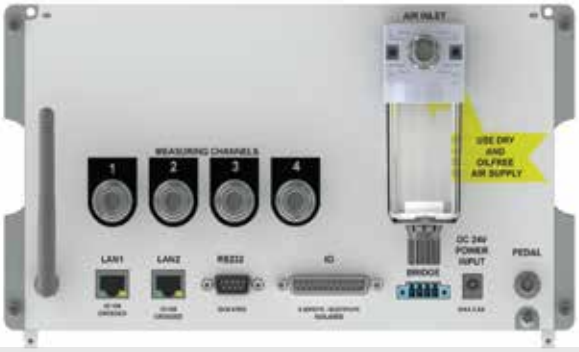
YERLİ ÜRETİM


KAO

Professional metrology devices
production and automation

Automotive supply industry
Defense industry
Hydraulic equipment manufacturing
Mass production of parts

# KA100

## 4 Channel Pneumatic measurement device

| Repeatability | Accuracy | Resolution | Pneumatic Measuring |
|---|---|---|---|
| 0.001 mm | 0.001 mm | 0.0001 mm | DIN 2271 |


## General Features

4 Channel single/multiple showings
Resolution 0.1um
Repeatability 0.1um.
Use it with built-in regulator
Open & Close Air with part
Callibration with one button
Callibration calling functions
Part Counting Functions
100 Test Part Memory
100 Test Measurement Memory


## Data recording & connection

- Digital Input & Output
- USB & RS232 Barcode Usage
- Wired Ethernet
- Wireless Ethernet data transfer
- Measurement recording with quality parameters
- Last 10,000 records in internal memory

## Usage

- 7" Capacitive touchscreen
- Usage like your mobile phone
- Password protected parameters
- Multiple Language Support
- Visual & Audio Warnings
- Easy to understand settings

## Automation

- Unlimited channels and automation with multiple devices via bridge connection
- Digital Input & Output
- Wired Ethernet Modbus
- Communication and data sharing with PLCs and robots via TCP and other industrial protocols

Air-based measurement has earned a rightful place in the production of parts that require precise measurement due to its ease of use and measurement accuracy. The installation cost is low, and once set up, it becomes an indispensable benchtop measurement device. The results, control, and repeatability are excellent. KAO has brought this measurement technique, which is relatively old for its age, into modern technology, providing a strong foundation for future generations of users.

# If you own a KAO pneumatic measurement device.

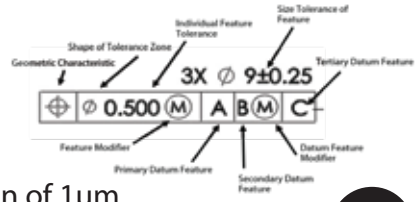
**1**

You can use probes
manufactured by all well-known
probe manufacturers worldwide.

**2**

With its compact size, you can measure a large number of dimensions without taking up much space next to your CNC machine.

**3**




You can obtain
results with a resolution of 1µm
in the +/-80µm tolerance range and
0.1µm resolution in the +/-20µm tolerance r
ange, including geometric tolerances such
as blind inner diameter, inner diameter
, outer diameter, roundness, and taper..

**4**

You can enable your CNC operator to
perform measurements with 0.1µm
accuracy without requiring much effort or training.

**5**

When pneumatic devices are not in use,
they consume 13 liters per minute
per channel of air.
In KAO devices, this is only 0.35 liters
per minute per channel.
This significantly reduces your carbon footprint and
provides economic savings..

**6**

It performs not only
measurements but also
records measurement results
to ensure traceability and maintain
continuous quality.
Without any data cable investment,
it transfers data to your server via
the device's Wi-Fi feature.
It stores this data in international standards,
and if needed, you can transfer it
to other environments..

