

FEATURES

- Digital large capacity caliper
- Stainless steel frame
- LCD display
- Imperial and metric modes
- Knurled locking screws for fine adjustment
- 3 V lithium battery-operated
- Capacity of 1000 mm (40 in)
- Accuracy of ± 0.02 mm (0.001 in)
- Resolution of 0.01 mm (0.0005 in)
- Range of 600 mm (24in)
- Repeatability of 0.01mm (0.0005 in)
- External jaw length of 100mm (4 in)
- Internal jaw dimensions of 20 mm x 18 mm (0.8 in x 0.72 in)

RS PRO 1000mm Digital Caliper 0.01 mm, Metric & Imperial

RS Stock No.: 123-0916



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

This stainless steel caliper from RS PRO makes it easy for you to measure the widths and lengths of objects, or distances between surfaces. It has an easy-to-read digital display and can measure accurately within ± 0.02 mm.

This precision instrument has a number of different measuring modes so it's easy to switch from metric to imperial units. The clear LCD display, with 13 mm digits, makes it easy to see your measurements quickly, even at a distance and in low-light situations. The caliper allows you to measure internal and external distances of up to 1 metre and has a measuring speed of up to 1 metre per second. Its knurled locking screws allow for fine measuring, with a resolution and repeatability of 0.01 mm.

General Specifications

Caliper Type	Digital
Imperial Or Metric	Both
Display Type	Digital
Accuracy	$\pm 0.02\text{mm} + (0.00005 \times L)$
Resolution	0.01mm
Repeatability	0.01mm (0.0005in)
Maximum Measuring Speed	1 metres per second
Applications	Construction and manufacturing environments, Mechanical engineering and scientific

Electrical Specifications

Power	1 x Lithium Battery CR 2032 3V
Battery	Yes
Battery Type	CR 2032 3V

Mechanical Specifications

Capacity	1000mm
External Jaw Length	100mm (4in)
Internal Jaw Length	20mm x 18mm (0.8in x 0.72in)

Operation Environment Specifications

Operating Temperature	5°C to 40°C
Relative Humidity	Maximum 80%



Button Functions:

1	ON/OFF	Power on/off
2	ZERO	Zero sets display
3	ABS	Selects relative or absolute mode
4	In/mm	Selects inch or metric mode
5	Pre+	Moves digits in plus direction
6	Pre-	Moves digits in minus direction

Range	Resolution	Repeatability	External Jaw Length	Internal Jaw Length
600mm/24"	0.01mm / 0.0005"	0.01mm / 0.0005"	100mm	20 x 18mm

Accuracy:

$\pm 0.02\text{mm} + (0.00005 \times L)$

where L = length from origin to given position

Operating Instructions:

When using the Caliper for the first time or after a period of non-use, wipe the beam scale with a dry clean cloth

to remove any condensation or oil deposits.

Prior to setting the caliper for measuring, first clean the measuring faces with a soft clean cloth or paper.

Setting Instructions:

Absolute Measurement External:

Switch caliper on and slide measuring jaws together.

The caliper will be in Absolute mode when it is first switched on (INC not displayed)

Select required measuring system either Metric or Inch

With the measuring jaws together press ZERO to zero display in this position

The caliper is now ready to indicate absolute measurement over its full range

Absolute Measurement Internal:

Switch caliper on and slide measuring jaws together.

The caliper will be in Absolute mode when it is first switched on (INC not displayed)

Select Metric measuring system

The caliper jaws are ground to start internal measurements at 20.00mm so initial setup is carried out in metric

mode and if required can be converted to inch following setup

Press and hold ZERO button so SET flashes on screen

Press Pre+ whilst holding ZERO button, the digits will now advance in a plus direction towards 20.00mm

The digits will start slowly and then gather speed. Release the Pre+ button to stop the digits before reaching

20.00mm. Press Pre+ again and the digits will start slowly making it easier to stop at the desired size.

If the size is over-run, use the above method and the Pre- button to achieve the correct size setting.

When the size is achieved release all buttons and SET will continue to flash on the display

Press ZERO button to set preset size into the caliper's memory

The caliper is now ready to measure internal dimensions above 20.00mm

Relative Measurement

When set in Absolute mode move measuring jaw to display the desired dimension.

Press ABS button to zero the caliper in this position

INC will be displayed on the screen

Movement of the measuring jaw will indicate a + or – reading relative to the zero set position

Pressing the ABS/zero button will return the caliper to its original Absolute zero position ready for taking

absolute measurements

Pre-Set Facility

Use same system to preset any size as used for setting internal measurement datum size

Operating Care

Clean measuring faces with dry soft cloth

Keep away from strong magnetic fields

Prevent ingress of oil / liquids into electronics

Remove battery if instrument is not used for a long period of time

Do not disassemble or drop the instrument

Do not mark instrument by engraving, etching or any other permanent marking method, as this will

invalidate the warranty

Fault Finding

Fault	Cause	Action
Display flashes	Battery voltage below 1.45volts	Replace battery
Display frozen	Circuit overload	Remove battery and replace after 4 minutes
Accuracy below specification but within +/- 0.1mm	Dirt in sensor	Remove slider cover assembly, clean face of sensor with dry clean compressed air (5kg/cm2)
No display	Poor battery contact	Remove battery and carefully adjust battery contacts, replace battery.
	Dead battery	Replace battery.