

ASI DataMyte 501 Data Collector
Breakthrough Technology
with handheld convenience



The DataMyte 501 data collector is a true breakthrough in handheld design. This distinctive unit weighs under one pound and brings new convenience to roving data collection. It is ideal for many data collection operations, especially in confined spaces.

The DataMyte 501 features an LCD panel to display collected information, with a backlight option for use in low-light conditions. The ergonomic design features keys oriented for either right-or left-hand operation. The contoured grip reduces operator fatigue and the likelihood of motion injuries.

Analog Capability

A four-channel analog option is available for the DataMyte 501. This option is useful for sheet metal applications that use analog gaging, such as those from LMI, MP Components, or JS Gages. These gages are industry standards in automotive assembly, sheet metal stamping, and aircraft rivet height applications.

The 501 analog option includes a unique connector bulkhead. The standard digital/serial gage port with caliper icon is designated G1. The true position port with the true position icon (cross hairs) is designated G2 and G3, as this one port supports two analog channels. The true position port supports true position gages from LMI and MP Components, as well as the new 2-4-1 gage from LMI that measures gap & flush simultaneously.

The remaining two ports are designated G4 and G5 and either port can be used with LMI 200-, 300-, or 700- series gages. These ports allow for direct connection of the gages they support without costly and cumbersome signal conditioning/switch boxes.

The cable for ports 4 and 5 is the same as the cable between the handset and base unit on standard telephones to simplify cable replacement. All of the supported gages can be connected simultaneously.

For example, a caliper, a true position probe, a gap & flush gage and an LMI 200 series probe can be used simultaneously to address complex applications without changing cables or gages.



The 501 data collector with analog option can be used with an LMI gap and flush gage



Connector Bulkhead for 501 Analog Option

Real-Time True Position Gaging

Real-time true position gaging, in **two or three axes**, is a DataMyte 501 capability with the analog option. True position gaging measures the distance from an actual hole center to its desired position expressed as a diameter in accordance with ANSI standards.

The mechanical sensors necessary to measure true position are available from either LMI or Component Engineering. These true position gages have two built-in analog transducers that measure

the center deviation of the hole in two 90° displaced coordinates (X axis and Y axis), and these two channels plug into the single true position port on the DataMyte 501 analog board.

With the real-time column display on the DataMyte 501 LCD panel, one column can be used to display X-axis deviation, the second column can be used to display Y-axis deviation and the third column can be used to show the true position deviation. A fourth column may be used to display the Z-axis if required.

Time at Level Gage Reading

Time at Level Gage Reading is another 501 feature included with the four channel analog board option, and works with the LMI Model 200 probe.



The toolbelt can hold a DataMyte 501 and a variety of digital and analog gages for roving applications

The Time at Level algorithm overcomes the simple peak algorithm susceptibility to false readings when the measurement probe bumps into the edge of the fixture. The Time at Level algorithm requires the signal from the gage to be steady for a short period of time before the reading is captured. The collector takes the reading, beeps, and provides LED feedback as soon as the Time at Level condition is met.

Using the Time at Level algorithm, readings are more certain and more accurate as well as collected quicker than either the peak or switch-actuated methods. In addition, since 20 to 40 check points on a fixture are not uncommon, less operator hand motion will be needed to actuate the Enter key or switch.

Optional Keypad Configurations

The DataMyte 501 supports two different keypad options. The simple keypad is optimized for gage or barcode data collection in a factory environment. It has large, well-spaced keys that may be conveniently operated with even a single gloved hand for most data collection applications. Text, symbols, and numbers are entered via an LCD character pallet. The alphanumeric keypad has dedicated number keys for those applications that require frequent keyed numeric data entry. Text and symbols may be entered using the three “pointer” keys in conjunction with the “Shift” and “Symb” keys.

TranSend Communication Software

DataMyte’s TranSend™ utility software lets you create and download variables data collection setups as well as upload collected data to an Excel™ spreadsheet, tab delimited, comma delimited or Statistica® file.

The TranSend setup editor supports creation of pick lists for both piece and subgroup labels. Making setups with several similar characteristics is easy since copy and paste are supported. Variables characteristics, subgroup and piece labels are also supported.

Standard Features

A red/green/yellow LED display provides visual indication of in/out of spec conditions and caution alerts for operators. A standard internal warning buzzer, or an optional lapel buzzer, also serves as a warning indicator. The LEDs are position and color coded for easy recognition, even by operators who are unable to distinguish colors.

SPC Option

The 501 may be ordered with either the SPC option for on-board SPC analysis, or a non-SPC option. The onboard menu provides these choices:

- Choose Setup
- Review Setup
- Delete
- Gage (for gage configuration)
- Export
- Preferences
- Views
- About Screen
- Off

Rugged Design

The 501 data collector is designed to survive a four foot drop to a concrete surface without loss of function. It resists damage from puddled oil, water-based cutting fluid, abrasives, dust, metal chips and filings. Standard power is two rechargeable commercial AA batteries.

DataMyte 501 Data Collector Specifications

Hardware

- Weight: Under one pound
- Dimensions: 4.08" x 10.5" x 1.77"
- Construction: Case: ABS plastic; Keypad: Silicone rubber
- Power supply: Two AA 1.5 V batteries
- Display: 128 x 128 dot matrix LCD panel; backlit panel optional
- Audible output: Buzzer with volume and frequency control
- Numerical precision: 8 digits plus decimal point and sign
- Connectors: 1 serial, 1 alarm output, 1 DC power in, 1 gage: Analog option adds 1 true position, 2 analog.
- Operating temp. range: 0-45°C (32-115°F); 10%-90% non-condensing humidity
- Memory- 1000K standard, 2000K optional
- Keypad: Simple or alphanumeric
- Tool belt

Export Feature

- Data summary
- Database export
- Spreadsheet export
- With or without headers
- With or without characteristic labels

SPC Option

- x-bar & R control charts and stats
- x-bar & Σ control charts and statistics
- SPC histogram and statistics
- Charts can be automatically graphed as data is collected
- Trends and out-of-control points indicated on control charts (SPC option)
- Calculate control limits (SPC option)
- Enter assignable causes (SPC option)

Gage Interfaces

Digital

- Inputs from Mitutoyo, Chicago Dial Indicator, Federal Maxum, Ono Sokki, RS232, RS422, RS423, Sylvac Serial
- Smart serial gage support
- 300 to 38.4 Kbaud

Analog

- Four channel analog option supports LMI, JS and MP Components gages
- Real time two-or three-axis true position gaging
- Automatic time at level gage reading
- Prompted zero before read option
- 0-1% full scale accuracy

Other Functions

- Enter, review, retake data
- Data logging
- Footswitch input
- Unreasonable reading actions

Additional Features

- Red/green/yellow LCD trend alert
- Flash memory for field updates
- Built-in multiple languages
- Interface compatible with popular electronic gages
- Password protection
- Built-in help

Compatibility

The 501 is compatible with:

- TurboSPC VA software version 4.3 or higher
- Quantum SPC/QA™ software version 2.3 or higher
- Quantum SPC/RCSL software version 2.41 or higher

TranSend Software

- TranSend software is compatible with:
- Excel Version 5.0/Windows 3.1 or Windows for Workgroups 3.11
- Excel for Office 95/98 (V 7.0)/Windows 95/98 or Windows NT
- Excel for Office 97 (V 8.0)/Windows 95/98 or Windows NT

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The DataMyte 501 is available with an alphanumeric keypad at no extra charge.

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