

# ID-F125/150

# Digimatic Indicator

## User's Manual

Read this User's Manual thoroughly  
Before operating the instrument. After reading,  
retain it close at hand for future reference.

**Mitutoyo**



# CONVENTIONS USED IN USER'S MANUAL

## Safety Precautions

To operate the instrument correctly and safely, Mitutoyo manuals use various safety signs (Signal Words and Safety Alert Symbols) to identify and warn against hazards and potential accidents.

The following signs indicate general warnings:



Indicates a potentially hazardous situation which, if not avoided, could result in serious injury or death.



Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or property damage.

## On Various Types of Notes

The following types of notes are provided to help the operator obtain reliable measurement data through correct instrument operation.

**IMPORTANT** An important note is a type of note that provides information essential to the completion of a task. You cannot disregard this note to complete the task.  
An important note is a type of precaution, which if neglected could result

**NOTE** A note emphasizes or supplements important points of the main text. A note supplies information that may only apply in special cases (e.g., memory limitations, equipment configurations, or details that apply to specific versions of a program).

**TIP** A tip is a type of note that helps the user apply the techniques and procedures described in the text to their specific needs.  
It also provides reference information associated with the topic being discussed.

Mitutoyo assumes no liability to any party for any loss or damage, direct or indirect, caused by use of this instrument not conforming to this manual.  
Information in this document is subject to change without notice.

**Copyright ©1997-2013 Mitutoyo Corporation All right reserved.**

# Caution on Use

---

## Power Supply Warnings



WARNING

- External power is supplied to the instrument from an AC power source, through an AC adapter. Use only the AC adapters specified by Mitutoyo (No.06AEG302JA, D, E, DC or K/standard accessory).
  - If the instrument is used near a device requiring high voltage, frequency or current, be sure that this device and the instrument's AC adapter have separate power supplies.
  - Use only an AC power supply which conforms to the voltage and frequency written on the AC adapter. Using a voltage or frequency outside the allowed range may result in fire or explosion.
  - When not using the instrument for an extended period, always unplug the AC adapter from the power supply to avoid the risk of fire.
- 

## Other Caution on Use

Observe the following precautions to avoid instrument failure or malfunction.



CAUTION

- Do not knock, drop or subject the instrument to excessive force.
  - Do not disassemble or modify the instrument.
  - Do not operate the keys with a pointed instrument (such as a screwdriver).
  - Avoid use or storage of the instrument in direct sunlight, or in extremely hot or cold areas.
  - Use of the instrument in areas of low or high atmospheric pressure may cause instrument failure due to material deterioration.
  - Do not store the instrument in a highly damp or dusty environment. Avoid getting water or oil on the instrument during use.
  - Do not use an electric marking or other high voltage device near the instrument. Electronic parts in the instrument may be damaged. Use in areas where a large amount of electrical noise is present may result in malfunction.
  - Secure the instrument with a dial gage stand or similar fixture in a vibration-free environment.
  - Do not subject the spindle to a vertical load or torsion.
  - To clean the instrument, use a dry soft cloth or cotton swab, or one soaked in diluted neutral detergent. Use of organic solvents (such as thinner or benzene) may result in failure.
  - The contaminated spindle may cause malfunction. Wipe them off with a cloth dampened with alcohol.
- 

To maintain measuring accuracy, take note of the following point.

**IMPORTANT**

- In areas of significant temperature fluctuation, thermal expansion of component parts may cause the measured or origin to shift from the set or origin. Use the instrument in a temperature-controlled room with as little temperature fluctuation as possible. Before starting measurement, allow the instrument and the item measured sufficient time to thermally stabilize.
-

## Disposal Warnings

Liquid crystal is used in this product. When disposing of the product, be sure to conform to the local ordinances or regulations in effect in your area.



---

Liquid crystal parts contain a liquid which acts as an irritant. If this liquid accidentally contacts eyes or skin, cleanse the contacted area with clean running water. If taken into the mouth, rinse the mouth immediately and swallow plenty of water. Induce vomiting, then consult a physician.

---

## Warranty

This instrument is manufactured under Mitutoyo's strict quality control system. Should the instrument fail within one year after the date of purchase under normal usage conditions, Mitutoyo will repair it free of charge. Contact your place of purchase or a Mitutoyo sales office.

Mitutoyo will not repair the instrument free of charge in the following cases:

- ◆ If the instrument is damaged or broken due to incorrect operation or unauthorized modifications or repair.
- ◆ If the instrument is damaged or broken due to a drop or shock during moving or shipping after purchase.
- ◆ If the instrument is damaged or broken due to fire, salt damage, toxic gas, abnormal voltage or natural calamity.

This warranty is valid only in the area of purchase.

## WARNING ON EXPORT CONTROL COMPLIANCE

The goods, technologies or software described herein may be subject to National or International, or Japanese Export Controls. To export directly or indirectly such matter without due approval from the appropriate authorities may therefore be a breach of export control regulations and the law.

# Contents

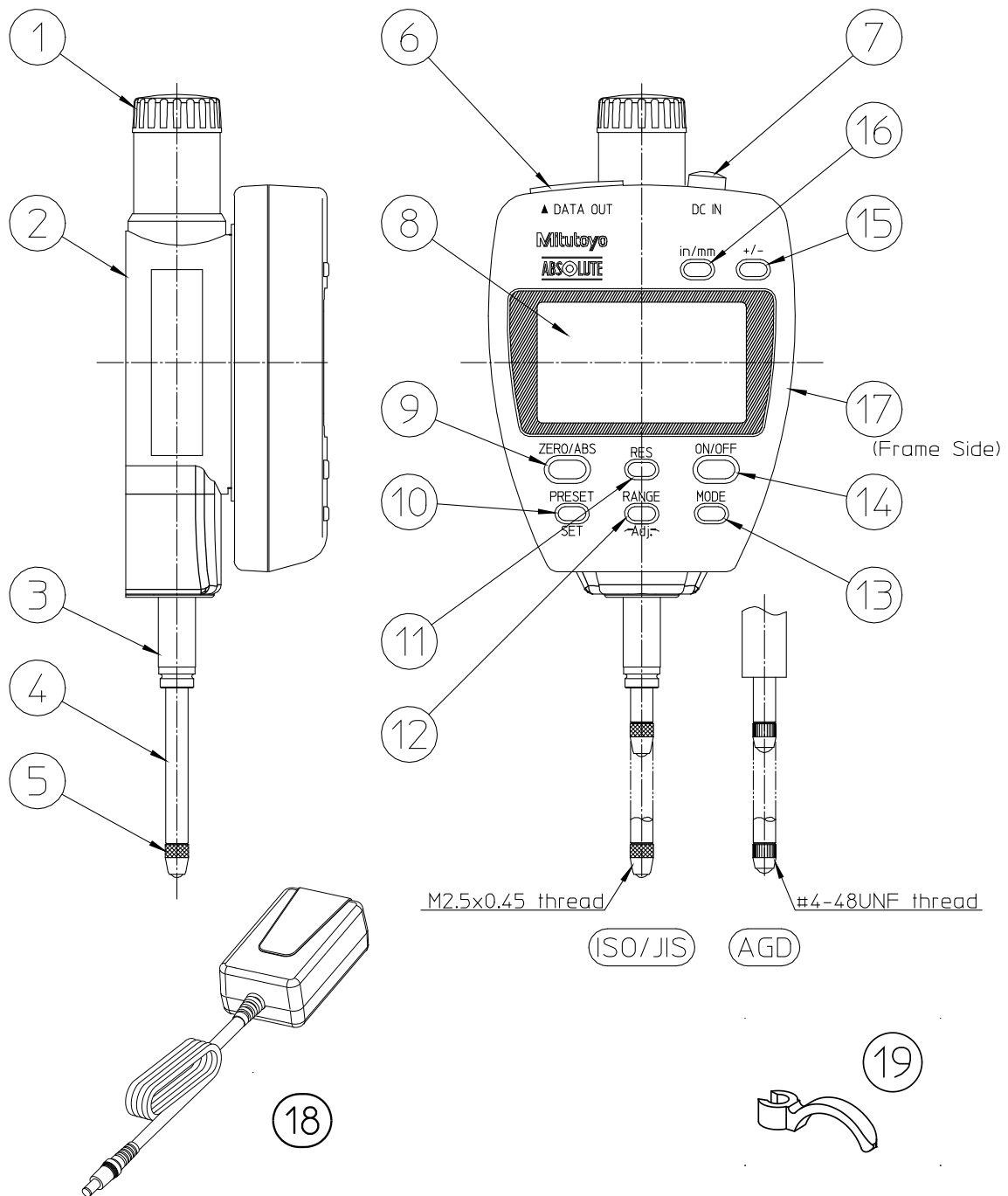
---

<b>CONVENTIONSUSEDINUSER'SMANUAL</b>	<b><i>i</i></b>
SafetyPrecautions	<b><i>i</i></b>
OnVariousTypeofNotes	<b><i>i</i></b>
<b>CautionsonUse</b>	<b><i>ii</i></b>
PowerSupplyWarnings	<b><i>ii</i></b>
OtherCautionsonUse	<b><i>ii</i></b>
DisposalWarnings	<b><i>iii</i></b>
<b>Warranty</b>	<b><i>iii</i></b>
<b>WARNINGONEXPORTCONTROLCOMPLIANCE</b>	<b><i>iii</i></b>
<b>1 NAMEOFPARTS</b>	<b><i>1</i></b>
1.1 MainUnit	<b><i>1</i></b>
1.2 DetailofLCD	<b><i>2</i></b>
<b>2 InstallingtheINSTRUMENT</b>	<b><i>3</i></b>
2.1 SecuringtheInstrumenttoaStandorFixture	<b><i>3</i></b>
2.2 MountingtheLiftingLever	<b><i>3</i></b>
2.3 MountingtheRelease	<b><i>3</i></b>
2.4 MountingtheBack	<b><i>4</i></b>
2.5 ReplacingtheContactPoint	<b><i>4</i></b>
<b>3 BasicOperations</b>	<b><i>5</i></b>
3.1 ConnectingthePowerSource	<b><i>6</i></b>
3.2 Starting/StoppingtheInstrument	<b><i>6</i></b>
3.3 InitialSettings	<b><i>6</i></b>
3.3.1 SwitchingtheInch/Metric	<b><i>6</i></b>
3.3.2 SwitchingtheResolution	<b><i>6</i></b>
3.3.3 SwitchingtheMeasurementSystem	<b><i>6</i></b>
3.3.4 SettingtheOrigin(PRESET)	<b><i>7</i></b>
3.4 MeasurementModes	<b><i>8</i></b>
3.4.1 NormalMode	<b><i>8</i></b>
3.4.2 ToleranceMode	<b><i>8</i></b>
3.4.3 Max.PeakHoldMode	<b><i>9</i></b>
3.4.4 Min.PeakHoldMode	<b><i>9</i></b>
3.4.5 TIR(Run-Out)MeasurementMode	<b><i>9</i></b>

