

**ELECTRONIC HEIGHT GAGES**  
STARRETT SERIES 3752:



The 3752 Electronic Height Gage is a full featured, versatile and economic solution for most height measurement applications. All measuring information from these tools can be entered directly into Starrett Data Collection Systems for analysis, data collection and hard copy documentation. They are available in 0-12" and 0-24" ranges.

**Readability and Control Features**

- Clear bar graduations in .100" and 5mm increments
- Large (.380"/9.65mm), easy-to-read LCD display reads to .0005" or 0.01mm
- Instant inch-millimeter conversion
- Carrier and scribe designed to read from zero
- "Hold" control feature retains a reading at any position
- Plus or minus indication allows reading in proper direction
- Ability to set zero at any position
- Manual on/off plus a built-in automatic off after 30 minutes of nonuse

**Full Function Action Features**

- Large positive action keypad
  - Ability to retain and return to the true zero reading of the height gage
  - PRESET button to install any reading at any position
  - Ability to install minimum and maximum limits
  - RS232 data output port
  - Works well with Starrett Datasure® Wireless Data Collection Systems
- Battery Life**
- 1-1/2+ years battery life. Two 3-volt batteries furnished (CR2450)



• Linear Accuracy: ±.001" (±0.02mm)  
• Resolution: .0005" (0.01mm)

Height Gage shown with optional Auxilliary Circular Carbide Scriber, PT 28131. Gages are furnished with Auxilliary Straight Carbide Scriber, TP 22357.

Specifications for 3752 Electronic Height Gages	
Resolution	.0005" (0.01mm)
Graduations	.100" (5mm)
Overall Accuracy	±.0015" (.04mm) 0-18" (0-450mm) ±.002" (.05mm) 18-24" (450-600mm)
Battery Life	Over 1-1/2 Years Average Use

3752 Electronic Height Gages				
Range	Description	Catalog No.	EDP	Price
0-12" (300mm)	Height Gage without Case	3752-12/300	68815	
0-24" (600mm)		3752-24/600	68816	
Cables, Accessories, Cases				
Description	Catalog No.	EDP	Price	
Shielded Cable to Starrett 761/772 Series Modules, PT61768 Adaptor	PT22938	64059		
Interface Adaptor for Starrett Tools to PC	PT61768	66454		
3-Volt Battery, CR2450 (2) Required	PT61120	65446		
Wood Case Only for 12" Gage	928	55249		
Wood Case Only for 24" Gage	945	56684		

Furnished without case unless otherwise ordered.



While we show the most popular **Starrett** items, we can supply their entire range of products; please inquire.

**DIAL TRAVEL INDICATORS**  
SERIES 220:



These Indicators are graduated in .001" or .01mm with the second hand reading every .010" or .1mm. Range per revolution .10" or 1.0mm. Reading 0-100. Back has clamping lug.

Travel	White Face		Black Face	
	Order No.	Price	Order No.	Price
1/4"	1530025		-	
1/2"	1530005		-	
1"	1530010		1530011	
2"	1530020		1530021	
10mm	1530000		-	
25mm	1530100		-	

**MAGNETIC BASE & INDICATOR SETS**



SERIES 221:



Magnetic Base	Indicator	Order No.	Price
Standard	1" Travel	1540001	
Fine/Adj.	1" Travel	1540006	

**MAGNETIC BACK FOR DIAL INDICATOR**  
SERIES 221:

Product Description

- Permanent powerful magnet
- Attaches to the back of 2" diameter AGD dial indicators



Diameter		Thickness	
in.	mm	in.	mm
2-1/4"	57	1/2"	12.5

Order No.:	2210000
Price	

**DIAL INDICATORS - MINIATURE**  
STARRETT SERIES 80:



Starrett AGD dial indicators have a hardened stainless steel rack, pinions and gears which resist shock and extend wear life to a remarkable degree. These moving parts are finished to extremely fine tolerances, delivering a smooth, sensitive action that minimizes friction and lost motion and insures precise repetitive readings.

**MINIATURE DIAL INDICATORS - 1-1/4" DIAL DIAMETER, 7/32" STEM**

Similar in design to AGD dial indicators, these miniatures are built for measuring bed travel on machines, gaging fixtures and for gaging dimensions in tight places. Equipped with high precision, low friction movements, they are made in three models, all with frictionally adjustable bezels for quick, positive zero setting. No glare, white eggshell finish dials, black bezel, satin chrome finish on case, furnished with balanced dial, jeweled bearings and lug-on-center back.

Grad.	Reading	Total Range	Range One Rev.	Catalog No.	EDP No.	Price
.001"	0-20-0	.100"	.040"	80-144J	55893	
.0005"	0-10-0	.050"	.020"	80-134J	55892	
.0001"	0-2-0	.010"	.004"	80-114J	55891	

PRECISION TOOLS

**DIAL INDICATORS -  
AGD GROUP 1**



STARRETT SERIES 81:

Furnished with lug-on-center back and jewel bearings.

Anti-magnetic and nonshock mechanisms available on all models.

**SPECIFICATIONS -**

1-11/16" DIAL DIAMETER, .375" STEM



Grad.	Dial Reading	Range One Rev.	Range Total	Catalog No.	EDP No.	Price
<b>INCH MODELS</b>						
.001"	0-10-0	.020"	.050"	81-142J	53402	
.001"	0-20	.020"	.050"	81-242J	53430	
.001"	0-15-0	.030"	.075"	81-143J	53404	
.001"	0-30	.030"	.075"	81-243J	53432	
.001"	0-20-0	.040"	.100"	81-144J	53408	
.001"	0-40	.040"	.100"	81-244J	53434	
.001"	0-25-0	.050"	.125"	81-145J	53410	
.001"	0-50	.050"	.125"	81-245J	53436	
.001	0-50-0	.100	.250	81-141J	53400	
.001	0-100	.100	.250	81-241J	53428	
.0001"	0-5-0	.010"	.025"	81-111J	53378	
.0001"	0-10	.010"	.025"	81-211J	53414	
.00025"	0-5-0	.010"	.025"	81-124J	53384	
.00025"	0-10	.010"	.025"	81-224J	53416	
.00025"	0-10-0	.020"	.050"	81-128J	53386	
.00025"	0-20	.020"	.050"	81-228J	53418	
.0005"	0-10-0	.20"	.050"	81-134J	53390	
.0005"	0-20	.20"	.050"	81-234J	53422	
.0005"	0-15-0	.30"	.075"	81-136J	53392	
.0005"	0-30	.30"	.075"	81-236J	53424	
.0005"	0-20-0	.040"	.100"	81-138J	53398	
.0005"	0-40	.040"	.100"	81-238J	53426	
.0005"	0-25-0	.050"	.125"	81-131J	53388	
.0005"	0-50	.050	.125"	81-231J	53420	
<b>MILLIMETER MODELS</b>						
.002mm	0-10-0	0.2mm	0.5mm	81-161J*	56043	
.002mm	0-10-0	0.2mm	0.5mm	81-161J-8**	64643	
.002mm	0-20	0.2mm	0.5mm	81-261J*	56045	
.002mm	0-20	0.2mm	0.5mm	81-261J-8**	64644	
.01mm	0-50-0	1.0mm	2.5mm	81-181J*	53412	
.01mm	0-50-0	1.0mm	2.5mm	81-181J-8**	64645	
.01mm	0-100	1.0mm	2.5mm	81-281J*	53438	
.01mm	0-100	1.0mm	2.5mm	81-281J-8**	64646	

