

METROLOGY PROCESSOR

The new Metrology Processor from Brunswick Instrument is a multi-input precision dimensional inspection unit that incorporates powerful data processing capabilities and a bright graphic display.

Multiple Inputs The unit may be configured with up to eight digital gage inputs, each accepting any of a wide range of available linear gage types. Connected devices may be a mixture of linear encoders, plunger type or lever type gage heads and many common digital tools like micrometers, calipers and dial indicators.

Multiple Part Features

Multiple “part feature” setups can be defined, each having unique tolerance limits, preset value, measurement resolution, peak-hold setting, math formula and display format. Different feature setups can be quickly selected by push-button or automatically switched with the “AutoSwap” function that senses activity at any connected probe. All setup information is retained in non-volatile memory.



Multiple Display Modes Measurements can be displayed for a single part feature or in a Multi-Feature format that provides a quick view of multiple simultaneous measurements. Results can be presented in digital numeric, analog meter style or multiple column bar-graph formats and can be sent to external data collection devices.

Mathematic Processing Simple or complex mathematic formulas can be defined to manipulate or combine the individual probe values into geometrically meaningful results. Computational functions include addition, subtraction, multiplication, division, exponents, square root, absolute value, trig functions, multiple levels of parenthesis and more.

Custom Solutions Brunswick Instrument can also modify or create custom software for the product to solve special dimensional inspection problems.



Brunswick Instrument

Sharing your commitment to quality

Gage Probe Selection:

A wide variety of linear encoders, lever type or plunger type gage heads and common digital tools are available to interface with the Metrology Processor. The probes can be mounted in a variety of existing or available gage fixtures for inspection of diameter, thickness, length, concentricity, squareness, flatness, taper, depth and more. Probes are available with resolution as fine as five millionths of an inch (.2 micron) and strokes up to one inch (25mm). The digital probes are permanently calibrated and are linear throughout their full stroke. Brunswick Instrument can supply the right combination of probes for your application.

Single Feature Views:



A single part feature measurement may be viewed in either digital numeric form with large digits as above or in analog, meter-style form as below. Current measurement resolution, preset value and feature formula are always displayed.



Multi-Feature Views:



Multiple simultaneous measurement values may also be displayed in either numeric or analog form. In analog bar-graph form (below) all part feature tolerance ranges are proportionally unified for fast visual scanning for out of tolerance conditions.



Other Features:

Dynamic Peak Hold: Maximum, Minimum and TIR (Max-Min) peak hold functions are user selectable for any feature setup.

Data Output: RS232 Serial, 9 pin female "D" connector. 9600 baud, 8 bits, 1 stop bit, no parity. Data can be sent as a single feature value or multiple feature values. Optionally, a Mitutoyo Digimatic type data output is available for direct connection to SPC processors or multiplexers that accept Digimatic type tools.

Switch Inputs: Two separate switch inputs can be software assigned to actuate various user key functions (zero or preset, data output, peak hold clear, feature increment, etc.). The Brunswick Instrument FS-100 footswitch is available separately.

Specifications:

Power requirements: 110VAC, 60hz (Dual 110v/220v option is available)

Dimensions: 11.5"W x 4"H x 11"D (with handle forward).

Weight: 5 lbs.

Ambient Temp. Range: 0 - 45 deg. C

Display: 5" x 1.5" LCD Graphic, white on blue or blue on white reversible, w/adjustable contrast and backlighting.

Accuracy & Repeatability: Dependent on probe(s) used.

Models:

MP-2, w/two probe inputs

MP-4, w/four probe inputs

MP-8, w/eight probe inputs

Options:

Relay Outputs: Both normally open and normally closed contacts can be provided for two separate relays that actuate in sync with oversize and undersize conditions. The relay contacts have current switching capability up to 5 amps. Specify **MP-RLY** option when ordering.

Mitutoyo Digimatic Output:

Specify **MP-MTI** option when ordering.

Dual 110Volt / 220Volt Operation:

Specify **MP-220V** option when ordering.



Brunswick Instrument, LLC

21535 County Hwy. X
Kiel, WI 53042 USA

Phone: (920) 894-1176
FAX: (920) 894-1162

www.brunswickinstrument.com