# DIGITAL GAGE INTERFACE / MULTIPLEXER

The new MP-8D Metrology Processor from Brunswick Instrument is a multiinput precision dimensional inspection unit that incorporates powerful data processing capabilities and a bright graphic display.



The demand for fast, reliable data collection from digital measuring instruments has never been greater. "Statistical Process Control" techniques require large amounts of measurement data to be collected and manipulated both mathematically and graphically. The availability, power and low cost of today's personal computers make them a natural choice as the data processing elements in such systems. Most electronic gages however don't just plug into a PC and work.

The marriage of personal computers and electronic gaging has been a Brunswick Instrument specialty for several decades. Our latest offering in this field represents years of refinement.

The MP-8D acts as both a data switch and a data converter. It can route readings from a group of electronic gages to a computer and convert the gage data into simple standardized code.



#### **Multiple Inputs:**

The MP-8D allows up to eight Mitutoyo Digimatic style electronic tools or gages (calipers, micrometers, height gages,etc.) to be connected simultaneously. The Mitutoyo Digimatic data transmission format is highly desirable due to the large number of products available already conforming to this standard. The 10 pin rectangular gage input connectors are directly compatible with standard Mitutoyo brand Digimatic data cables.



#### Large, Bright LCD Display:

The MP-8D continuously displays the gage readings on a large, easy to read LCD display. The unit can display a single tool measurement or the measurements for all connected tools simultaneously.



### Variety of Operating Modes:

**MANUAL MODE:** The operator manually selects the desired gage port with the front panel pushbuttons. Data transmission is initiated each time the supplied footswitch or gage data button is pressed.

**STEP MODE:** The operator can "step" to next active gage port when a front panel pushbutton or the supplied footswitch is pressed.

**AUTO-SWAP MODE:** All connected tools are continuously scanned for measurement change activity. The unit can automatically switch to the currently active tool.

**SEQUENCE MODE:** All active channels will output gage data, one after another, following a single press of the supplied footswitch.

**ADVANCED OPERATION MODE:** All of the above functions are available from the unit's BASIC Operation Mode. The ADVANCED Operation Mode offers a host of powerful gaging and mathematic calculation functions. Multiple "part feature" setups can be defined, each having unique tolerance limits, preset value, peak hold functions, measurement resolution and display format. In addition to digital, numeric display format, analog meter style and multiple column bar graph formats are possible.



Simple or complex mathematic formulas can be defined to manipulate or combine individual measurement tool values. 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.

### 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.
Computer Interface: RS232 (9 pin female D connector)
Transmission Protocol: 9600 baud, 8 bits, 1 stop bit,

**Transmission Protocol:** 9600 baud, 8 bits, 1 stop bit, no parity.

### **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.

**Dual 110Volt / 220Volt Operation:** Specify MP-220V option when ordering.

