

# Fred V. Fowler Company, Inc.



## Z\_Cal Series Electronic Height Gages

**Z\_Cal Height Gages** from Fowler/Sylvac. The Z\_Cal offers great lightweight and compact design features, including:

- **Quick change probe holder system (same weight for each accessory)**
- **Improved sensitivity for short displacements (much easier to move short distances)**
- **Audible signal for measurement confirmation**

Use in the workshop or inspection room, it easily measures fragile and sensitive parts such as plastics, synthetic materials, light alloys and fragile and thin-walled parts.

Sylvac's **Patented Motorized Measuring System** allows easy measurement and repeatability. The probe speed is proportional to the finger pressure. Direct RS232 connection to a computer. The 6" & 12" Z\_Cal II is supplied as standard with a 3mm probe (1mm and 2mm probes are optionally available). The Z\_Cal measures heights, depths, slots, internal and external diameters, the distance between centers...all within an accuracy of 4 or 5 microns. Z\_Cal II includes a Ni-cad battery pack and recharger—provides 40 hours of operational time on a single charge.

### Special Features:

- One hand operation
- Measures heights, length and slots
- Measures centerline location and center distances with dual references.
- Measures internal and external diameters
- Extremely light measuring pressure (variable)
- High accuracy of .00016"/.004mm and .0002"/.005mm
- Large selection of optional probes with diameters of 1mm and 2mm for miniature parts.
- Includes setting gage.



### Specifications

Model	54-930-150	54-930-300
Measuring range	0—6"(150mm)	0—12"(300mm)
Resolution	.0005"/.00005"(.01/.001mm)	.0005"/.00005"(.01/.001mm)
Accuracy	.00016"(4µm)	.0002"(5µm)
Repeatability	.00008"/2µm(±2S)	.00008"/2µm(±2S)
Operational speed	0.15m/sec (max.) variable	0.15m/sec (max.) variable
Measuring force	1 oz. (0.3N) (Adjustable)	1 oz. (0.3N) (Adjustable)
Operational time	40 hours	40 hours
Overall height	14"(350mm)	20"(520mm)
Weight	9.4 lb. (4.3 kg)	11.66 lb. (5.3 kg)
Data output	RS232 (Bidirectional)	RS232 (Bidirectional)

Order No.	Description	Range
54-930-150	Z_Cal Height Gage with master set. gage	6"/150mm
54-930-300	Z_Cal Height Gage with master set. gage	12"/300mm

For the 600 Series Z-Cal (0-24"/600mm) See the following Trimos section.

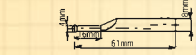
# Fred V. Fowler Company, Inc.



## Z-Cal Height Gage Accessories

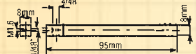
The Z-Cal Height gages have a variety of optional accessories to fit your needs. From probes to printers there's something available to better fit your gaging application.

Ruby-ball probe (standard), Ø 4mm



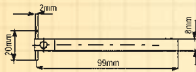
54-199-012

Measuring insert and insert for dial indicator probe



54-190-555

Measuring insert with interchangeable pin.



54-190-554

Reduction holder Ø 8mm/4mm



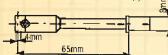
54-199-019

Reduction holder Ø 8mm/3/8"



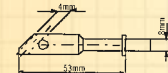
54-199-020

Holder for Ø 4mm



54-199-014

30° holder, Ø 4mm



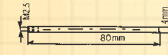
54-199-015

Swivel holder for measuring inserts



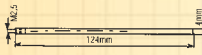
54-199-013

Holder L= 80mm /M2,5



54-199-506

Holder L=124mm /M2,5



54-199-505

Ball point Ø 2mm/M2,5



54-199-504

Disc shaped insert 1mm/M2,5  
0,8mm/M2,5 (pair)



54-199-502

Corner insert 1mm/M2,5



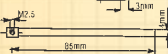
54-199-503

Right angle ruby-ball insert 3mm/M2,5



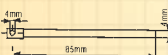
54-199-501

90° holder / M2,5



54-199-507

90° holder / Ø 4mm



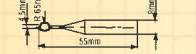
54-199-508

Barrel-shapped insert, 2,2mm



54-190-563

Barrel-shapped insert, 4,5mm



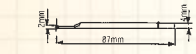
54-190-564

Barrel-shapped insert, 4,5mm



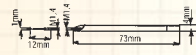
54-190-565

Ruby-ball probe, Ø 2mm



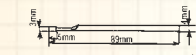
54-199-509

Probe holder and probe Ø1mm.



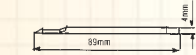
54-199-512

Cylindrical probe, Ø 3mm



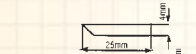
54-199-511

Knife-edge insert



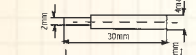
54-199-510

Knife-edge insert



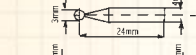
54-190-043

Pin shaped insert



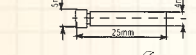
54-190-046

Ball insert



54-190-044

Disc shaped insert



54-190-047

Quick clamp probe holder



54-199-020

### Probes, Holders & Inserts (shown)

Order #	Description
54-199-012	Ruby-ball probe (standard) 4mm
54-190-555	Measuring insert & insert for dial indicator probe
54-190-554	Measuring insert with interchangeable pin
54-199-019	Reduction holder 8mm/4mm
54-199-020	Quick clamp probe holder
54-199-014	Holder for 4mm
54-199-015	30° holder 4mm
54-199-013	Swivel holder for measuring inserts 8mm
54-199-011	Swivel holder for measuring inserts .250"
54-199-506	Holder L=80mm/M2.5
54-199-505	Holder L=124mm/M2.5
54-199-504	Ball point 2mm/M2.5
54-199-502	Disc shaped insert set 1mm/M2.5 0.8mm/M2.5 (pair)
54-199-503	Corner insert 1mm/M2.5
54-199-501	Ruby-ball insert 3mm/M2.5
54-199-507	90° holder/M2.5
54-199-508	90° holder/4mm
54-190-563	Barrel-shaped insert
54-190-564	Barrel-shaped insert
54-190-565	Barrel-shaped insert
54-199-509	Ruby-ball probe 2mm
54-199-512	Probe holder & probe 1mm
54-199-511	Cylindrical probe 3mm
54-199-510	Knife edge insert
54-190-043	Knife-edge insert
54-190-046	Pin shaped insert
54-190-044	Ball insert
54-190-047	Disc shaped insert

### Other Accessories (not shown)

54-199-000	Printer including: Printer & AC adaptor (without cable & bracket)
54-199-005	Complete Printer kit (includes printer, AC adaptor, cable and bracket)
54-199-002	RS232 printer cable
54-618-166	RS232 PC cable
54-199-010	Thermal printer paper (5 rolls)
54-199-018	110V AC adaptor for V600/V1000 (included with all V series gages)
54-199-070	Setting reference gage, height=75mm
54-199-075	Setting reference gage, height=3"
54-199-560	Wooden accessory support block
54-199-016	Complete set (including 54-199-501 thru 54-199-515 & 54-199-550)
54-199-017	Partial set (including 54-199-509 thru 54-199-513 & 54-199-550)
54-199-513	Lock wrench
54-199-514	Hex screw wrench 1.5mm
54-199-515	Hex screw wrench 2.5mm
54-199-550	Wooden case (empty) included with 54-199-016/017