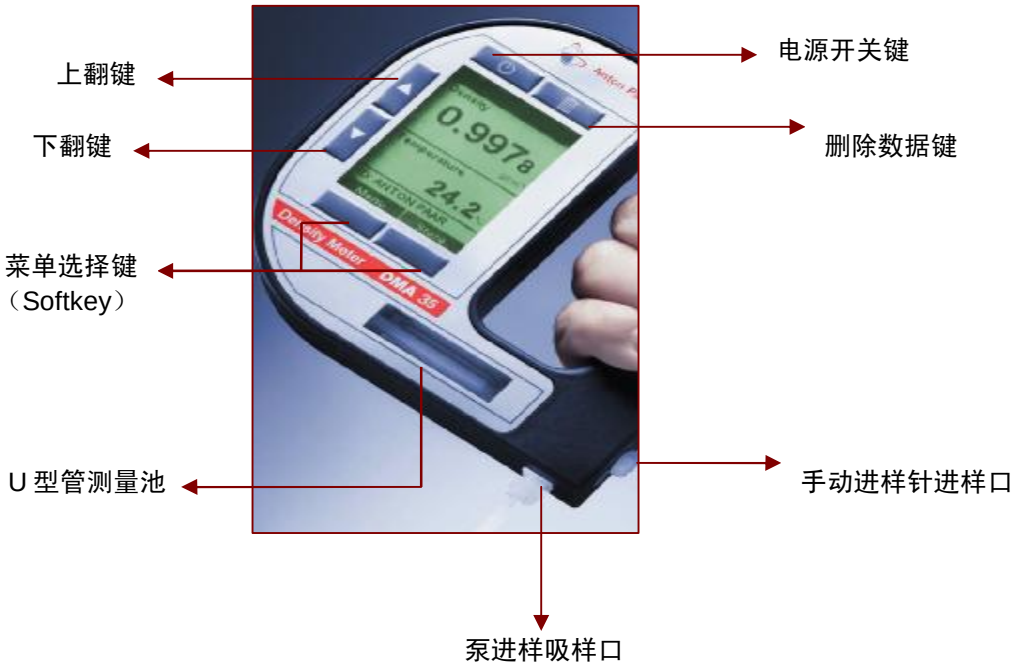
# DMA 35 便携式密度计简单操作说明

## DMA 35 的附件

1. 主机
2. IrDA红外线传输适配器（选配）
3. 2ml塑料进样针
4. 1/4”进样口适配器（用于针筒手动进样）
5. 进样管（标准180mm长度）


## DMA 35 的主机板面介绍

### 正面视图



## 背面视图


# DMA 35 方法的设置

1.选择方法

按 <Menu> 选择"Methods > Select Method"，将显示所有现存的方法，按<OK>选取所需要的方法。

2.创建方法

按 <Menu> 选择"Methods > Enter new Method".

3.删除方法

按 <Menu> 选择"Methods > Edit Method",选取所要删除的 方法，按

选择<Delete Selected>，删除当前选择的方法；

选择<Delete all>，删除所有的方法。

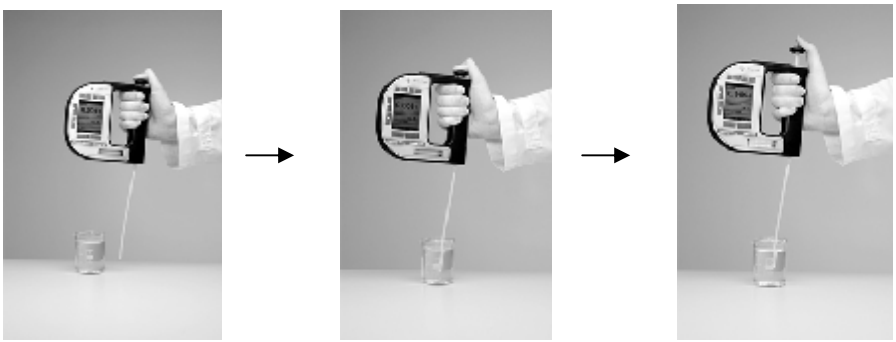
## DMA 35测量操作步骤

1.连接吸样管

2.按  开机。

3.进样

- 使用泵进样测试。



- 您也可以使用进样针手动进样。

(此种进样方式可用于粘度较大的样品)

注意：进样时应小心避免气泡的进入。

4.等数值稳定，按  进行读数。

如果数据有效，请按 <OK>，那么数据即被保存，回到测量模式；

如果数据不理想，请按  键，则放弃当前数据，回到测试模式。

5.测试完毕后，请选择适合的溶剂，对DMA 35进行清洗。

# DMA 35的基本参数设定

1.语言设置

按 <Menu> 选择 "Setup > Language"，按<OK>选取所需要的语言。

2.单位设置

按 <Menu>选择 "Setup > Units"

密度单位中可选择“g/cm3”或者“kg/m3”， 按<OK>选取所需要的单位；

温度单位中可选择“°C”或者“°F”， 按<OK>选取所需要的单位。

3.按键声音设置

按 <Menu> 选择 "Setup > Beep". 可选择Beep on/off，然后按 <Save>保存设置.