\* .375" Stem Diameter

\*\* 8mm Stem Diameter

**LONG RANGE DIAL INDICATORS**

STARRETT SERIES 655, 656:



- Stem cap supplied as standard
- Continuous reading double dial with direct reading count hands
- Jewel bearings and lug-on-center back

Inch Model	Dial Diameter	Metric Model	Dial Diameter
655-2041J	2 3/4"	655-2081J	70mm
656-3041J	3 5/8"	655-3081J	70mm



Grad.	Reading	Range	Catalog No.	EDP No.	Price
.001"	0-100	2.000"	655-2041J	53619	
.001"	0-100	3.000"	656-3041J	53800	
.01mm	0-100	50mm	655-2081J	56230	
.01mm	0-100	75mm	655-3081J	56231	

**DIAL INDICATORS -  
AGD GROUP 2**



STARRETT SERIES 25:



Furnished with lug-on-center back and with jewel bearings. Anti-magnetic and special nonshock mechanisms available on all models listed. Indicators marked with an (\*) conform to AGD specifications except for range.

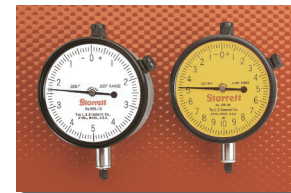
**SPECIFICATIONS - 2-1/4" DIAL DIAMETER, .375" STEM**

Grad.	Dial Reading	Range One Rev.	Range Total	Catalog No.	EDP No.	Price
<b>INCH MODELS</b>						
.0001"	0-5-0	.010"	.025"	25-111J	53223	
.0001	0-5-0	.010	.200	25-511J*	53299	
.0001	0-10	.010	.200	25-611J*	53301	
.0005	0-25-0	.050	.125	25-131J	53232	
.0005	0-50	.050	.500	25-431J	53292	
.0005	0-50	.050	1.000	25-631J	53304	
.001	0-50-0	.100	.250	25-141J	53240	
.001	0-100	.100	.250	25-241J	53271	
.001	0-50-0	.100	.500	25-341/5J	53285	
.001	0-100	.100	.500	25-441/5J	53293	
.001	0-50-0	.100	1.000	25-341J	53287	
.001	0-100	.100	1.000	25-441J	53295	
<b>MILLIMETER MODELS</b>						
0.01mm	0-100	1.0mm	10mm	25-481J	53297	
0.01mm	0-50-0	1.0mm	25mm	25-781J	53305	
0.01mm	0-100	1.0mm	25mm	25-881J	53307	
0.01mm	0-50-0	1.0mm	10mm	25-381J	53289	

**DIAL INDICATORS -  
AGD GROUP 3**



STARRETT SERIES 25:



Furnished with lug-on-center back, shockless hardened steel gear train and jewel bearings.

**SPECIFICATIONS - 2-3/4" DIAL DIAMETER, .375" STEM**

Grad.	Dial Reading	Range One Rev.	Range Total	Catalog No.	EDP No.	Price
<b>Inch Models</b>						
.0001"	0-10	.010"	.200"	655-611J	53617	
.001"	0-50-0	.100"	.500"	655-341/5J	53607	
.001"	0-100	.100"	.500"	655-441/5J	53611	
.001"	0-50-0	.100"	1.000"	655-341J	53609	
.001"	0-100	.100	1.000"	655-441J	53613	
<b>Millimeter Models</b>						
.01mm	0-100	1.0mm	25mm	655-881J*	56229	
.01mm	0-100	1.0mm	25mm	655-881J-8**	64869	

\* .375" Stem Diameter

\*\* 8mm Stem Diameter

# DIAL INDICATORS

MIT SERIES 1, 2, 3, 4:

MITUTOYO offers dial indicators in the four basic AGD Series, with inch and metric graduations. These instruments conform to the three specifications governing dial indicators: American Gage Design, Military, and ANSI. This scope of available ranges and graduations is such that MITUTOYO is now one of the largest producers of dial indicators.

## DIAL INDICATORS / GROUP 0



Mitutoyo

### INCH-ANSI Standard (Stem Diameter 3/8")

Grad.	Total Range	Catalog No.	Range Per Rev.	Dial Reading	Order No.	Price
.0001"	.01"	1927-10	.004	0-2-0	8192710	
.0001"	0.25"	1925-10	.01"	0-5-0	8192510	
.0005"	.05"	1923	.02"	0-10-0	5581923	
.001"	.1"	1921	.04"	0-20-0	5581921	

### METRIC-Standard (Stem Diameter 8mm)

Grad.	Total Range	Catalog No.	Range Per Rev.	Dial Reading	Order No.	Price
0.002mm	0.05mm	1913-10	0.2mm	0-100-0	8191310	
0.01mm	2.5mm	1911	1mm	0-50-0	5581911	

Lug back is standard; for flat-back version add 'B' to the number, e.g. 1927B-10.

-10 Indicates Jewel Bearings

## DIAL INDICATORS / GROUP 1



Mitutoyo

### INCH-ANSI Standard (Stem Diameter 3/8")

Grad.	Total Range	Catalog No.	Range Per Rev.	Dial Reading	Order No.	Price
.0001"	.025"	1802-10	.01	0-10	8180210	
.0001"	.025"	1803-10	.01	0-5-0	8180310	
.00025"	.05"	1470S	.02"	0-20	5581470	
.00025"	.05"	1471S	.02"	0-10-0	5581471	
.0005"	.125"	1506S	.05"	0-50	5581506	
.0005"	.125"	1507S	.05"	0-25-0	5581507	
.001"	.125"	1780	.05"	0-50	5581780	
.001"	.125"	1781S	.05"	0-25-0	5581781	
.001"	.25"	1410S	.1"	0-100	5581410	
.001"	.25"	1410S10	.1"	0-100	0141010	
.001"	.25"	1411	.1"	0-50-0	5581411	

Lug back is standard; for flat-back version add 'B' to the number, e.g. 1927B-10.