<b>3.5</b>	<b>AnalogDisplay</b>	<b>10</b>
3.5.1	SwitchingtheDisplayRange	10
3.5.2	PointerCentering	10
<b>3.6</b>	<b>SwitchingtheCountingDirection</b>	<b>10</b>
<b>3.7</b>	<b>FunctionLock</b>	<b>10</b>
<b>4</b>	<b>Data/I/O</b>	<b>11</b>
4.1	OutputConnector	11
4.2	OutputDataFormat(DATA1)	11
4.3	TimingChart	12
<b>5</b>	<b>ErrorMessages&amp;CorrectiveMeasures</b>	<b>13</b>
<b>6</b>	<b>Specifications</b>	<b>14</b>
6.1	Specificationsofthemainunit	14
6.2	Standardaccessories	14
6.3	Optionalaccessories	14
6.4	Dimensions	15

# 1 NAME OF PARTS

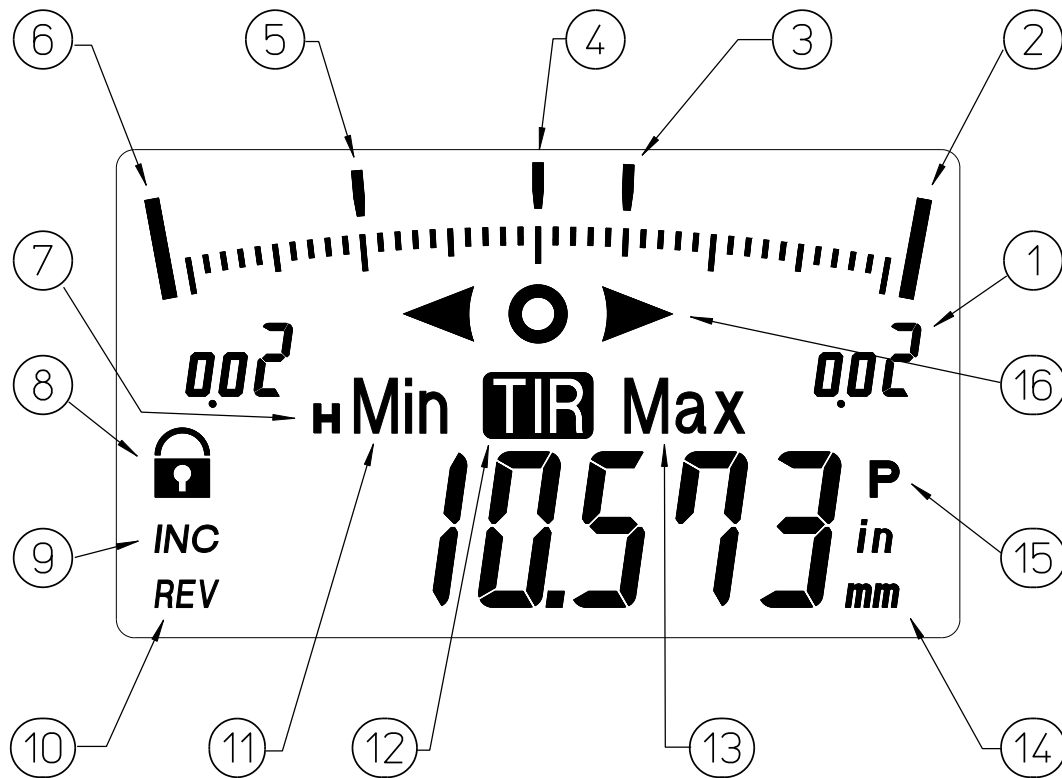
## 1.1 Main Unit



- |                    |                    |                                     |
|--------------------|--------------------|-------------------------------------|
| ① Cap              | ⑧ LCD              | ⑮ +/- key                           |
| ② Flat back        | ⑨ ZERO/ABS key     | ⑯ in/mm key(AGD model)              |
| ③ Stem             | ⑩ PRESET/SET key   | ⑰ Release hole<br>(With Rubber cap) |
| ④ Spindle          | ⑪ RES key          | ⑱ AC adapter                        |
| ⑤ Contact point    | ⑫ RANGE/→Adj.← key | ⑲ Lifting lever                     |
| ⑥ Output connector | ⑬ MODE key         |                                     |
| ⑦ DC jack          | ⑭ ON/OFF key       |                                     |



## 1.2 Detail of LCD



- |                        |                         |                          |
|------------------------|-------------------------|--------------------------|
| ① Analog range         | ⑧ Function lock         | ⑮ Preset the origin      |
| ② Upper over range     | ⑨ Comparison measure    | ⑯ GO/NG judgment display |
| ③ Upper pointer(blink) | ⑩ Reverse count measure |                          |
| ④ Pointer              | ⑪ Min. peak hold mode   |                          |
| ⑤ Lower pointer(blink) | ⑫ TIR mode              |                          |
| ⑥ Lower over range     | ⑬ Max. peak hold mode   |                          |
| ⑦ Hold sign            | ⑭ Unit                  |                          |

•The pointers ③,④and⑤ blink more quickly when two or more overlap.

•The parameters indicated by pointers ③ and ⑤ are determined by the measurement mode, as shown below.

mode	Nomal	Tolerance	Max.peak hold	Min.peak hold	TIR hold
③	(disappear)	Upper limit	Max. point	(disappear)	Max. point
⑤	(disappear)	Lower limit	(disappear)	Min. point	Min. point

## 2 INSTALLING THE INSTRUMENT

### 2.1 Securing the Instrument to a Stand or Fixture

- Secure the instrument by its stem to a dial gage stand (sold separately) or similar fixture.
- When securing the instrument to a fixture, fixing the stem using a slotted holder with an indentation of  $\varnothing 8G7(AGD:\varnothing 9.52)_{+0.005}^{+0.02}$  mm. is recommended.

#### NOTE

- Avoid using a lock screw to fix the stem directly. If it is fixed under a clamping torque of 150cN·m or greater, the spindle may not move smoothly.
- Set up the instrument with the spindle perpendicular to the reference plane or the measured surface. If the spindle axis is not perpendicular to the reference plane (measured surface), measurement errors will result.

#### TIP

For example, if the spindle axis is inclined by an angle  $\phi$  from the perpendicular to the reference plane, for a measured length of about 25 mm and 50mm, the measurement error  $\delta_{25}$ , will be:

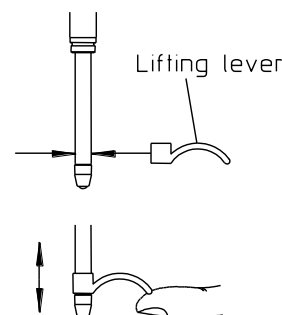
$$\phi = 1^\circ : \delta_{25} = 0.004\text{mm}, \quad \phi = 2^\circ : \delta_{25} = 0.015\text{mm}, \quad \phi = 3^\circ : \delta_{25} = 0.034\text{mm}$$

the measurement error  $\delta_{50}$ , will be:

$$\phi = 1^\circ : \delta_{50} = 0.008\text{mm}, \quad \phi = 2^\circ : \delta_{50} = 0.031\text{mm}, \quad \phi = 3^\circ : \delta_{50} = 0.069\text{mm}$$

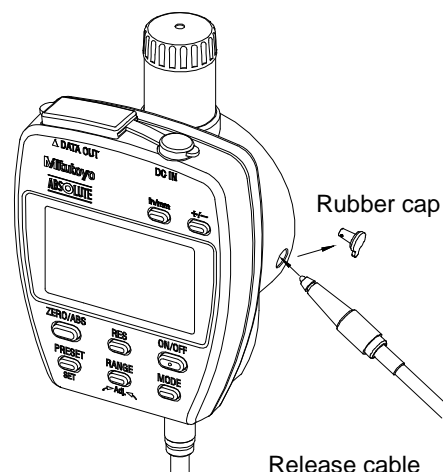
### 2.2 Mounting the Lifting Lever

- Fit the spindle into the groove on the lifting lever (No. 137693/ standard accessory), holding the spindle's other end so that it doesn't bend.



### 2.3 Mounting the Release

- Remove the rubber cap from the release mounting hole, and then insert the release (No.540774/ sold separately) into the hole as deep as possible. (Store the removed rubber cap, taking care not to lose. When attaching the rubber cap, screw it into the hole.)

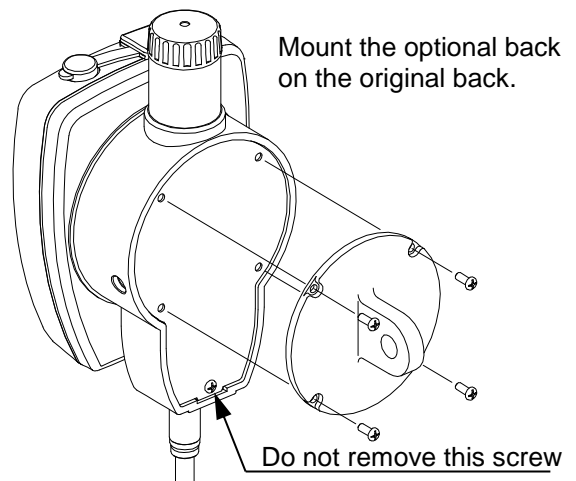


- Pulling sharply on the release or knocking it may strip the thread.
- Inserting objects other than the release into the release hole, or applying excessive force to the hole may cause instrument failure.
- When using the release, the amount of lift is about 25 mm (1"). from the lower limit.

## 2.4 Mounting the Back

The gage can be used with various types of backs for Mitutoyo standard dial indicators (2 series).

- Remove the four screws on top of the back and use them to attach the original back and the optional back.

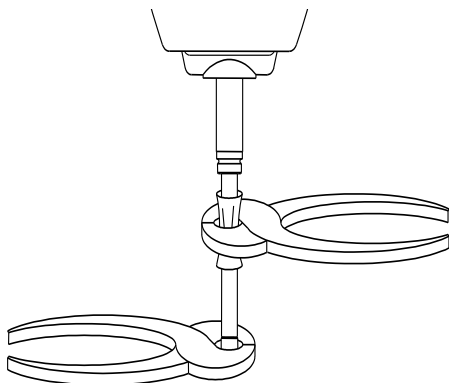


**TIP** Refer to Mitutoyo's general catalog for the lineup of available backs.

## 2.5 Replacing the Contact Point

Various types of interchangeable contact points and extension rods are available for Mitutoyo dial indicators.

