# **Force Gauges**

## PCE-PTR 200

# Fruit firmness tester which helps determine the ripeness of fruit

The PCE-PTR 200 fruit firmness tester, also known as a fruit pressure tester, is a penetrometer that measures fruit firmness and provides a quick, easy and accurate method to determine the ripeness of fruit. Contrary to other analogical penetrometers, this digital fruit firmness tester will offer you high levels of accuracy and resolution in its measurements. With this tester you will obtain very valuable information, for example, the date of harvest, the condition of the fruit during storage, transport and at point of sale. This fruit firmness tester can be used as either a handheld instrument or mounted on an optional test stand for more precise measurements.

- · Combines 3 penetration probes
- kg/cm² conversion table
- · Sotores MAX value
- · Zero reset
- Peak Hold and recall MAX value
- recall MAX va
   Auto shut-off
- Low battery indicator
- Overrange protection = 150 %
- RS-232 interface
- ISO Certificate (optional)



## Serie PCE-FM

# Force gauge (5 kg and 20 kg) with RS-232 interface and optional software and test stand for serial measurements

PCE-FM series force gauge with quick and precise reading of push and pull measurements. The display can be rotated 180 ° to allow for the gauge to be in the correct position to take an accurate measurement. This force gauge can be used as either a handheld instrument or mounted on an optional test stand for more precise measurements.

- . Two models available: 5 kg and 20 kg
- RS-232 interface
- Software (optional)
- · Hold function for tension / compression maximum values
- Zero reset button
- · Peak Hold and maximum value recall
- Auto shut-off
- Overrange protection = 150 %
- · Holes for test stand mounting
- Test stand (optional)
- ISO Certificate (optional)

**Technical specifications** 

Model

Ranges



PCE-FM200

0 to 20 kg / 0 to 196 N

## **PCE-FM1000**

Force gauge with external load cell, RS-232 interface and optional software

Force gauge that measures tension and compression up to 100 kg (981 N). The external dynamometric cell can be hung or hooked with a bracket (included in the delivery) that can be unscrewed and seperated from both sides of the cell to fasten onto test stands and bench tests.

- · External load cell with 2 m cable
- · Crane hook and adjustable bracket
- Optional software and test stand
- Hold function for push/pull maximum values
- Zero reset button
- · Peak Hold and maximum value recall
- Auto shut-off
- Overrange protection = 150 %
- ISO Certificate (optional)

**Technical specifications** 

Overrange protection

Model

Range

Units

Accuracy

Resolution

Interface Software

Memory

Functions

Dimensions

Display

Power Enclosure

Weight



PCE-FM1000

0 to 100 kg / 0 to 981 N

±0.5 % ± 2 digits / ± 5 N

0.05 kg / 0.2 N grams / Newton

50 % (max. 150 kg)

yes, optional

push and pull with Peak Hold

5 digit LCD (10 mm)

6 1.5V batteries or AC adaptor

ABS plastic cload cell: 130 x 51 x 18 mm

unit: 227 x 83 x 39 mm

external load cell: 380 g unit: 450 g

Technical specifications	3
Model	PCE-PTR 200
Measurement ranges	0 to 20 kg / 0 to 196 N
Accuracy	±0.5 %, ±2 of reading
Resolution	10 g / 0.05 N
Units of measurement	grams / Newton
Overload capacity	30 kg
Interface	yes
Software	yes, (optional)
Memory	-
Functions	push / pull measure. with Peak Hold
Display	5 digit LCD; 10 mm
Power	6 1.5 V batteries or adaptor
Enclosure	ABS plastic
Dimensions	227 x 83 x 39 mm
Weight	550 g
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#### Contents

Model No.

PCE-FM50

PCF-FM200

Force gauge (one of our models), flathead, hook, cone and chisel adaptors, extension rod (120 mm), carrying case and user's manual

Accuracy	±0.4 %, ±1 dgt	±0.5 %, ±2 dgt	
Resolution	1 g / 0.01 N	10 g / 0.05 N	
Unit	grams / Newton	grams / Newton	
Overrange capacity	7.5 kg	30 kg	
Interface		yes	
Software	yes, (optional)		
Memory		-	
Functions	push / pull mea	sure with Peak Hold	
Display	5 digit L	_CD; 10 mm	
Power	6 1.5 V bat	tteries or adaptor	
Enclosure	ABS plastic		
Dimensions	227 x 83 x 39 mm		
Weight	550 g		
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PCE-FM50

0 to 5 kg / 0 to 49 N



Description



#### Contents

PCE-FM1000 force gauge with external load cell and 2 m cable, carrying case and user's manual  $\,$ 

Model No.	Description
PCE-FM1000	Force gauge up to 100 kg

#### Optional accessories

Contents

user's manual

PCF-PTR 200

Model No.

SOFT-LUT-D Software in English with data cable included
RS232-USB RS232 to USB adaptor
CAL-FG-II ISO Certificate for PCE-PTR
NET-300 Net adaptor

**Description**Fruit firmness tester

optional teststands on pages 28 / 29

PCE-PTR 200 fruit firmness tester, 3 penetration probes (Ø6, Ø8,

Ø11 mm), 2 stop washers, conversion table, carrying case and

#### Optional accessories

SOFT-LUT-D
RS232-USB
RS232-USB
CAL-FG-I
CAL-FG-II
NET-300
Software in English with RS-232 cable
RS232 to USB adaptor
ISO Certificate for the PCE-FM50
Net adaptor
Optional teststands on pages 28 / 29

Force gauge up to 5 kg

Force gauge up to 20 kg

Optional accessories
SOFT-LUT-D Software

SOFT-LUT-D Software with RS-232 cable
RS232-USB RS232 to USB Adaptor
CAL-FG-III ISO Certificate for PCE-FM1000
NET-300 Net adaptor

optional teststands on pages 28 / 29

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