

## AYRIKO core competencies

- ✓ Reduction of Depreciation during the information recording
- ✓ High accuracy and velocity in measurement and Chamber Pressure Information Recording
- ✓ Values reporting and analyzing capability
- ✓ Engine efficiency improvement
- ✓ Prevention of harm to crank



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## Ayriko: Engine Combustion Chamber Pressure Information Recording and Measurement Device

# INTRODUCTION

By Ayriko Digital Barometer, user can record and analyze accurate information of produced pressure in cylinder chamber through a computer and, if needed, he/she can print such information as a graph and paperwork.

As a device to prevent possible deficits in compression step, Ayriko Engine Combustion Chamber Pressure Information Recording and Measurement Device is designed and produced.

With the capacity of recording the information of 12 cylinders simultaneously

Ayriko has two functional model:

### 1. Slow Mode

In this mode, Ayriko device can record the pressure information of combustion chamber with the velocity of 10 milliseconds for each channel and maximum 12 channels simultaneously. In this way, the engine runs with nominal starting capacity (150rpm).

### 2. Fast Mode

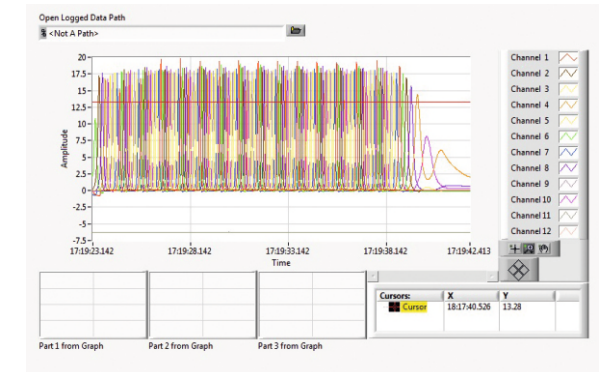
In this mode, Ayriko device can record the pressure information of combustion chamber with the velocity of 1 millisecond for each selected channel. In this way, the engine is ON and crank shaft rotates with its nominal starting capacity (1500rpm).



## The perspective of using Ayriko compression measurement device installable on all diesel and gas-fueled engines:

Output information from Ayriko compression measurement device provides user with below conditions that are too effective in decision making for relevant services:

- Accumulation of residuals on piston and bottom cylinder head
- Piston ring adhesion to cylinder compartment
- Obsolescence of cylinder ester bush
- Fractures or spillover of valves
- Cylinder head gasket fracture
- Obsolescence of Piston ring
- Piston ring fracture
- Not sealing valves



### Software features:

- High velocity of sampling inputs and storing the information on flashes
- High measurement accuracy and automatic analysis of values in tables
- Simultaneous (online) communications with all device parameters
- The ability to analyze information and to take outputs as graphs
- Installable on computer (under any operating system)
- The ability of planning the device by programs
- Flash File supports to upload the information
- Calibration and test capability
- Modbus protocol supports

### Hardware features:

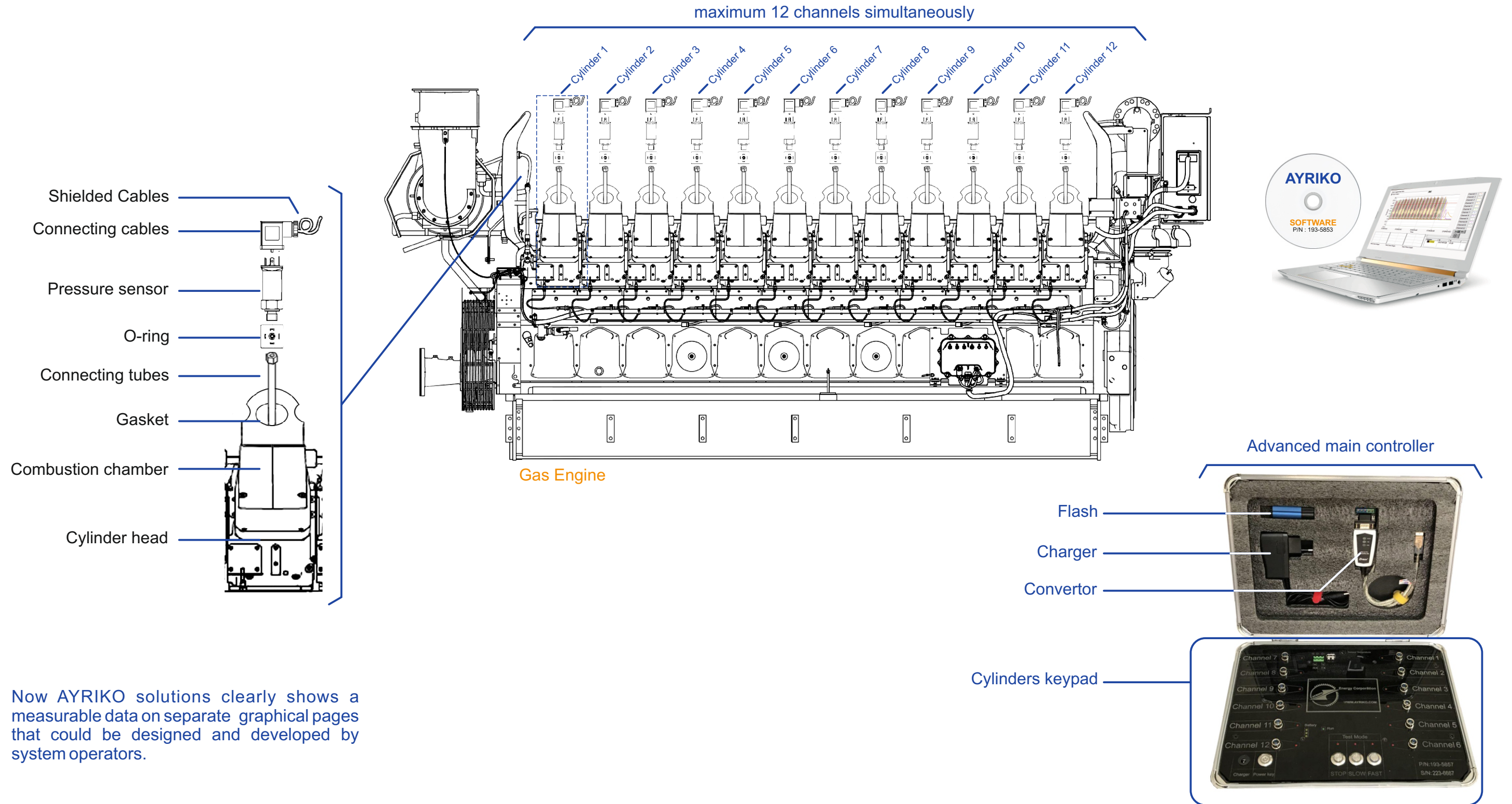
- 12 input ports (channels) with the capability of planning for pressure information recording
- A measurement tool to communication computer through USB to RS485 port
- USB port
- Software CD
- 12 sensor convertors
- Battery charge level indicator
- A panel to adjust device functions
- Measuring room temperature during tests
- 12 connecting cables along with connectors
- 12 pressure sensors with high accuracy and velocity



