



## Gravity unloading flow meter T-80

# NEW VERSION V1.1

**New LCD screen**

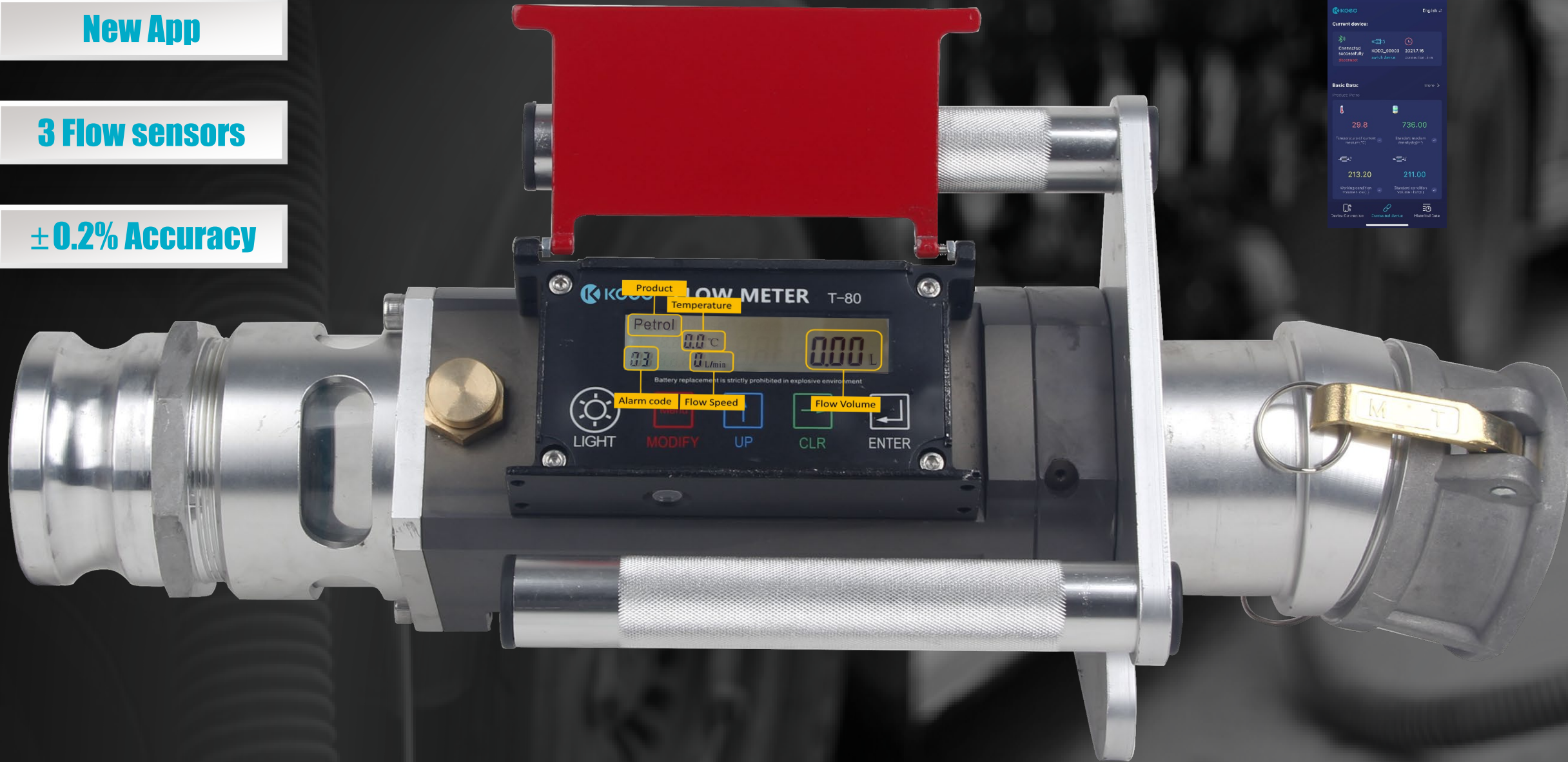
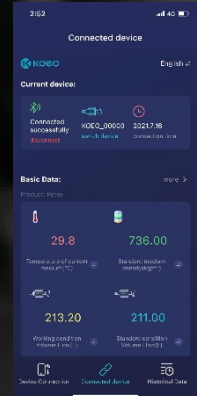
**Automatic data saving**



**New App**

**3 Flow sensors**

**±0.2% Accuracy**



### 1. High Accuracy

- 3 flow sensors, 1 temperature sensor
- $\pm 0.2\%$  accuracy
- V20 and V15 Double temperature compensation
- Patent flow measurement Calculation formula

### 2. Device calibration

- Password and Seal Lock double protection
- Calibration of Multi-points

### 3. Bluetooth and App Support

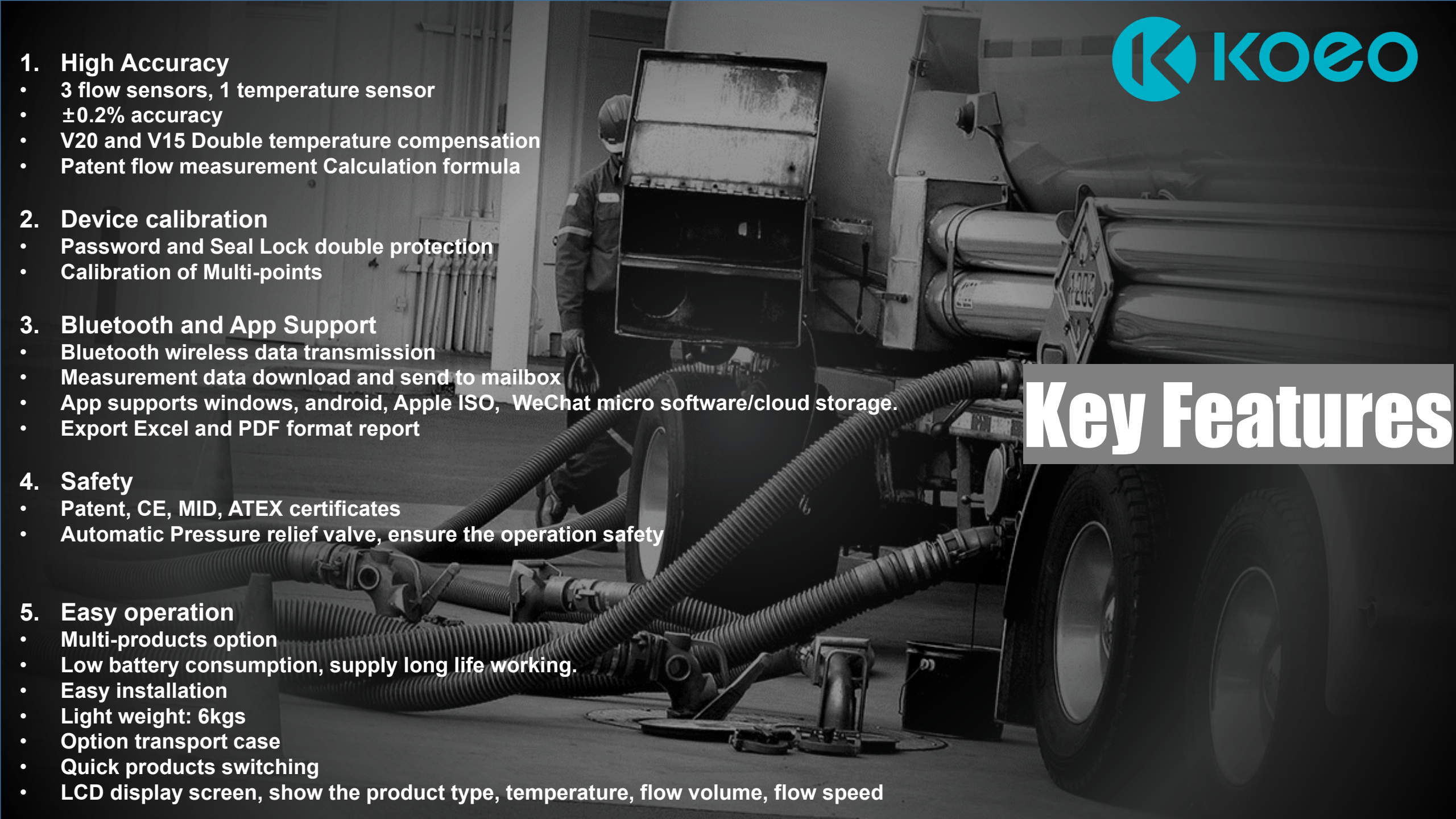
- Bluetooth wireless data transmission
- Measurement data download and send to mailbox
- App supports windows, android, Apple ISO, WeChat micro software/cloud storage.
- Export Excel and PDF format report