- Hold the spindle with a pair of pliers, protecting its surface with a rag.
- Use another pair of pliers to screw in the contact point or remove it.



CAUTION

- Hold the spindle in place while doing this procedure, or internal instrument failure may result. Use a rag to protect the spindle's surface. The spindle may not move smoothly if scratched.

**TIP**

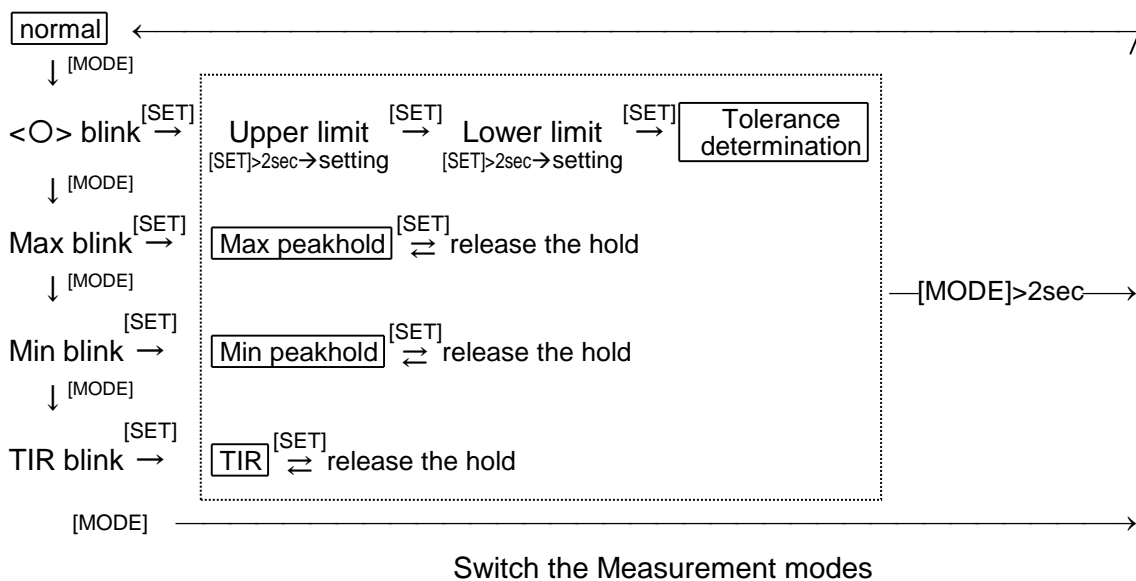
- Refer to Mitutoyo's general catalog for the lineup of interchangeable contact points, and extension rods.
- Roller contact point run-out and other contact point errors decrease measurement accuracy.
- Replacing the contact point changes the external dimensions, measuring force and other parameters.
- For questions about replacement parts, contact your place of purchase or Mitutoyo service center.

# 3 BASIC OPERATIONS

Key function list

Key	Condition	Functions	page	
ON/OFF	Anytime	Switching ON⇔OFF	6	
RES	Anytime	Switching 0.001mm⇔0.01mm(.00005"⇔.0005")	6	
ZERO /ABS	Normal Tolerance mode or	<2sec	Switch to the INC system & set to zero	6
		>2sec	Switch to the ABS system	6
	While preset		Cancel preset value & return to the previous condition.	7
	Max, Min hold mode, >2sec	ABS	Set to zero at the hold position	9
INC		Set to zero at the current position	9	
PRESET /SET	Normal mode	Enter the origin setting(Switch to the ABS system)	7	
	While check limit, >2sec	Enter the tolerance limit setting	8	
	except above	Enter the selected mode, release the hold	8	
MODE	Normal mode	Select measurement modes	8	
	except above, >2sec	Return to the normal mode	8	
RANGE/ →Adj.←	<2sec	Switching the analog display range	10	
	>2sec	Pointer centering in analog display's range	10	
+/-	Normal mode, <2sec	Switching the Counting Direction	10	
	Any modes, >2sec	Switching the function lock⇔unlock	10	
in/mm	(AGD model)	Switching inch⇔mm	6	

※ ABS:Absolute measruerment system, INC:Comparative measurement system, >2sec:Press longger than 2sec., <2sec:Short press(less than 2sec.),



### 3.1 Connecting the Power Source

- Remove the DC jack cover at the top of the instrument's display. Insert the DC plug of the AC adapter (standard accessory) securely into the DC IN jack.
- Insert the AC plug at the other end securely into a power outlet or extension cord.
- As soon as power is supplied, LCD appears and the back light turns on.

**IMPOTANT** •Before shutting off the power supply, always press the [ON/OFF] key to turn the instrument off. Shutting off the power while the instrument is operating can damage origin and other memory data.

### 3.2 Starting/ Stopping the Instrument

- Press the [ON/OFF] key to start(begin) and stop(end) the instrument.

### 3.3 Initial Settings

#### 3.3.1 Switching the Inch/ Metric

- Press the [in/mm] key to toggle the display units between inches↔metric (AGD model).

#### 3.3.2 Switching the Resolution

- Press the [RES] key a short press to toggle the display resolution (between 0.206 mm.↔0.21 mm., for example).

	[RES]<5sec		
	0.001mm	↔	0.01mm
[in/mm]	↕		↕
	0.00005"	↔	0.0005"
[RES] >5sec	↕		↕
	0.0001"	↔	0.001"

Switching the Resolution

- When using inch units, press and hold the [RES] key for 5 seconds or longer in the normal mode to switch the resolution between .00005"↔.0001"(.0005"↔.001") (AGD model only).

**NOTE**

- When the resolution and units are switched, the analog display range also switches.
- The last digit of preset values and tolerance setting values is rounded off according to the number of display digits and units.
- When the display resolution is toggled between .00005"↔.0001"(.0005"↔.001"), set preset values and tolerance values are erased.

#### 3.3.3 Switching the Measurement System

##### 3.3.3.1 Absolute (ABS) Measurement System

When the origin is set in the ABS system, the absolute origin position for measurement is stored in memory. The origin position is held, as long as its position in relation to the absolute origin, or setting value do not change. Measured values are displayed as distances from the absolute origin.

- To switch to the INC system, press the [ZERO/ABS] key in the normal mode or tolerance determination mode. "INC" appears in the LCD and the display is set to zero. (Press and hold the [ZERO/ABS] key again to return to ABS mode).

##### 3.3.3.2Comparative (INC) Measurement System

The INC system holds the position data of the absolute origin, and displays the distance from the position set to zero.

- To switch to the ABS system, press and hold the [ZERO/ABS] key for 2 seconds or longer in the normal mode or tolerance determination mode.

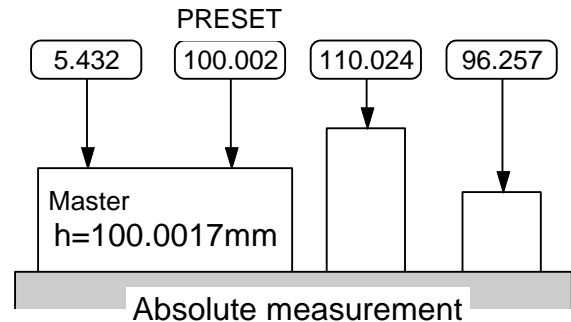
### 3.3.4 Setting the Origin (PRESET)

This section describes how to set the absolute origin for measurement (preset value). You can use a calibrated reference gage or master gage to set a reference plane outside the instrument's measuring range as absolute origin.

- To set the preset value, press [PRESET/SET] key<sup>3</sup> in the normal mode. The previously set preset value appears and "P" blinks in the display.
- The gage is forcibly switched to the ABS system when the origin is preset.
- To set a new preset value, press and hold the [PRESET] key for 2 seconds to select which digit to set. The blinking digit can be set. Give the [PRESET] key a short press to increase the value of the blinking digit.
- While "P" is blinking, give the [PRESET] key a short press to set the new preset value. This value is stored in memory as the distance (origin data) from the absolute origin to the current position of the contact point.

For example, to measure a length which cannot be measured by the instrument alone, as shown in the diagram, set the absolute origin with the bottom end of the master gauge as the measurement reference (0.000 mm.). When the calibration value of the master gauge length is approx. 100.002 mm. and the contact point is contacting the master gauge, set the calibration value to the preset value (origin position setting) by the following procedure.

[PRESET]key	Display value
(set value)	5.432 <sub>mm</sub> <sup>P</sup>
press	+000.000 <sub>mm</sub> <sup>P</sup>
↓ 2sec.	±000.000 <sub>mm</sub> <sup>P</sup>
↓ 2sec.	+000.000 <sub>mm</sub> <sup>P</sup>
release	+000.000 <sub>mm</sub> <sup>P</sup>
short press	+100.000 <sub>mm</sub> <sup>P</sup>
press	+100.000 <sub>mm</sub> <sup>P</sup>
↓ 2sec.	+100.000 <sub>mm</sub> <sup>P</sup>
↓ 2sec.	+100.000 <sub>mm</sub> <sup>P</sup>
↓ 2sec.	+100.000 <sub>mm</sub> <sup>P</sup>
↓ 2sec.	+100.000 <sub>mm</sub> <sup>P</sup>
↓ 2sec.	+100.000 <sub>mm</sub> <sup>P</sup>
release	+100.000 <sub>mm</sub> <sup>P</sup>
short press x2	+100.002 <sub>mm</sub> <sup>P</sup>
press	+100.002 <sub>mm</sub> <sup>P</sup>
↓ 2sec.	+100.002 <sub>mm</sub> <sup>P</sup>
release	+100.002 <sub>mm</sub> <sup>P</sup>
short press (fix)	100.002 <sub>mm</sub>
(repeat value)	99.876 <sub>mm</sub>
press	+100.002 <sub>mm</sub> <sup>P</sup>
short press (fix)	100.002 <sub>mm</sub>



“\_” mean blinking the digit.

#### NOTE

- When setting the origin or the preset value, be sure to lift the spindle at least 0.2mm above the bottom dead center.
- After starting to set the preset value, pressing [ZERO/ABS] before the new preset value has been fixed returns the instrument to the condition it was in before the setting (returns to 99.876 mm. or 5.432 mm. in the above example).
- If the instrument is turned off and on during preset or tolerance setting, the value being set is erased and the gage returns to the condition it was in before setting.

## 3.4 Measurement Modes

The instrument has the five measurement modes described below (see page 5.).

### 3.4.1 Normal Mode





This mode is used for normal measurement, and to select the other modes.

