

THE
LOGICAL
DIGITAL

MEASURING
INSTRUMENTATION



Model 5682/B1110



Model 135G/P1720

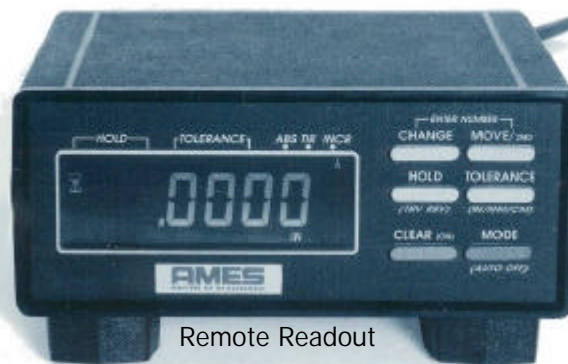
★ Made In The U.S.A.

PRESET
ABSOLUTE & TOLERANCE
GAGING

All Face Panels &
Bezel Diameters Are AGD2

3

- LOGIC™ MODELS
- POWER SOURCES
- SPC, SQC OUTPUTS



Remote Readout



Linear
Probe

LOGIC™ DIGITAL INDICATORS

Features Advanced CMOS Technology For Programmable Measuring Applications

A LOGIC™ Indicator to Meet Any Application Need

Logic electronic digital indicators can be used in a wide variety of applications, on all types of inspection and measuring stands, even in your hand. All indicators feature large, easy-to-read LCD displays that offer a clear view of the reading.

STANDARD FEATURES

10 Standard Resolutions Available:

.0005"/.001mm	.0005"/.01mm
.0001"/.002mm	.001"/.02mm
.00025"/.005mm	

User Selectable Resolution:

Other gage resolutions can be selected by the user, provided the resolution is coarser than the resolution of the gage originally purchased.

7 Measuring Ranges -Inch/Metric:

.060"/1.5mm	1.0"/25.4mm
.150"/3.8mm	2.0"/50.8mm
.250"/6.35mm	4.0"/101.6mm
.600"/15mm	

Data Output/Input Cables: With the selection of the proper output cable, Logic measuring instruments have the following outputs:

RS232 For direct interfacing to computers and serial printers

BCD Enhanced output system

MTI Interface directly to MTI data collectors and/or printers

Remote Functions Hold, Power input, and Clear are also provided at the Data I/O connection.

Note: Data output/input is automatically determined by the cable used.

3 Power Sources:

Replaceable Zinc Air Batteries. Environmentally safe (no cadmium, lithium, or mercury)

A/C Adapter. 110V or 220V 50/60 Hz. External. Through the Data Port (Regulated 5VDC).

ALL Face Panels & Bezel

Diameters are AGD2

- ? Case Body AGD2 Up to .600" Range
- ? Case Body AGD3 Up to 1.000" Range
- ? Extended Case Design for 2" & 4" Range

2" & 4" range models available with stem mounting adapter. (Order ADA-0023).

ALL Logic Series Indicators may be adapted to REMOTE Readout.

See "Readout Only" Note.

.305" HIGH Direct Drive LCD Characters



Up to .600" Range



Up to 1.000" Range

Rotating Bezel : Throughout 270 Degrees

LOGIC™ - BASIC

The standard features in this series include:

- Incremental measuring mode
- 7 measuring ranges of .060" to 4.0"
- Inch/Metric display conversion
- Travel reverse
- Auto off (after 10 min. inactivity)
- Floating zero
- Rotating bezel
- Low battery warning
- Large direct drive LCD display
- Available in 10 resolutions
- 3 SPC data output formats
- Measuring system of either English or Metric
- Maximum reading hold
- User selectable resolution
- 3 power sources
- Internal and external serial numbers

LOGIC™- PLUS Gages include all

features found in the Logic -Basic Series, plus the following additional features:

- Absolute/Preset measuring mode
- Minimum reading hold
- User tolerance preset (high and low)
- T.I.R. measuring mode
- Display/freeze reading hold
- Feature lock

LOGIC™- OEM The Logic -OEM Series

allows the customer to define a gage to meet unique application requirements. Thus, the Logic -GEM Series is ideally suited for custom and GEM applications. The staff stands ready to assist you in custom-tailoring specific requirements.