(Continued)

-10 Indicates Jewel Bearings

## DIAL INDICATORS / GROUP 1

(Continued)



Mitutoyo

### METRIC-ANSI Standard (Stem Diameter 3/8")

Grad.	Total Range	Catalog No.	Range Per Rev.	Dial Reading	Order No.	Price
0.002mm	0.5mm	1010S-11	0.2mm	0-20	8101011	
0.002mm	0.5mm	1011S-11	0.2mm	0-10-0	8101111	
0.01mm	2.5mm	1230S-01	1mm	0-100	8123001	
0.01mm	2.5mm	1231S-01	1mm	0-50-0	8123101	
0.01mm	5mm	1044S-01	1mm	0-100	8104401	
0.01mm	5mm	1045S-01	1mm	0-50-0	8104501	

### METRIC-Standard (Stem Diameter 8mm)

Grad.	Total Range	Catalog No.	Range Per Rev.	Dial Reading	Order No.	Price
0.001mm	1mm	1109S	0.2mm	0-20	5581109	
0.002mm	1mm	1013S	0.2mm	0-10-0	5581013	
0.005mm	3.5mm	1124S	1mm	0-100	5581124	
0.001mm	3.5mm	1040S	1mm	0-50-0	5581040	
0.001mm	3.5mm	1041S	1mm	0-100	5581041	
0.001mm	4mm	1003	1mm	0-50-0	5581003	
0.001mm	5mm	1044S	1mm	0-100	5581044	
0.001mm	5mm	1045S	1mm	0-50-0	5581045	

Lug back is standard; for flat-back version add 'B' to the number, e.g. 1003B.

-11 Indicates Jewel Bearings

## DIAL INDICATORS / GROUP 2



Mitutoyo

### INCH-ANSI Standard (Stem Diameter 3/8")

Grad.	Total Range	Catalog No.	Range Per Rev.	Dial Reading	Order No.	Price
.0001"	.025"	2802S-10	.01	0-10	8280210	
.0001"	.025"	2803S-10	.01	0-5-0	8280310	
.0001"	.05"	2804S-10	.01	0-10	8280410	
.0001"	.05"	2805S-10	.01	0-5-0	8280510	
.0001"	.1"	2806S-10	.01	0-10	8280610	
.0005"	.075"	2570S-10	.03	0-30	8257010	
.0005"	.1"	2776S	.05	0-50	5582776	

Lug back is standard; for flat-back version add 'B' to the number, e.g. 2937SB-10.

-10 Indicates Jewel Bearings

(Continued)





**DIAL INDICATORS**



MIT SERIES 1, 2, 3, 4:

**DIAL INDICATORS / GROUP 2**

(Continued)



**INCH-ANSI Standard (Stem Diameter 3/8")**

Grad.	Total Range	Catalog No.	Range Per Rev.	Dial Reading	Order No.	Price
.001"	.25"	2410S	.1"	0-100	5582410	
.001"	.25"	2410S-10	.1"	0-100	8241010	
.001"	.25"	2919S-10	.1"	0-100	8291910	
.001"	.25	2411S	.1"	0-50-0	5582411	
.001"	.25	2411S-10	.1"	0-50-0	8241110	
.001"	.5	2414S	.1"	0-100	5582414	
.001"	.5	2414S-10	.1"	0-100	8241410	
.001"	.5	2415S	.1"	0-50-0	5582415	
.001"	.5	2415S-10	.1"	0-50-0	8241510	
.001"	1"	2416S	.1"	0-100	5582416	
.001"	1"	2416S-06	.1"	0-100	8241606	
.001"	1"	2416S-10	.1"	0-100	8241610	
.001"	1"	2417S	.1"	0-50-0	5582417	
.001"	2"	2424S-19	.1"	0-100	8242410	

Lug back is standard; for flat-back version add 'B' to the number, e.g. 2410SB-10.

-10 Indicates Jewel Bearings

-06 Indicates Black Dial Face With Orange Hands



**METRIC-ANSI Standard (Stem Diameter 3/8")**  
With Yellow Dial Face

Grad.	Total Range	Catalog No.	Range Per Rev.	Dial Reading	Order No.	Price
0.001mm	1mm	2109S-11	0.2mm	0-100-0	8210911	
0.01mm	10mm	2046S-01	1mm	0-100	8204601	
0.01mm	10mm	2046S-11	1mm	0-100	8204611	
0.01mm	10mm	2047S-01	1mm	0-50-0	8204701	
0.01mm	10mm	2047S-11	1mm	0-50-0	8204711	
0.01mm	10mm	2048S-11	1mm	0-100	8204811	
0.01mm	20mm	2050S-01	1mm	0-100	8205001	
0.01mm	20mm	2050S-11	1mm	0-100	8205011	
0.01mm	25mm	2056S-01	1mm	0-100	8205601	

**Metric-Standard (Stem Diameter 8mm)**

Grad.	Total Range	Catalog No.	Range Per Rev.	Dial Reading	Order No.	Price
0.01mm	5mm	2044S	1mm	0-100	5582044	
0.01mm	5mm	2045S	1mm	0-50-0	5582045	
0.01mm	10mm	2046S	1mm	0-100	5582046	
0.01mm	10mm	2310S-10	1mm	0-100	5582310	
0.01mm	20mm	2320S-10	1mm	0-100	5582320	

Lug back is standard; for flat-back version add 'B' to the number, e.g. 2046SB-11.

-10 Indicates Jewel Bearings

-11 Indicates Jewel Bearings

**DIAL INDICATORS/ GROUP 3**



**INCH-ANSI Standard (Stem Diameter 3/8")**

Grad.	Total Range	Catalog No.	Range Per Rev.	Dial Reading	Order No.	Price
.0001"	0.25"	3802S-10	.01"	0-10	8380210	
.0001"	0.25"	3803S-10	.01"	0-5-0	8380310	
.0005"	0.75"	3570S-10	.03"	0-30	5583570	
.001"	.25"	3410	.1"	0-100	5583410	
.001"	.5"	3414S	.1"	0-100	5583412	
.001"	.4"	3413	.1"	0-50-0	5583413	
.001"	1"	3416S	.1"	0-100	5583416	
.001"	1"	3417S	.1"	0-50-0	5583417	
.001"	2"	3424S-19	.1"	0-100	8342410	
.001"	4"	3428S-10	.1"	0-100	8342810	

Lug back is standard; for flat-back version add 'B' to the number, e.g. 3802SB-10.

