

Integration and mechanical adjustment for Length gauge



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English

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A - PRESENTATION OF LENGHT GAUGES

The length measurement system consists of 3 elements, a probe, an internal sensor and an amplifier (single or dual channel).

<u>A-1 - Probes Type H</u>

<u>A-1.1 Probe HOO</u>



H00 is the standard Horizontal probe which adapts to all types of machines except compact machines.

Is installed only on the fly. Range of measure : 2mm



A-1.2 Probe HOOD



HOOD is horizontal probe in the sleeve version. It can be fitted on a collet \emptyset 25 to work at the station like a drilling tool.

It also adapts to all types of machines except compact machines.

It is usually installed in position.

Range of measure : 2mm



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A-1.3 Probe HOODM



HOODM is horizontal probe in the sleeve version. It can be fitted on a collet \emptyset 16 to work at the station like a drilling tool.

It also adapts to all types of machines except compact machines.

It is usually installed in position.

Range of measure : 1mm



A-1.3 Probe HOODS



H00DS is horizontal probe in the sleeve version. It can be fitted on a collet Ø8 to work at the station like a drilling tool.

It also adapts to all types of machines except compact machines.

It is installed only in position.

Range of measure : 2mm





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V00 is the vertical probe which is designed to be adapted to compact machines such as Tornos AS14 or SAS16 due to its small size and orientation. It is usually installed on the fly **Range of measure : 2mm**



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A-2.2 Probe VOOC12



The version V00C12 is installed on a slide or on a platen in a tool holder 12mm square. **Range of measure : 2mm**



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A-3 - Internals sensors with axial output

All internals sensors can be used with all Detector amplifiers

A-3.1 Internal Sensor PCO2A

This standard internal sensor is used only for the probes H00 / H00D / V00 / V00C12 and L00A.



PC02A :

- 4 meter cable crimped to Ø8 sensor body.
- Axial cable output.
- Metallic protection braiding.
- SUB-D15 female connector with screw for connection to the amplifier.

A-3.2 Internal Sensor PCO2APR

This reinforced internal sensor is used only for the probes H00 / H00D / V00 / V00C12 and L00A.



PC02APR :

- Reinforced version of PC02A, with cable protected by flexible tubing and heat shrinkable sheath.

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Increased cable radius of curvature, not recommended for very compact machines.

<u>A-3.3 Internal sensor PCO2AC</u>

This internal sensor in short version is used only for the probes H00DM



A-3.4 Internal sensor PCO2AS

This Ø6 internal sensor is used only for the probes H00DS and L00B



PC02AS:

- 4 meter cable crimped to Ø8 sensor body.
- Axial cable output.
- Metallic protection braiding.
- SUB-D15 female connector with screw for connection to the amplifier.

Precautions to take :



Always keep the braided cable away from parts in motion to avoid pinching it. A sensor with a cut cable cannot be repaired.

The sensor is calibrated by its cable length.

- Repairing the cable will change its resistance and therefore the sensor's sensitivity and precision.
- If you have to remove the sensor from the probe and leave the sensor bare in the machine environment, protect it with a plastic bag and collar so that it doesn't get wet with oil or cutting liquid.

<u>B – Adjustment of the probe</u>

Measurers must be correctly adjusted in order to avoid the premature wear of the sensor and mechanical probe.

Follow the procedure below for correct sensor calibration and adjustment.

The calibration of the length probe is done in 2 steps :

- The **adjustment of the preload** of the internal sensor in the probe.
- The adjustment of the sensor value for parts measured inside the machine..(see PC2003 amplifier programming manual PROPC2003EN –2-1 Calibrating the reference – page 4)

Adjustment of the preload

Preload is to be adjusted only if you have to disassemble the internal sensor from the probe for a replacement, a setup or a cleaning. All our sensors are delivered already preloaded.

The following procedure describes how to carry out this adjustment for the H00 / H00D / H00DM / H00DS / V00 and V00C12 probe types (type engraved on the body's body):

First, make sure that your sensor is correctly connected to the amplifier by locking the threaded ring and make sure that the amplifier is turned on.





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