

## Tachometer CT 110

### KEY POINTS

- Easy to use
- Adjustable backlight
- contact/optical selection
- hold-min-max function
- Selection of units

### TECHNICAL FEATURES

<b>Measuring elements</b>	<b>Optical tachometry</b> : optical detection (Phototransistor sighting distance max. 40 cm) <b>Contact tachometry</b> : ETC adaptator for optical tachometry probe
<b>Display</b>	4 lines, LCD technology. Sizes 50 x 36 mm 2 lines of 5 digits with 7 segments (value) 2 lines of 5 digits with 16 segments (unit)
<b>Cable</b>	Coiled, length. 0.45m, extension : 2.4 m
<b>Housing</b>	ABS, protection IP54
<b>Keypad</b>	5 keys
<b>Conformity</b>	Directives EM C 2004/108/CE and EN 61010-1
<b>Power supply</b>	4 batteries AAA LR03 1.5 V
<b>Ambience</b>	Neutral Gas
<b>Température d'utilisation</b>	From 0 to +50 °C
<b>Température de stockage</b>	From -20 to +80 °C
<b>Auto shut-off</b>	Adjustable from 0 to 120 min
<b>Weight</b>	190 g



### SPECIFICATIONS

Measuring units	Measuring range	Accuracy <sup>1</sup>	Resolution
<b>Optical tachometer</b>			
rpm	From 0 to 60 000 rpm	From 60 to 10 000 rpm : $\pm 0,3$ % of reading $\pm 1$ rpm From 10 001 to 60 000 RPM : $\pm 30$	1 rpm
<b>Contact tachometer</b>			
rpm, m/min, ft/min, in/min, m/s	From 0 to 20 000 rpm	From 30 to 20 000 rpm: $\pm 1$ % of reading $\pm 1$ rpm	1 rpm

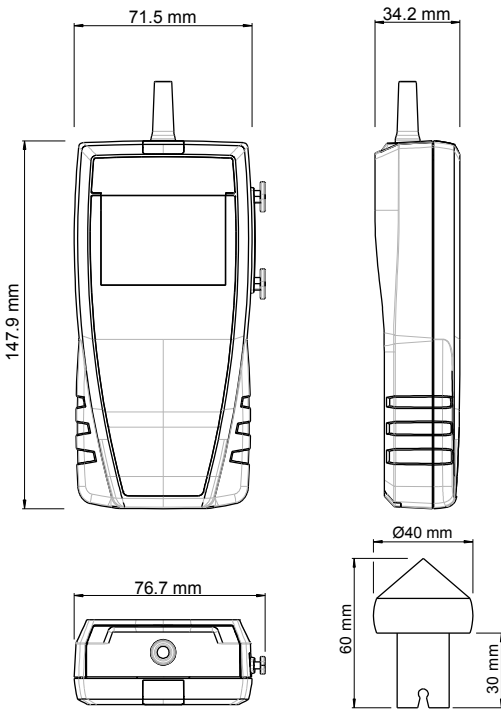
### FUNCTIONS

- Contact / optical selection
- Selection of tachometry units
- Hold function
- Display of minimum and maximum values
- Configurable auto shut-off
- Backlight

\*All the accuracies indicated in this technical datasheet were stated in laboratory conditions, and can be guaranteed for measurements carried out in the same conditions, or carried out with calibration compensation

\*Except class 110 S

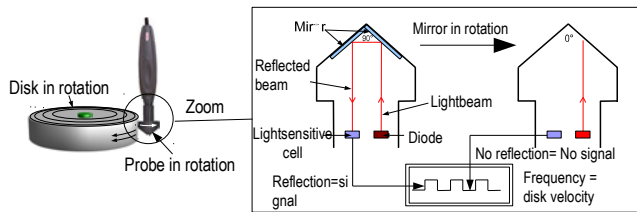
## DIMENSIONS



## OPERATING PRINCIPLES

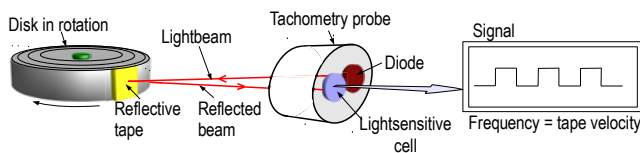
### Contact tachometry

A light beam from a diode is reflected by a rotating mirror located inside the probe head. A light sensitive cell detects the frequency of the signal of the beam which is proportional to the rotation speed.



### Optical tachometry

A light beam emitted from the diode of the probe is reflected by a reflective tape placed on the measured element. A light sensitive cell detects the beam and translates it in frequency signal which is proportional to the tape rotation speed.



