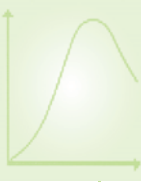


Force measurement



CENTOR First

Simple and yet complete, **the CENTOR First** uses efficient technology to simplify force measurements, in tension and compression.

A big display shows the force measured in tension or compression in the unit selected by the operator: newtons, kilograms or pounds. The bar graph completes the measurement.

The 3 keys make it very easy to use this force gauge and access the essential functions: measurement of the peak tension or compression value, resetting to zero, and changing the measuring units. It is an ideal tool for basic tests during production. Its metal casing, protected by an elastomer overmould, gives it exceptional strength. The internal sensor stands up to an overload of 200% of its maximum capacity.

Simple, precise, robust, supplied with its own carrying case, mains adaptor and certificate, ready for use, it is the basic tool for force measurement.



1

Technical characteristics

- Operates in tension and compression
- Accuracy 0.25% FS
- Resolution: 0.1 N
- Peak function for tension and compression
- Bar graph
- 3 units available: N, kg, lbs
- Sampling rate 1,000 Hertz
- Tare function
- Auto-off 15 min
- Reversible display
- Sensor protected from overloads up to 200% of its capacity
- Operates on rechargeable batteries
- Low battery indicator
- Memorizes its configuration
- 8 hours of operation without recharging
- Metal casing and protective elastomer overmould
- Threaded fixing holes on the back for use on test stand
- Calibration certificate included
- Supplied in carrying case with mains adaptor and accessories (hook, Ø 19 mm plate, extension cable)

MODELS	CAPACITIES	RESOLUTIONS
CNR FT 100	100 N	0.1 N
CNR FT 250	250 N	0.1 N
CNR FT 500	500 N	0.1 N
CNR FT 100 XZ	100 N	0.1 N
CNR FT 250 XZ	250 N	0.1 N
CNR FT 500 XZ	500 N	0.1 N



CENTOR First XZ, new model with RS232 output.

WWW.ANDILOG.COM

Force gauges

CENTOR Easy

The **CENTOR Easy** force gauges are designed to meet the production needs of its users. This group offers several features which are indispensable today for Quality Control, for example: ease of reading with its large backlit graphical display, RS232 output, memory of the last 100 values and ability to set thresholds with visual and sound alarms.

Its highly efficient measurement chain enables it to use a sampling rate of 1,000 Hertz with a resolution of 1/10,000 FS and a total error of less than 0.1% FS.

A new STATISTICS feature is available on the new Centor EASY models: the average and standard deviation of the current batch are calculated and displayed after each measurement. All the values of the production batch are kept in the memory and can be sent to a computer by RS232. The operator is spared any data entry, knows his results in real time and saves everything at the end of the tests.

The entirely configurable RS232 output sends the data to a PC. A digimatic output can be used with a printer for statistics.

Designed for use in an industrial environment, it is an ideal tool for tests during production.



Technical characteristics

- Operates in tension and compression
- Accuracy 0.1% FS
- Resolution 1/10,000 FS
- Peak function for tension and compression
- Simultaneous display of the peak and the current reading
- Bar graph
- 5 units available: N, kg, lbs, g, oz
- Sampling rate 1,000 Hertz
- Can be used with a pedal
- Tare function
- Auto-off adjustable from 5 to 15 min, can be deactivated
- Programmable set point function
- Average and standard deviation functions
- Two-way RS232 output: transmission of current reading, minimum, or maximum, as desired
- Digimatic output
- 8 hours of operation without recharging
- Fast charge
- Reversible display
- Backlit display
- Sensor protected from overloads up to 200% of its capacity
- Operates on rechargeable batteries
- Low battery indicator
- Memorizes its configuration
- Metal casing and protective elastomer overmould
- Threaded fixing holes on the back for use on test stand
- Calibration certificate included
- Supplied in a carrying case with a mains adaptor and a set of accessories (hook, Ø 19 mm plate, extension cable)

