
- Automatic daylight save implementation.
- Tariff informations, meter date and time, daylight saving time can be changed by authorized personnel.
- If the top cover is opened, it records the opening date and time.
- If the terminal cover is opened, it records the first opening date for each month and the total number of openings in that month. The last 12 months are stored in memory.
- In the case of magnetic tampering, it records the start and end times.
- The meter records the consumed energy for each tariff in the last 12 months, the maximum demand in the last 12 months and the date and time of the demand.
- Meter can record 8 channel load profile for period of 15 minutes for last 180 days. (Optional)
- The meter records the last 10 of voltage connection faults and current connection faults.
- The meter records the start and end dates of the last 99 of short and long power cuts.

READING THE INFORMATION ON THE METER

- When the meter is powered, the main informations of the meter displayed sequentially with 5 second periods. By pressing the button, the next information can be switched quickly. If the button is pressed for 5 seconds, the meter screen switches to the sub menu. Waits for the button to be pressed again to display the next information. If the button is not pressed for 30 seconds or the button pressed for 5 seconds, meter display returns to the main menu.
- When during power cuts, it is necessary to press the button to see the information on the screen. Each press displays the next information.
- All the datas that the meter records and the datas which display on LCD can be read from the meter with the communication interfaces. When during power cuts, the button must be pressed to wake up the meter to read.



- ⌚ RTC Error
- 🔒 If the top cover is opened, it will flash on the screen and it will not be lost under any circumstances.
- 🔒 If the terminal cover is open, it will be displayed continuously on the screen. If it is flashing, it indicates that the terminal cover has already been switched on and off.
- 📶 Blinks during magnetic intervention. Continuous display on the screen indicates that a magnetic interference has been made before.
- 🔋 Low battery.
- 🔋 RTC battery low.
- 📶 It is visible during communication.
- T1 T2 T3 T4 Indicates the tariff slice.
- T8 The display shows which tariff consumption information is available.
- L1 L2 L3 It shows the energized phases and current directions.
- P Indicates that information about the demand is displayed.
- HzVakWh Units

LCD INFORMATION

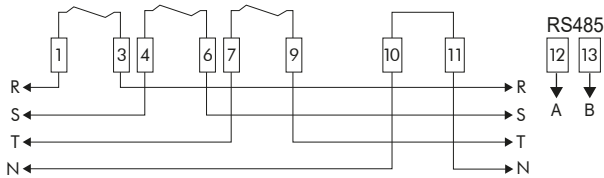
Main menu	Obis code	Unit
Date information	0.9.2	day:month:year
Time information	0.9.1	hour:minute:second
Total energy consumption	1.8.0	kWh
Energy consumption during 1st Tariff	1.8.1	kWh
Energy consumption during 2nd Tariff	1.8.2	kWh
Energy consumption during 3rd Tariff	1.8.3	kWh
SPECIAL Energy consumption in the 4th Tariff *	1.8.4	kWh
Max. demand information	1.6.0	kW
Max. demand date information	1.6.0	day:month:year
Max. demand time information	1.6.0	hour:minute

LCD INFORMATION

Information	Obis code	Unit
Serial no	0.0.0	
Program version	0.2.0	
Top cover opening date	96.70	day:month:year
Top cover opening time	96.70	hour:minute
Terminal cover opening date	96.71	day:month:year
Terminal cover opening time	96.71	hour:minute
Instant voltage of the first phase	32.7.0	V
Instant voltage of the second phase	52.7.0	V
Instant voltage of the third phase	72.7.0	V
Instant current of the first phase	31.7.0	A
Instant current of the second phase	51.7.0	A
Instant current of the third phase	71.7.0	A
Instant Frequency	14.7.0	Hz
Instant Active Power	16.7.0	kW

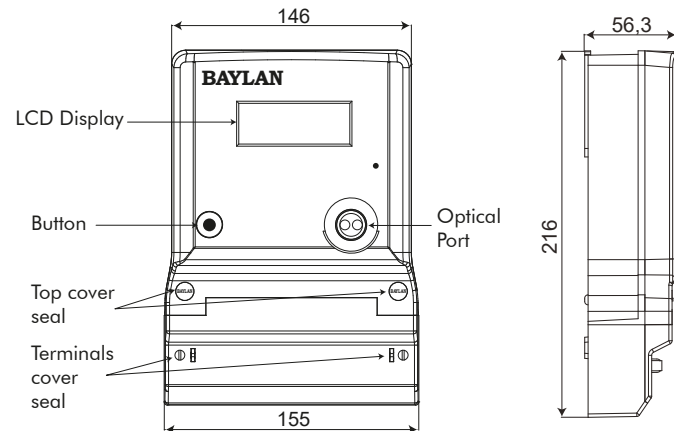
WIRING DIAGRAM:

The inner diameter of the phase and neutral terminals of the BT.11 is 7,5 mm.



INSTALLATION INSTRUCTION:

1. Energy must be cut off when assembling and disassembling the meter.
2. Phase connection and neutral connection must be done according to the connections diagram. (When making connections, it is necessary to make sure that the ends of the cables are properly opened, the screws in the connection terminals are tight enough so that they do not damage the conductors, and there is no faulty connection).
3. Make sure that the meter terminal cover closes without tension.
4. Meter starts working only when installed and energized, thus the screen starts displaying informations.
5. If L1L2L3 symbols are flashing on the display, there is a phase sequence fault in the connections.
6. If lock symbol 2 appears on the display, the terminal cover is not installed correctly.