### 4. Safety

- Patent, CE, MID, ATEX certificates
- Automatic Pressure relief valve, ensure the operation safety

### 5. Easy operation

- Multi-products option
- Low battery consumption, supply long life working.
- Easy installation
- Light weight: 6kgs
- Option transport case
- Quick products switching
- LCD display screen, show the product type, temperature, flow volume, flow speed

A grayscale background image showing a worker in a hard hat and safety vest standing next to a large industrial vacuum truck. The truck has a large cylindrical tank and several flexible suction hoses extending from it. The worker is holding one of the hoses. The scene appears to be an industrial or construction site.

# Key Features

# 1. High Accuracy



4709731071 加油站进油核对单 000467

站名: 品种: 92号车用汽油(VIA) 日期: 离库时间: 到站时间: 卸入罐号: 02

| 提货单号       | 原发数量(kg)  | 原发视密度(kg/m3)   | 原发温度(℃) | 原发标准密度(kg/m3) | 原发体积修正系数 | 原发空高(mm) | 原发油水总高(mm) | 原发水高(mm) | 原发升数(升) | 实测空高(mm) | 罐车体积(升) |
|------------|-----------|----------------|---------|---------------|----------|----------|------------|----------|---------|----------|---------|
| 0062965483 | 5674.7994 | 737.6          | 17.5    |               |          | 315      |            |          | 7693.6  |          |         |
| 提货地点       | 验收数量(kg)  | 验收视密度(kg/m3)   | 验收温度(℃) | 验收标准密度(kg/m3) | 验收体积修正系数 | 验收空高(mm) | 验收油水总高(mm) | 验收水高(mm) | 验收升数(升) | 温差体积(升)  |         |
| 栖霞油库       |           |                |         |               |          |          |            |          |         |          |         |
| 损          | 重量(kg)    |                |         |               |          |          |            |          |         |          |         |
| 溢          | 体积(升)     |                |         |               |          |          |            |          |         |          |         |
| 承运单位       | 承运车号      | 商品质量、外观、感官验收情况 |         |               |          |          |            |          |         |          |         |

第二联 加油站联

7693.6

Volume from Origin

The products are used by Chinese top 2 Oil companies



Volume Calibrated

# 1. High Accuracy



**2 flow sensors upgraded**  
**3 flow sensors**



**Temperature sensor**  
**V15 and V20 temperature**  
**compensation.**

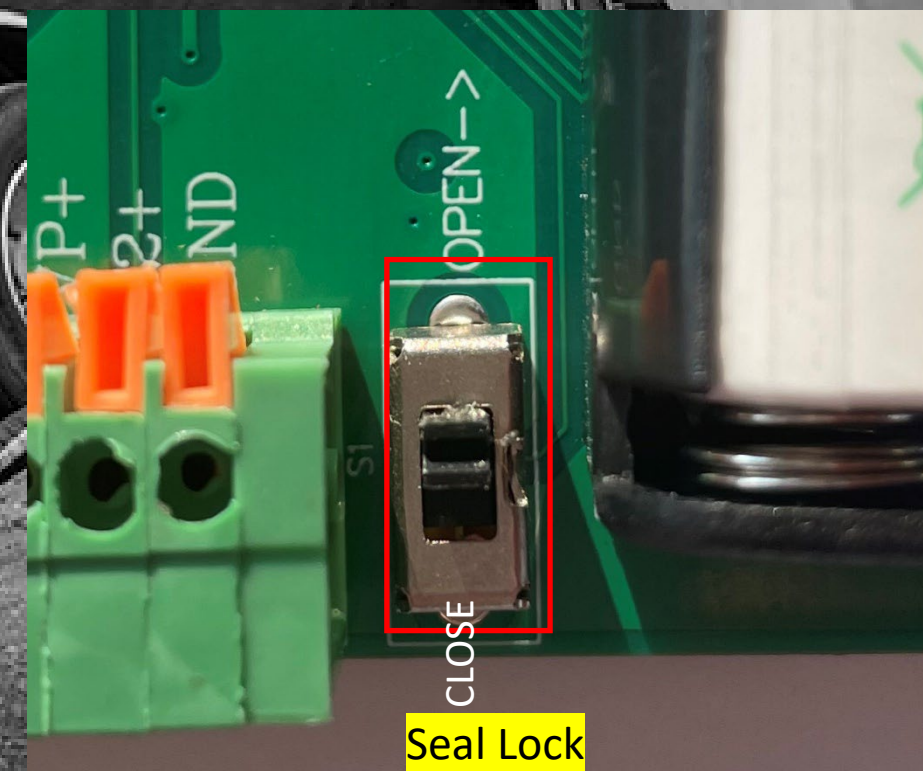
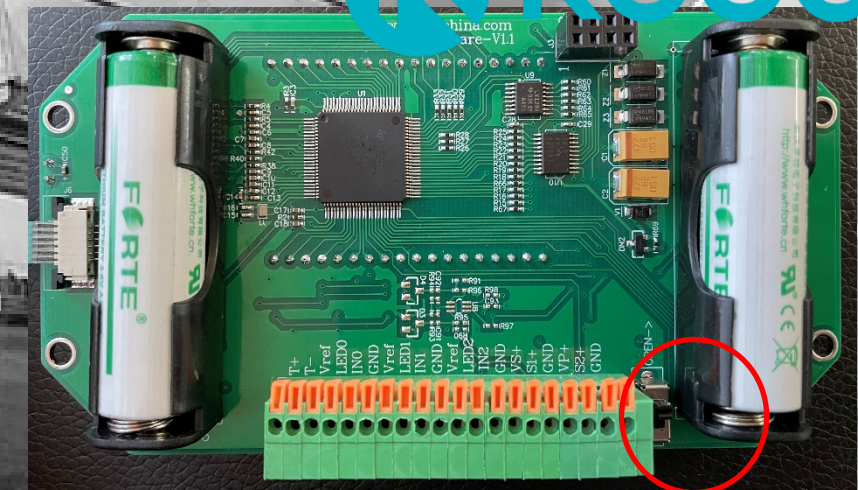


