

# GAPMAN<sub>GEN3</sub>

Gapman® Portable Electronic Feeler Gage

Gapman<sub>Gen3</sub> is the latest generation high precision, non-contact, portable electronic gap measurement gage. Features include:

- A dual capacitive sensor for position-compensated measurement
- Easy insertion into very thin gaps down to 0.0075" (0.190 mm) in a wide range of parallel and roller gap applications
- Micro-controller based and application software driven
- Gapman records and stores data points for easy transfer to support Six Sigma and other quality programs



Gapman<sub>Gen3</sub> shown with spring contact wand



Gapman<sub>Gen3</sub> with flexible GPD-4.5-A-250

## Applications

Aircraft assemblies: wings, fuselage

Composite structures: CFRP

PowerGen: rotor/stator, steam, gas, hydro

Coaters/extruders: slot die, extrusion dies

Roller gaps: photocopiers, high volume printers

Industrial machinery: set up tools, alignment

## Benefits

- Dramatic improvement over feeler gages
- Eliminates operator to operator subjectivity
- Consistently meets or exceeds stringent Gage R&R qualification
- Speeds aircraft shimming operations by up to four times
- Measures gaps between all metal and CFRP surfaces
- Spring sensor wand configurations for non-conductive targets
- Compact, fully portable, light weight and rugged
- 22 hour battery life at full function output or USB power option
- Records 10,000+ data points for easy transfer via USB or wireless to data reader software
- Resolution: up to 0.01% full scale, repeatability:  $\pm 0.05\%$  full scale, accuracy:  $\pm 0.5\%$  full scale
- Overall design focus on simplicity

## Applications



Aircraft assemblies - hidden



CFRP to metal gaps



PowerGen - rotor to stator



Slot die coater gaps



Roller gaps



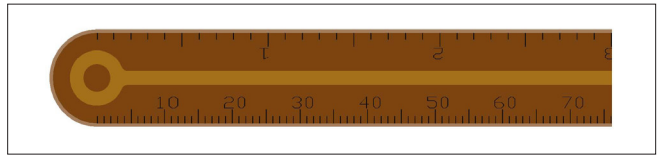
Printers, high volume photocopiers

# Technical Specifications



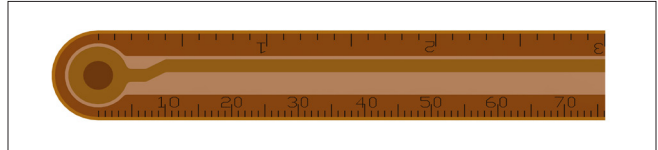
**Gapman Core Unit**

Size: 2.2"x 8.7"x 1.1" (56mm x 220 mm x 28 mm)



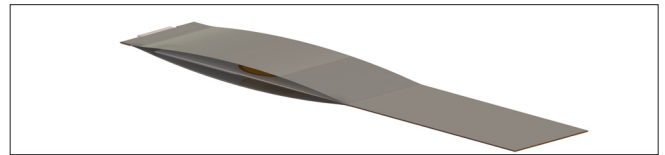
**Thin sensor wand GPD-5F-A-200**

Size: 0.55"x 7.9"x 0.017" (14 mm x 200 mm x 0.43 mm)  
Range: .017" to 0.118" (0.43mm to 3.00mm)



**Thin sensor wand GPD-4.5(.0075)-A-250**

Size: 0.55"x 9.8"x 0.0075" (14 mm x 250 mm x 0.190 mm)  
Range: .0078" to 0.100" (0.20mm to 2.54mm)



**Spring contact wand GPD-5(.022)-A-150**

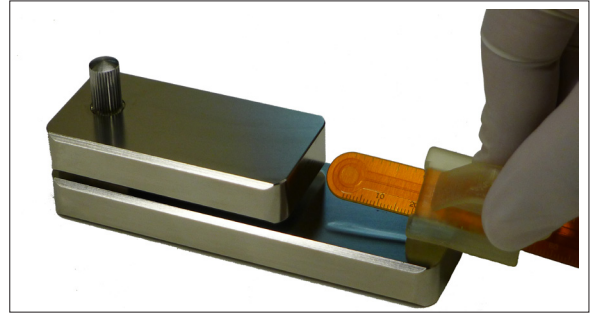
Size: 0.55"x 7.9"x 0.017" (14 mm x 200 mm x 0.43 mm)  
Range: .025" to 0.140" (0.64mm to 3.56mm)

|                                 |   |  |
|---------------------------------|---|--|
| Target materials                | Measures gaps between all earth grounded metal and composite (CFRP) surfaces  |  |
| Remote vs integral sensor wands | Remote sensor wand kit available  |  |
| Accuracy                        | ± 0.5% FS   |  |
| Repeatability                   | ± 0.05% FS  |  |
| Resolution                      | micron  | 0.00001" (0.254 microns)   |
|                                 | mm  | .0001 mm   |
|                                 | inches  | .0001"   |
| Calibration                     | Factory preset, traceable to NIST   |  |
| Thin gap sensor wands           | Select from over 20 standard models, custom wands available   |  |
| Spring contact wand             | Select from several standard models. For applications where one or both of the target surfaces are uneven or non conductive |  |
| Control buttons                 | External buttons for units, set to standard, data, and delete with optional lockout   |  |
| Display                         | Bright blue alphanumeric active matrix OLED display, 128 x 64 pixel, 1.54" (39.12mm)  |  |
| Data output                     | USB   | USB Type A locking to standard USB cable                         |
|                                 | wireless  | Blue Tooth v2.0 Class 1 10m standard, 30m optional with reciever |
| Internal power                  | 3 AA batteries for battery life of 22 hours max, 1/3 less with wireless   |  |
| External power                  | USB Type A AC universal power adapter, or laptop PC   |  |

## 4200GM-Gen3 Standard System



Standard Gapman measurement system



Optional calibration block and wand positioner

A standard GapmanGEN3 gap measurement system includes the following

- Gapman core unit for integral wands, and built in 10,000 point data logger
- GPD-5F-A-200 non-contact flexible sensor wand, 0.017" to 0.100" (0.43 mm - 2.54 mm) (Example wand)
- Grounding cable, with 90° banana plug to straight banana plug with gator clip (12 feet)
- USB power/data comm accessory kit, includes USB Type A AC universal power adapter and USB Type A locking to standard USB cable (6 feet)
- Flat metal to flat metal NIST traceable calibration w/data sheet
- Data reader software & cal data on flash drive
- Supervisor/calibration access level option
- 3-Point thin wand quick check block
- 2 sets of 3 long life "AA" batteries
- Rugged IP67grade carrying case



Mounting feature



USB I/O, Ground



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