Electronic Milko Tester

SALIENT FEATURES:

- Electronic Milk Tester is a simple, economical, fast & accurate milk fat testing instrument.
- Does not involve corrosive chemicals.
- Works on light scattering principle with manual homogenization.
- Works on 230V AC battery back up (optional).
- Measuring range: 0 – 13 % of FAT.
- Capacity: 120 samples per hour approx.
- Accuracy:
  - 0 – 5 % → 0.06 % of FAT
  - 5 – 8 % → 0.10 % of FAT
  - 8 – 13 % → 0.20 % of FAT
- Sample Volume: 0.5 ml
- Dilutant Volume: 6.5 ml
- Ambient Temperature: 5 – 45 deg C

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**Features of Milk O Tester**

Electronic Milk Tester is a simple, economical, fast and accurate milk fat testing instrument. It does not involve corrosive chemicals. It works on light scattering principle with manual homogenization. It operates on 230 V AC with optional battery back up.

1. **Technical Specifications**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measuring range:</td>
<td>0 - 13 %</td>
</tr>
<tr>
<td>Capacity:</td>
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<td>5 - 8 % 0.10 % of FAT</td>
</tr>
<tr>
<td></td>
<td>8 - 13 % 0.20 % of FAT</td>
</tr>
<tr>
<td>Repeatability:</td>
<td>0 - 5 % 0.03 % of FAT</td>
</tr>
<tr>
<td></td>
<td>5 - 8 % 0.04 % of FAT</td>
</tr>
<tr>
<td></td>
<td>8 - 13 % 0.08 % of FAT</td>
</tr>
<tr>
<td>Sample Volume:</td>
<td>0.5 ml</td>
</tr>
<tr>
<td>Dilutant Volume:</td>
<td>6.5 ml</td>
</tr>
<tr>
<td>Power Supply:</td>
<td>220 / 240 V AC</td>
</tr>
<tr>
<td>Ambient Temperature:</td>
<td>5 - 45 deg C.</td>
</tr>
</tbody>
</table>

2. **Principle of Measurement.**

Electronic Milk Tester is based on the photometric measurement of light scattered by the milk sample. The light is scattered by the fat globules acting as small prism.

To eliminate protein effect on light scattering, it is dissolve in ETDA solution.

All the fat globules do not same size. To bring globule size in required dimensions, manual homogenization is done. This will bring all fat globules size in the range of 0.5 to 1.5 microns.

Light rays from a photo-lamp passed through layer of fluid in the cuvette and scattered according to the sample of the fat globules. More the fat present, more light is scattered. The rays that do pass through the cuvette strike a photocell, producing current proportional to the light intensity. This current is fed to electronic circuit and digital read out of fat percentage is flashed on the screen.

3. **Scope of Supply**

- Milk O Tester
- First charge of chemicals for preparing 10 liters of dilutant
- Interconnecting pipe
- Glassware
- Operation and Maintenance Manual

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