# 2. Device Calibration



| NO.   | DISPLAY CONTENT                  | REMARKS                                                                                                                                                             |
|-------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| P.300 | Password                         |                                                                                                                                                                     |
| P.301 | Compensation method              | 0: No compensation<br>1: Temperature measurement, full pipe measurement, V20 or V15 compensation, oil flow meter<br>2: Temperature measurement without compensation |
| P.302 | Temperature correction point 0.x | Set ADC measurement value of <b>1000Ω</b>                                                                                                                           |
| P.303 | Temperature correction point 0.y | <b>1000Ω</b>                                                                                                                                                        |
| P.304 | Temperature correction point 1.x | Set ADC measurement value of <b>1500Ω</b>                                                                                                                           |
| P.305 | Temperature correction point 1.y | <b>1500Ω</b>                                                                                                                                                        |
| P.306 | Clear total                      | Write 1 and confirm, clear the total                                                                                                                                |
| P.307 | Number of pulse channels         | 1: single channel<br>2: double channel                                                                                                                              |
| P.308 | Level sensor type                | 3: Three-wire level sensor<br>4: Four-wire level sensor                                                                                                             |

Password



# 2. Device Calibration



|       |                                               |             |
|-------|-----------------------------------------------|-------------|
| P.200 | User flow correction factor                   |             |
| P.201 | Discharge flow coefficient                    | Pulse/L     |
| P.202 | Correction points                             |             |
| P.203 | Correction points 1 flow                      | Unit: L/min |
| P.204 | Correction points 1 factor                    |             |
| P.205 | Correction points 2 flow                      | Unit: L/min |
| P.206 | Correction points 2 factor                    |             |
| P.207 | Correction points 3 flow                      | Unit: L/min |
| P.208 | Correction points 3 factor                    |             |
| P.209 | Correction points 4 flow                      | Unit: L/min |
| P.210 | Correction points 4 factor                    |             |
| P.211 | Correction points 5 flow                      | Unit: L/min |
| P.212 | Correction points 5 factor                    |             |
| P.213 | Correction points 6 flow                      | Unit: L/min |
| P.214 | Correction points 6 factor                    |             |
| P.215 | Correction points 7 flow                      | Unit: L/min |
| P.216 | Correction points 7 factor                    |             |
| P.217 | Correction points 8 flow                      | Unit: L/min |
| P.218 | Correction points 8 factor                    |             |
| P.219 | Correction points 9 flow                      | Unit: L/min |
| P.220 | Correction points 9 factor                    |             |
| P.221 | Correction points 10 flow                     | Unit: L/min |
| P.222 | Correction points 10 factor                   |             |
| P.223 | Temperature under standard working conditions | Unit: °C    |
| P.224 | ---                                           | ---         |
| P.225 | ---                                           | ---         |

**1** Pulse Calibration

**10** Flow Speed Calibration

**2** Temperature Calibration **V15** and **V20**

# 3. Bluetooth and App support



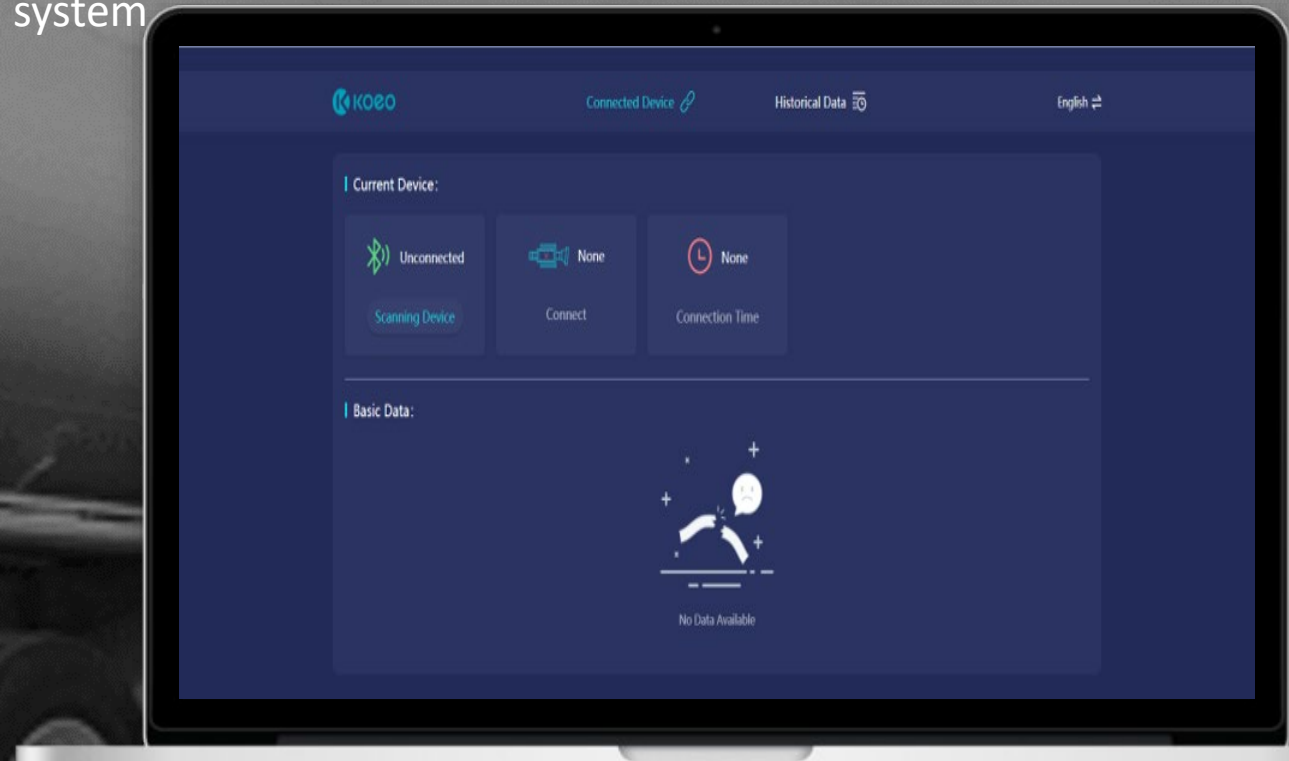
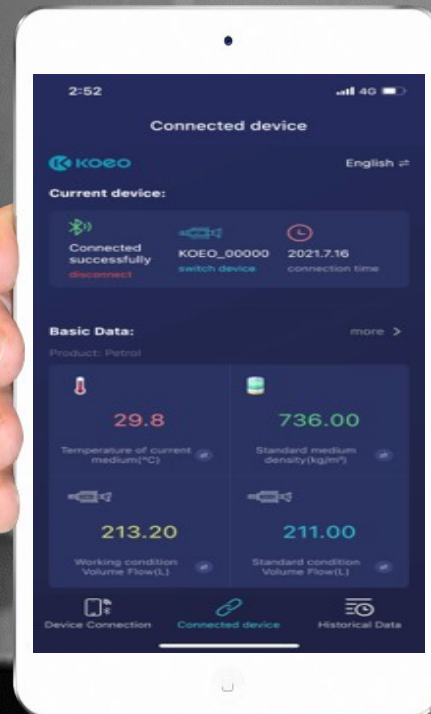
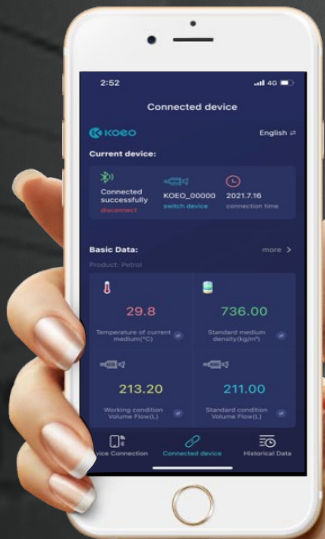
## Bluetooth