BAYLAN



EU DECLARATION OF CONFORMITY

Manufacturer Name : Baylan Ölçü Aletleri San. Tic. Ltd. Şti.
 Address : A.O.S.B. 10032 Sk. No:18 Cigli-İZMİR - TÜRKİYE
 Phone : +90 232 497 97 00
 Web : www.baylanwatermeters.com

We declare that the production at under mentioned meets MID directive requirements as determined with EU type approval certificate and we also declare to give this declaration to our customer for each production conformity

EU Type Approval Notified Body Number : 1783
 EU Type Approval Notified Body Name : Türk Standartları Enstitüsü
 EU Type Approval Number : 1783-MID-037
 Module D Approval Notified Body Number : 1783
 Module D Approval Notified Body Name : Türk Standartları Enstitüsü
 Module D Approval Number : 1783-MID-034

Type or Model Name : BT.10,BT.11 Three-Phase Active Electronic Electricity Meter

to which this declaration relates is in conformity with the following standard(s) other normative document(s) following the provisions of

Directive Number : 2014/32/EU
 Directive Name : Measuring Instruments Directive
 Related Standard(s) : EN ISO 50470-1 : 2006
 EN ISO 50470-3 : 2006
 OIML R46-1:2012
 OIML R46-2:2012
 WELMEC Guide 8.4

Place	Date of declaration	Name and signature or equivalent marking of authorized person
İZMİR / TURKEY	04.07.2018	 İbrahim BAYLAN General Manager
MF.918/1	Revizyon Tarihi: 25.08.2017	Sayfa:1/1

WARRANTY CONDITIONS

- 1) Warranty period starts after delivery date of the product, and valid for 5 years.
- 2) Products and all spare parts are under the guarantee of our company.
- 3) In case the meter is defective, the consumer shall be deemed to have the right to inspect the goods within the scope of Article 11 of the Act on the Protection of Consumer No 6502;
 - a- Withdraw the contract
 - b- Request reduction from sales price
 - c- Request free repair
 - d- Right to request that the sold product be replaced with a defective duplicate.
- 4) If the consumer chooses the right of free repair from these rights; the manufacturer must bear the cost of labour, the cost of replacing parts without any charge to the make repair. The consumer can also use the free repair right against the manufacturer. The seller and producer are jointly responsible for using this right of the consumer.
- 5) In case the customer uses the right for free repair;
 - * Another failure during warranty period
 - * Exceeding the target time to get repair;
 - * If repairs are not possible, by a report by an authorized service station, dealer, manufacturer or importer. Consumer may request to replace the meter with the one which freed from defects, discount the price regarding the defect ratio or refund the meter price from the seller. The seller can not refuse the consumer's request. If this request is not fulfilled, the seller and producer are jointly liable.
- 6) The repair period of the goods can not exceed 20 business days. This period starts from the delivery date of the goods to the authorized service station on the date of notification to the authorized service station or vendor within the warranty period, and to the authorized service station if the goods are out of guarantee period. If the malfunction can not be fixed within 10 working days, until the completion of the repair of the goods, has to allocate another product with similar characteristics to the use of customer. In case of malfunction within the warranty period, the period of repair will be added to the warranty period.
- 7) Defects arising from unauthorized use of the goods are not covered by the guarantee.

- 8) The consumer may apply to the Consumer Arbitration court or the Consumer Court where the settlement is located or where the consumer transaction is made during the disputes that may arise in connection with the exercise of the rights arising from the guarantee.
- 9) In case of Warranty Certificate is not issued by the seller, the consumer may apply to the General Directorate of Protection of the Consumer and the Market Surveillance of the Ministry of Customs and Trade.

NOTICE

This guarantee which is provided by Baylan Ölçü Aletleri San. ve. Tic. Ltd Şti. does not cover the remedies that may arise from normal or unintended use of the device as well as,

- 1- Damages and failures due to misuse,
- 2- Damages and failures occurring, after delivery to the user, during transportation, loading and unloading,
- 3- Failure to make the installation according to the installation and operating instructions and faulty connections,
- 4- Products for which the warranty label is torn or seals are broken,
- 5- Fire, lightning, flood and earthquake (natural disasters), malfunctions and damages due to improper environment and accidents,
- 6- In the event of unauthorized intervention of the device for repairing,
- 7- In case of the warranty label is damaged.

The repair cost is charged to customer. The warranty is valid only for the product failure within warranty period specified below. Warranty is invalid; when the original serial number on the device is removed, destroyed or tampered with, or warranty certificate is damaged

BAYLAN
WARRANTY CERTIFICATE

1783

MANUFACTURER COMPANY	SELLER COMPANY
Brand : BAYLAN ÖLÇÜ ALETLERİ San. ve Tic. Ltd. Şti.	Brand : BAYLAN ÖLÇÜ ALETLERİ San. ve Tic. Ltd. Şti.
Address : A.O.S.B. 10032 Sk. No:6 Cigli-İZMİR	Address : A.O.S.B. 10032 Sk. No:6 Cigli-İZMİR
Tel : 0.232.4979700	Tel : 0.232.4979700
Fax : 0.232.4979751	Fax : 0.232.4979751
E-mail : info@baylanelektrik.com	E-mail : info@baylanelektrik.com
Date :	Invoice Date and No :
Signature :	Date :
Stamp :	Signature :
Stamp :	Stamp :

PRODUCT	WARRANTY PERIOD
Type : Electronic Electricity Meter	Warranty Period : 5 Years
Brand : BAYLAN	Max. Time to Repair : 20 day
Model : BT.11	Serial No :

The use of this document was authorized by Republic Of Turkey Ministry of Customs and Trade, Directorate General of Consumer Protection and Market Surveillance according to The Law on Consumer Protection No. 4077, and Application of the Guarantee Certificate communicate based on this law. It is valid for all models in production.

* The serial number will be the same as the number written on the meter and will be filled by the vendor.