The 3M™ Series 100 Automated Integrity Testing Device: a hand-held portable membrane filter integrity tester for the Beverage Industry

The unit is designed to perform a pressure hold integrity test on membrane filter cartridges. This compact, battery powered system can be operated independently of any AC supply for up to 12 hours and should, for any reason, the unit remain uncharged retain all data in its memory for up to 6 months.

The microprocessor-driven 3M™ Series 100 Automated Hand-held Integrity Testing Device can be programmed with up to 19 different test protocols, allowing the user to store commonly used test parameters covering all housing and filter combinations in use. Each of the different protocols can be quickly accessed through a single key stroke, with up to 200 test results being automatically stored ready to be recalled and printed at a later date.

Using your Minicheck

Switch on your 3M™ Series 100 Automated Hand-held Integrity Testing Device and you will be prompted to select your language of choice. One of five standard languages can be selected at this stage (English/French/German/Italian/Spanish). However, should you require an alternative language this can be factory programmed into the unit's memory at the time of manufacture.

Having selected operator language the display allows you to either run a pre-programmed test protocol or access the general menu where you can select between Service and the Main function menus. In the Main function menu you can access any of the 19 stored programmes or 200 previously stored test results. Selection of the programming function allows you to modify or store new test protocols, the unit automatically prompting you to enter all of the necessary test parameters to run a test.

At any time a permanent record of any of the stored results can be printed out by linking the 3M™ Series 100 Automated Integrity Testing Device to a PC with the supplied interface programme and cable. Select the self test protocol, and the 3M™ Series 100 Automated Integrity Testing Device will run an automatic self diagnostic programme which checks all of its main electronics components. The service menu function is protected by a code number access to avoid unauthorised data entry. This menu gives access to all of the internal parameters used during calibration and is also where user codes can be changed and the unit reset.

Features and Benefits

| Portable | Hand-held, easy to use technology with long life battery back up |
| Simple  | Pass / Fail LED test status indicators |
| Advanced | Microprocessor driven with PC interface programme allowing data storage and printed record keeping |
| Recall  | Up to 200 previous test results can be recalled and printed |
| Flexible | 19 commonly used test protocols can be stored in the unit's memory and accessed with a single key stroke |
| Reliable | On-board self diagnostics ensure system reliability |
| Secure  | All programming is protected by code access |
**Standard Operating Conditions**
- **Operating temperature range**: 3-37 °C (37-99 °F)
- **Maximum humidity**: 95% rel.
- **Protection**: IP 53, Splash Proof

**Electrical Specification**
- **Batteries (Rechargeable)**: 4 x NiCad-Akku 1.2 V
- **Battery Capacity**: 1400 mAh, 4.8 V
- **Battery Recharge time**: 8h
- **Testing Duration (Yellow LED Flash)**: 7h
- **Normal life**: 7h-12h
- **Data retention (with fully charged battery)**: 6 months
- **External Power supply**: 100 - 240 V / 7.5 V 200 mA

**Data Handling**
- **Connector**: 4 pol MIL - Busche with Dust Cap
- **Computer Interface**: RS 232

**Programming**
- **Maximum number of stored test protocols**: 19
- **Number of stored results**: 200

**Pressure Sensor**
- **Pressure range**: 0… 4000 mbar (58 psi)
- **Accuracy**: ± 8 mbar (0.116 psi)
- **Pressure connector**: Quick disconnect 3 mm stainless steel (Stäublí™)

**Housing**
- **Housing Material**: ABS plastic
- **Dimensions**: 210 x 105 x 45 mm (8” x 4” x 1.5” approx.)
- **Weight**: 520 g (1.1 lbs)
- **Display**: 2 x 16 Characters
- **Signal LED’S**: Red, Green, Yellow
- **Charge Control LED**: Red - 16 Position Polycarbonate membrane keypad

**Ordering Information**
- **Product Number**: 7034501

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