Bluetooth wireless data read and transmission

Supports Mobile, Computer, Laptop, iPad and other devices with Bluetooth connection function

Android and iSO system need APK/ APP be download.

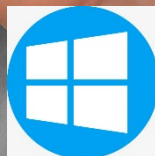
Free installation for Windows system



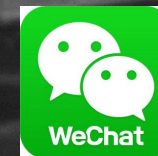
Android



IOS

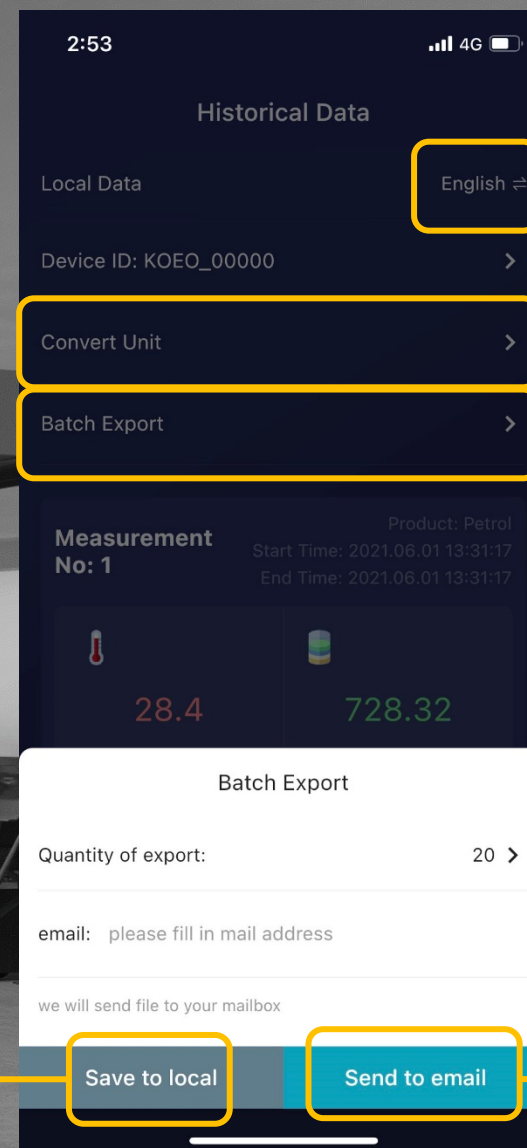
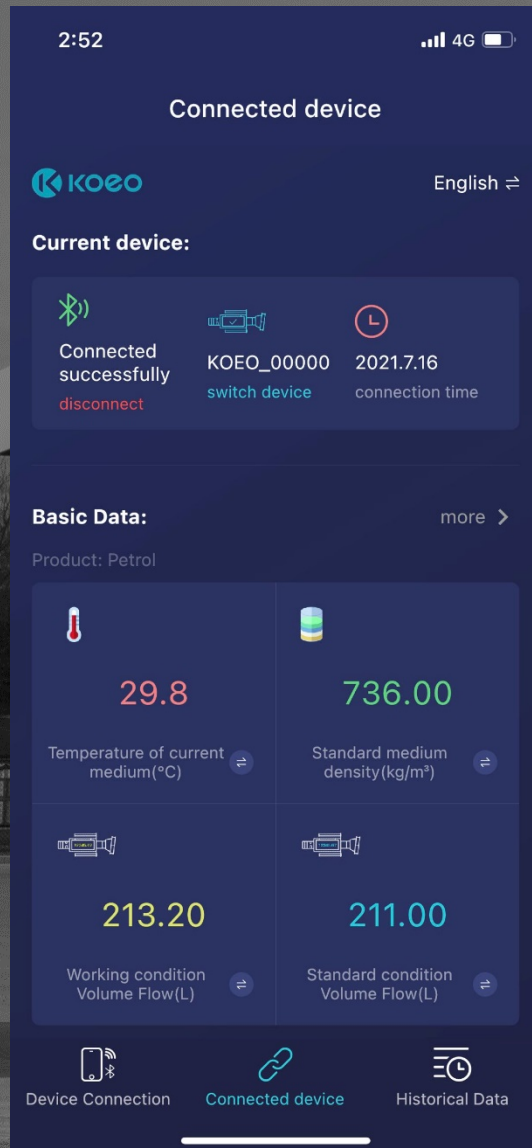


Windows



WeChat Micro software  
and cloud storage

# 3. Bluetooth and App support



Multi-language

gal/Liter/m<sup>3</sup>; °C/°F;  
lb/kg

Choose data quantity

Download to local device

Send to mailbox

# 3. Bluetooth and App support



| Measurement No | Device ID  | Start Time          | End Time            | Product | Temperature(°C) | Density(g/L) | Single accumulation of working condition(L) | Total accumulation of working condition(L) | Single accumulation of standard working condition(L) | Total accumulation of standard working condition(L) |
|----------------|------------|---------------------|---------------------|---------|-----------------|--------------|---------------------------------------------|--------------------------------------------|------------------------------------------------------|-----------------------------------------------------|
| 1              | KOEO_00000 | 2021.07.16 14:56:24 | 2021.07.16 14:57:06 | Petrol  | 28.5            | 728.19       | 229.90                                      | 12597.10                                   | 227.40                                               | 12462.40                                            |
| 2              | KOEO_00000 | 2021.07.16 14:56:23 | 2021.07.16 14:56:24 | Petrol  | 28.7            | 728.04       | 0.00                                        | 12367.20                                   | 0.00                                                 | 12235.00                                            |
| 3              | KOEO_00000 | 2021.07.16 14:55:20 | 2021.07.16 14:56:04 | Petrol  | 28.6            | 728.09       | 247.80                                      | 12367.20                                   | 245.10                                               | 12235.00                                            |
| 4              | KOEO_00000 | 2021.07.16 14:54:40 | 2021.07.16 14:55:07 | Petrol  | 29.1            | 727.63       | 303.30                                      | 12119.40                                   | 299.90                                               | 11989.90                                            |



