

# meiners-del ETM3

## Entanglement Test Meter 3

The ETM3 is a hand held portable instrument designed to measure the number of entanglement (node, nip) points on a running thread-line. The results displayed are user selected as either just entanglements per metre or entanglements per meter, average entanglement space and maximum entanglement space. The measuring head incorporates an infra-red sensor that detects the variation in yarn size, measurements are taken for a short sampling time the results are displayed on an intelligent 2-line display.



The instrument is capable of measuring entanglement points on textured and flat yarn at speeds up to 5000 M/min. Different amplification levels can be selected to suit various signal levels generated by a wide range of yarns and entanglement points. This makes the ETM3 suitable for all types of air jet application on draw texturing, draw twisting, draw winding, POY spinning and draw warping.

The ETM3 has a memory facility to retain information for up to 1000 measurements, multiple machine measurements can be taken and data analysis done later. Software is provided to transfer the stored data to a PC or print the data by simply connecting the ETM3 to a serial printer using the supplied comms lead. There is also a 'Replay' facility to review the stored data on the ETM3 display.

When setting up the ETM3 for taking measurements it is possible to enter a 'Machine Number', 'Start Position', 'Operator ID number' and 'Time/Date'. Positions not running are acknowledged by the operator and interpreted as a 'Break' so that a full record of the machine state can be made. Using the software will enable graphical analysis of the measurements whilst also highlighting positions with readings outside pre-set limits.

### Specifications:

- Powered by 4 x rechargeable AA batteries
- 8 Hours use between charges
- Fast charge battery charger: 4 hours for a full charge
- Denier Range:- Min 10 Max 1500 - 2000
- Memory capacity: 1000 Readings
- Maximum yarn speed: 5000M/min
- Titania ceramic guides
- Standard measuring time: 5 Seconds
- Data transfer software
- Communications Lead
- Carry case
- Main unit dimensions: 195 x 98 x 40 mm
- Measuring head dimensions: 19 dia x 125 mm
- Sensors for BCF Yarns available