-10 INDICATOR JEWEL BEARINGS



**METRIC - ANSI Standard (Stem Diameter 3/8")**  
With Yellow Dial Face

Grad.	Total Range	Catalog No.	Range Per Rev.	Dial Reading	Order No.	Price
0.002mm	0.5mm	3010-11	.02mm	0-20	8301011	
0.01mm	30mm	3052S-11	1mm	0-100	8305211	
0.01mm	50mm	3058S-11	1mm	0-100	8305811	

**Metric - Standard (Stem Diameter 8mm)**

Grad.	Total Range	Catalog No.	Range Per Rev.	Dial Reading	Order No.	Price
0.001mm	1mm	3109S-10	0.2mm	0-100-0	5583109	
0.01mm	10mm	3046S	1mm	0-100	5583046	
0.01mm	10mm	3047S	1mm	0-50-0	5583047	
0.01mm	20mm	3050S	1mm	0-100	5583050	
0.01mm	50mm	3058S-19	1mm	0-10	5583058	
0.01mm	80mm	3060S-19	1mm	0-100	5583060	
0.01mm	100mm	3062S-19	1mm	0-100	5583062	

Lug back is standard; for flat-back version add 'B' to the number, e.g. 3046SB.

-11 Indicates Jewel Bearings

PRECISION TOOLS

**DIAL INDICATORS**

MIT SERIES 1, 2, 3, 4:

**DIAL INDICATORS / GROUP 4**

Mitutoyo



**INCH-ANSI Standard (Stem Diameter 3/8")**

Grad.	Total Range	Catalog No.	Range Per Rev.	Dial Reading	Order No.	Price
.0001"	.025"	4802-10	.01"	0-10	0480210	
.0001"	.025"	4803-10	.01"	0-5-0	8480310	
.0005"	.075"	4570S-10	.03"	0-30	5584570	
.001"	.25"	4410S	.1"	0-100	5584410	
.001"	3"	4887S-19	.1"	0-100	5584887	

Lug back is standard; for flat-back version add 'B' to the number, e.g. 4802B-10.

-10 Indicates Jewel Bearings



While we show the most popular **Mitutoyo** items, we can supply their entire range of products; please inquire.



**Metric-Standard (Stem Diameter 8mm)**

Grad.	Total Range	Catalog No.	Range Per Rev.	Dial Reading	Order No.	Price
0.01mm	10mm	4046S	1mm	0-100	5584046	

Lug back is standard; for flat-back version add 'B' to the number, e.g. 4046SB.

**ELECTRONIC INDICATOR**

SERIES 725:

Range : 0 - .5" / 0 - 12.7mm  
Resolution : 0.0005" / 0.01mm

**Functions include:** in/mm conversion, zero-set, SPC output, tolerance set, auto power off, data hold.



MEGA Superior Import

Order No. 7250102	Price	
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**ELECTRONIC INDICATORS**

SERIES 725:

**FEATURES:**

- Zero setting at any position
- Auto power on/off
- Data output
- Metric/Inch system conversion at any position

MEGA Superior Import



7250104



7250105  
7250106



7250107

Range	Resolution	Order No.	Price
0-0.4"/0-10mm	.0005"/0.01mm	7250104	
0-1.2"/0-30mm	.0005"/0.01mm	7250105	
0-2"/0-50mm	.0005"/0.01mm	7250106	
0-.6"/0-15mm	.00005"/0.001mm	7250107	

**IDU DIGIMATIC INDICATOR WITH ABSOLUTE ENCODER**

MIT SERIES 575:

**FUNCTIONS**

- ON/OFF
- Origin Setting
- Data output and SPC Digimatic Output\*
- Inch/mm conversion (for Inch/Metric models)
- +/- Direction Changeover
- Error alarm
- Low battery alarm

**FEATURES**

- Compact and economical design.
- Provided with a data output port for connection with the SPC system.
- Power supply: One SR-44 battery (541980)
- Operating temperature: 0°C - 40°C
- Membrane sealed face helps keep out contaminants.



Mitutoyo

Order No.	Range	Resolution	Accuracy	Stem Diameter	Price
575-123 Inch/Metric Model	0-1"/ 0-25.4mm	.0005"/ 0.01mm	.0008"/ 0.02mm	.375	
575-121 (Metric Model)	0-25.4mm	0.01mm	0.02mm	8.0mm	

**Measuring Force:** (Downward): 1.8N or Less

**Standard Accessories:** Lifting Lever (137693)

Silver-Oxide Cell SR-44 (541980)

**Protection Level:** IP-42

**Battery life:** 20,000 hrs.

\* For SPC output order Connecting Cable 905338 (1m) or 905409 (2m)

**Note: No lug back is available for these indicators.**



## ELECTRONIC DIGITAL INDICATORS

### STARRETT SERIES 2600:

Electronic indicators with a Starrett designed microprocessor are offered in Basic and Full-function models, all in 1" range. Indicators feature a large, easy-to-read LCD digital display and most models have data output capability to Starrett computer hardware and data collection systems for SPC analysis and documentation.



### DESIGN FEATURES (Both Models)

- 1" (25mm) range
- Conforms to dimensions of AGD size Group 2
- Available with either a .375" (9.5 mm) stem or a .315" (8 mm) stem; .375" (9.5mm) furnished unless otherwise specified.
- Readout available to .0005" and 0.01 mm
- A large, right-sized, easy-to-read LCD digital readout, surrounded by a rotating black bezel
- Starrett-designed electronics microprocessor
- Output to Starrett SPC Plus system components on most models
- Utilizes standard indicator accessories and holding devices
- Battery powered and portable
- Battery furnished (over 1 year life)
- Factory floor friendly

### ELECTRONIC FEATURES – BASIC MODELS

- Instant inch/mm conversion
- Zero the tool at any position
- Plus/Minus control to indicate direction
- On/Off control with automatic off after one hour of nonuse. (Zero references will not be lost from memory)

### ELECTRONIC FEATURES – FULL FUNCTION MODELS

All the features and functions of the BASIC MODELS, plus the following additions:

- Bezel rotates the reading for convenient positioning
- Easiest keyboard control with the new shift button
- Ability to retain and return reading to the original zero reference (ABS)
- Min/Max/TIR mode to retain the lowest and highest readings in a group, and TIR gives the difference between them
- Limits mode to enter low and high limits for tolerance control. This is easily done by the new shift control to enter the proper function.
- Preset is used to install any reading at any point in the display and is also done with the new shift control
- Output jack allows data transmission to the following peripherals for SPC analysis, data collection and hard copy documentation:  
Starrett No. 772 Series Advanced Data Collection Systems  
Starrett No. 761 Series Data Multiplexers  
Other devices that support RS232-C

Resolution Inch/mm	Range Inch/mm	Description	Catalog No.	EDP No.	Price
<b>BASIC MODELS</b>					
.001"/0.01mm	1.0"/25 mm	without output	2600-7	66041	
.0005"/0.01mm	1.0"/25 mm	without output	2600-0	65593	
.0005"/0.01mm	1.0"/25 mm	with output	2600-1	64886	
<b>FULL FUNCTION MODELS</b>					
.001"/0.01mm	1.0"/25 mm	with output	2600-8	66042	
.0005"/0.01mm	1.0"/25 mm	with output	2600-4	64889	
<b>ACCESSORIES AND CABLES</b>					
Adapter from No. PT22938 Cable to IBM-PC (RS232C)			PT61768	66454	
Shielded Cable to Starrett No. 761 Data Multiplexer and No. 772 Series Data Collector Modules, No 768 Remote Display and PT61768 Adapter z			PT22938	64059	
Spindle Lifting Cable			PT26263	66043	
One 3-Volt Battery No. CR2450			PT61120	65446	

PRECISION TOOLS

## IDS DIGIMATIC INDICATORS WITH ABSOLUTE ENCODER

### MIT SERIES 543:

#### Simple and Economical Design with Absolute Encoder

These IDS Type Digimatic Indicators incorporate Mitutoyo's Absolute Encoder Technology so all settings are maintained for the life of the battery. The IDS provides clear digital readings in a convenient and compact package which conforms generally to Series 2 dial indicator dimensions.