# 4. Safety



## Patent

证书号 第5519743号



### 外观设计专利证书

外观设计名称: 流量计

设计人: 林陈

专利号: ZL 2019 3 0306327.5

专利申请日: 2019年06月14日

专利权人: 浙江科耀石油机械有限公司

地址: 325102 浙江省温州市永嘉县瓯北镇罗浮垟工业园区

授权公告日: 2019年12月17日 授权公告号: CN 305497470 S

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局长  
申长雨

申长雨



第1页 (共2页)

其他事项参见背面

شهادة - Certificat - 증명서 - 證明書 - Сертификат - Certificate

## ATEX

Form QAT\_10-M04, version 00, effective since March 25th, 2020

### Certificate of Compliance

No. 1N200708.ZKPC067



Certificate's Holder:

Zhejiang Koeo Petroleum Machinery Co., Ltd.  
No.34 Yunguang Rd, Yang'er Industrial Park, Oubei, Wenzhou City, China

Certification ECM Mark:



Product:  
Model(s):

Turbine Flowmeter  
T-80

Marking:

Ex II 2 Gc II CT6/Exia IIC T4 Gb

Verification to:

Standard:  
EN 60079-0:2018, EN 60079-11:2012,  
EN 61241-0:2004

related to CE Directive(s):  
2014/34/EU Equipment for Explosive Atmospheres (ATEX)

**Remark:** This document has been issued on a voluntary basis and upon request of the manufacturer. It is our opinion that the technical documentation received from the manufacturer is satisfactory for the requirements of the ECM Certification Mark. The conformity mark above can be affixed on the products accordingly to the ECM regulation about its release and its use.

Additional information and clarification about the Marking:



The manufacturer is responsible for the CE Marking process, and if necessary, must refer to a Notified Body. This document has been issued on the basis of the regulation on ECM Voluntary Mark for the certification of products. RG01\_ECM rev.3 available at: [www.entecerma.it](http://www.entecerma.it)

Issuance date: 16 July 2020

Expiry date: 07 July 2025

Reviewer  
Technical expert  
Amanda Payne

Approver  
ECM Service Director  
Luca Bedonni

Ente Certificazione Macchine Srl

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شهادة - Certificat - 증명서 - 證明書 - Сертификат - Certificate

## MID

Form QAT\_10-M04, version 00, effective since March 25th, 2020

### Certificate of Compliance

No. 1N200708.ZKPC068



Certificate's Holder:

Zhejiang Koeo Petroleum Machinery Co., Ltd.  
No.34 Yunguang Rd, Yang'er Industrial Park, Oubei, Wenzhou City, China

Certification ECM Mark:



Product:  
Model(s):

Turbine Flowmeter  
T-80, K-24

Verification to:

Standard:  
EN ISO 14978:2018

related to CE Directive(s):  
2014/32/EU Measuring Instruments (MID)

**Remark:** This document has been issued on a voluntary basis and upon request of the manufacturer. It is our opinion that the technical documentation received from the manufacturer is satisfactory for the requirements of the ECM Certification Mark. The conformity mark above can be affixed on the products accordingly to the ECM regulation about its release and its use.

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Issuance date: 08 July 2020

Expiry date: 07 July 2025

Reviewer  
Technical expert  
Amanda Payne

Approver  
ECM Service Director  
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Ente Certificazione Macchine Srl

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# 4. Safety



**Pressure relief valve**

**Surround sight glass**



# 5. Easy operation

Multi petroleum products



Gasoline

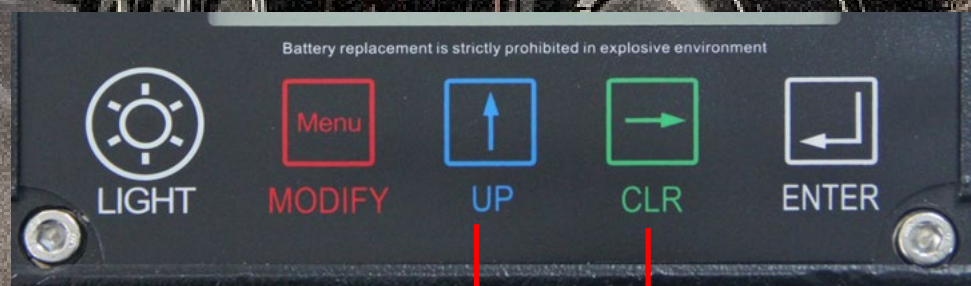
Diesel

Kerosene

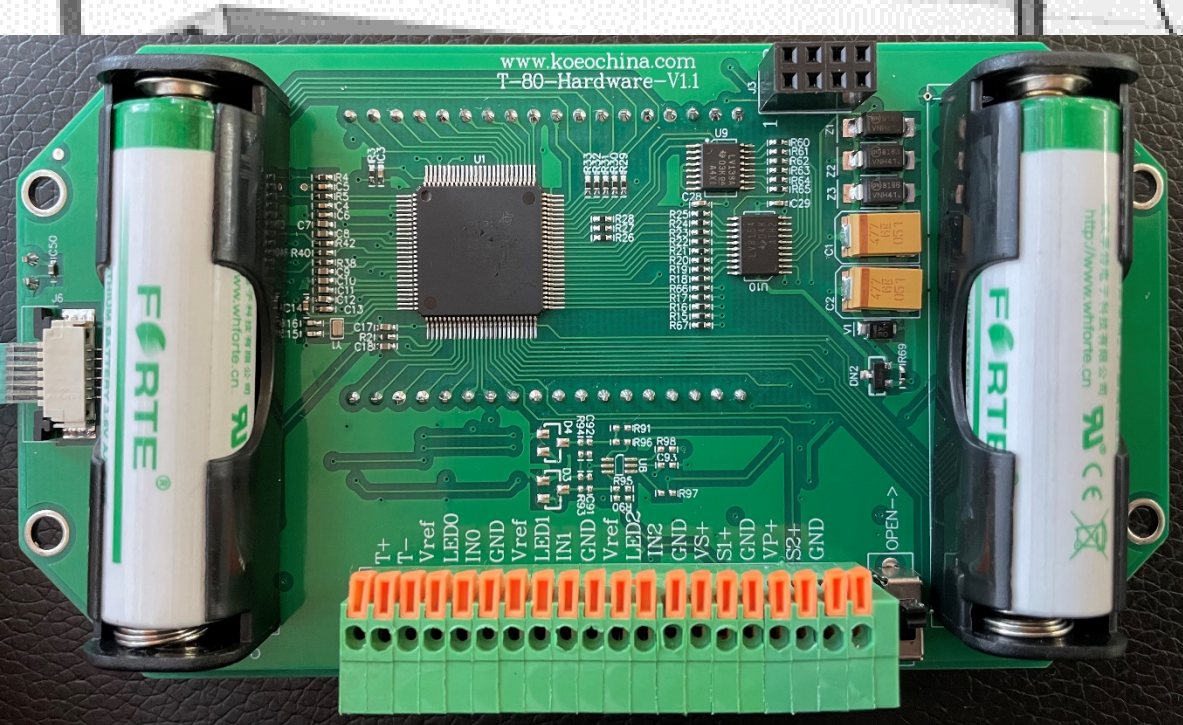
JET

Customized

Viscosity range  
 $\leq 13 \text{mm}^2/\text{s}$



# 5. Easy operation



ER14505 (AA)