- NOTE**
- 
- To set the origin, switch between + and -, set tolerance limits, or select a new measurement mode, you must return to the normal mode.
- 

### 3.4.2 Tolerance Mode

#### 3.4.2.1 Checking and Setting Tolerance Limits

Tolerance mode is used to check and set the tolerance limits. Note that the tolerance limits must be set separately for the ABS system and the INC system.

- Press the [MODE] key once in the normal mode. "" blinks in the display.
- Press the [PRESET/SET] key to check the tolerance upper limit setting. The previously set upper limit appears with a blinking "" sign.
- To change the upper limit setting, press the [SET] key, and use the same procedure used to set the origin.
- When the new value has been set ("" blinks), press the [SET] key quickly to check the tolerance lower limit setting. The previously set lower limit appears with a blinking "" sign. Change the setting by the same procedure used to change the upper limit setting.
- When both limits have been set correctly, give the [SET] key short press to enter tolerance determination mode.
- Press and hold the [MODE] key for 2 seconds or longer to return to the normal mode from Tolerance mode.

#### 3.4.2.2 Tolerance Determination

If the current measurement value deviates from the range of the tolerance limits set in the previous section, the back lights red as a warning.

- When the tolerance limits have been checked by the procedure in the previous section, the instrument starts tolerance determination straight away.

- NOTE**
- 
- There is no tolerance determination function for max./ min. hold and TIR measurement values.
  - To change the setting of the tolerance limits, first return to the normal mode and then switch to tolerance mode again.
-

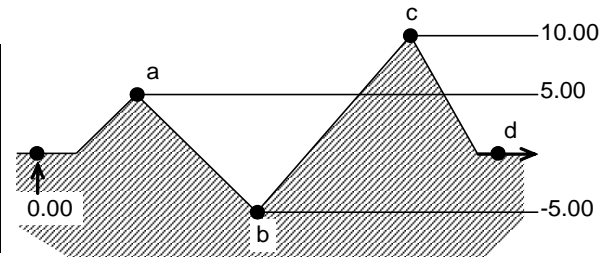
### 3.4.3 Max. Peak Hold Mode

In this mode, the instrument holds the maximum value in the series of varying measured values.

- Press the [MODE] key twice in the normal mode. "Max" blinks in the display.
- Press the [PRESET/SET] key to switch to Max hold mode ("Max" stops blinking).
- When the spindle moves, the maximum value is held ("H" appears).
- Press the [SET] key to release the hold, display the current position, and start measuring a new maximum value.
- Press and hold the [MODE] key for 2 seconds or longer to return to the normal mode from Max. Peak Hold mode.

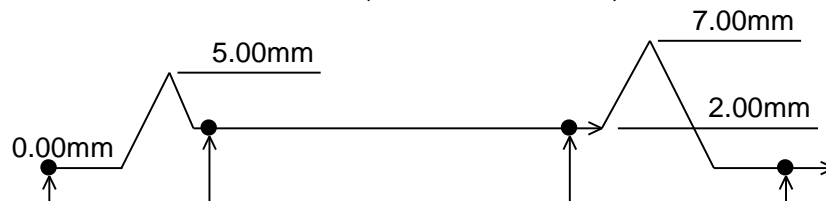
difference of Max,Min,TIR hold mode.

Path	0	→	a	→	b	→	c	→	d
Max mode	0.00	↗	5.00		↗	10.00			
Min mode	0.00		↘	-5.00					
TIR mode	0.00	↗	5.00	↗	10.00	↗	15.00		



- If max. hold mode is entered from the ABS system, press the [ZERO/ABS] key for 2 seconds or longer to set the position being held to zero. The instrument can be used for comparative measurement.
- If max. hold mode is entered from the INC system, press the [ZERO/ABS] key for 2 seconds or longer to set the current position to zero.

difference of after Zero set (at Max. hold mode)



operation	-	-	[ZERO/ABS]>2sec	[PRESET/SET]	
ABS	0.00	<sup>H</sup> 5.00	<sup>H</sup> 0.00	-3.00	<sup>H</sup> 2.00
INC	0.00	<sup>H</sup> 5.00	0.00	0.00	<sup>H</sup> 5.00

### 3.4.4 Min. Peak Hold Mode

In this mode, the instrument holds the minimum value in the series of varying measured values.

- Press the [MODE] key three times in the normal mode. "Min" blinks in the display.
- Min. hold mode operations are done by the same procedure as max. hold mode.

### 3.4.5 TIR (Run-Out) Measurement Mode

In this mode, the instrument holds the run-out width in the series of varying measured values. Only this mode has the same operation in both the ABS and INC systems.

- Press the [MODE] key four times in the normal mode. "TIR" blinks in the display.
- Press the [PRESET/SET] key to set the display to zero ("TIR" appears).
- When the spindle moves, the run-out width is held ("H" appears).
- Press the [SET] key to release the held value and start measuring a new run-out width value.



### 3.5 Analog Display

An analog scale and pointer in the form of dial indicator are continuously displayed at the top of the instrument's LCD. In tolerance determination mode, the limit positions blink in this area. In max./ min. hold mode or TIR mode, the maximum and minimum positions blink in this area.

#### 3.5.1 Switching the Display Range

The analog display range can be switched to prevent pointers going too high or low.

- Press the [RANGE/→Adj.←] key a short press to toggle the display range.

Resolution	Swiatching the display range(loop)
0.001mm	0.02(mm) →0.04 →0.1 →0.2 →0.4
0.01mm	0.2(mm) →0.4 →1 →2 →4
.00005"	0.001(") →0.002 →0.004 →0.01 →0.02
.0005"	0.01(") →0.02 →0.04 →0.1 →0.2
.0001"	0.002(") →0.004 →0.01 →0.02 →0.04
.001"	0.02(") →0.04 →0.1 →0.2 →0.4

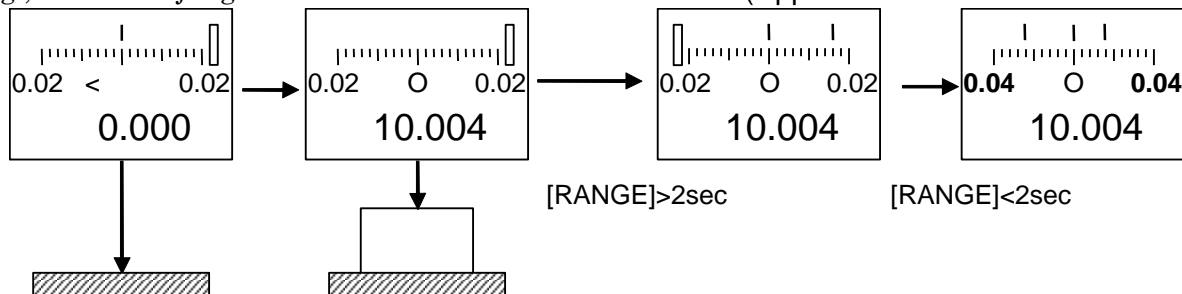
#### 3.5.2 Pointer Centering

When a pointer is out of the analog display's range, use this function to shift the display so that the pointer is centered. This has the same effect as adjusting the bezel of a dial indicator to the desired scale.

- Press the [RANGE/→Adj.←] key for 2 seconds or longer to center the pointer.

**NOTE** •The pointer position is adjusted so that the current measured value is in the center.

e.g., In case of judgement tolerance for the  $10.000 \pm 0.02$  (Upper & lower limit:10.020&9.980)



### 3.6 Switching the Counting Direction

By default, the instrument takes the positive direction to be the direction the spindle moves in when it is pushed in. If desired, this direction can be set as the negative direction.

- To reverse the counting direction, press the [+/-] key in the normal mode ("REV" appears).

### 3.7 Function Lock

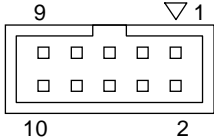
- Pressing the [+/-] key for 2 seconds or longer deactivates all key input except ON/OFF and hold release (🔒 appears).
- To reactivate the keys, press the [+/-] key again for 2 seconds or longer.

# 4 DATA I/O

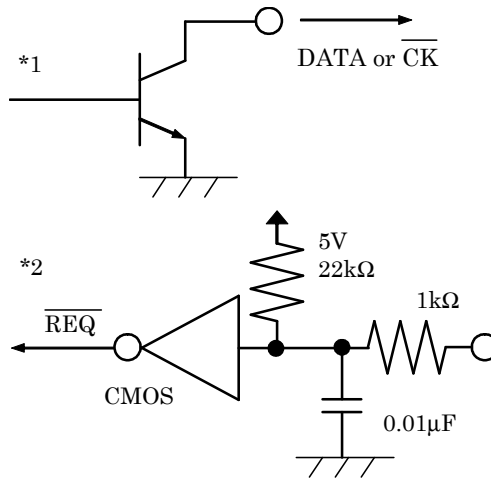
Using the Connecting Cable (sold separately), the instrument can be connected to the DP-1 VR Digimatic Mini-processor or similar data processors, to transfer, total and record measurement values.

- Remove the output connector cover and insert the cable securely. (Store the cover in a safe place).

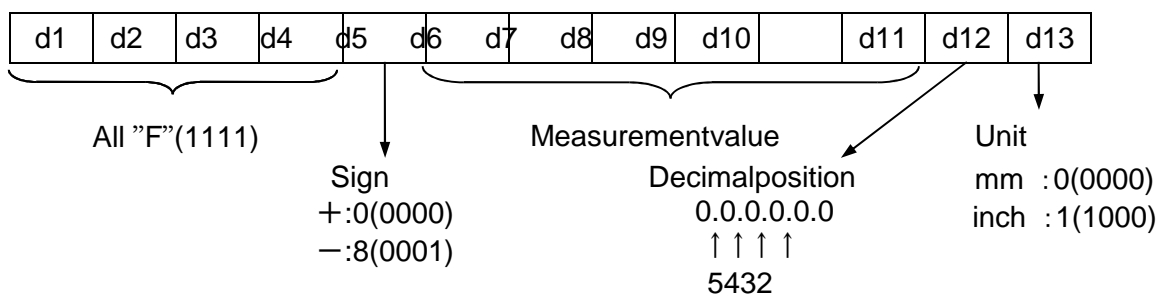
## 4.1 Output Connector



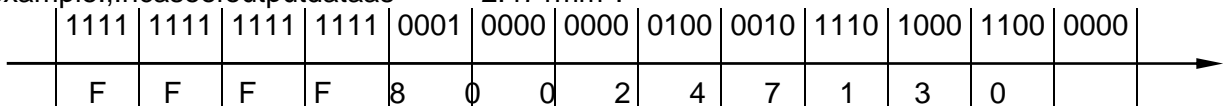
PIN#	Signal	I/O
1.	GND	-
2. *1	DATA1	OUT
3. *1	$\overline{\text{CK}}$	OUT
4.	-	-
5. *2	$\overline{\text{REQ}}$	IN
6.	-	-
7.	-	-
8.	+9V	-
9.	+9V	-
10.	GND	-



