المواصفات السعودية
Saudi Standards
SASO
الهيئة السعودية للمواصفات والمقاييس والجودة
Saudi Standards, Metrology and Quality Org.

شهادة اعتماد الطراز الوطنية
National Type Approval Certificate

NO: TAFD2509104 رقم:

تشهد الهيئة السعودية للمواصفات والمقاييس والجودة بأنه تم منح شهادة اعتماد طراز حسب البيانات التالية:

The Saudi Standards, Metrology and Quality Organization (SASO) certifies the Type Approval Certificate is granted according to the following:

Applicant:	شركة عبور الشاهين التجارية	طالب الخدمة:
Technical Requirements / Standard References:	SASO OIML R 117: 2007	المتطلبات الفنية / المراجع القياسية:

بيانات أداة القياس
Measuring instrument Information

Measuring Instrument:	مضخة وقود	أداة القياس:
Manufacturer Name:	WENZHOU ECOTEC ENERGY EQUIPMENT CO.,LTD	اسم الشركة المصنعة:
Manufacturer Address:	CO.,LTD 1901 Digital Mansion Xincheng Avenue Lucheng Wenzhou	عنوان المصنع:
Trade Mark:	الشاهين	العلامة التجارية:
Type:	ET-F244	الطراز:

تاريخ الشهادة: Issuing Date	24/08/2025	تاريخ الانتهاء: Expiry Date	23/08/2030

تم اعتماد طراز هذا المنتج بناءً على التقارير المقدمة من قِبل المستورد/المصنّع.
This measuring instrument is type approved based on the reports provided by the importer/manufacturer.

لا تستعمل هذه الشهادة الا مع هذا المنتج فقط دون أدنى مسؤولية على الهيئة في ذلك.
This certificate is used only for this product without any responsibility on the side of SASO toward other rights.

رئيس لجنة اعتماد الطراز
Head of Type Approval Committee

الدكتور/ إسماعيل عبدالله الفالح
Dr. Ismail A. Alfaleh

Technical Report

1- References:

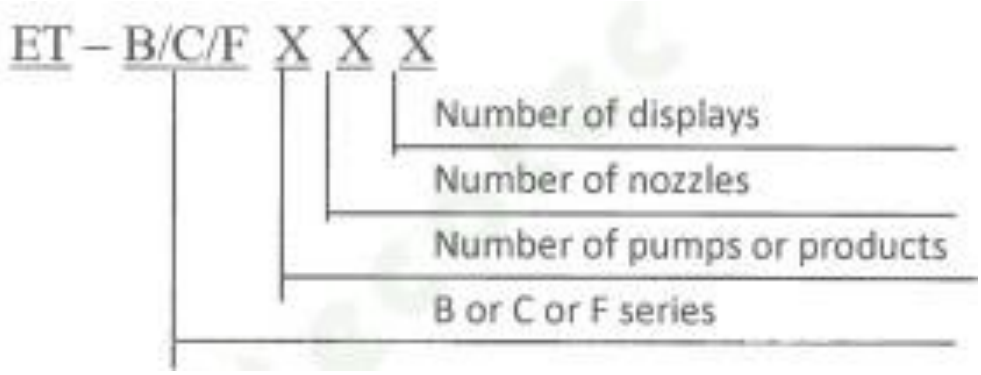
- OIML Type Evaluation Report No.0511-ER-F045-23 dated 07 May 2025 by Czech Metrology Institute (CMI) for Wenzhou Ecotec Energy Equipment CO.,LTD
- OIML Certificate No. R117/2019-A-CZ1-25.01 issued under SCHEME A dated 13 May 2025 by Czech Metrology Institute (CMI) for Wenzhou Ecotec Energy Equipment CO.,LTD.

2- Name and type of the instrument:

Fuel dispenser manufactured by Wenzhou Ecotec Energy Equipment CO.LTD.
Type: ET-F244
An interruptible measuring system for liquids other than water, class: 0,5

3- Description of the type:

The ET-B, ET-C and ET-F fuel dispensers are designed for measurement of liquid fuel volumes and are used for the refueling of motor vehicles, small boats and small aircrafts.
The type ET-B, ET-C and ET-F is followed by 3 digits stating the number of fuel types, screens, and hoses. Such as ET-F244.