Nominal capacity: 2400mAh

Nominal voltage: 3.6V

Max. Constant current: 100mA

Max. Pulse current: 200mA

Weight: 19g

Operating temperature range: -55~+85 °C

Charging Type: Non-rechargeable

Nominal Voltage: 3.6V

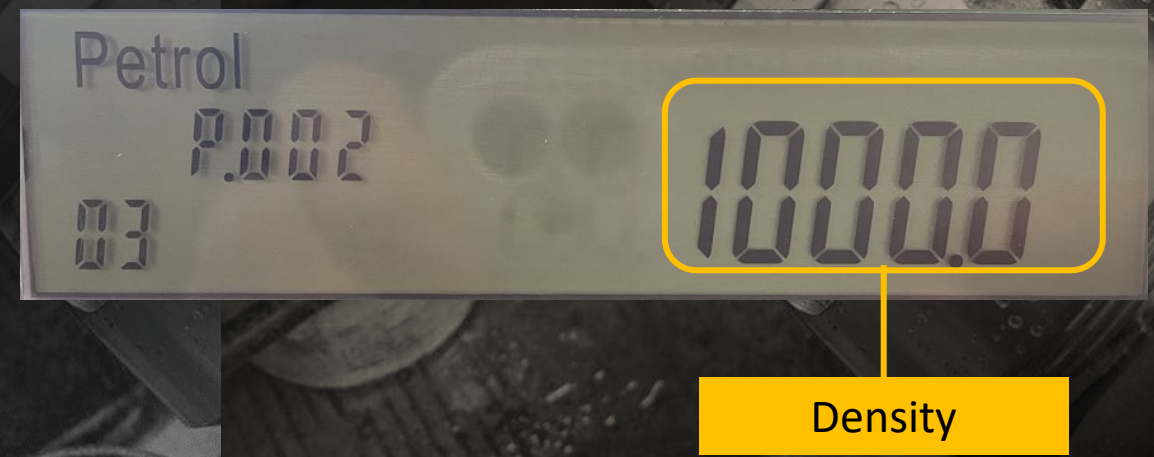
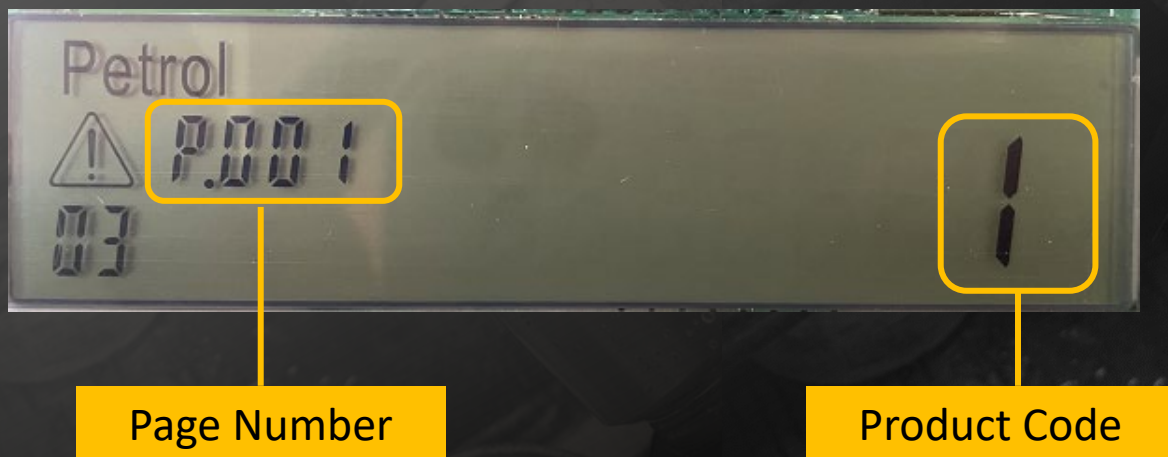
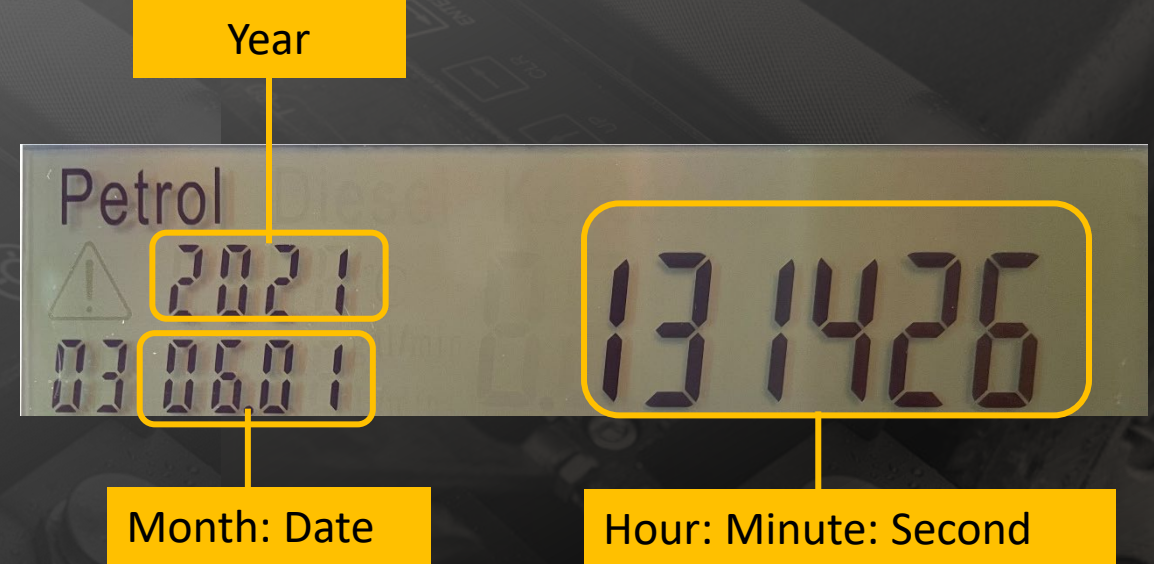
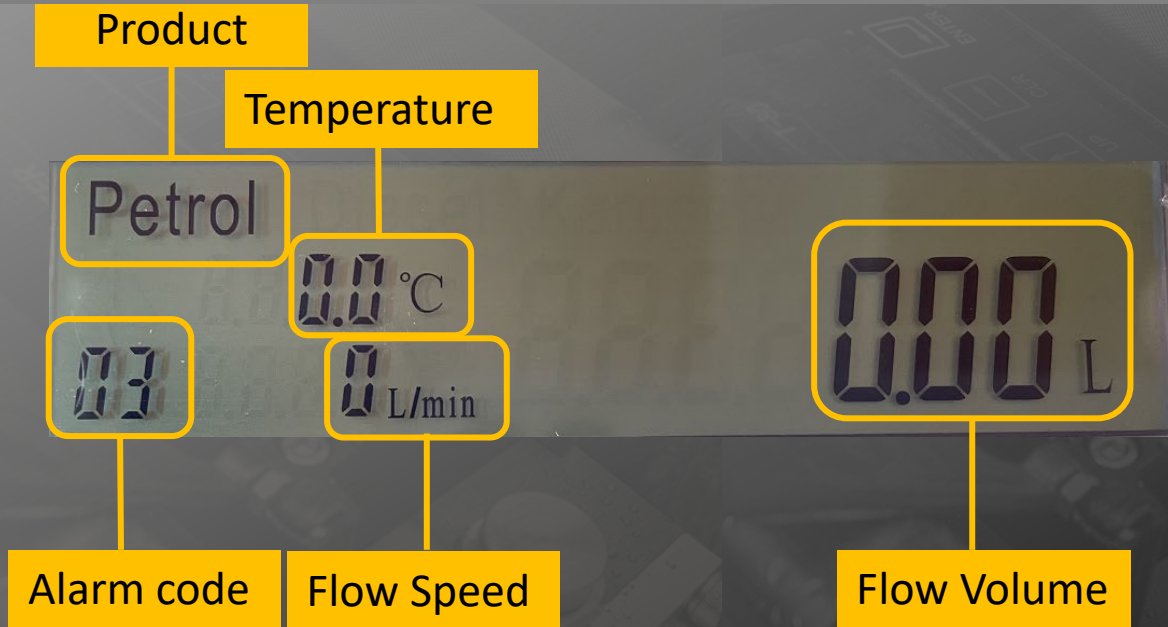
Battery Type: Li-SOCl<sub>2</sub>