## SUPPLIED WITH

- Instruments are supplied with :
- Optical tachometry probe Ø 17 mm, length. 195 mm
  - Tip of contact tachometry
  - A reflective tape
  - Calibration certificate\*
  - Transport case (ref : ST 110)



\*Except class 110 S

## ACCESSORIES

**CQ 15** : Magnetic protective housing



**RTE** : Telescopic extension, length 1m, with index at ±90°

**MT 51** : ABS transport case



## MAINTENANCE

We carry out calibration, adjustment and maintenance of your instruments to guarantee a constant level of quality of your measurements. As part of Quality Assurance Standards, we recommend you to carry out a yearly checking.

## GUARANTEE

Instruments have 1-year guarantee for any manufacturing defect (return to our After-Sales Service required for appraisal).

# Tachometer CT 110

## DESCRIPTION OF THE DEVICE



## PERFORM A MEASUREMENT

- > Turn on the device by pressing on « **On/Off/Esc** ».  
*The device displays its name « CT110 ».*
- > Put the probe to the required location.  
*The device displays the measured velocity.*



**If the type of selected probe is the contact probe, put the contact tip on the probe.**

## FREEZE THE MEASUREMENT

During a measurement :

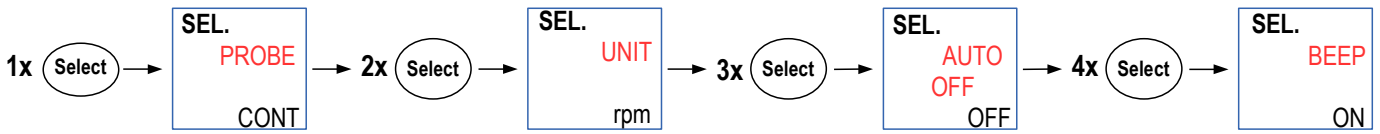
- > Press on « **Hold/min/max** » to freeze the measurement.  
*« Hold » displays on screen and the measurements are frozen.*
- > Press on « **On/Off/Esc** » to exit the hold function.  
*The device returns to the measurements display.*

## DISPLAY THE MINIMUM AND THE MAXIMUM

Once the measurement are frozen :

- > Press again on « **Hold/min/max** ».
- *The device displays the maximum value of velocity measured since the last questioning at the top of the screen and the minimum value of velocity measured since the last questioning at the bottom of the screen.*
- > Press again on « **On/Off/Esc** » to return to the measurement display.

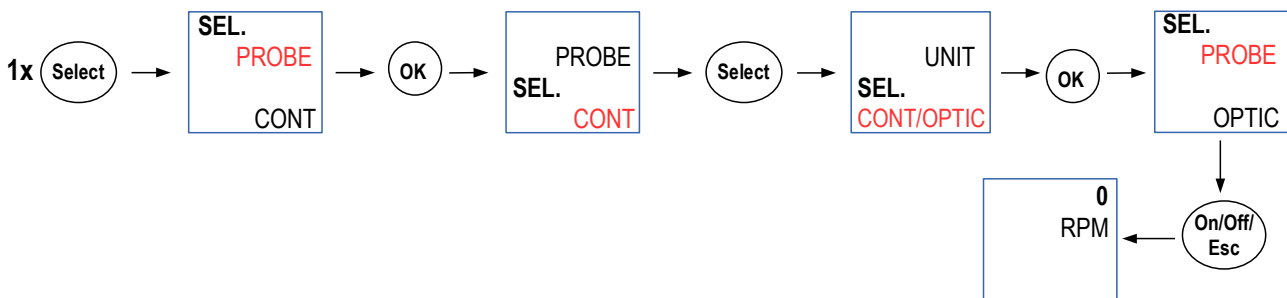
• Device drop-down menu



**Select the probe type**

It is possible to select the probe type: optic probe or contact probe.

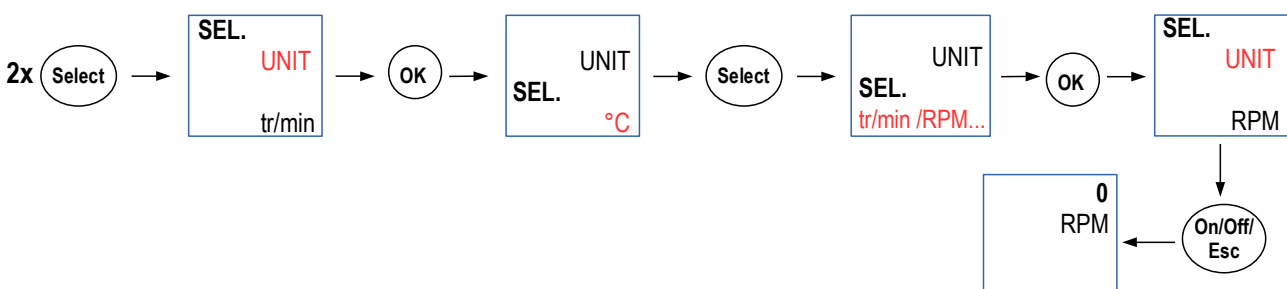
- > Press on « **Select** ».  
« **PROBE** » blinks on screen.
- > Press on « **OK** ».  
The probe type currently used blinks on the screen.
- > Press on « **Select** » to select « **OPTIC** » for the optic probe or « **CONT** » for the contact probe.
- > Press on « **OK** » to validate.  
« **PROBE** » blinks on screen.
- > Press on « **On/Off/Esc** » to return to the measurement display.



