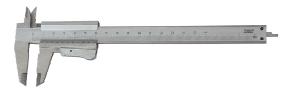
# MEASURING INSTRUMENTS WITH VARIABLE DIMENSIONS

#### Calipers with vernier reading.



MSA	Measuring range	Precision	Kg
15.100	150 mm	0.02 mm	0.275

Hardened steel caliper with vernier reading. *Delivered in 1 imitation leather pouch.* 



MSA	Measuring range	Precision	Kg
15.436	150 mm	0.02 mm	0.270

Hardened stainless steel standard caliper with vernier reading and locking screw.

Delivered in 1 synthetic case.

### Dial calipers.



MSA	Measuring range	Precision	Kg
15.115	150 mm	0.02 mm	0.340

Hardened steel dial caliper. Rotating dial with locking screw. *Delivered in 1 synthetic case.* 

#### 2 mm/revolution



MSA	Measuring range	Precision	Kg
15.104	150 mm	0.02 mm	0.350

CCMA-M hardened stainless steel dial caliper (steel gear mechanism, hardened and ground).

- Easy-to-read
- Slider with metal dial housing
- Rotating dial Ø 32 mm with locking screw.

Delivered in 1 synthetic case.



MSA	Measuring range	Precision	Kg
15.422	150 mm	0.01 mm	0.360

CCMA-M hardened stainless steel dial caliper (steel gear mechanism, hardened and ground).

- Easy-to-read
- Slider with metal dial housing
- Rotating dial Ø 32 mm with locking screw.

Delivered in 1 synthetic case.



MSA	Measuring range	Precision	Kg
15.110	150 mm	0.02 mm	0.370

ETALON 125 hardened stainless steel dial caliper (steel gear mechanism, hardened and ground).

- Slider with metal dial housing
- Rotating dial Ø 32 mm with locking screw.

Delivered in 1 synthetic case.

# MEASURING INSTRUMENTS WITH VARIABLE DIMENSIONS

#### Electronic calipers.



MSA	Measuring range	Precision	Kg
15.512	100 mm / 4"	0.01 mm / 0.0005"	0.170

Small hardened steel electronic caliper, very practical thanks to its reduced dimensions.

Delivered in 1 synthetic case.



MSA	Measuring range	Precision	Kg
15.510	150 mm / 6"	0.01 mm / 0.0005"	0.100

Synthetic electronic caliper.

Delivered in 1 transparent plastic case.



MSA	Measuring range	Precision	Kg
15.511	150 mm / 6"	0.01 mm / 0.0005"	0.325

Tempered steel electronic caliper. *Delivered in 1 synthetic case.* 



MSA	Measuring range	Precision	Kg
15.513	150 mm / 6"	0.01 mm / 0.005"	0.292

Hardened steel electronic caliper. Big LCD display 15 mm.

Delivered in 1 synthetic case.



MSA	Measuring range	Precision	Kg
15.107	150 mm / 6"	0.01 mm / 0.005"	0.150
15.457	150 mm / 6"	0.01 mm / 0.005"	0.150
15.113	150 mm / 6"	0.01 mm / 0.005"	0.150
15.458	200 mm / 8"	0.01 mm / 0.005"	0.200
15.459	300 mm / 12"	0.01 mm / 0.005"	0.280

TWIN-CAL electronic caliper with the highest degree of protection ever reached. Resists to any penetration of liquids and particles of materials (metal or other).

- Degree of protection IP67
- Square depth rod : MSA15.107, MSA15.458 and MSA15.459
- Round depth rod : MSA15.457
- Round depth rod with thumb roller : MSA15.113
- The inductive measuring system, a TESA technology, guarantees reliability and high precision even in harsh conditions
- Equipped with TLC (TESA Link Connector), the unique integral data output facility, providing the opportunity to upgrade your caliper at any time
- LCD display, 11 mm
- Lithium battery 3 V, CR 2032.

Delivered in 1 synthetic case.

## MEASURING INSTRUMENTS WITH VARIABLE DIMENSIONS



MSA	Measuring range	Precision	Kg
15.111	150 mm / 6"	0.01 mm / 0.0005"	0.150
15.112	150 mm / 6"	0.01 mm / 0.0005"	0.150
15.108	200 mm / 8"	0.01 mm / 0.0005"	0.150

TWIN-CAL electronic caliper. High degree of protection against dust.

- Degree of protection IP40
- Rectangular depth rod (MSA15.111 and MSA15.108, the latter with thumb roller) or round (MSA15.112 with thumb roller)
- Equipped with an integrated data output. Simply connect the TWIN-CAL via the TLC (TESA Link Connector) to a PC and all your measurement results will be captured and stored for optimal SPC monitoring
- LCD display, 11 mm
- Lithium battery 3 V, CR 2032.

Delivered in 1 synthetic case.

#### Data transfer.



MSA		Model	Length	Kg
15.114	(1)	Optp-USB	2 m	0.045
15.117	(2)	Opto-Sub-D	2 m	0.040

Duplex connecting cable, bidirectional communication. Any connecting cable is defined by each of the connectors fitted at either end of the cable principally to suit the computer, and the measuring instrument being used. To achieve highest compatibility levels, TESA® uses only standardized and proven connectors.

### MSA15.114:

- Opto RS232 connector (for instrument)
- USB connector A type (for computer or system).

#### MSA15.117:

- Opto RS232 connector (for instrument)
- Connector Sub-D 9 p/f Duplex (for computer or system).



MSA	Length	Kg
15.469	2 m	0.055

TLC-USB cable for instrument with TLC connector (TESA Link Connector).

- TLC connector (for instrument)
- USB connector (for computer or system).