Battery Recycling: Recyclable

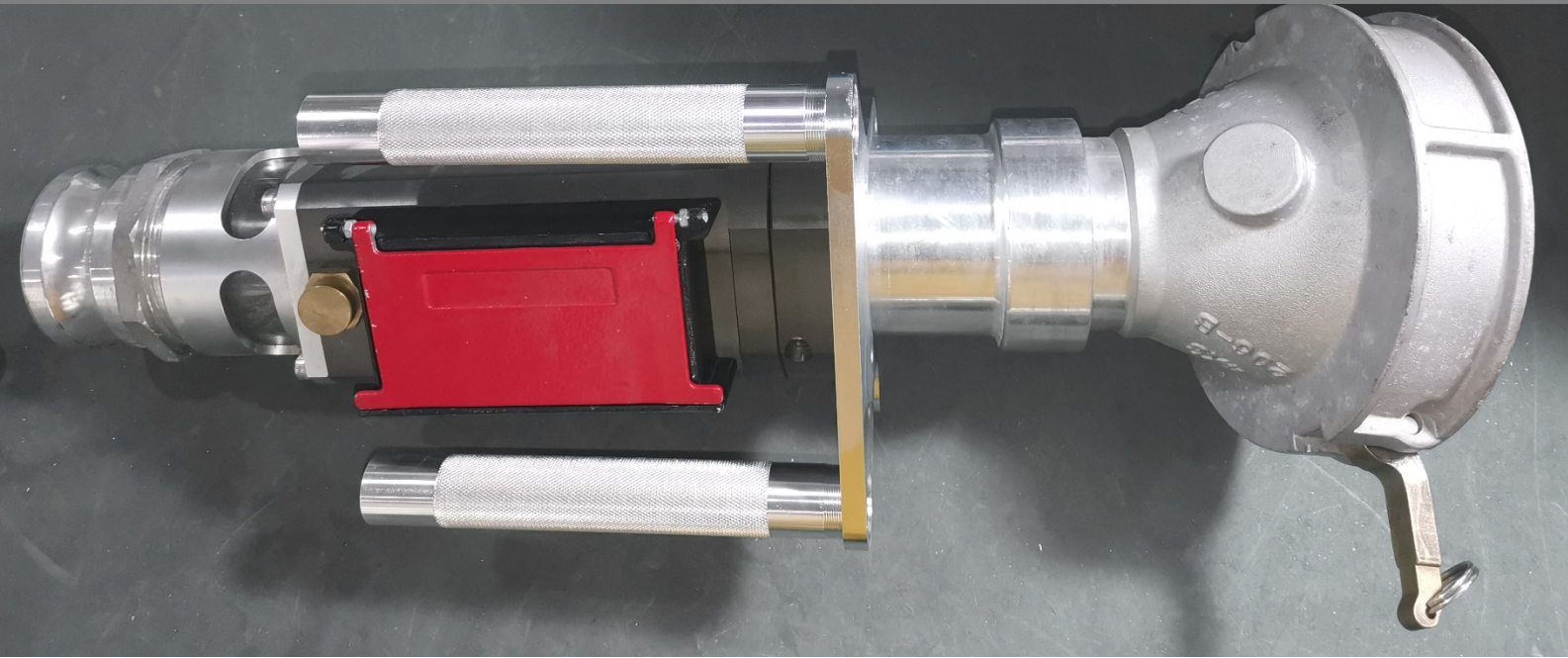
Size: AA

Certification: CE, UL, RoHS

# 5. Easy operation-LCD screen



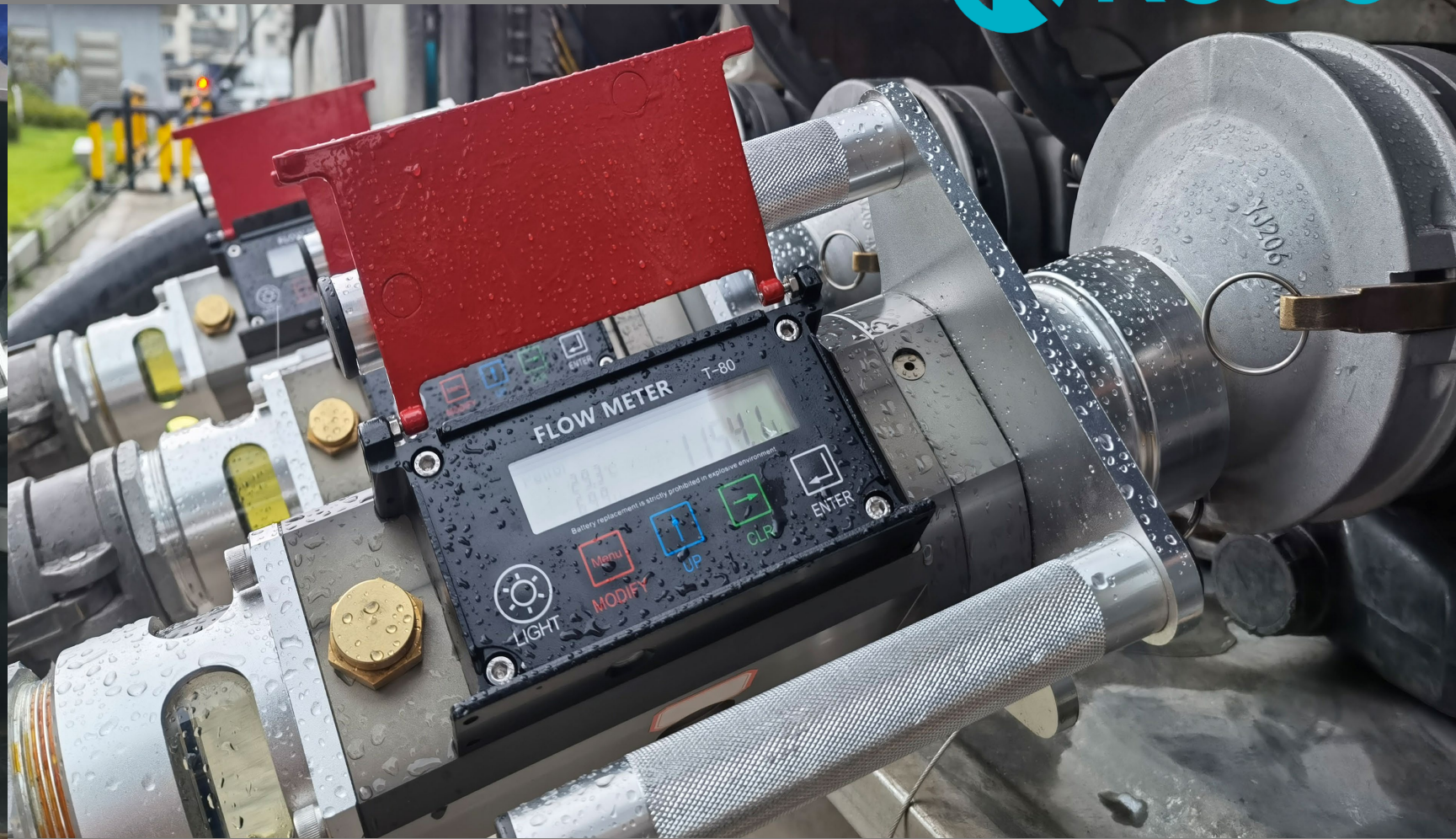
# 5. Easy operation-Connectors



**Supports  
3" 4" 6"  
Quick connector**



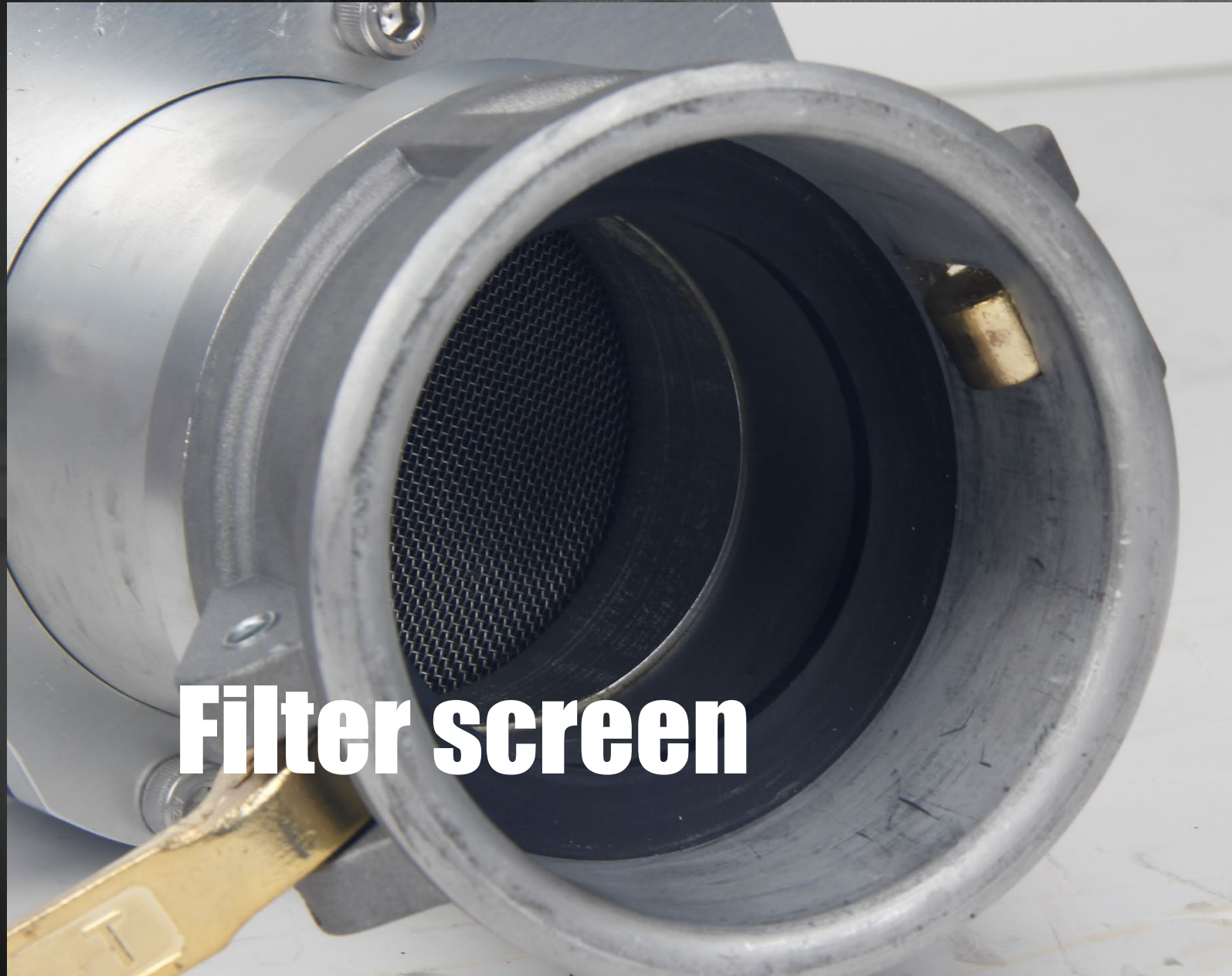
# 5. Easy operation-Light weight



Light Weight:6kgs

Easy to install and disassemble

# 5. Easy operation



**Filter screen**



**LCD screen cover**



**Transport case**

# 6. Technical Specification



|                       |                                                              |
|-----------------------|--------------------------------------------------------------|
| Applicable medium     | gasoline, diesel, kerosene, JET and other petroleum products |
| LCD screen            | English interface                                            |
|                       | 7 digits display                                             |
| Size                  | 3 inches (DN80)                                              |
| Accuracy              | $\pm 0.2\%$                                                  |
| Repeatability         | $\pm 0.02\%$                                                 |
| Product weight        | 6kg                                                          |
| Body material         | Aluminum                                                     |
|                       | 8-80m <sup>3</sup> / h                                       |
| Flowrate range        | (130-1300L / min)                                            |
| Minimum scale         | 1L                                                           |
| Explosion-proof grade | Ex ia II BT4 Ga                                              |
| Protection grade      | IP67                                                         |
| Temperature range     | -25 °C to + 55 °C                                            |
| Maximum pressure      | 0.5MPA                                                       |
| Viscosity range       | $\leq 13\text{mm}^2/\text{s}$                                |
| Power supply          | 2X3.6V Lithium batteries (battery life is about 2 years)     |