Mitutoyo

**Measuring Range:** 0-.5"/0-12.7mm

**LCD Resolution:** .0005"/ 0.01mm

**Accuracy:** (20°C) .0008"/0.02mm

**Measuring Force:** 1.4N(140gf) or less

**Battery:** Silver oxide cell SR-44 (1pc) **No. 541980**

**Battery Life:** Approx 20,000 hours

**Protection Level:** Conforming to IP-42

**Functions:** ORIGIN, ON/OFF, in/mm, +/-

**Data Output\*:** SPC Digimatic output

**Stem Diameter:** .375"

**Contact Point:** .16" (DIA.) Steel ball (4-48UNF) (**No. 900032**)

**Weight:** 0.27 lbs

### INCH/METRIC

Catalog No.	Description	Order No.	Price
543-683	Lug-Back	543683	
9543-683B	Flat Back	9543683	
<b>OPTIONAL ACCESSORIES</b>			
903425	Spindle Lifting Lever (ANSI/AGD Type)	903425	
540774	Spindle Lifting Cable	540774	
O2ACB420	Lug-on-Center Back (ANSI/AGD Type)	5702430	
O2ACB440	Flat Back	5702440	
O2ACB610	Back with Post	5702610	
O2ACB620	Adjustable Back (ANSI/AGD Type)	5702620	
O2ACB640	Back with Offset Lug	5702640	
O2ACB650	Magnetic Back	5702650	
O2ACB660	Back with Screw Mount (ANSI/AGD Type)	5702660	
O2ACB680	Back with Adjustable Bracket	5702680	

\* For SPC output order Connecting Cable **905338** (1m) or **905409** (2m)



**WISDOM™ ELECTRONIC DIGITAL INDICATORS - AGD GROUPS 2, 3, AND RECTANGULAR OVERSIZED**

STARRETT SERIES 2700:

This is our most versatile line of electronic indicators, available in three styles, in addition to a remote display and accompanying probe series. All indicators feature a glass scale design with an unsurpassed accuracy of ± one resolution when measuring from a known standard. All have rugged, sealed enclosures as well.

**WISDOM™ BASIC SERIES**

- User Selectable Resolutions: All available resolutions can be utilized in the same indicator, provided they are coarser than the resolution of the purchased model.
- Instant inch/mm conversion  
Plus or minus travel direction  
Maximum reading hold  
ZERO the tool at any position of the spindle  
Rotating bezel  
Auto Off: After 10 minutes of nonuse.  
Serial Number: Indicators are furnished with individual serial number labels, coded with data for traceability  
Three Power Sources: Operate by battery, A/C adapter, or through data port  
Multiple Data Output/Input Choices: Output jack allows data transmission to the following peripherals for analysis, data collection, and hard copy:  
Starrett No. 772 Series Advanced Data Collection Systems  
Starrett No. 761 Series Data Multiplexers  
Direct to RS232 - serial - BCD parallel and M.T.I.

**WISDOM™ PLUS SERIES**

- These models are more advanced than any other indicator in the world and have all the features and functions of the Basic Series, plus the following additions:
- Preset Mode to install any reading at any point in the display. Reading is retained even if the indicator is turned off
  - T.I.R.: Displays the difference between the highest and lowest values reached
  - Floating Reference: Allows you to set the absolute/preset number at any spindle position
  - Tolerancing: Permits the entering of high and low tolerances. When the tolerances are exceeded, the display will flash. Numbers are retained even if the indicator is turned off
  - Minimum reading hold
  - Hold Button to Freeze Display: Displays and holds the reading after the measurement has been taken
  - Feature Lock: Unique feature locks user selections so that a wrong button push will not change your settings

**WISDOM™ SERIES REMOTE DISPLAYS AND PROBES**

- These displays with probes will make absolute, incremental, and/or comparative measurements and implement all the features of WISDOM Plus indicators. System is ideal where viewing and operation ease are required. It is also suitable for any stand-alone gaging application.
- Remote display is a rugged enclosure with a 5/8" (16mm) high, easy-to-view LCD readout
  - Power sources include 110V 50/60hz, or battery operated (without backlight)
  - Probe and display can be separated by a distance of up to 6' (1.8 meters)



- Cable is hard wired to the probe and has a jack for convenient connection to the remote display box
- Readout box can be elevated for desired viewing

Please inquire for more information.

Starrett



**WISDOM™ BASIC SERIES**

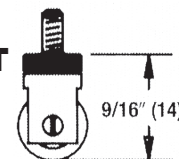
Catalog No.	EDP No.	Range Inch/mm	Resolution Inch/mm	No. of Res. Avail.	AGD Case	Price
2720-0	65815	.600"/15mm	.00005"/0.001mm	10	AGD-2	
2720-1	65816	.600"/15mm	.0001"/0.002mm	8	AGD-2	
2720-3	65817	.600"/15mm	.0005"/0.01mm	4	AGD-2	
2720-4	65818	.600"/15mm	.001"/0.02mm	2	AGD-2	

**WISDOM™ PLUS SERIES**

F2720-0	65835	.600"/15mm	.00005"/0.001mm	10	AGD-2	
F2720-1	65836	.600"/15mm	.0001"/0.002mm	8	AGD-2	
F2720-3	65837	.600"/15mm	.0005"/0.01mm	4	AGD-2	
F2720-4	65838	.600"/15mm	.001"/0.02mm	2	AGD-2	

Complete range of accessories, power source, and cables available; please inquire.

**DIAL INDICATOR CONTACT POINT /SET STARRETT SERIES 25:**



**Roller Contact Point**

No. 25W/ EDP No. 53916

- This contact has a small, hardened roller, 3/8 (9.5mm) in diameter for continuous gaging of moving material where the material movement is at a slow speed. Contact has #4-48 screw thread and substitutes for the regular contact point provided on Starrett and other AGD indicators.
- Furnished with a knurled check nut for positioning the contact on the indicator spindle.

