The MilkoScan™ 7 RM is a high capacity, fully automatic milk analyser for central milk testing (CMT) payment and dairy herd improvement (DHI) measuring up to 17 parameters in just six seconds.

**Advanced testing options with MilkoScan 7 RM**
In addition to standard parameters, MilkoScan 7 RM provides advanced screening for ketosis, urea and untargeted raw milk (adulteration) screening. Screening for ketosis as part of routine milk testing allows you to single out suspect samples and thereby get an early indication of the overall ketosis status in dairy herds.

**Innovative 7th generation technology**
With an improved optics and signal/noise ratio, you can rely on the repeatability of results at 100 to 600 samples per hour. Flow system technology with an optional diamond cuvette backed by a 10 year guarantee, ensures maximum uptime. It is easy to clean and includes a sample conveyor without need for compressed air.

**Optimise instrument management with FOSS digital services**
Ensure consistent performance of all instruments in your network and avoid downtime by making upgrades and adjustments while instruments continue to run. Protect your database and calibration models with automatic back up of data.

**Sample type**
Raw cow, sheep, goat and buffalo milk

**Parameters**
Fat, protein, lactose, solids, urea, freezing point depression, Free Fatty Acids, casein, fatty acids profile, ketosis and others such as pH, H-index and untargeted adulteration screening

**Technology**
Fourier Transform InfraRed (FTIR).
Can be integrated with the Fossomatic™ 7 or Fossomatic™ 7 DC somatic cell counter to form a CombiFoss™ 7

**Approvals**
IDF and AOAC compliant
Specifications

Most of the calibrations are using multiple wavelengths selected freely from the entire Mid-IR spectrum in order to optimize robustness and accuracy. Compared to traditional filter calibrations, they are called full spectrum calibrations.

### Performance

<table>
<thead>
<tr>
<th>Component</th>
<th>Measuring range</th>
<th>Performance range</th>
<th>Repeatability</th>
<th>Accuracy bulk</th>
<th>Accuracy single cow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fat</td>
<td>0-15%</td>
<td>2-15%</td>
<td>Cv &lt; 0.5%</td>
<td>Cv &lt; 1.0%</td>
<td>Cv &lt; 1.5%</td>
</tr>
<tr>
<td>Protein</td>
<td>0-10%</td>
<td>2-10%</td>
<td>Cv &lt; 0.5%</td>
<td>Cv &lt; 0.9%</td>
<td>Cv &lt; 1.5%</td>
</tr>
<tr>
<td>Lactose</td>
<td>0-10%</td>
<td>2-10%</td>
<td>Cv &lt; 0.5%</td>
<td>Cv &lt; 0.9%</td>
<td>Cv &lt; 1.5%</td>
</tr>
<tr>
<td>Solids</td>
<td>0-20%</td>
<td>2-20%</td>
<td>Cv &lt; 0.5%</td>
<td>Cv &lt; 1.0%</td>
<td>Cv &lt; 1.5%</td>
</tr>
<tr>
<td>Urea</td>
<td>10-100mg/dl</td>
<td>10-100mg/dl</td>
<td>Sd &lt; 1.5mg/dl</td>
<td>Sd &lt; 3mg/dl</td>
<td>Sd &lt; 3.5mg/dl</td>
</tr>
<tr>
<td>Citric acid</td>
<td>0.1-0.5%</td>
<td>0.1-0.5%</td>
<td>Sd &lt; 0.005%</td>
<td>Sd &lt; 0.01%</td>
<td>Sd &lt; 0.015%</td>
</tr>
<tr>
<td>FPD (Screening)</td>
<td>400-600 m°C</td>
<td>450-550 m°C</td>
<td>Sd &lt; 0.5 m°C</td>
<td>Sd &lt; 4 m°C</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### Novel parameters

- Fatty acids profile: see the application note no. 64
- Ketosis screening (BHB, acetone): see the application note no. 35
- Untargeted screening raw milk (adulteration): see the application note no. 5375

### Application data

- **Analysis capacity**: 100, 200, 300, 400, 500 or 600 samples per hour
- **Sample intake**: 5 mL
- **Required sample temperature**: 37 - 42°C
- **Performance Specifications**: Full spectrum calibrations

### Instrument management

- Networking software: FossManager™

### Standards and Approvals

**MilkoScan™ 7 RM** is CE-labelled and complies with the following directives and regulations:
- EMC (ElectroMagnetic Compatibility) Directive 2014/30/EU
- LVD (Low Voltage) Directive 2014/35/EU
- Machinery Safety Directive 2006/42/EC
- Regulation (EC) 1272/2008 on classification, labelling and packaging of substances and mixture, CLP (EC)
- WEEE Directive 2002/96/EC
- Packaging and packaging waste Directive 94/62/EC
- REACH 1907/2006/EC

**The MilkoScan™ 7 RM techniques comply with**:
- ISO 9622 / IDF 141:2013
- AOAC official method 972.16

By using wavelengths from the entire Mid-IR spectrum for each component, calibrations are optimised in terms of robustness and/or accuracy (temperature, homogenization and humidity)

FOSSTel.: +45 7010 3370info@foss.dk · www.fossanalytics.com
GB, May 2018