**7**

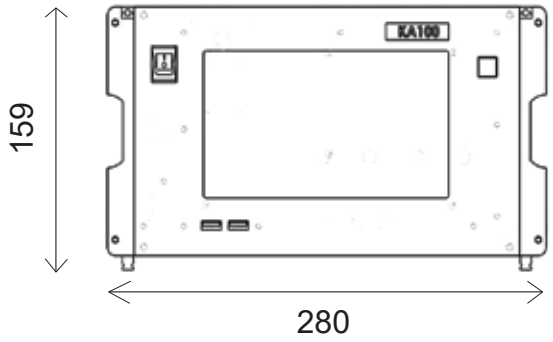
You can prepare these for later review
by including not only measurement values but
also the date, time, part code, name, manufacturer code
, name, serial number, operator code, workstation code
, control, production, and calibration parameters.
You can scan these using a 1D or 2D barcode reader
connected to our device, directly from the part.

**8**

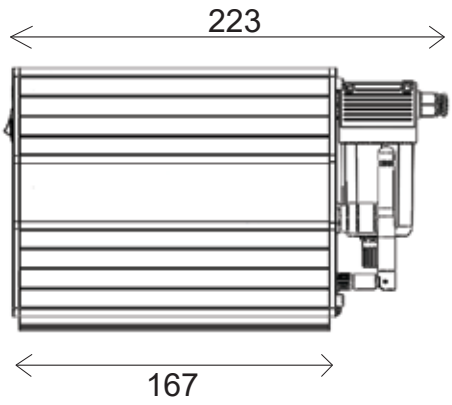
"What if the device hasn't been calibrated?
No matter how accurate the measurements are
if I haven't done the calibration or if it was forgotten"
you might be thinking. You're right.
Our device has built-in safeguards for this.
Now, when the device is turned on, if the result
is out of tolerance, after a certain number of
parts or within a set period, calibration will be
mandatory. If these conditions are not met,
your device will not work. Additionally,
we also record the calibration action.
If needed, we have added a requirement for
verifying with a calibration part after calibration.
Of course, we have settings available for you to
choose whether or not to implement all or some of these actions

If your device is not being operated by an operator and
the part is being picked up by a robot and placed on the
test fixture, there is no issue.
As soon as the part is placed on the test fixture,
the measurement will be taken,
and acceptance or rejection signals will be sent through
the digital outputs.
Your robot will then take this information and place
the part into the designated box.

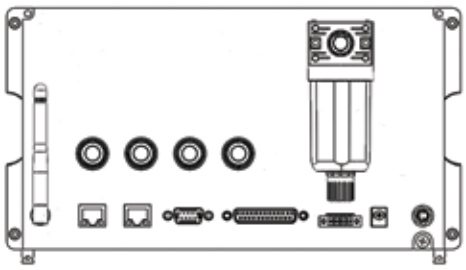
Front View




Side View




Back View



Technical Specifications

| | | | | |
|---|---|---|---|---|
| Master range | ±10µm | ±20µm | ±40µm | ±80µm |
| Precision | 0.1µm | 0.1µm | 0.1µm | 0.1µm |
| Accuracy | ±0.5µm | ±1µm | ±1.5µm | ±2µm |
| Repeatability | ±0.5µm | ±1µm | ±1.5µm | ±2µm |
| Number of Channels | 4 | | | |
| Measurement Number | 8 | | | |
| Part Memory | 100 | | | |
| Master Memory | 100 | | | |
| Required Air | 3.5 – 7 Bar | | | |
| Air Connection | ID5mm-OD8mm pneumatic hose | | | |
| Working Voltage | 24VDC-1.5A | | | |
| Dimensions (mm) | En 280 x Boy 167 x Height 159 (Without Connections) | | | |

- Interntal Functions
- Automatic Channel Showing
- Part Counting
- Automatic Air Closing
- Ovality measurement
- Callibration programming
- Multi Parameterized Measurement recording

Accessories

- Pedals
- 3 button remote control

For Digital Outputs

- Cable extension and Connection Cables
- Panel mounting brackets
- Bridge Connection Cable

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