MODELS	CAPACITIES	RESOLUTIONS
CNR EA 10	10 N	0.001 N
CNR EA 25	25 N	0.002 N
CNR EA 50	50 N	0.005 N
CNR EA 100	100 N	0.01 N
CNR EA 250	250 N	0.02 N
CNR EA 500	500 N	0.05 N
CNR EA 1000	1,000 N	0.1 N

New Statistics feature with calculations of the average and standard deviation

MES / ECH	3
OPER	01
Unit	N
STATS	MXI
Nbech	002
Average	12.33
001	12.334
001	12.332
001	12.331
002	12.335
002	12.334
002	12.330

Force measurement

CENTOR Star

CENTOR Star is the most advanced force gauge currently available, **it has become the benchmark tool for force measurement**. Besides having all the functionalities of the CENTOR Easy, it also provides additional handy possibilities: with its graphic capabilities, it can calculate and display in real time, not only the maximum, but also the values of the particular points of the curve, such as the rupture force, force on a trigger; force at a given time, first peak, etc.

The new features:

- Maximum within a time window: makes it possible to define a particular time period for a test and to calculate the maximum force during that period while keeping the test maximum in memory
- Calculation of the time necessary to reach the maximum force in tension or compression
- Average force over the duration of the test

All these results are stored in memory (up to 100 tests) which allows statistics to be calculated on the maximum values and on configurable calculations, then sent to a PC along with the dates and times of the measurements.

Furthermore, it is possible to freeze its configuration to avoid handling errors. It is the most versatile instrument designed for all tests in industrial surroundings.

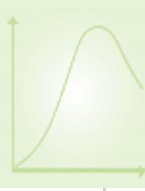


Technical characteristics

- Accuracy 0.1% FS
- Resolution 1/10,000 FS
- Peak function for tension and compression
- Simultaneous display of the peak and the current reading
- Display of the Force/Time graph
- Calculation of specific points of the graph:
 - Maxima
 - Maxima in a time window
 - Time necessary to reach maximum effort
 - Average over the duration of the test
 - Force at time T
 - Break point
 - Derivative
 - First peak
 - Force on opening/closing of contact
 - Average force
- Memorization of the last graph curve measured
- Bar graph
- 5 units available: N, kg, lbs, g, oz
- Sampling rate 1,000 Hertz
- Can be used with a pedal
- Tare function
- Auto-off adjustable from 5 to 15 min, can be deactivated
- Programmable set point functions
- Two-way RS232 output, transmission of the current reading, minimum, peak, or calculation
- Running transmission of 50 values per second
- Possibility of transmitting the graph curve memorized
- Digimatic output
- Memorization of 2 configurations
- Protection function (blocking) for the current configuration
- Automatic recognition of additional sensors
- Reversible display
- Backlit display
- Sensor protected from overloads up to 200% of its capacity
- Operates on rechargeable batteries
- 8 hours of operation without recharging
- Fast charge
- Low battery indicator
- Metal casing and protective elastomer overmould
- Threaded fixing holes on the back for use on test stand
- Calibration certificate included
- Supplied in a carrying case with a mains adaptor and a set of accessories (hook, Ø 19 mm plate, extension cable)

MODELS	CAPACITIES	RESOLUTIONS
CNR ST 5	5 N	0.0005 N
CNR ST 10	10 N	0.001 N
CNR ST 25	25 N	0.002 N
CNR ST 50	50 N	0.005 N
CNR ST 100	100 N	0.01 N
CNR ST 250	250 N	0.02 N
CNR ST 500	500 N	0.05 N
CNR ST 1000	1,000 N	0.1 N

DATASTACK
memory card reader
for transferring data



The Andilog line

Several types of Centor force gauges are available, depending on the desired use.

Up to a capacity of 1,000 N, the Centor Easy and Centor Star force gauges are commonly used with an internal sensor.

