



# Tradition blended with innovation

## 3M™ 101 Series Integrity Test Drive

Portable, Automated Membrane Filter  
Integrity Tester for the Beverage Industry

# The 3M™ 101 Series Integrity Test Device

## A hand-held portable integrity tester

The 3M™ 101 series integrity test device is designed to perform a pressure hold integrity test on membrane filter cartridges. This compact, battery powered device can be operated independently of any AC supply for up to 12 hours and should, for any reason the unit remain un-charged, retain all data in its memory for up to 6 months.

The microprocessor-driven 3M 101 series integrity test 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 150 test results being automatically stored ready to be recalled and printed at a later date.

## Using your 3M™ 101 Series Integrity Test Device:

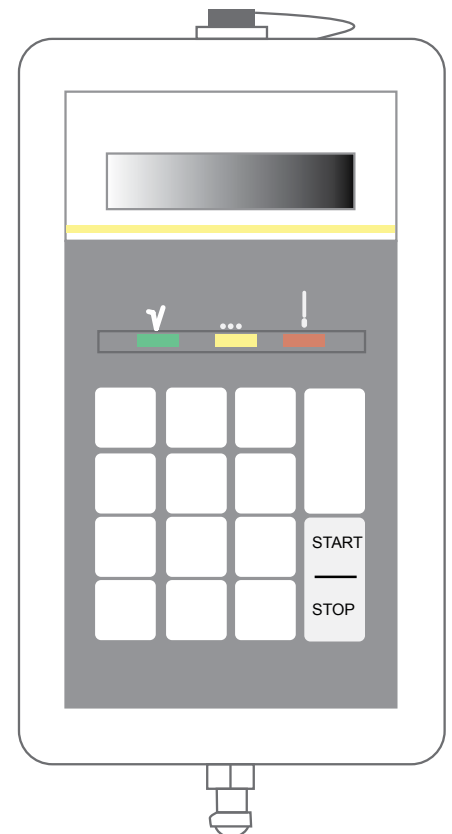
One of five standard languages can be selected for use with the 3M 101 series integrity test device:

- English
- French
- German
- Italian
- Spanish

The display allows you to either run a preprogrammed test protocol or access the general menu where you can program a test protocol, review data, or select the Service function menus. In the Main function menu, you can access any of the 19 stored programs, or 150 previously stored test results. Selection of the programming function allows you to modify or store new test protocols, with the unit automatically prompting you to enter all of the test parameters necessary to run a test.

At any time, a permanent record of any of the stored results can be printed out by linking the 3M 101 series integrity test device to a PC with the supplied interface program and cable, or via the Bluetooth™ enabled portable printer, supplied separately.

Select the self-test protocol, and the 3M 101 series integrity test device will run an automatic self-diagnostic program which checks all of its main electronics components. The Service function menu is protected by a code number access to avoid unauthorized data entry. This menu gives access to all of the internal parameters used during calibration and is also where user codes can be changed, the language can be chosen, the data and time can be entered, and the unit reset. Additional operating information is contained in the 3M 101 Series Operation Guide (34-8719-8229).



# The 3M™ 101 Series Integrity Test Device technical description

## Ambient conditions

Permitted temperature range	5-40 °C
Max. Humidity	95% rel., non-condensing
Protection class	IP 53, splash-proof

## Electrical data

Battery	4 × 1.2 V NiMH battery pack / 4.8 V battery pack with connector
Charging time of the battery pack typical	3 h
Continuous test mode (yellow LED flashing)	6 h
Normal operation	7-12 h
Data availability (with full batteries)	4 mon. / 25 °C
Power supply	100-240 VAC/9 VDC, 1.1Amp Primary adapters for various countries available
Charging socket	Cylindrical connector 5.5mm x 2.1mm Negative pole outside
Data connector	USB-mini

## Programming

Max. number of test programs	19 programs
Maximum number of stored test logs	150

## Pressure measurement

Maximum Operating pressure	60 psi (4,100 mbar)
Measurement range of pressure measurement	0-58 psi (0-4000 mbar)
Repeat accuracy of pressure measurement	+/- 0.12 psi (+/- 8 mbar)
Accuracy relative at 68°F (20 °C)	+/- 0.2 %
Temperature error of pressure measurement	+/- 0.29 psi (+/- 20 mbar) at +/- 15 kelvin
Differential accuracy (filter test)	+/- 0.02 psi (+/- 1 mbar)
Compressed air connection	Staubli® RBE03.6150
Calibration interval	Max. of 12 months recommended

## Housing

Housing	ABS plastic
Compatibility of housing	Diesel oil, sea water, weak bases, weak acids, alcohol
Incompatibility of housing	Benzene, acetone
Dimensions	8 ½" x 4 1/8" x 1 ¾" (210×105×45 mm)
Weight	1.1 lbs (500 g)

# Automated membrane filter testing made easy and affordable

- **Portable:** Hand-held, easy to use technology with long life battery back up
- **Simple:** Pass/Fail LED test status indicators
- **Advanced:** Microprocessor driven with P.C. interface program allowing data storage and printed record keeping
- **Recall:** Up to 150 previous test results can be recalled and printed
- **Flexible:** 19 commonly used test protocols can be stored in the units memory and accessed with a single key stroke
- **Reliable:** On-board self diagnostics provides system reliability
- **Secure:** All programming is protected by code access

## Ordering information

Part	Part number	3M identification number
3MTM 101 Series Integrity Tester	7036701	70020334614
Power Supply	7036832	70020334507

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