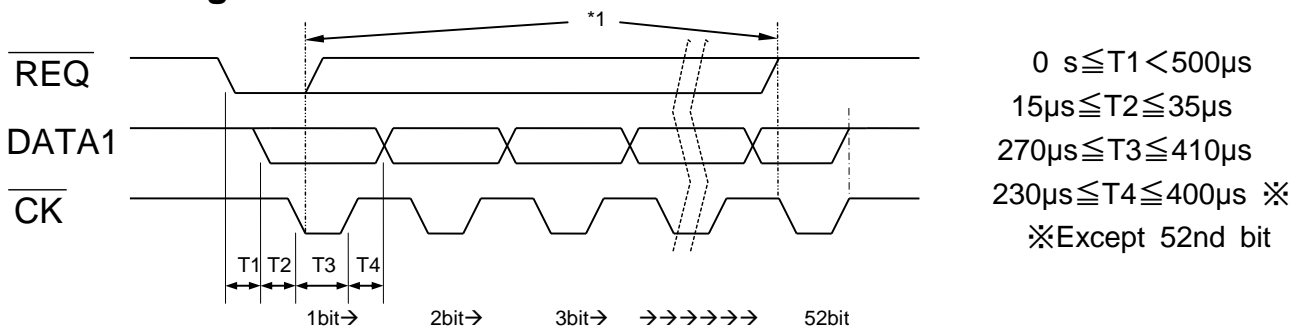
## 4.2 Output Data Format (DATA1)



For example., In case of output data as "-2.471mm".



### 4.3 Timing Chart



#### IMPOTANT

- Use only the Connecting Cable specified by Mitutoyo. Use of incompatible or deteriorated cables may result in data output failure.
- Before outputting data, read the manual that comes with the data processor carefully to ensure correct operation.
- Data output may be disabled if an output request (REQ) is received when the spindle is in motion, or if the output request interval is too short.

#### CAUTION

\*1: To make an output request (REQ), hold the REQ signal at "Low" until "CK" is output. Return it to "High" before the final (52nd) "CK" bit is output.

## 5 ERROR MESSAGES & CORRECTIVE MEASURES

Display	Description and Corrective measures
<b>XXXXE</b>	<p><b>ABS composition error</b> If this error occurs while the spindle is stopped, it is a malfunction in the internal sensor.</p> <ul style="list-style-type: none"> <li>• The instrument requires repair. Contact the Mitutoyo distributor or sales office where you purchased the product.</li> <li>• When this error is displayed and soon disappears during spindle movement, this is not the result of an instrument malfunction. This is just an internal processing.</li> </ul>
<b>E--SE</b>	<p><b>Tolerance setting error</b> The tolerance limit value is set with the upper limit value being smaller than the lower limit value.</p> <ul style="list-style-type: none"> <li>• Press the Set key to return to tolerance value setting, and then set the values so that the upper limit value is greater than the lower limit value.</li> </ul>
<b>E--SE</b>	<p><b>Upper limit value setting error</b> The upper limit value exceeds the number of digits which can be displayed.</p> <ul style="list-style-type: none"> <li>• Press and hold the SET key to return to the upper limit value setting, and then set an appropriate value again.</li> </ul>
<b>E--SE</b>	<p><b>Lower limit value setting error</b> The Lower limit value exceeds the number of digits which can be displayed.</p> <ul style="list-style-type: none"> <li>• Press and hold the SET key to return to the lower limit value setting, and then set an appropriate value again.</li> </ul>
<b>E--OF</b>	<p><b>Display overflow</b> The display value exceeds the number of digits which can be displayed.</p> <ul style="list-style-type: none"> <li>• During the ABS measurement mode, press the SET key to start measurement origin setting, and then set the preset value again.</li> <li>• During the INC measurement mode, press the SET key at an appropriate position to zero set.</li> </ul>

# 6 SPECIFICATIONS

## 6.1 Specifications of the main unit

Model name Order No. *1	ID-F125 543-551-1	ID-F150 543-553-1	ID-H150H 543-557-1	ID-F125E 543-552-1	ID-F150E 543-554-1	ID-F150HE 543-558-1
Resolution	0.001 mm/0.01 mm			0.001/0.01 mm/.00005/.0005/.0001/.001 "		
Measuring range	25.4 mm	50.8 mm		25.4 mm = 1"	50.8 mm = 2 "	
Accuracy *2 (20°C)	0.003 mm or less	0.006 mm or less	0.003 mm or less	0.003 mm /.00012 " or less	0.006 mm /.00024 " or less	0.003 mm /.00012 " or less
Standards	ISO R463 / JIS B7503			ANSI B89.1.10 / AGD		
Stem diameter	Ø8 mm			Ø9.52 mm=3/8 "DIA		
Contact point	Carbide (M2.5x0.45)			Carbide (#4-48UNF)		
Measuring force	1.8 N or less	2.3 N or less		1.8 N or less	2.3 N or less	
Protection level	Equivalent to IP30 (IEC 60529/JIS C 0920 at factory default)					
Plunger direction	Below the horizon					
Power supply	AC adapter, 9V, 500 mA					
Operating temp.	0 °C ~ 40 °C					
Storage temp.	-10 °C ~ 60 °C					
Net weight	Approx. 220 g	Approx. 290g		Approx. 220 g (0.49 lbs.)	Approx. 290 g (0.64 lbs.)	

\*1.This Order No. means only the main unit without AC adapter.

\*2.Not including the quantizing error ( $\pm 1$  count).

## 6.2 Standard accessories

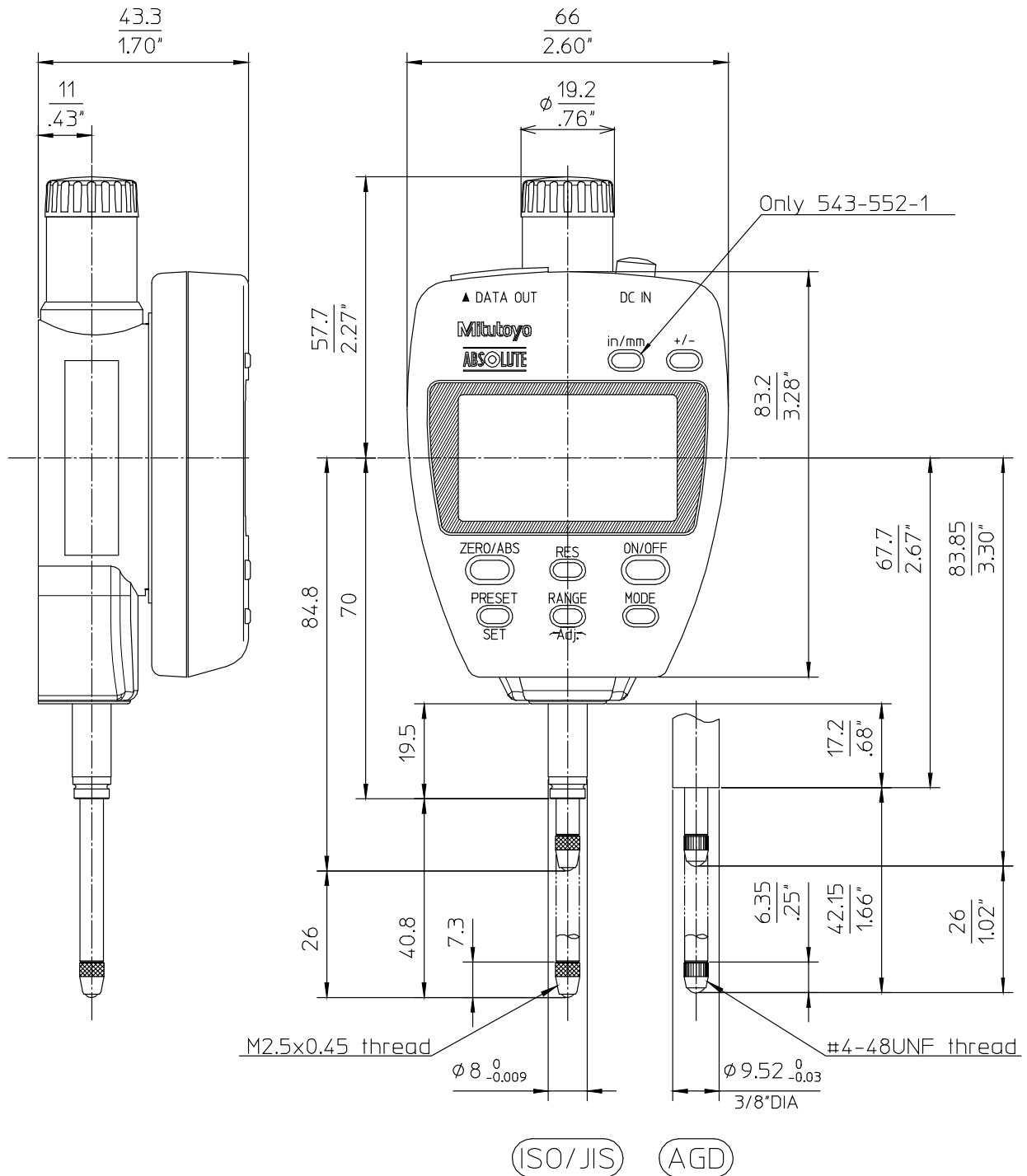
#99MAH001B	User's manual Warranty WEEE /EMC Directive guide
#137693	Lifting lever
#06AEG302JA	AC adapter (100-240V : Japan, USA, Canada, &Co.)
#06AEG302D	AC adapter (100-240V : Germany, &Co.)
#06AEG302E	AC adapter (100-240V : UK, &Co.)
#06AEG302DC	AC adapter (100-240V : China for CCC)
#06AEG302K	AC adapter (100-240V : Korea for KC)