4- Technical and metrological characteristics:

The technical and metrological characteristics of these road measuring systems are as follows:

4.1 Components

Measuring sensor	FM01
Pulsar	P2
Calculating / Indicating device	WB
Hose	XFY Fuel dispenser rubber hose /HG/T3037-2008/3/M/19/1.6 ID $\frac{3}{4}$ "and 1" ; maximum length 4.5 m

4.2 Basic technical and metrological data

Pattern designation	ET series
Max. flow rate Qmax [L/min]	50
Min. flow rate Qmin [L/min]	5
Min. measured quantity MMQ [L]	5
Accuracy class	0.5
Liquids	Gasoline, Diesel, Kerosene
Liquid temperature range [°c]	-5 to 35
Ambient temperature range [°c]	-25 to +55
Maximum pressure [MPa]	0.30
Minimum pressure [Mpa]	0.12
Environmental classes	MI, EI, H3

Measurement unit	Volume [L]
Type of display:	Electronic
Scale interval of the indication [L]	0.01
Approved software versions	Main board software version: MV302_6_1 Key board software version: 17305
checksum (CRC)	A6D5

4.3 Calculator:

WB calculator can control up to eight measuring systems (nozzles). Up to four nozzles can be controlled Simultaneously.

The calculator is equipped with an internal keyboard that is used to control the dispenser and for pre-set of volume or price. It is optionally equipped with a mechanical (9 digits) or electromagnetic totalizing counters (7 digits) for each system. They are resettable using the SEALED SWITCH on the main board.





Manufacturer	Wenzhou Ecotec Energy Equipment CO.,LTD
Pattern designation	WB
Accuracy class	0.5
Ambient temperature range	(-25 to +55) °C
Environmental classes	M1, E1, H3
Power supply	220 VAC ± 20%, 50 Hz

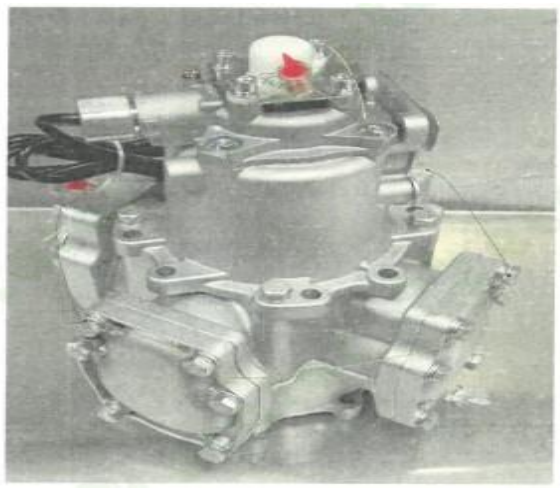
Indicating device	Electronic LCD display
Price and volume display	6 digits
Unit price display	4 digits
Compatible pulser	two-channel
Maximum number of nozzles	8
Software version and check sum	Main board software version: MV302 6_1
	Key board software version : 17316
	CRC: A6D5

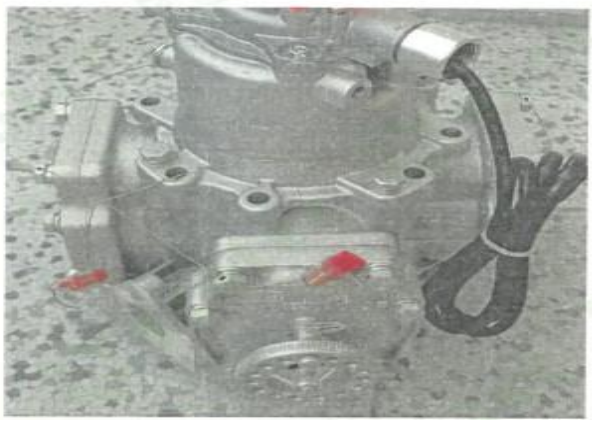
4.4 Measurement Transducer:

FM4B is a measuring transducer consists of the positive displacement measuring sensor based on four piston principles and two channel CK-10 pulse transmitters (pulsar).