## INTEGRATED COMPONENTS

Thanks to AYRIKO total integrated solutions , each parameter could be collected from all measureable components in engine.

AYRKO as an integrated hardware and software solution could help you by easy connection to computer .





## ORDER INFORMATION



1- Ayriko primary bag 193-5859

Items	Descriptions	Serial number	Texts (subsets)
1	Ayriko primary bag	193-5859	<ul style="list-style-type: none"><li>- Including all equipment</li><li>- p/n:193-5857</li><li>- p/n:193-5856</li><li>- p/n:193-5855</li><li>- p/n:193-5854</li><li>- p/n:193-5853</li></ul>
2	Advanced main controller	193-5857	<ul style="list-style-type: none"><li>- Main panel</li><li>- Charger</li><li>- p/n:193-5857s1</li><li>- USB to 485 Convertor</li><li>- p/n:193-5857s2</li><li>- Flash</li><li>- p/n:193-5857s3</li></ul>
3	Connecting tubes	193-5856	<ul style="list-style-type: none"><li>- 12 main tubes</li><li>- p/n:193-5856s1</li><li>- 12 gaskets</li><li>- p/n:193-5856s2</li></ul>
4	Connecting cables	193-5855	<ul style="list-style-type: none"><li>- 12 3m shielded cables</li><li>- p/n:193-5855s1</li><li>- 12 connectors</li><li>- p/n:193-5855s2</li></ul>
5	Pressure sensor	193-5854	<ul style="list-style-type: none"><li>- 12 pressure sensors</li><li>- p/n:193-5854s1</li><li>- 12 seal sensor</li><li>- p/n:193-5854s2</li></ul>
6	software	193-5853	<ul style="list-style-type: none"><li>- program Installable on computer</li><li>- User's manual</li></ul>



2 - Advanced main controller 193-5857

Items	Descriptions	Serial number	Texts (subsets)
1	Advanced main controller	193-5857	<ul style="list-style-type: none"><li>- Ayriko primary bag</li><li>- key pad panel</li><li>- 12 channel input</li><li>- out put rs485</li><li>- out put usb</li><li>- tempreture sensor</li><li>- led level charge</li></ul>
2	Charger	193-5857s1	<ul style="list-style-type: none"><li>- INPUT:AC 100~240 V F:50HZ</li><li>- OUTPUT:12V DC -0.5A</li></ul>
3	Convertor	193-5857s2	<ul style="list-style-type: none"><li>- Port terminal</li><li>RS422/RS485 TO USB</li><li>USB 2.0</li></ul>
4	Flash	193-5857s3	<ul style="list-style-type: none"><li>- Information storage memory</li></ul>



3 - Connecting tubes 193-5856

Items	Descriptions	Serial number	Texts (subsets)
1	Connecting tubes	193-5855s1	<ul style="list-style-type: none"><li>- 30mm screw-driver</li><li>- Changeable based on engine</li></ul>
2	Gasket	193-5855s2	<ul style="list-style-type: none"><li>- To prevent compressed air leakage</li></ul>



4 - Connecting cables along with connectors 193-5855

Items	Descriptions	Serial number	Texts (subsets)
1	shielded cables	193-5855s1	<ul style="list-style-type: none"><li>- 12 two-stripe shielded cables size 2*1.5 mm</li></ul>
2	Connector	193-5855s2	<ul style="list-style-type: none"><li>- 12 sensor connectors</li></ul>



5 - Pressure sensor 193-5854

Items	Descriptions	Serial number	Texts (subsets)
1	Pressure sensor	193-5854	<ul style="list-style-type: none"><li>- INPUT:0~25 BAR GAUGE</li><li>- OUT PUT:4~20 MA /2 WIRE</li><li>- SUPPLY :8~32V DC</li><li>- VS+:1 VS-:2 SHIELD:GND</li></ul>
2	O-ring	193-5854s1	<ul style="list-style-type: none"><li>- To prevent air leakage</li></ul>



6 - Software 193-5853

Items	Descriptions	Serial number	Texts (subsets)
1	Software CD	193-5853	<ul style="list-style-type: none"><li>- Installable on computer</li><li>- Training film</li><li>- User's manual</li></ul>