Measuring System consists of a digital readout and a LINEAR probe implementing all of the features of the Logic -Plus Series

Readouts with base resolution of either:

.00005"/.001mm or .0001"/.002 mm

User-selected to:

.00025"/.005mm, .0005"/.01mm or .001"/.02mm

Power Sources Available:

110 volt 50/60 Hz
220 volt 50/60 Hz
Battery Operation or A/C Adapter
(without backlight)

Readout Only: The standard Logic Series of indicators with the use of a special cable (PIN ADA-0022) can also be used with the remote readout, provided indicator and remote are at the same base resolution. This is ideal where an extra large display is of benefit.

Additional Uses: This remote can also be adapted for use with any device that outputs quadrature square waves and can operate on a 5VDC regulated power supply.

Customized Applications

Special Measuring Ratios: Gages can be programmed at the factory with ratios such as 4:1 (i.e., spindle moves .250", display reads 1.0"); 1 :4; 10:1; even 3.12:1. Multiple ratios may even be included on a single gage. Multipliers from .01 to 99.9 and inverse equivalents offer endless possibilities for creating special purpose gages.

3 Units of Measurement: Three units of linear measurement are available; all three may be defined by the customer. Example: Inch, Millimeter, and Centimeters. ...or Pounds, Newtons, and Kilograms. A gage can also be programmed to measure diameter, radius, and circumference.

Custom LCDs and Graphics: Special LCDs and graphics on request.

Full Metric: Designed specifically for markets outside the U.S. Features an Bmm stem, flat back, metric spindle threads (ISO m2.5), and Metric glass scale measuring system. All other design features are the same as standard Logic Series indicators.



Digital Indicators

Range	Res.	Basic Model	Plus Model
.060	.001	ABD-1300	APD-1300
.060	.0005	ABD-4300	APD-4300
.060	.00025	ABD-5300	APD-5300
.060	.0001	ABD-2300	APD-2300
.060	.00005	ABD-3300	APD-3300
.150	.001	ABD-1400	APD-1400
.150	.0005	ABD-4400	APD-4400
.150	.00025	ABD-5400	APD-5400
.150	.0001	ABD-2400	APD-2400
.150	.00005	ABD-3400	APD-3400
.250	.001	ABD-1500	APD-1500
.250	.0005	ABD-4500	APD-4500
.250	.00025	ABD-5500	APD-5500
.250	.0001	ABD-2500	APD-2500
.250	.00005	ABD-3500	APD-3500
.600	.001	ABD-1600	APD-1600
.600	.0005	ABD-4600	APD-4600
.600	.00025	ABD-5600	APD-5600
.600	.0001	ABD-2600	APD-2600
.600	.00005	ABD-3600	APD-3600
1.000	.001	ABD-1110	APD-1110
1.000	.0005	ABD-4110	APD-4110
1.000	.00025	ABD-5110	APD-5110
1.000	.0001	ABD-2110	APD-2110
1.000	.00005	ABD-3110	APD-3110
2.000	.001	ABD-1720	APD-1720
2.000	.0005	ABD-4720	APD-4720
2.000	.00025	ABD-5720	APD-5720
2.000	.0001	ABD-2720	APD-2720
2.000	.00005	ABD-3720	APD-3720
4.000	.001	ABD-1820	APD-1820
4.000	.0005	ABD-4820	APD-4820
4.000	.00025	ABD-5820	APD-5820
4.000	.0001	ABD-2820	APD-2820

2" & 4" Range

Any combination of the features found in either the Logic-Basic or Logic-Plus Series, can be provided. Please specify requirements when ordering. In addition, the Logic-OEM Series can be ordered with:

Instrument Specifications

Accuracy	± One Resolution			Digit Size, Gage	.305 High
Quantizing Error	± One Count			Digit Size, Readout	5/8" High
Normal Measuring Force at Breakaway	80 Grams 1.0" Or Less	190 Grams 2.0" Range	280 Grams 4.0" Range	Data Output	RS232, MT1, BCD
Total Weight	6 oz. 1.0" or less	16 oz. 2.0" Range	23 oz. 4.0" Range	Power Sources	Replaceable Air Zinc Batteries, A/C Adapter, or External through data port.
Operating Temperature	40° – 105° F			Absolute / Preset	LOGIC PLUS Only
Spindle Speed	15" Per Second			T.I.R.	LOGIC PLUS Only
Min. Force w/Constant Wt.	50 Grams 1.0" Or Less	40 Grams 2.0" Range	50 Grams 4.0" Range	Hold Feature	LOGIC BASIC Max. Hold; LOGIC PLUS Max., Min., & Freeze Hold
Response Speed	Immediate			Rotating Bezel	Yes
Contact Point	¼ Radius			Inch Metric Conversion	Yes
Mounting Back	Center Lug Back	Adjustable Lug Back		Resolutions English	.001", .0005", .00025", .0001", .00005"
				Resolutions Metric	.02mm, .01mm, .005mm, .002mm, .001mm
				Tolerances	LOGIC PLUS High & Low Presettable