## 6.3 Optional accessories

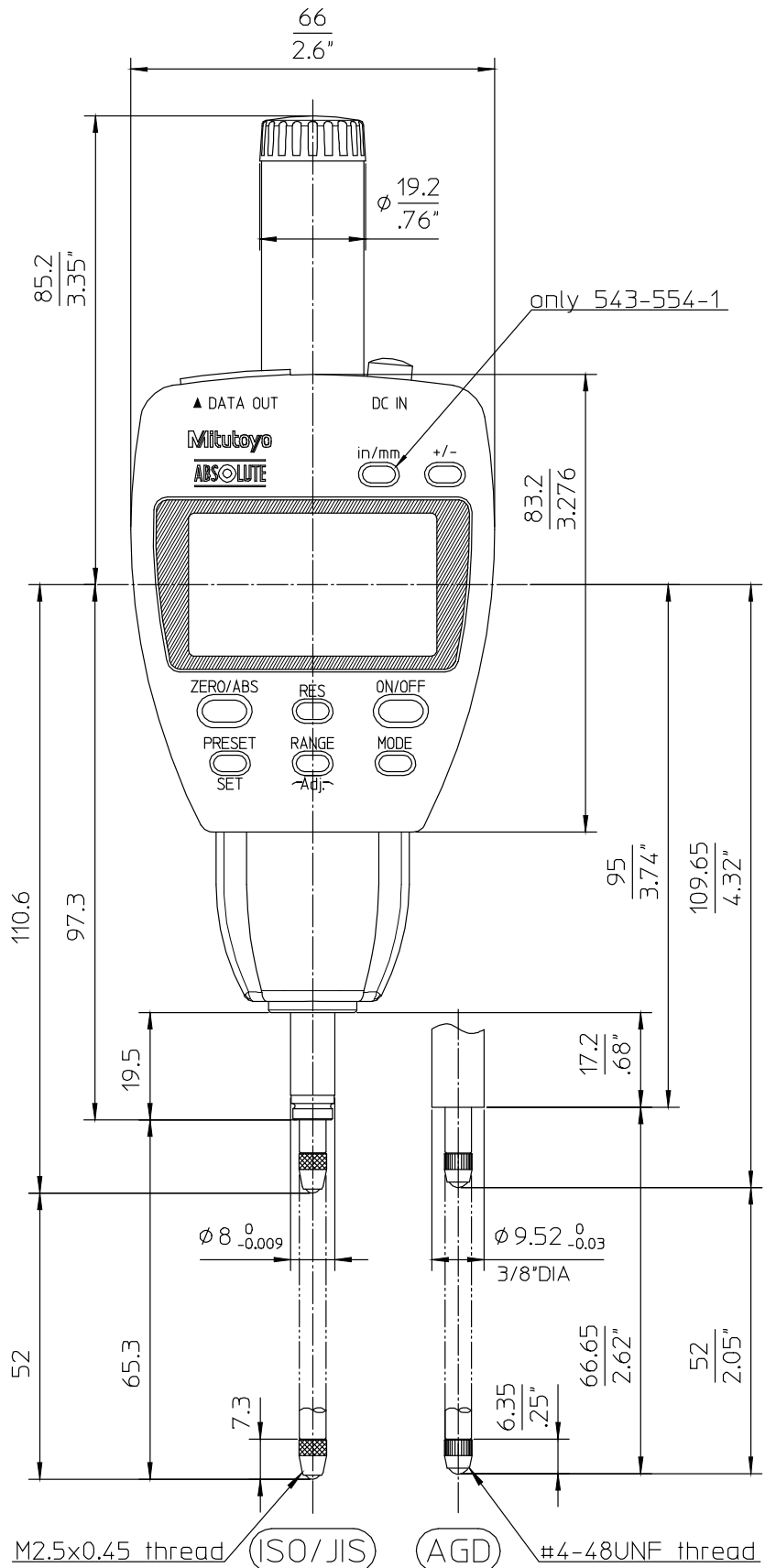
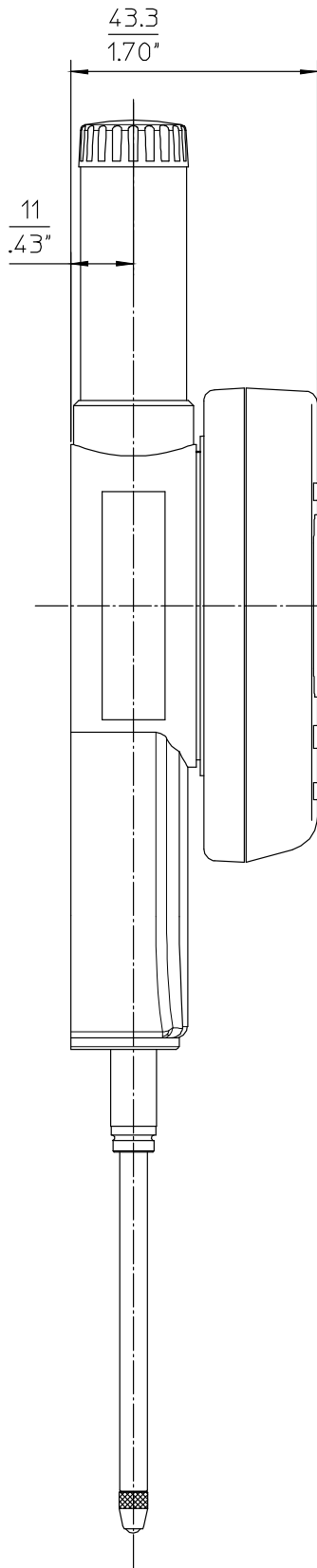
#540774	Release cable
#936937	M-SPC cable 1m
#965014	M-SPC cable 2m
#02ACA571	Coil spring for upside-down position (for 125 model)
#02ACA773	Coil spring for upside-down position (for 150 model)
Backs for Mitutoyo standard dial gages (2 series)	
Interchangeable contact point and extension rods for Mitutoyo dial gages	

## 6.4 Dimensions

- Dimensions shown in the double column are  $\frac{\text{mm}}{\text{inch}}$ , except they are mm.
- This instrument is conform to the standard of the dial indicator in JIS/ISO or ASME/ANSI (AGD), only stem diameter and contact point.



ID-F125 (543-551-1)  
ID-F125E (543-552-1)



ID-F150	(543-553-1)
ID-F150E	(543-554-1)
ID-F150H	(543-557-1)
ID-F150HE	(543-558-1)

# SERVICE NETWORK

\*As of Apr. 2018

## Europe

### Mitutoyo Europe GmbH

Borsigstrasse 8-10, 41469 Neuss, GERMANY  
TEL: 49 (0)2137 102-0 FAX: 49 (0)2137 102-351

### Mitutoyo CTL Germany GmbH

Von-Gunzert-Strasse 17, 78727 Oberndorf, GERMANY  
TEL: 49 (0)7423 8776-0 FAX: 49 (0)7423 8776-99

### KOMEG Industrielle Messtechnik GmbH

Zum Wasserwerk 3, 66333 Völklingen, GERMANY  
TEL: 49 (0)6898 91110 FAX: 49 (0)6898 911100

## Germany

### Mitutoyo Deutschland GmbH

Borsigstrasse 8-10, 41469 Neuss, GERMANY  
TEL: 49 (0)2137 102-0 FAX: 49 (0)2137 86 85

### M3 Solution Center Hamburg

Tempowerkring 9 im HIT-Technologiepark 21079 Hamburg, GERMANY

TEL: 49 (0)40 791894-0 FAX: 49 (0)40 791894-50

### M3 Solution Center Berlin

Carl-Scheele-Straße 16, 12489 Berlin, GERMANY  
TEL: 49 (0)30 2611 267

### M3 Solution Center Eisenach

Heinrich-Ehrhardt-Platz 1, 99817 Eisenach, GERMANY  
TEL: 49 (0)3691 88909-0 FAX: 49 (0)3691 88909-9

### M3 Solution Center Ingolstadt

Marie-Curie-Strasse 1a, 85055 Ingolstadt, GERMANY  
TEL: 49 (0)841 954920 FAX: 49 (0)841 9549250

### M3 Solution Center Leonberg

Steinbeisstrasse 2, 71229 Leonberg, GERMANY  
TEL: 49 (0)7152 6080-0 FAX: 49 (0)7152 608060

### Mitutoyo-Messgeräte Leonberg GmbH

Heidenheimer Strasse 14, 71229 Leonberg, GERMANY  
TEL: 49 (0)7152 9237-0 FAX: 49 (0)7152 9237-29

## U.K.

### Mitutoyo (UK) Ltd.

Joule Road, West Point Business Park, Andover, Hampshire  
SP10 3UX, UNITED KINGDOM  
TEL: 44 (0)1264 353 123 FAX: 44 (0)1264 354883

### M3 Solution Center Coventry

Unit6, Banner Park, Wickmans Drive, Coventry,  
Warwickshire CV4 9XA, UNITED KINGDOM  
TEL: 44 (0)2476 426300 FAX: 44 (0)2476 426339

### M3 Solution Center Halifax

Lowfields Business Park, Navigation Close, Elland, West  
Yorkshire HX5 9HB, UNITED KINGDOM  
TEL: 44 (0)1422 375566 FAX: 44 (0)1422 328025

### M3 Solution Center East Kilbride

The Baird Building, Rankine Avenue, Scottish Enterprise  
Technology Park, East Kilbride G75 0QF, UNITED  
KINGDOM  
TEL: 44 (0)1355 581170 FAX: 44 (0)1355 581171

## France

### Mitutoyo France

Paris Nord 2-123 rue de la Belle Etoile, BP 59267 ROISSY EN  
FRANCE 95957 ROISSY CDG CEDEX, FRANCE  
TEL: 33 (0)149 38 35 00

### M3 Solution Center LYON

Parc Mail 523, cours du 3ème millénaire, 69791 Saint-Priest,  
FRANCE  
TEL: 33 (0)149 38 35 70

### M3 Solution Center STRASBOURG

Parc de la porte Sud, Rue du pont du péage, 67118  
Geispolsheim, FRANCE  
TEL: 33 (0)149 38 35 80

### M3 Solution Center CLUSES

Espace Scionzier 480 Avenue des Lacs, 74950 Scionzier,  
FRANCE  
TEL: 33 (0)1 49 38 35 90

### M3 Solution Center TOULOUSE

12 rue de Caulet, Cellule B08, 31300 TOULOUSE, FRANCE  
TEL: 33 (0)1 49 38 42 90

### M3 Solution Center RENNES

ZAC Mivoie  
Le Vallon  
35230 Noyal-Châtillon sur Seiche, FRANCE  
TEL: 33 (0)1 49 38 42 10

## Italy

### MITUTOYO ITALIANA S.r.l.

Corso Europa, 7 - 20020 Lainate (MI), ITALY  
TEL: 39 02 935781 FAX: 39 02 9373290 • 93578255

### M3 Solution Center BOLOGNA

Via dei Carpini1/A - 40011 Anzola Emilia (BO), ITALY  
TEL: 39 02 93578215 FAX: 39 02 93578255

### M3 Solution Center CHIETI

Contrada Santa Calcagna - 66020 Rocca S. Giovanni (CH),  
ITALY  
TEL: 39 02 93578280 FAX: 39 02 93578255

### M3 Solution Center PADOVA

Via G. Galilei 21/F - 35035 Mestrino (PD), ITALY  
TEL: 39 02 93578268 FAX: 39 02 93578255