4.节能模式设置

按<Menu>选择 "Setup > Energy Saving". 可选择Off, 3, 5 or 10 分钟，按 <Save>保存设置

5.背景灯光设置

按<Menu>选择"Setup > Backlight". 可选择Auto, Off, On，按 <Save>保存设置

6.屏幕显示对比度设置

按<Menu>选择"Setup > Display Contrast". 可选择（-8 to +8），按 <Save>保存设置

7.Softkey键功能分配设置

按<Menu>选择 "Setup > Softkey". 可选择RFID, Store, Print，按 <Save>保存设置

8.密码的设置

按<Menu>选择"Setup > Set Password". 在第一位上选择密码值，选定后按<OK>，移到第二位，按同样的操作直到设定好所有位值，按<Continue>；重复输入密码，按 <Save>保存设置。

如果要取消密码，请按同样的步骤输入<0000>。

9.日期与时间的设定

按<Menu>选择"Setup > Date and Time ".

选择“Set Date and Time”，设定日期和时间，完成后按 <Save>保存设置；

选择“Date Format”，设定日期和时间的显示格式，完成后按 <Save>保存设置。

10.数据导出设置

利用红外线进行DMA 35与电脑的数据传输。

按<Menu>选择"Setup > Import / Export > Send to PC > System Settings". 根据提示操作。

# 附录A: DMA 35 的技术参数

| Product version | DMA 35 | DMA 35 Tag&Log | DMA 35 Ex | DMA 35 Ex Petrol |
|---|---|---|---|---|
| Measuring range | Density: 0 to 3 g/cm³<br>Temperature: 0 °C to 40 °C (32 to 104 °F)<br>Viscosity: 0 to 1000 mPa·s | | | |
| Accuracy | Density*: 0.001 g/cm³<br>Temperature: 0.2 °C (0.4 °F) | | | |
| Repeatability | Density: 0.0005 g/cm³<br>Temperature: 0.1 °C (0.2 °F) | | | |
| Resolution | Density: 0.0001 g/cm³<br>Temperature: 0.1 °C (0.1 °F) | | | |
| Ambient temperature** | -10 °C to +50 °C (14 to 122 °F) | | | |

# 附录B: DMA 35 能测定的数据

| Meas. units | Options | Description |
|---|---|---|
| Density | Density | Density at the displayed measuring temperature in g/cm³ or kg/m³. |
| | Density @ xx °C: α (g/cm³/K) | Density at the chosen reference temperature in g/cm³ or kg/m³. The temperature influence is compensated by the set temperature coefficient α. |
| | Specific Gravity SG: SG Temp. (°C or °F) α (g/cm³/K) | Specific gravity is the density of the sample (at the chosen reference temperature) divided by the density of water (at the chosen reference temperature). The temperature influence is compensated by the set temperature coefficient α (g/cm³/K). |
| Alcohol | Alcohol % v/v @ 20 °C | Concentration of an ethanol/water mixture in % by volume at 20 °C. The measuring range is 0 to 100 % v/v. |
| | Alcohol % w/w | Concentration of a mixture of alcohol and water in % by weight. The measuring range is 0 to 100 % w/w. |
| | Alcohol US @ 60 °F (°Proof) | Degrees Proof at 60 °F. The measuring range is 0 to 200 °Proof. |
| API* | API Gravity A<br>API Gravity B<br>API Gravity D | API number for the product group referred to the reference temperature of 15 °C or 60 °F.<br>Product group A: Crude oil<br>Product group B: Fuels<br>Product group D: Lubricants |
| | API SG A<br>API SG B<br>API SG D | Specific gravity for the product group referred to the reference temperature of 15 °C or 60 °F. |
| | API Density A<br>API Density B<br>API Density D | Density of the product group in g/cm³ with regard to the reference temperature of 15 °C or 60 °F. |

* Depending on the set temperature unit (°C or °F), the API values are automatically displayed @ 15 °C or @ 60 °F.

| Meas. units | Options | Description |
|---|---|---|
| Baumé | α (g/cm³/K) | Degrees Baumé at 60 °F.<br>The measuring range is 0 to 100 °Baumé.<br>Temperature influence is compensated by the set temperature coefficient α.<br>For determining degree Baumé there are two different calculation methods depending on whether the density is above or below the density of water.<br>Depending on the density of the measured liquid, DMA 35 automatically switches between the two calculation methods. |
| H2SO4 | H2SO4 % w/w | Concentration of sulfuric acid or battery acid in % by weight.<br>The measuring range is 0 to 70 % w/w. |
| | H2SO4 @ 20 °C | Density of sulfuric acid or battery acid at 20 °C.<br>The measuring range is 0.8 to 2 g/cm³. |
| Sugar | Brix | Degrees Brix (sucrose concentration in % by weight).<br>The measuring range is -10 to 85 °Brix. |
| | Extract (°Plato) | Degrees Plato.<br>The measuring range is -10 to 85 °Plato. |
| Custom Functions | -- | Optional custom functions. Contact your Anton Paar representative to obtain a custom function. |
| Period | -- | Period value of the oscillator at the measuring temperature. |
| Raw data | -- | Period value and resistance of the temperature sensor (only for service purposes). |