For larger capacities or when a special sensor is required (eg. miniature sensor), a Centor Easy or a Centor Star is used

- version R: the sensor is connected to a portable casing,
- version T: the sensor is connected to a tabletop casing.

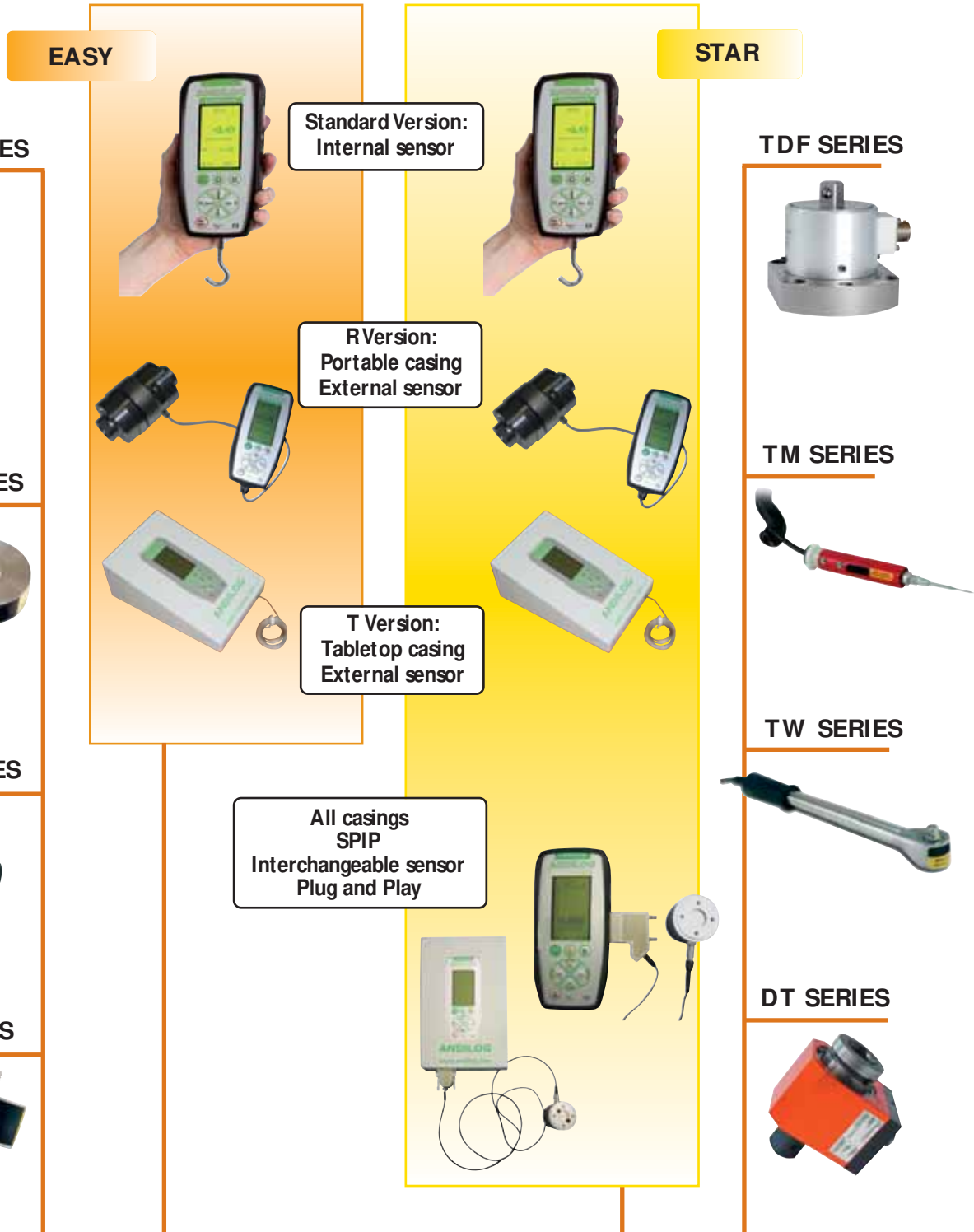
When several sensors must be connected to the force gauge to address multiple different uses, the Centor Star (version R or T) supports the use of sensors with the SPIP system, working through "Plug and Play".