The pulsar is fixed on the top of the sensor. It converts rotational movement of the measuring sensor shaft to the electronic pulses. One revolution corresponds to 2 X 100 pulses.

The transducer is equipped with a mechanical adjustment device. The adjustment by means of the adjustment screw is discontinuous with step approximately 0.04%. Location of the adjustment wheel is protected by a pin.





Manufacturer	Wenzhou Ecotec Energy Equipment CO.,LTD
Pattern designation	FM01
Accuracy class	0.5
Principle of operation	Positive displacement – four pistons
Max, flow rate Qmax	50 L/min
Min, flow rate Qmin	5 L/min
Minimum measured quantity MMQ	5L
Liquid temperature range	(-5 to 35) °C
Liquids to be measured	Gasoline, diesel, kerosene
Cyclic Volume	0.5 L
Pulse transmitter	P2, (2x 100 pulses / revolution)

4.5 Pumping unit with gas separator:

In case of suction dispenser with integrated pump, a gas separator is to be installed upstream of the measuring sensor. The gas separator is an integral part of the pumping unit CPT5 of the manufacturing Wenzhou Realtech Petroleum Equipment Co.,Ltd.

5-Software:

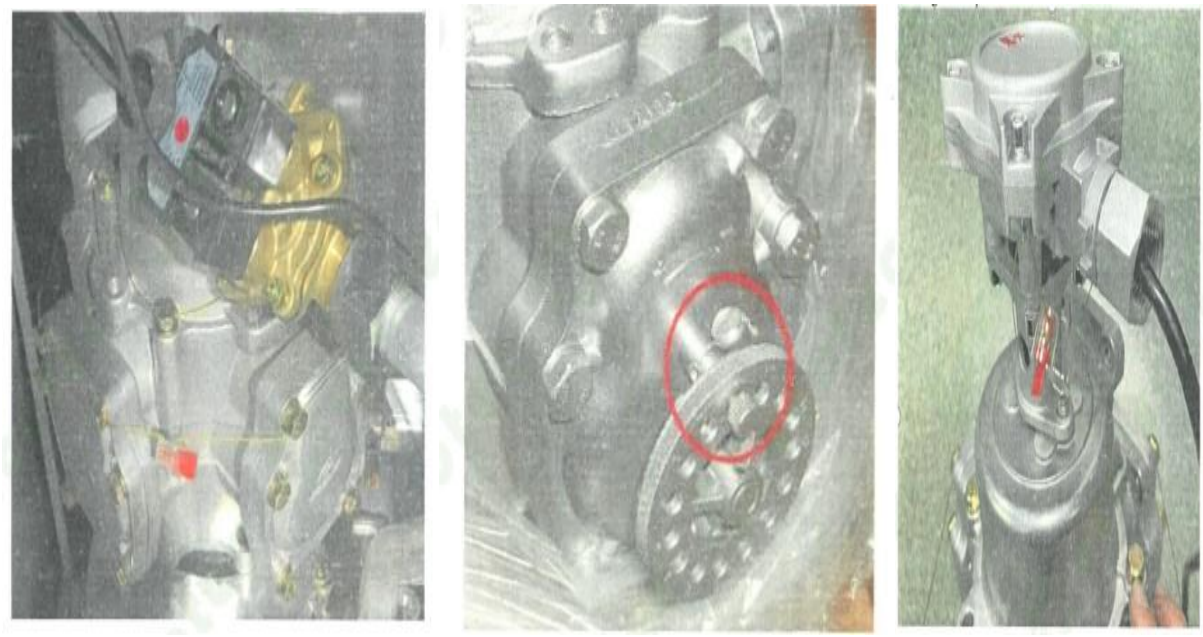
-The main board software version: MV302_6_1.

