



## **860 KF Thermoprep**

**Simple, safe, precise.**

**Thermal sample preparation in  
Karl Fischer titration.**

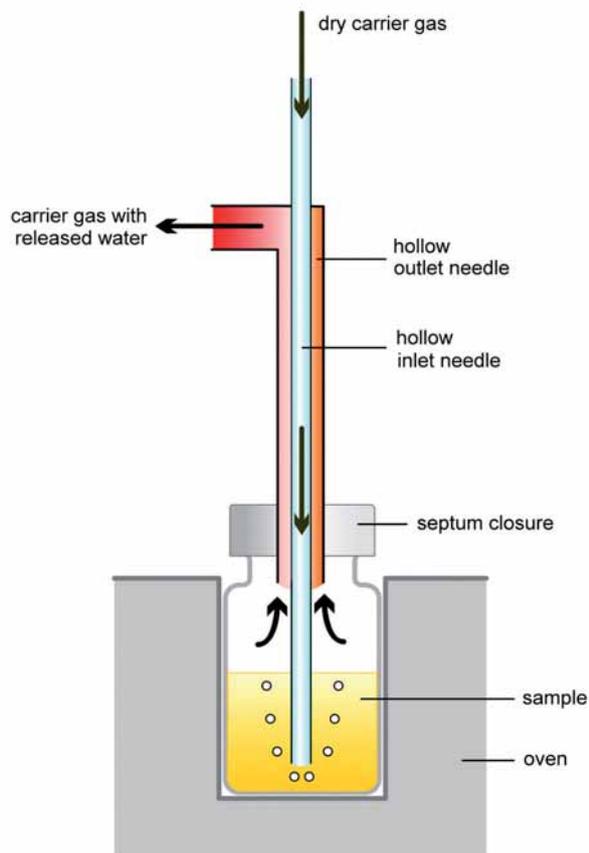
## > The Karl Fischer oven method

For various reasons many substances are not suitable for a direct Karl Fischer titration:

- They release their water only slowly
- The water is released at high temperatures only
- The substances are poorly soluble in alcohols
- They undergo side reactions with KF reagents
- They contaminate the titration cell or the electrodes

By using the KF oven method the above-mentioned problems can be avoided. The substance under investigation is heated in a hermetically sealed vial in the oven. The water vapor released is transferred to the titration cell by a carrier gas. This means that no noxious solubilizers have to be used, side reactions as well as matrix effects are absent and the contamination of the titration cell is avoided.

Depending on the sample's water content, the determination can be carried out either by coulometric or volumetric Karl Fischer titration.



1.



2.



3.

## > The measuring procedure step by step



The sample is weighed into a sample vial and hermetically sealed. After the desired temperature has been reached and the titration cell conditioned, the determination is started at the KF coulometer (or KF titrator). The vessel containing the sample to be analyzed is positioned in the oven and the needle inserted through the septum of the sample vial.

1. Weigh in the sample
2. Seal the vial
3. Place the vial in the oven
4. Start the determination on the KF coulometer
5. For your safety:  
You can be sure to always hit the septum. The guiding support prevents the needle from descending outside the septum area.
6. Simple operation:  
The control unit with the clearly structured menu greatly facilitates work with the 860 KF Thermoprep.
7. End of titration:  
After the titration the vial is removed from the oven



4.



5.



6.



7.

## > Precise results

**Identical analysis conditions for all samples guarantee results of the highest precision.**

**Thanks to the heated outlet tubing the released moisture is transferred quantitatively to the titration cell.**



#### Sample vessels of different sizes

As an option, there is the possibility to modify the oven of the 860 KF Thermoprep in such a way that you can use not only the Metrohm standard sample vials but also those used in your production plant.

## > Ordering information, options

2.860.0010 860 KF Thermoprep

#### Optional accessories

2.756.0110 756 KF Coulometer  
2.831.0110 831 KF Coulometer  
2.841.0010 841 Titrando  
2.870.0010 870 KF Titrino plus  
6.1448.050 Aluminum septum caps, 1000 pieces  
6.2049.050 Needle support  
6.2419.000 Vials 6 mL, 1000 pieces



s w i s s m a d e 

 **Metrohm**

Metrohm AG  
CH-9101 Herisau/Switzerland  
Phone +41 71 353 85 85  
Fax +41 71 353 89 01  
[www.metrohm.com](http://www.metrohm.com)  
[info@metrohm.com](mailto:info@metrohm.com)

**3 year**  
instrument warranty 