## Belgium / Netherlands

### Mitutoyo BeNeLux

### Mitutoyo Belgium N.V.

Hogenakkerhoekstraat 8, 9150 Kruibeke, BELGIUM  
TEL: 32 (0)3-2540444 FAX: 32 (0)3-2540445

### Mitutoyo Nederland B.V.

Wiltonstraat 25, 3905 KW Veenendaal,  
THE NETHERLANDS  
TEL: 31 (0)318-534911

## Sweden

### Mitutoyo Scandinavia AB

Släntvägen 6, 194 61 Upplands Väsby, SWEDEN  
TEL: 46 (0)8 594 109 50 FAX: 46 (0)8 590 924 10

### M3 Solution Center Alingsås

Ångsvaktaregatan 3A, 441 38 Alingsås, SWEDEN  
TEL: 46 (0)8 594 109 50 FAX: 46 (0)322 63 31 62

### M3 Solution Center Värnamo

Storgatsbacken 1, 331 30 Värnamo, SWEDEN  
TEL: 46 (0)8 594 109 50 FAX: 46 (0)370 463 34

## Switzerland

### Mitutoyo (Schweiz) AG

Steinackerstrasse 35, 8902 Urdorf, SWITZERLAND  
TEL: 41 (0)447361150 FAX: 41(0)447361151

### Mitutoyo (Suisse) SA

Rue Galilée 4, 1400 Yverdon-les Bains, SWITZERLAND  
TEL: 41 (0)244259422 FAX: 41 (0)447361151

## Poland

### Mitutoyo Polska Sp.z o.o.

Ul.Graniczna 8A, 54-610 Wroclaw, POLAND  
TEL: 48 (0)71354 83 50 FAX: 48 (0)71354 83 55

## Czech Republic

### Mitutoyo Česko s.r.o.

Dubská 1626, 415 01 Teplice, CZECH REPUBLIC  
TEL: 420 417-514-011 FAX: 420 417-579-867

### Mitutoyo Česko s.r.o. M3 Solution Center Ivančice

Ke Karlovu 62/10, 664 91 Ivančice, CZECH REPUBLIC  
TEL: 420 417-514-011 FAX: 420 417-579-867



# SERVICE NETWORK

\*As of Apr. 2018

**Mitutoyo Česko s.r.o. M3 Solution Center Ostrava Mošnov**  
Mošnov 314, 742 51 Mošnov, CZECH REPUBLIC  
TEL: 420 417-514-050 FAX: 420 417-579-867

**Mitutoyo Česko s.r.o. Slovakia Branch**  
Hviezdoslavova 124, 017 01 Povážská Bystrica, SLOVAKIA  
TEL: 421 948-595-590

## Hungary

**Mitutoyo Hungária Kft.**  
Záhony utca 7, D-épület / fsz, 1031 Budapest, HUNGARY  
TEL: 36 (0)1 2141447 FAX: 36 (0)1 2141448

## Romania

**Mitutoyo Romania SRL**  
1A Drumul Garii Odai Street, showroom, Ground Floor,  
075100 OTOPENI-ILFOV, ROMANIA  
TEL: 40 (0)311012088 FAX: 40 (0)311012089  
**Showroom in Brasov**  
Strada Ionescu Crum Nr.1, Brasov Business Park Turnul 1,  
Mezanin, 500446 Brasov-Judetul Brasov, ROMANIA  
TEL/FAX: 40 (0)371020017

## Russian Federation

**Mitutoyo RUS LLC**  
13 Sharikopodshipnikovskaya, bld.2, 115088 Moscow,  
RUSSIAN FEDERATION  
TEL: 7 495 7450 752

## Finland

**Mitutoyo Scandinavia AB Finnish Branch**  
Viherkiitäjä 2A, 33960, Pirkkala, Finland  
TEL: 358 (0)40 355 8498

## Austria

**Mitutoyo Austria GmbH**  
Johann Roithner Straße 131 A-4050 Traun, AUSTRIA  
TEL: 43 (0)7229 23850 FAX: 43 (0)7229 23850-90

## Singapore

**Mitutoyo Asia Pacific Pte. Ltd.**  
**Head office / M3 Solution Center**  
24 Kallang Avenue, Mitutoyo Building, SINGAPORE 339415  
TEL: (65)62942211 FAX: (65)62996666

## Malaysia

**Mitutoyo (Malaysia) Sdn. Bhd.**  
**Kuala Lumpur Head Office / M3 Solution Center**  
Mah Sing Intergrated Industrial Park, 4, Jalan Utarid U5/14,  
Section U5, 40150 Shah Alam, Selangor, MALAYSIA  
TEL: (60)3-78459318 FAX: (60)3-78459346  
**Penang Branch office / M3 Solution Center**  
No.30, Persiaran Mahsuri 1/2, Sunway Tunas, 11900 Bayan  
Lepas, Penang, MALAYSIA  
TEL: (60)4-6411998 FAX: (60)4-6412998  
**Johor Branch office / M3 Solution Center**  
No. 70, Jalan Molek 1/28, Taman Molek, 81100 Johor Bahru,  
Johor, MALAYSIA  
TEL: (60)7-3521626 FAX: (60)7-3521628

## Thailand

**Mitutoyo(Thailand)Co., Ltd.**  
**Bangkok Head Office / M3 Solution Center**  
76/3-5, Chaengwattana Road, Kwaeng Anusaowaree, Khet  
Bangkaen, Bangkok 10220, THAILAND  
TEL: (66)2-080-3500 FAX: (66)2-521-6136  
**Chonburi Branch / M3 Solution Center**  
7/1, Moo 3, Tambon Bowin, Amphur Sriracha, Chonburi  
20230, THAILAND  
TEL: (66)2-080-3563 FAX: (66)3-834-5788

**Amata Nakorn Branch / M3 Solution Center**  
700/199, Moo 1, Tambon Bankao, Amphur Phanthong,  
Chonburi 20160, THAILAND  
TEL: (66)2-080-3565 FAX: (66)3-846-8978

## Indonesia

**PT. Mitutoyo Indonesia**  
**Head Office / M3 Solution Center**  
Jalan Sriwijaya No.26 Desa cibatu Kec. Cikarang Selatan  
Kab. Bekasi 17530, INDONESIA  
TEL: (62)21-2962 8600 FAX: (62)21-2962 8604

## Vietnam

**Mitutoyo Vietnam Co., Ltd**  
**Hanoi Head Office / M3 Solution Center**  
No. 07-TT4, My Dinh - Me Tri Urban Zone, My Dinh 1 Ward,  
Nam Tu Liem District, Hanoi, VIETNAM  
TEL: (84)4-3768-8963 FAX: (84)4-3768-8960  
**Ho Chi Minh City Branch Office / M3 Solution Center**  
123 Dien Bien Phu Street, Ward 15, Binh Thanh District, Ho  
Chi Minh City, VIETNAM  
TEL: (84)8-3840-3489 FAX: (84)8-3840-3498

## Mitutoyo Philippines, Inc.

**Head Office/ M3 Solution Center**  
Unit 2103, Bldg 2 GMV Building 2, 107 North Main Avenue,  
Laguna Technopark, Binan, Laguna 4024, Philippines  
TEL: (63)49 544 0272 FAX: (63)49 544 0272

## India

**Mitutoyo South Asia Pvt. Ltd.**  
**Head Office / M3 Solution Center**  
C-122, Okhla Industrial Area, Phase-I, New Delhi-110 020,  
INDIA  
TEL: 91(11)2637-2090 FAX: 91(11)2637-2636  
**MSA Gurgaon technical center**  
Plot No. 65, Phase-IV, Udyog Vihar, Gurgaon – 122016  
TEL: 91(0124) – 2340294  
**Mumbai Region Head office**  
303, Sentinel Hiranandani Business Park Powai,  
Mumbai-400 076, INDIA  
TEL: 91(22)2570-0684, 837, 839 FAX: 91(22)2570-0685  
**Pune Office / M3 Solution Center**  
G2/G3, Pride Kumar Senate, F.P. No. 402 Off. Senapati Bapat  
Road, Pune-411 016, INDIA  
TEL: 91(20)6603-3643, 45, 46 FAX: 91(20)6603-3644  
**Bengaluru Region Head office / M3 Solution Center**  
No. 5, 100 Ft. Road, 17th Main, Koramangala, 4th Block,  
Bengaluru-560 034, INDIA  
TEL: 91(80)2563-0946, 47, 48 FAX: 91(80)2563-0949  
**Chennai Office / M3 Solution Center**  
No. 624, Anna Salai Teynampet, Chennai-600 018, INDIA  
TEL: 91(44)2432-8823, 24, 27, 28 FAX: 91(44)2432-8825  
**Kolkata Office**  
Unit No. 1208, Om Tower, 32, J.L. Nehru Road, Kolkata-700  
071, INDIA  
TEL: 91 33-22267088/40060635 FAX: (91)33-22266817  
**Ahmedabad Office/M3 Solution Center (Ahmedabad)**  
A-104 & A-105, First Floor, Solitaire Corporate Park, Near  
Divya Bhaskar Press, S.G. Road, Ahmedabad - 380 015,  
INDIA  
TEL: (91) 079 - 29704902/903  
**Coimbatore Office (Coimbatore)**  
Regus, Srivari Srimath, 3rd Floor, Door No:1045, Avinashi  
Road, Coimbatore - 641 018, INDIA  
TEL: (91) 9345005663

# SERVICE NETWORK

\*As of Apr. 2018

## Taiwan

**Mitutoyo Taiwan Co., Ltd. / M3 Solution Center Taipei**  
4F., No.71, Zhouzi St., Neihu Dist., Taipei City 114, TAIWAN (R.O.C.)

TEL: 886(2)5573-5900 FAX: 886(2)8752-3267

**Taichung Branch / M3 Solution Center Taichung**  
1F., No.758, Zhongming S. Rd., South Dist., Taichung City 402, TAIWAN(R.O.C.)

TEL: 886(4)2262-9188 FAX: 886(4)2262-9166

**Kaohsiung Branch / M3 Solution Center Kaohsiung**  
1F., No.31-1, Haibian Rd., Lingya Dist., Kaohsiung City 802, Taiwan (R.O.C.)