-The Keyboard software version: 17305

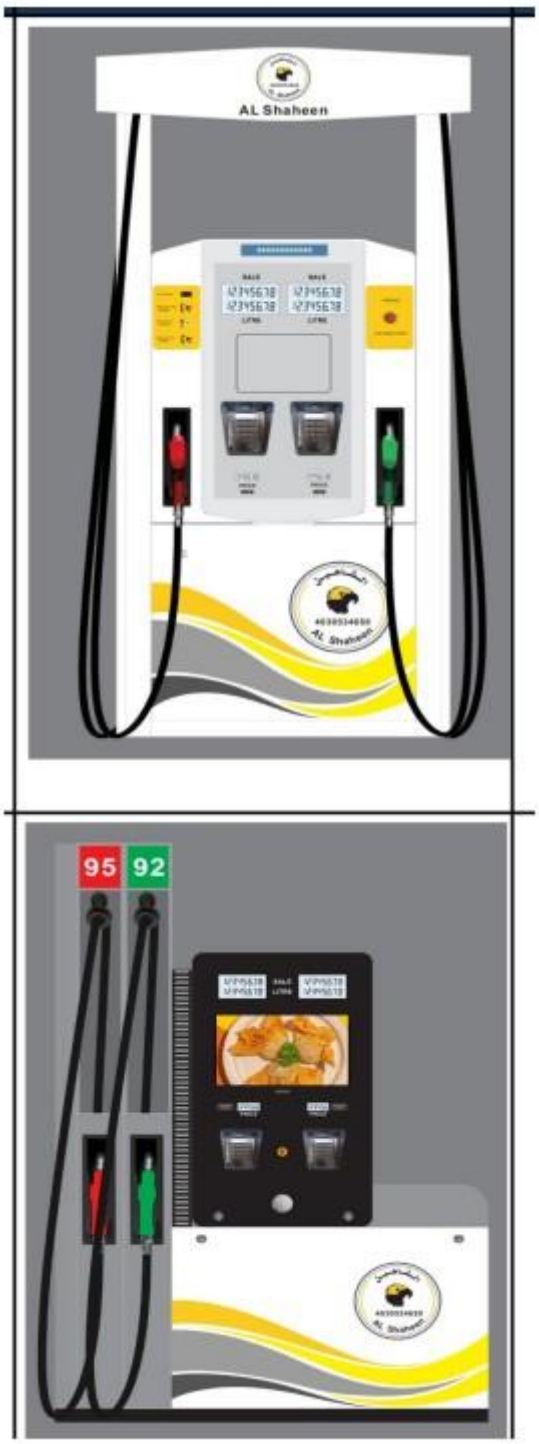
6-Places of sealing

On FM01 measuring transducer:

A. Connection of all four piston covers with sensor body.
B. Connection of upper cover with sensor body.
C. Connection of the pulsar with upper cover.

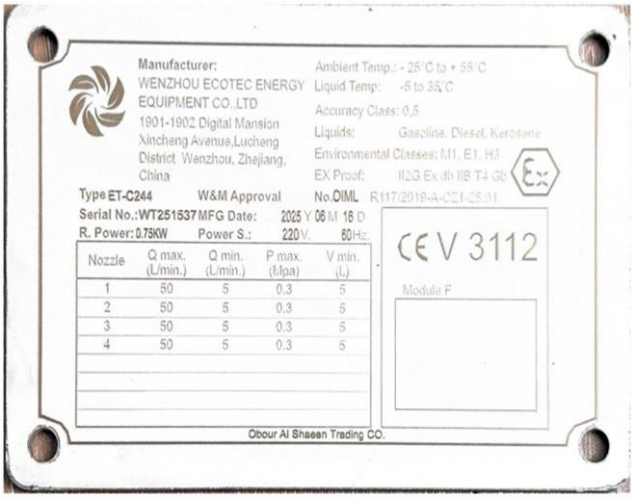


7- Shape of the dispenser:



8- Identification plate:

The identification plate must be attached to the body of the instrument. It must include the following:



1. Manufacturer's name, mark or trademark
2. Model
3. Serial number
4. Accuracy class
5. Maximum flow rate (Qmax)
6. Minimum flow rate (Qmin)
7. Minimum measured quantity (MMQ)
8. Ambient temperature range
9. Voltage
10. Frequency
11. Manufacturing year
12. KSA Type Approval

9- Legal Metrology labeling:

- The information posted on the fuel dispenser must be in either Arabic or English.
- The currency shown must be in SAR.
- The initial verification mark should be placed outside the instrument.

All properties of the fuel dispenser, whether mentioned or not, shall not be in conflict with the legislation.