Remote Readout

LCD Display: Large 5/8 high green digits, backlighted



Linear Probe



Probe accuracy of either .00005 or .0001
Measuring ranges:
.060"/1.5mm
.150"/3.8mm
.250"/6.35mm
.600"/15mm
1.0"/25.4mm
2.0"/50.8mm
4.0"/101.6mm

All Indicators Include: (unless otherwise specified)

- Four Air Zinc Batteries (AC Adapter Optional)
- #4-48 x V4 L, Spherical Tip Contacts
- Convertible Hor.Vert. Lug Back
- Top Dust Cap (AGO 2 & 3 only)

Basic Modifications and Accessories are listed in Catalog Price Sheet Dimensional Drawings Available on Request

Remote Readouts

Max. Res.	Power	Model
.0001	110V	ARD-2030
.0001	220V	ARD-2031
.0001	Battery	ARD-2050
.00005	110V	ARD-3030
.00005	220V	ARD-3031
.00005	Battery	ARD-3050
.002mm	220V	ARD-2041
.001mm	220V	ARD-3041

Linear Probes

Range	Res.	Model
.060	.0001	ASD-2300
.060	.00005	ASD-3300
.150	.0001	ASD-2400
.150	.00005	ASD-3400
.250	.0001	ASD-2500
.250	.0005	ASD-3500
.600	.0001	ASD-2600
.600	.00005	ASD-3600
1.000	.0001	ASD-2110
1.000	.00005	ASD-3110
2.000	.0001	ASD-2720
2.000	.00005	ASD-3720
4.000	.0001	ASD-2820

Linear Probe includes 6' cable to Remote Display. Optional 6' extension available, Order #ADA-0001. Maximum separation -12'

LOGIC™ Digital Bench & Hand-Held Instruments

★ Made In The U.S.A.

The gages depicted represent a small portion of the Ames Digital Product Line. Models tabulated include LOGIC™ Basic or Plus features.

Digital Comparators



Models
#2-B1500
#2-P1500

Cast "C" Frame Assures Fixed Settings



Models
#3-B1500
#3-P1500

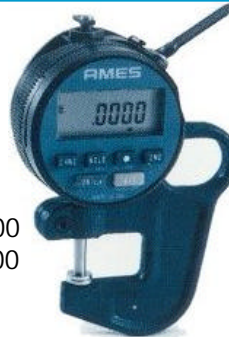
Column Mounted Indicator Increases Gage Capacity

DIGITAL COMPARATORS

Basic Model	Plus Model	Grads	Range	Contact Diameter	Throat
#2 - B1500	#2 - P1500	.001"	.250"	3/8"	2"
#3 - B1500	#3 - P1500	.001"	.250"	3/8"	1 1/2"

Digital Micrometers

Traditionally Ames has produced a wide selection of Dial Micrometers offering a variety of resolutions, ranges, and throat depths up to 24"



Models
5612/B1600
5612/P1600

Models
5662/B1600
5662/P1600



Models
5682/B1110 - 5682/P1110
56122/B1110 - 56122/P1110
56182/B1110 - 56182/P1110

DIGITAL MICROMETERS

Basic Model	Plus Model	Grads	Range	C & A Diameter	Throat
5612/B1600	5612/P1600	.001"	1/2"	3/8"	1"
5662/B1600	5662/P1600	.001"	1/2"	3/8"	6"
5682/B1110	5682/P1110	.001"	1"	3/8"	8"
56122/B1110	56122/P1110	.001"	1"	3/8"	12"
56182/B1110	5612/P1110	.001"	1"	3/8"	18"

Digital Can Gage

This Can-End Depth Gage reads out in .001" resolutions over a .600" depth range with metric conversion. Precision ground (1/2" W x 9" L). Reference Bar. Conforms to CMI Voluntary Can Standard.

Order Model S-5101/P 1600 for Preset - Depths & Tolerance Dimensioning.



Model S-5101-B1600

Digital Feather Touch Gage

The Gage For Compressible Materials.

Foam rubber, etc. Large 1 1/4" Dia. Contacts distribute approximately 55 grams of gaging force. Reads out in .001" resolution over 1" range.

Order 63-281/P1110 for minimum reading HOLD or PRESET dimensioning.

Model 63-281/B1110



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