Catalog No.	EDP No.	Price
25W	53916	

- 14 points with #4-48 screw thread to fit AGD dial indicators: a regular 1/4" (6.3mm) long point; 9 special form points; a No. 28 shock absorbing anvil; and 3 extra long points 1/2", 3/4" and 1" (13, 19, 25mm) long. High grade steel, hardened and ground. All are mounted on a convenient aluminum ring for safe keeping and ready selection.

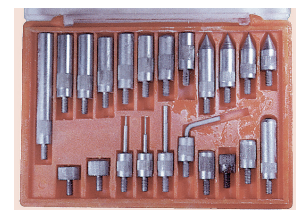


Catalog No.	EDP No.	Price
25R	50153	

**22 PIECE INDICATOR POINT KIT SERIES 219:**



- All points have standard 4-48 threads.
- For use with Series 1-2-3-4 Dial Indicators.
- Carefully knurled stem for ease of operation.
- Plastic case.



Order No. 219022	
Price	

PRECISION TOOLS

**TEST INDICATORS**

SERIES 219:

- Automatic Reversing
- Satin Chrome Finish
- Adjustable Bezel
- Three-way Dovetail mounting
- Carbide point
- 5/32" and 3/8" mounting stems
- Fitted case



Range	Grad.	Dial Reading	Type	Order No.	Price
.030"	.0005"	0-15-0	Horizontal	<b>2198000</b>	
.030"	.0005"	0-15-0		<b>2198005*</b>	
.008"	.0001"	0-4-0		<b>2198010</b>	
0.8mm	0.01mm	0-40-0		<b>2198030</b>	
.030"	.0005"	0-15-0	Vertical	<b>2198020</b>	
0.8mm	.0.01mm	0-40-0		<b>2198040</b>	

\* Black Dial Face

**DIGITAL TEST INDICATOR**

SERIES 219:

- Power on / off key, Zero setting key, Inch / Metric key, Tolerance key.
- Contact Point Diameter: 1/8" / 2.5mm
- Accuracy: +/- 0.001" / 0.02mm
- Range: +/- 0.02" / 0.5mm
- Grad.: 0.0005" / 0.01mm



**Order No.**  
**2190010**

**Price**

**SWIVEL HEAD DIAL INDICATORS**

STARRETT SERIES 811, 811M:



Indicator with unique swivel head positions at any angle between 0° and 90°. Horizontal, vertical and 45° dial indicator – all in one. Simplifies gage inventory, saves money. Contact lever is automatically reversible, a practical, time-saving feature. Compatible with most dovetail attachments, meets international ISO specs and is available in .001" and .0005" graduations or 0.01mm, all with jewel bearings. Contact is frictionally adjustable, reversing, and offers ranges of ±.030" in .001" models, ±.015" in .0005" models, and ±.4mm in metric models. Dial Diameter 1-3/8" (35mm). Fitted case.

Range	Dial Grad	Dial Reading	Color	Description	Cat. No.	EDP No.	Price
.030"	.0005"	0-15-0	White	With attachments	811-5CZ	<b>57079</b>	
.030"	.0005"	0-15-0	White	Without attachments	811-5PZ	<b>57080</b>	
.060"	.001	0-30-0	White	With attachments	811-1CZ	<b>57081</b>	
.060"	.001	0-30-0	White	Without attachments	811-1PZ	<b>57082</b>	
.030"	.0005"	0-15-0	Black	With attachments	B811-5CZ	<b>63261</b>	
.030"	.0005"	0-15-0	Black	Without attachments	B811-5PZ	<b>63262</b>	
.060"	.001	0-30-0	Black	With attachments	B811-1CZ	<b>63263</b>	
.060"	.001	0-30-0	Black	Without attachments	B811-1PZ	<b>63264</b>	
.030"	.0005"	0-15-0	Red	With attachments	R811-5CZ	<b>63265</b>	
.030"	.0005"	0-15-0	Red	Without attachments	R811-5PZ	<b>63266</b>	
.060"	.001	0-30-0	Red	With attachments	R811-1CZ	<b>63267</b>	
.060"	.001	0-30-0	Red	Without attachments	R811-1PZ	<b>63268</b>	
.8mm	0.01mm	0-40-0	Yellow	With attachments	811-MCZ	<b>57083</b>	
.8mm	0.01mm	0-40-0	Yellow	Without attachments	811-MPZ	<b>57084</b>	

Accessory attachments include: dovetail body clamp, tool post holder, swivel post snug with dovetail indicator clamp, and snug and rod unit.

**LAST WORD® DIAL**

**TEST INDICATORS**

STARRETT SERIES 711, 711M:

Indicators are used for precise measurements in machining, layout, checking and inspection work.

The indicator attachment on the end of the body adapts the indicator to jib borers, milling or boring machines.

By means of the ball swivel joint, the indicator adjusts to sweep any hole or surface within its range.

The universal shank attaches to the end of the indicator attachment adapting the indicator to vernier height gages, as well as to lathe tool posts and milling machine arbors. Features include: a jeweled lever for extra smooth indicator action; a switch lever on the body to reverse the action; a hard chrome plated .120"(3mm) diameter ball contact point with ratchet joint for instant movement to any position; an adjustable 15/16" diameter dial; and a removable inspection hole cover screw for minor adjustments. Each indicator is furnished with three steel contact points, complete in protective case.



Grad.	Dial Reading	Range	Description	Catalog No.	EDP No.	Price	
<b>Inch Reading</b>							
.001"	0-15-0	.030"	Indicator with Universal Shank Complete, Body Clamp	711FSAZ	<b>52925</b>		
.001"	0-15-0	.030"	Indicator with Gooseneck Shank	711FSBZ	<b>52927</b>		
.001"	0-15-0	.030"	Indicator with Body Clamp only	711FSZ	<b>52929</b>		
.0005"	0-15-0	.030"	Indicator with Universal Shank Complete, Body Clamp	711HSAZ	<b>52951</b>		
.0005"	0-15-0	.030"	Indicator with Body Clamp only	711HSZ	<b>52953</b>		
.001"	0-15-0	.030"	Indicator with all Attachments*	711GCSZ	<b>52943</b>		
.001"	0-15-0	.030"	Indicator with Universal Friction Holder with Shank	711GPSZ	<b>52944</b>		
.0005"	0-15-0	.030"		711LPSZ	<b>52958</b>		
.0005"	0-15-0	.030"	Indicator with all Attachments*	711LCSZ	<b>52957</b>		
<b>Millimeter Reading</b>							
0.01mm	0-35-0	0.7mm	Indicator with Universal Shank	711MFAZ	<b>52926</b>		
0.01mm	0-35-0	0.7mm	Indicator with Body Clamp only	711MFSZ	<b>52930</b>		
0.01mm	0-35-0	0.7mm	Indicator with Universal Shank Friction Holder	711MGPSZ	<b>52946</b>		
0.01mm	0-35-0	0.7mm	Indicator complete with all Attachments*	711MGCSZ	<b>52945</b>		

\*Attachments include: 3 contact points (.35", .062", .120" or .9, 1.6, 3mm), body clamp, universal friction holder with shank, universal shank complete with long and short arm, double-jointed attachment, height gage attachment, surface gage attachment, coupling with 3/16" (4.8mm) hole.