All of our force and torque sensors can be supplied with a choice of configurations.

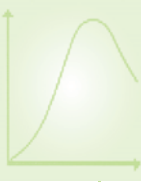


WWW.ANDILOG.COM

4



Force measurement



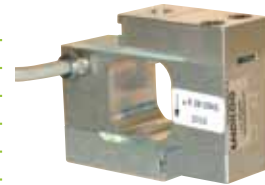
Additional force sensors

The **additional force sensors** are recognized by all the CENTOR Star and/or Dual force gauges and torque gauges, and they can complete a set of force/torque measurements at a very reasonable price.

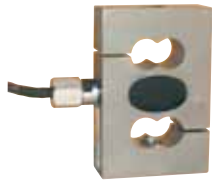
The sensor characteristics are stored in the memory of an electronic circuit located inside the sensor connector. When the CENTOR Star or Dual instrument is switched on, the information is collected from the central memory and the instrument is automatically configured: it takes into account the type of sensor, its maximum capacity and its calibration data without the operator having to make any calibration adjustments.

STANDARD sensors, general purpose, tension and compression

MODELS	ACCURACY	CAPACITIES	RESOLUTIONS	INFORMATION
SPIP S2-20	0.1% FS	20 N	0.002 N	Height: 60 mm
SPIP S2-50	0.1% FS	50 N	0.005 N	Width: 80 mm
SPIP S2-100	0.1% FS	100 N	0.01 N	Thickness: 26 mm
SPIP S2-200	0.1% FS	200 N	0.02 N	Thread: M 8
SPIP S2-500	0.1% FS	500 N	0.05 N	Protection IP65
SPIP S2-1000	0.1% FS	1,000 N	0.1 N	Protection from overloads



SPIP S2



SPIP S9

STANDARD sensors, heavy loads, tension and compression

MODELS	ACCURACY	CAPACITIES	RESOLUTIONS	H	W	THICKNESS	THREAD
SPIP S9-2	0.1% FS	2 KN	0.2 N	88 mm	58 mm	24 mm	M 12
SPIP S9-5	0.1% FS	5 KN	0.5 N	88 mm	58 mm	24 mm	M 12
SPIP S9-10	0.1% FS	10 KN	1 N	88 mm	58 mm	24 mm	M 12
SPIP S9-20	0.1% FS	20 KN	2 N	100 mm	70 mm	31 mm	M 24 x 2
SPIP S9-50	0.1% FS	50 KN	5 N	100 mm	77 mm	37 mm	M 24 x 2

MINIATURE sensors, tension and compression

MODELS	ACCURACY	CAPACITIES	DIAMETER	HEIGHT	THICKNESS
SPIP L165-100	0.5% FS	0-100 N	26 mm	8 mm x 2	13 mm
SPIP L165-250	0.5% FS	0-250 N	26 mm	8 mm x 2	13 mm
SPIP L165-500	0.5% FS	0-500 N	26 mm	8 mm x 2	13 mm
SPIP L165-1000	0.5% FS	0-1,000 N	26 mm	8 mm x 2	13 mm
SPIP L165-2500	0.5% FS	0-2,500 N	26 mm	8 mm x 2	13 mm
SPIP L165-5000	0.5% FS	0-5,000 N	26 mm	8 mm x 2	13 mm
SPIP L165-10K	0.5% FS	0-10 KN	26 mm	10 mm x 2	18.5 mm