TEL: 886(7)334-6168 FAX: 886(7)334-6160

## South Korea

**Mitutoyo Korea Corporation**

**Head Office / M3 Solution Center**

(Sanbon-Dong, Geumjeong High View Build.), 6F, 153-8, Ls-Ro, Gunpo-Si, Gyeonggi-Do, 15808 KOREA

TEL: 82(31)361-4200 FAX: 82(31)361-4202

**Busan Office / M3 Solution Center**

(3150-3, Daejeo 2-dong) 8,Yutongdanji 1-ro 49beon-gil, Gangseo-gu, Busan, 46721 KOREA

TEL: 82(51)718-2140 FAX: 82(51)324-0104

**Daegu Office / M3 Solution Center**

371-12, Hosan-Dong, Dalseo-Gu, Daegu, 42704, KOREA

TEL: 82(53)593-5602 FAX: 82(53)593-5603

## China

**Mitutoyo Measuring Instruments (Shanghai) Co., Ltd.**

12F, Nextage Business Center, No.1111 Pudong South Road, Pudong New District, Shanghai 200120, CHINA

TEL: 86(21)5836-0718 FAX: 86(21)5836-0717

**Suzhou Office / M3 Solution Center (Suzhou)**

No. 46 Baiyu Road, Suzhou 215021, CHINA

TEL: 86(512)6522-1790 FAX: 86(512)6251-3420

**Wuhan Office**

Room 1701, Wuhan Wanda Center, No. 96, Linjiang Road, Wuchang District, Wuhan Hubei 430060, CHINA

TEL: 86(27)8544-8631 FAX: 86(27)8544-6227

**Chengdu Office**

1-701, New Angle Plaza, 668# Jindong Road, Jinjiang District, Chengdu, Sichuan 610066, CHINA

TEL: 86(28)8671-8936 FAX: 86(28)8671-9086

**Hangzhou Office**

Room 804, Eastern International Business Center Building 1, No.600 Jinsha Road

Hangzhou Economic and Technological Development Zone, 310018, China

TEL: 86(571)8288-0319 FAX: 86(571)8288-0320

**Tianjin Office / M3 Solution Center Tianjin**

Room A 15/F, TEDA Building, No.256 Jie-fang Nan Road Hexi District, Tianjin 300042, CHINA

TEL: 86(22)5888-1700 FAX: 86(22)5888-1701

**Changchun Office**

Room 815, 8F, Building A1, Upper East International No.3000 Dongsheng Street, Erdao District, Changchun, Jilin, 130031, CHINA

TEL: 86(431)8192-6998 FAX: 86(431)8192-6998

**Chongqing Office**

Room 1312, Building 3, Zhongyu Plaza, No.86, Hongjin Avenue, Longxi Street, Yubei District, Chongqing, 400000, CHINA

TEL: 86(23)6595-9950 FAX: 86(23)6595-9950

**Qingdao Office**

Room 638, 6F, No.192 Zhengyang Road, Chengyang District, Qingdao, Shandong, 266109, CHINA

TEL: 86(532)8096-1936 FAX: 86(532)8096-1937

## Xi'an Office

Room 805, Xi'an International Trade Center, No. 196 Xiaozhai East Road, Xi'an, 710061, CHINA

TEL: 86(29)8538-1380 FAX: 86(29)8538-1381

**Dalian Office / M3 Solution Center Dalian**

Room 1008, Grand Central IFC, No.128 Jin ma Road, Economic Development Zone, Dalian 116600, CHINA

TEL: 86(411)8718 1212 FAX: 86(411)8754-7587

**Zhengzhou Office**

Room1801,18/F,Unit1,Building No.23, Shangwu Inner Ring Road, Zhengdong New District,Zhengzhou City, Henan Province, 450018, CHINA

TEL: 86(371)6097-6436 FAX: 86(371)6097-6981

**Mitutoyo Leepport Metrology (Hong Kong) Limited**

Room 818, 8/F, Vanta Industrial Centre, No.21-33, Tai Lin Pai Road, Kwai Chung, NT, Hong Kong

TEL: 86(852)2992-2088 FAX: 86(852)2670-2488

**Mitutoyo Leepport Metrology (Dongguan) Limited /**

**M3 Solution Center Dongguan**

No.26, Guan Chang Road, Chong Tou Zone, Chang An Town, Dong Guan, 523855 CHINA

TEL: 86(769)8541 7715 FAX: 86(769)-8541 7745

**Mitutoyo Leepport Metrology (Dongguan) Limited – Fuzhou office**

Room 2104, City Commercial Centre, No.129 Wu Yi Road N., Fuzhou City, Fujian Province, CHINA

TEL: 86 591 8761 8095 FAX: 86 591 8761 8096

**Mitutoyo Leepport Metrology (Dongguan) Limited – Changsha office**

Room 2207, Shiner International Plaza, No. 88, Kaiyuan Middle Road, Changsha City, Hunan, China

TEL: 86 731 8401 9276 FAX: 86 731 8401 9376

**Mitutoyo Measuring Instruments (Suzhou) Co., Ltd.**

No. 46 Baiyu Road, Suzhou 215021, CHINA

TEL: 86(512)6252-2660 FAX: 86(512)6252-2580

## U.S.A.

**Mitutoyo America Corporation**

965 Corporate Boulevard, Aurora, IL 60502, U.S.A.

TEL: 1-(630)820-9666 Toll Free No. 1-(888)648-8869

FAX: 1-(630)978-3501

**M3 Solution Center-Illinois**

965 Corporate Boulevard, Aurora, IL 60502, U.S.A.

TEL: 1-(888)648-8869 FAX: 1-(630)978-3501

**M3 Solution Center-Ohio**

6220 Hi-Tek Court, Mason, OH 45040, U.S.A.

TEL: 1-(888)648-8869 FAX: 1-(513)754-0718

**M3 Solution Center-Michigan**

46850 Magellan Drive, Suite 100, Novi, MI 48377, U.S.A.

TEL: 1-(888)648-8869 FAX: 1-(248)926-0928

**M3 Solution Center-California**

16925 E. Gale Avenue, City of Industry, CA 91745, U.S.A.

TEL: 1-(888)648-8869 FAX: 1-(626)369-3352

**M3 Solution Center-North Carolina**

11515 Vanstory Drive, Suite 140, Huntersville, NC 28078, U.S.A.

TEL: 1-(888)648-8869 FAX: 1-(704)875-9273

**M3 Solution Center-Alabama**

2100 Riverchase Center, Suite 106, Hoover, AL 35244, U.S.A

TEL: 1-(888)648-8869 FAX: 1-(205)988-3423

**M3 Solution Center-Washington**

1000 SW 34th Street Suite G, Renton, WA 98057 U.S.A.

TEL: 1-(888)648-8869

**M3 Solution Center-Texas**

4560 Kendrick Plaza Drive, Suite 120, Houston, TX 77032, U.S.A.

TEL: 1-(888)648-8869 FAX: 1-(281)227-0937

**M3 Solution Center-Massachusetts**

753 Forest Street, Suite 110, Marlborough, MA 01752, U.S.A.

TEL: 1-(888)648-8869 FAX: 1-(508)485-0782

# SERVICE NETWORK

\*As of Apr. 2018

## **Mitutoyo America Corporation Calibration Lab**

965 Corporate Boulevard, Aurora, IL 60502, U.S.A.  
TEL: 1-(888)648-8869 FAX: 1-(630)978-6477

## **Micro Encoder, Inc.**

11533 NE 118th Street, Kirkland, WA 98034-7111, U.S.A.  
TEL: 1-(425)821-3906 FAX: 1-(425)821-3228

## **Micro Encoder Los Angeles, Inc.**

16925 E. Gale Avenue, City of Industry, CA 91745-1806  
U.S.A.  
TEL: 1-626-961-9661 FAX: 1-626-333-8019

## **Irapuato Office / M3 Solution Center**

Boulevard a Villas de Irapuato No. 1460 L.1 Col. Ejido  
Irapuato C.P. 36643  
Irapuato, Gto., MÉXICO  
TEL: 52 (01-462)144-1200 and 144-1400

## **Canada**

### **Mitutoyo Canada Inc.**

2121 Meadowvale Blvd., Mississauga, Ont. L5N 5N1.,  
CANADA

TEL: 1-(905)821-1261 FAX: 1-(905)821-4968

### **Montreal Office**

7075 Place Robert-Joncas Suite 129, Montreal, Quebec H4M  
2Z2, CANADA

TEL: 1-(514)337-5994 FAX: 1-(514)337-4498

## **Brazil**

### **Mitutoyo Sul Americana Ltda.**

Rodovia Índio Tibiriça 1555, Bairro Raffo, CEP 08620-000  
Suzano – SP, Brasil

TEL: 55 (11)4746-5858

## **Argentina**

### **Mitutoyo Sul Americana Ltda.**

#### **Argentina Branch**

Av. B. Mitre 891/899 – C.P. (B1603CQI) Vicente López –Peia.  
Buenos Aires – Argentina

TEL: 54(11)4730-1433 FAX: 54(11)4730-1411

#### **Sucursal Cordoba**

Av. Amadeo Sabattini, 1296, esq. Madrid B° Crisol Sur – CP  
5000, Cordoba, ARGENTINA

TEL/FAX: 54 (351)456-6251

## **Mexico**

### **Mitutoyo Mexicana, S.A. de C.V.**

Prolongación Industria Eléctrica No. 15 Parque Industrial  
Naucalpan

Naucalpan de Juárez, Estado de México C.P. 53370, MÉXICO

TEL: 52 (01-55)5312-5612

### **Monterrey Office/ M3 Solution Center Monterrey**

Blv. Interamericana No. 103, Parque Industrial FINSA,  
C.P. 66636 Apodaca, N.L., MÉXICO

TEL: 52(01-81) 8398-8227/8228/8242/8244

FAX: 52(01-81) 8398-8226

### **Tijuana Office/ M3 Solution Center Tijuana**

Calle José María Velazco 10501-C, Col. Cd. Industrial Nueva  
Tijuana, C.P. 22500 Tijuana, B.C., MÉXICO

TEL: 52 (01-664) 647-5024

### **Querétaro Office / M3 Solution Center Querétaro**

Av. Cerro Blanco No.500-1, Colonia Centro Sur, Querétaro,  
Querétaro, C.P. 76090, MÉXICO

TEL: 52 (01-442)340-8018, 340-8019 and 340-8020

FAX: 52 (01-442)340-8017

### **Mitutoyo Mexicana, S.A. de C.V. Querétaro Calibration**

#### **Laboratory**

Av. Cerro Blanco 500 30 Centro Sur, Querétaro, Querétaro,  
C.P. 76090, MÉXICO

TEL: 52 (01-442)340-8018, 340-8019 and 340-8020

FAX: 52 (01-442)340-8017

### **Aguascalientes Office / M3 Solution Center**

Av. Aguascalientes No. 622, Local 15 Centro Comercial El  
Cilindro Fracc. Pulgas Pandas Norte, C.P. 20138,

Aguascalientes, Ags. MÉXICO

TEL: 52 (01-449)174-4140 and 174-4143