**INDIVIDUAL CONTACT POINTS (fits all No. 711 series)**

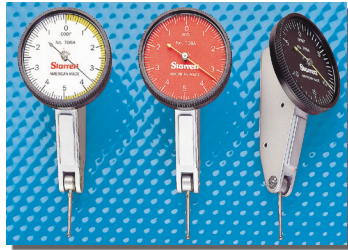
Length	Ball Dia.	Material	Part No.	EDP No.	Price
5/32 (4mm)	.35"/0.9mm	Steel	PT07137	<b>70945</b>	
	.120"/3mm	Steel	PT07087	<b>70912</b>	
	.035"/0.9mm	Carbide	PT07137X	<b>52964</b>	
	.062"/1.6mm	Carbide	PT07136X	<b>52965</b>	
	.120"/3mm	Carbide	PT07087X	<b>52966</b>	

PRECISION TOOLS



**DIAL TEST INDICATORS WITH DOVETAIL MOUNTS**

STARRETT SERIES 708, 709:



- Easy-to-read angled head.
- 3 dovetail positioning mounts.
- Meet or exceed ISO accuracy specifications.
- Precision gear driven design with accurate, smooth jeweled movement.
- Replaceable contacts are frictionally adjustable.
- Furnished in case.

Dial test indicators have large dial faces, 1-3/8" (35mm) diameter which provide ease of reading. The long contact and narrow body provide inreach versatility. Standardized dovetails work with dial test indicator accessories.

**C = COMPLETE WITH ATTACHMENTS:**

Dovetail body clamp, tool post holder, swivel post snug with dovetail indicator clamp, snug and rod unit.

Carbide contact point included.

INCH

Grad.	Range	Dial Read	Dial Color	Cat. No.	EDP No.	Price			
.0001"	.010"	0-5-0	White	708AZ	64212				
			Red	R708AZ	64603				
			Black	B708AZ	64607				
			White	708ACZ	64217				
			Red	R708ACZ	64604				
			Black	B708ACZ	64608				
.0005"	.030"	0-15-0	White	708BZ	64213				
				708BCZ	64218				
			White	709AZ	64214				
			Red	R709AZ	64605				
			Black	B709AZ	64609				
			White	709ACZ	64219				
.0005"	.060"	0-15-0	Red	R709ACZ	64606				
			Black	B709ACZ	64610				
			White	709BZ	64215				
				709BCZ	64220				
			<b>Millimeter Reading</b>						
			0.002mm	0.2mm	0-100-0	Yellow	708MAZ	65864	
				708MACZ	65865				
0.01mm	0.8mm	0-40-0	Yellow	709MAZ	64216				
				709MACZ	64221				

**TRUETEST TEST INDICATORS**

SERIES 513:



513-443  
White Face



513-443-06  
Black Face

**TEST INDICATOR AXIAL SUPPORT**

STARRETT SERIES 708:



- Triple-hinged holder is designed to mount dovetail indicators, including Starrett Nos. 708, 709, and 811 Series
- Will also accommodate test indicators including No. 711 Series.

Overall Length: Approx. 5-1/4" (133mm)  
Shank Size: 3/8" (9.5mm)



Catalog No.	EDP No.	Price
PT26007	65101	

**UNIVERSAL DIAL INDICATOR HOLDER**

SERIES 219:



Fits all dial indicators. Clamps all standard dovetails. Swivels in all directions. Shank Size: 1/4" Dia. x 3" Overall Length

Order No.	Price
2199000	

## Quality Indicators

### The Choice Is Yours!!!

Complete		Basic	
	Indicator with a $\phi 0.078"$ carbide contact point		$\phi 0.09"$ contact point
	$\phi 3/8"$ stem 190321		$\phi 0.118"$ contact point
	Nut 190322		$\phi 5/32"$ stem 190318
	Square arm 900306		

Mitutoyo

\*L = Point Length

Graduation	Range Per Rev	Range	Dial Reading	Catalog No.		Accuracy	Dim. L*	Dial Face	Order No.		Price	
				Basic	Complete				Basic	Complete	Basic	Complete
.0005"	.03"	.06"	0-15-0	513-442	513-442T	$\pm .0005"$	.78"	White	513442	9513442		
				513-442-01	513-442T-01			Blue	5134421	9134421		
				513-442-06	513-442T-06			Black	5134426	9134426		
.0005"	.03"	.06"	0-15-0	513-446	513-446T	$\pm .0005"$	1.33"	White	513446	913446		
				513-446-06	513-446T-06			Black	5134466	9134466		
.001"	.008"	.016"	0-4-0	513-443	513-443T	$\pm .0002"$	.59"	White	513443	913443		
				513-443-06	513-443T-06			Black	5134436	9134436		

PRECISION TOOLS

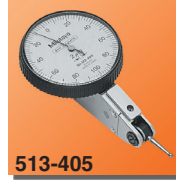
**QUICK-SET TEST INDICATORS** **Mitutoyo**

MIT SERIES 513:

- One piece bezel design resists dust and dirt.
- Anti-Magnetic
- Jeweled Bearings
- The most direct gear train design ever applied to Test Indicators means higher level of sensitivity, reliability, repeatability and accuracy throughout tool life.
- Carbide point, .078" (2mm) DIA., is standard.
- Dovetails, integral with housing, give broad flexibility for mounting of instruments.



513-403



513-405

**UNIVERSAL CLAMPS**

SERIES 219:

- Black finished clamps for use with magnetic bases and dial gages.
- One clamp for dovetail and universal indicators.