SPIP L165

High capacities: on request



SPIP L161

SUB MINIATURE sensors, compression only

MODELS	ACCURACY	CAPACITIES	DIAMETER	HEIGHT
SPIP L161-50	0.5% FS	0-50 N	10 mm	5 mm
SPIP L161-100	0.5% FS	0-100 N	10 mm	5 mm
SPIP L161-250	0.5% FS	0-250 N	10 mm	5 mm

MINIATURE sensors, compression only

MODELS	ACCURACY	CAPACITIES	DIAMETER	HEIGHT
SPIP L163-50	0.5% FS	0-50 N	20 mm	7 mm
SPIP L163-100	0.5% FS	0-100 N	20 mm	7 mm
SPIP L163-250	0.5% FS	0-250 N	20 mm	7 mm
SPIP L163-500	0.5% FS	0-500 N	20 mm	7 mm
SPIP L163-1K	0.5% FS	0-1,000 N	20 mm	7 mm
SPIP L163-2,5K	0.5% FS	0-2,500 N	20 mm	7 mm
SPIP L163-5K	0.5% FS	0-5,000 N	20 mm	7 mm



SPIP L163



SPIP L160

MINIATURE HIGH CAPACITY sensors, compression only

MODELS	ACCURACY	CAPACITIES	DIAMETER	HEIGHT
SPIP L160-5K	0.5% FS	0-5,000 N	32 mm	11 mm
SPIP L160-10K	0.5% FS	0-10 KN	32 mm	11 mm
SPIP L160-25K	0.5% FS	0-22 KN	38 mm	16 mm
SPIP L160-50K	0.5% FS	0-45 KN	38 mm	16 mm

Special sensors on request

HIGH CAPACITY pancake-type sensors, tension and compression

MODELS	ACCURACY	CAPACITIES	RESOLUTIONS	INFORMATION
SPIP L290-1K	0.1% FS	0-1 KN	0.002 N	Diameter: 35 mm Thickness: 105 mm Thread: 2 x M16
SPIP L290-2K	0.1% FS	0-2 KN	0.005 N	
SPIP L290-5K	0.1% FS	0-5 KN	0.01 N	
SPIP L290-10K	0.1% FS	0-10 KN	0.02 N	
SPIP L290-25K	0.1% FS	0-25 KN	0.05 N	
SPIP L290-50K	0.1% FS	0-50 KN	0.1 N	



SPIP L290

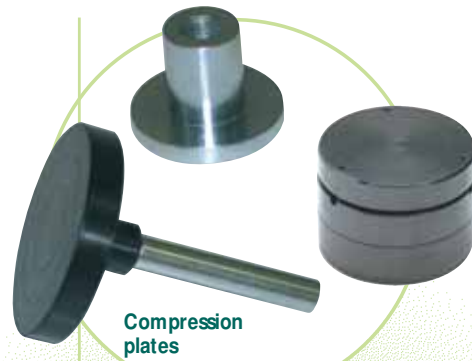
Other elements

Accessories

Plates

Several types of plates to suit each type of test:

- AC PL 20A – Compression plate, 20 mm, aluminum
- AC PL 50A – Compression plate, 50 mm, aluminum
- AC PL 50S – Compression plate, 50 mm, steel
- AC PL 100A – Compression plate, 100 mm, aluminum
- AC PL 100S – Compression plate, 100 mm, steel
- AC PLAJ – Compression plate, self-adjustable, 80 mm



Compression plates



Mini grip

Gripping fixtures

AC MAC 500 – Mini grip

All-purpose accessory for gripping cables or terminals. Stands up to forces of 500 N, grip opening 5 mm.

AC MAC 5KN – Self-closing grip

All-purpose accessory for gripping cables or terminals. Stands up to forces of 5,000 N, grip opening 10 mm.

AC MACSPD – Fast-closing grip

All-purpose assembly equipped with a spring for a quick sample change. Stands up to forces of 500 N, grip opening 10 mm.

AC PINCE – Pin vise

Ideal for small components, grip opening 5 mm, maximum force 100 N.