**Select the measuring unit**

The device is on and displays the measurement.

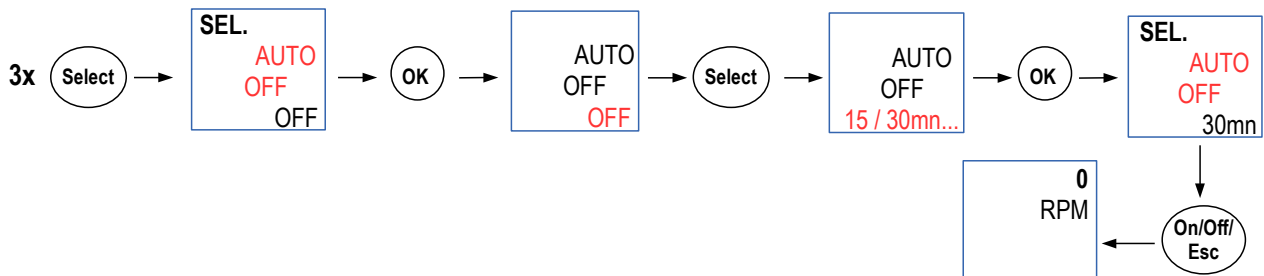
- > Press on « **Select** » until « **UNIT** » blinks on screen.
- > Press on « **OK** », the unit currently used blinks on screen.
  - For the contact probe : press on « **Select** » until the required unit appears : tr/min, rpm, m/min, in/min, ft/min or m/s.
  - For the optic probe : press on « **Select** » until the required unit appears : tr/min or rpm.
- > Press on « **OK** » to validate the unit selection.  
« **UNIT** » blinks on screen.
- > Press on « **On/Off/Esc** » to return to the measurement display.



## Adjust the auto shut-off

The device is on and displays the measurement.

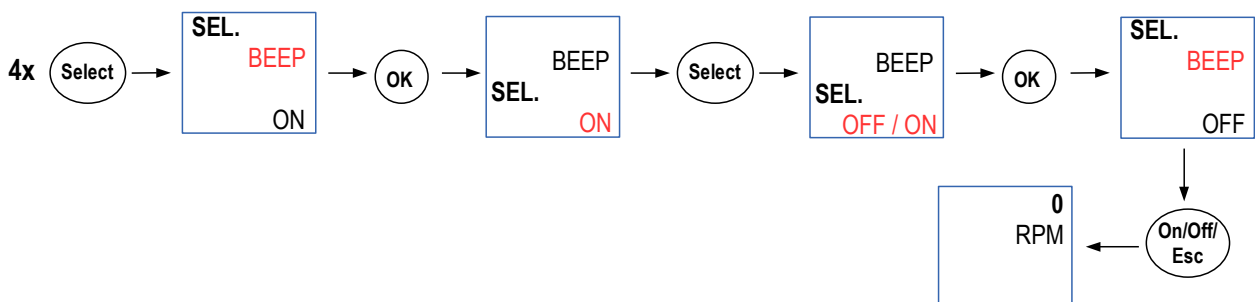
- Press on « **Select** » until « **AUTO OFF** » blinks on screen.
- Press on « **OK** ».  
The time before device auto shut-off blinks at the bottom of the screen.
- Press on « **Select** » to select the time before device auto shut-off : 15, 30, 45, 60, 75, 90, 105, 120 or OFF.
- Press on « **OK** » to validate.
- Press on « **On/Off/Esc** » to return to the measurement display.



## Activate or deactivate the keys beep

The device is on and displays the measurement.

- Press on « **Select** » until « **BEEP** » blinks on screen.
- Press on « **OK** ».  
« **OFF** » or « **ON** » blinks on screen.
- Press on « **Select** » to activate the keys beep « **ON** » or deactivate the keys beep « **OFF** ».
- Press on « **OK** » to validate.  
« **BEEP** » blinks on screen.
- Press on « **On/Off/Esc** » to return to the measurement display.




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## ACTIVATE THE BACKLIGHT

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The device is on and displays the measurements.

- Press on « **Backlight** » :  to activate the device backlight.
- To deactivate it press again on « **Backlight** ».

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## CHANGE THE BATTERIES

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- Remove the front part at the back of the device.
- Change the old batteries by AAA LR03 1.5.V batteries.
- Replace the front part.