Order No	Clamping hole	Price
2199501	1/8 - 1/4" (3-6.35mm)	

PRECISION TOOLS

BASIC			COMPLETE			Graduation	Range	Dial Reading	Type	Remarks
Cat. No.	Order No.	Price	Cat. No.	Order No.	Price					
<b>INCH/METRIC</b>										
513-406	8513406		513-406T	9513406		.0005" .01mm	.030" 0.7mm	0-15-0 0-35-0	Horizontal	CombitestAnti-Magnetic
<b>INCH</b>										
513-462	513462		-	-		.0005"	.03"	0-15-0	Horizontal	Mini-Dial
513-282G	513282		513-282GT	9513982		.0005"	.03"	0-15-0	Parallel	
513-402	513402		513-402 T	9513402		.0005"	.03"	0-15-0	Horizontal	Anti-Magnetic
513-403	513403		513-403 T	9513403		.0001"	.008"	0-4-0	Horizontal	Anti-Magnetic
513-412	513412		513-412T	9513412		.0005"	.03"	0-15-0	Horizontal	Long Point Anti-Magnetic
513-452	513452		513-452 T	9513452		.0005"	.03"	0-15-0	Vertical	
513-453	513453		513-453T	9513453		.0001"	.008"	0-4-0	Vertical	
513-463	513463		-	-		.0001"	.008"	0-4-0	Horizontal	Mini-Dial
<b>METRIC</b>										
513-405E	9513405		513-405 T	513405		.002mm	0.2mm	0-100-0	Horizontal	
-	-		-	513455		.002mm	0.2mm	0-100-0	Vertical	
513-414E	9513414		513-414 T	513414		.01mm	0.5mm	0-25-0	Horizontal	
513-404E	9513404		513-404 T	513404		.01mm	0.8mm	0-40-0	Horizontal	
-	-		513-454 T	513454		.01mm	0.8mm	0-40-0	Vertical	
513-415E	9513415		513-415T	513415		.01mm	1.0mm	0-50-0	Horizontal	

See bottom of page for set configuration.

**Set Configuration-Quick-Set Type (Anti-Magnetic Model)**

Inch		Metric	
Basic	Complete	Basic	Complete
 Indicator with a ø.078" carbide contact point	 ø.039" contact point  For ø5/32" and ø3/8" stems Swivel Clamp 900322   ø.118" contact point	 Indicator with a ø2mm carbide contact point	 ø1mm contact point  For ø4mm and ø8mm stems Swivel clamp 900321   ø3mm contact point
 ø3/8" stem 190321   Nut 190322	 ø5/32" stem 190318   Square arm 900306	 ø8mm stem 190320   Nut 190322	 ø4mm stem 190318   Square arm 900209

**Quality Indicators**



**The Choice Is Yours!!!**

**BACK - PLUNGER  
DIAL TEST INDICATORS**

STARRETT SERIES 650, 651:

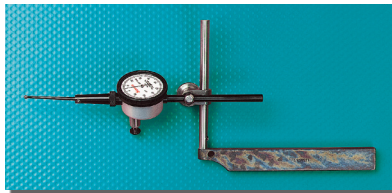


Back plunger indicators include a 3" (75mm) detachable deep hole attachment interconnecting directly with the main spindle for positive action. The attachment is for checking internal dimensions of a workpiece while in fixtures or machines and can be easily removed.

The Starrett Model No. 651 series are identical to the No. 650 series except they cannot accept the deep hole attachment. Both models have 1-11/16" (43mm) diameter bezels and are available with either 0-50-0 balanced dial or 0-100 continuous reading dial. Each has adjustable dials to set zero at any point opposite the hand. The indicator mounting rod measures 1/4" diameter x 3-3/16" (6.3mm x 80mm) long. The back plunger stem is AGD 3/8" (9.5mm) diameter. Indicators are furnished with three different AGD contact points for use in most applications.

Both the Starrett Model No. 650A and No. 651A sets include accessory attachments: clamp, tool post holder and snug, complete in case.

**Graduation: .001" or 0.01mm**  
**Range: .200" or 5mm**



Shown with detachable deep hole attachment held in tool post holder with upright spindle and snug, complete.

Dial Reading	Description	Catalog No.	EDP No.	Price
0-100	Indicator with 3 contact points, detachable deep hole attachment, 3 accessory attachments*, in case	650A1Z	64475	
0-50-0	Indicator with 3 contact points, detachable deep hole attachment, 3 accessory attachments*, in case	650A5Z	64474	
0-100	Indicator with 3 contact points, detachable deep hole attachment ONLY	650B1	64477	
0-50-0	Indicator with 3 contact points, detachable deep hole attachment ONLY	650B5	64476	
0-100	Indicator with 3 contact points, 3 accessory attachments*, in case	651A1Z	64483	
0-50-0	Indicator with 3 contact points, 3 accessory attachments*, in case	651A5Z	64484	
0-100	Indicator with 3 contact points ONLY	651B1	64485	
0-50-0	Indicator with 3 contact points ONLY	651B5	64486	
0-100 Yellow Dial Face	Indicator with 3 Contacts Points, detachable deep hole attachment 3 Attachments*, in Case	650MA1Z	65261	
0-100 Yellow Dial Face	Indicator with 3 Contact Points, detachable deep hole attachment	650MB1	65262	
0-100 Yellow Dial Face	Indicator with 3 contact points 3 attachment* in case	651MA1Z	65263	
0-100 Yellow Dial Face	Indicator with 3 contact points ONLY	651MB1	65264	

\*Accessory attachments include: clamp, tool post holder and snug.

**UNIVERSAL BACK-PLUNGER  
DIAL TEST INDICATORS**

STARRETT SERIES 196:



Universal dial test indicator adjusts to any angle. The slightest pressure on the contact point produces a movement of the hand on the dial. Indicator comes with three hardened contact points which allow any outside surface to be checked including cutters, gears and racks. Metric indicators have a Yellow dial face.

**Graduation .001" / 0.02mm**

**Range .200" / 5mm** (in 2-1/2 revolutions of the hand)

Attachments:

- Tool post holder with sleeve is used in lathe work.
- Snug complete has 5/16" dia (8mm) and 3/32-1/4" (2.4 -6.3mm) holding capacity.
- Clamp attaches the indicator to lathe and planer tools and milling arbors.
- Hole attachment lets the indicator be used over obstructions and inside holes to a depth of 1-5/8" (40mm).

Dial Reading	Description	Catalog No.	EDP No.	Price
0-100	Indicator complete with attachments in case	196A1Z	50697	
	Indicator ONLY	196B1	50699	
0-50-0	Indicator complete with attachments, in case	196A5Z	50714	
	Indicator ONLY	196B5	50717	
0-2	Indicator complete with attachments in case	196MA1Z	65251	
	Indicator ONLY	196MB1	65252	
0-1-0	Indicator complete with attachments in case	196MA5Z	65253	
	Indicator ONLY	196MB5	65254	

**BACK PLUNGER WITH  
PERPENDICULAR  
MOUNTING STEM**

**GROUP 1**

MIT SERIES 1:



Mitutoyo

**INCH - ANSI Standard (Stem Diameter 3/8")**

Grad.	Total Range	Catalog No.	Range Per Rev.	Dial Reading	Order No.	Price
.001"	.1"	1156	.1"	0-100	1156	
.001"	.1"	1157	.1"	0-50-0	1157	

**METRIC - ANSI Standard (Stem Diameter 8mm)  
With Yellow Dial Face**

Grad.	Total Range	Cat. No.	Range Per Rev.	Dial Reading	Order No.	Price
0.01mm	5mm	1160	1mm	0-100	9991160	



While we show the most popular Mitutoyo items, we can supply their entire range of products; please inquire.