AC MRPLAT – Film & paper grip

Used for paper, film or fabric samples, width 100 mm, grip opening 4 mm, maximum force 500 N.



Self-closing grip high capacity 5 KN



Fast-closing grip



Pin vise



Film & paper clamp

High-capacity 25 KN self-closing grip

AC MAC 25KN0 – Opening: width 25 mm – thickness 0 to 13 mm

AC MAC 25KN5 – Opening: width 25 mm – thickness 6 to 19 mm

AC MAC 25KN8 – Opening: width 25 mm – thickness 10 to 22 mm

High-capacity 50 KN self-closing grip

AC MAC 50KN0 – Opening: width 25 mm – thickness 0 to 13 mm

AC MAC 50KN5 – Opening: width 25 mm – thickness 6 to 19 mm

AC MAC 50KN8 – Opening: width 25 mm – thickness 10 to 22 mm



High-capacity grips

Pneumatic grips

AC FCA 2025 – Ideal handling accessory for tension tests on fabric, paper, packaging, plastics, soft materials, flexible materials. Opening and closing operated with a pedal to ensure fast and accurate entry. Maximum capacity 5,000 N opening 15 mm.



Tension tests on elastomers, fabrics



Handle for force gauge

Grips for force gauges

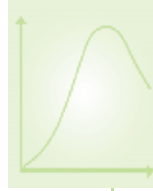
AC POIGD – Straight handle

AC POIGP – Revolver handle

AC POIGG – Side handles

AC POIMLF – Multifunction handle

Other elements



Accessories

Accessories for cables

AC COSSE – Terminal carousel

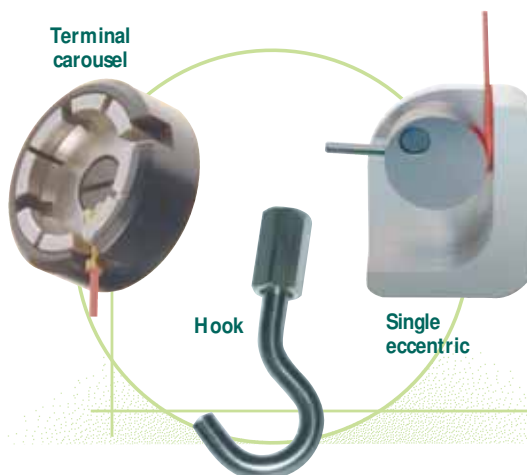
Fitted with numerous slots of regularly increasing sizes, this accessory holds assembled terminals, instant terminal placing, stands up to a force of 1,000 N.

AC EXCENT – Single eccentric

Grips cables without damaging the sheathing, stands up to a force of 500 N.

AC CRC – Hook

Hook, max admissible force 1,000 N.



Winding roller for wires



AC FIL1000

Used to hold small-diameter wires or strands. Fast and easy-to-use gripping system. Maximum capacity 1,000 N, maximum diameter 2 mm.

AC FIL5000

All-purpose support system with spool for tubes, cords, strands and cables. Maximum capacity 5,000 N, maximum diameter 5 mm.



ACFIL 5000

Accessories for corks and caps

AC NEZ – Flip cap

Accessory equipped with a specially-designed ratchet that measures the force needed to open caps, up to 100 N (on shampoo bottles and shower gels, toothpaste tubes, etc.).

Flip Cap



Corkscrew



ACTIRBOU – Corkscrew

Corkscrew conforming to the cork industry chart.

AC BOUCHON – Cork grip

Tightening grip for measuring the torsion torque necessary to open bottles of champagne, sparkling wine, cider, etc. Maximum cork diameter 35 mm.

Cork grip



Penetrators

ACTEXT08 – Standard penetrometer end fitting, diameter 8 mm

ACTEXT10 – Standard penetrometer end fitting, diameter 10 mm

AC SPHERE – Spherical penetrometer end fitting

Penetrator



Spherical penetrator

