CAMBUSTION SSP

Sampling Spark Plug

Direct in-cylinder measurement of HC, NO or CO & CO_2 ...from spark plug electrodes

Continuous cycle-by cycle gas analysis

Used for GDI, HCCI and VVT development

Simple installation

Description

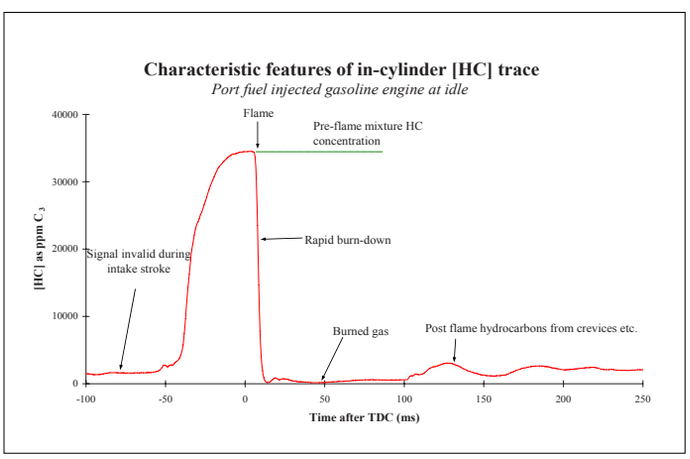
The Cambustion SSP has been designed for direct in-cylinder gas measurements with Cambustion fast response HC, NO or CO & CO_2 analyzers.

The Cambustion Sampling Spark Plug kit consists of an offset spark plug (similar to those used for in-cylinder pressure measurements) through which an in-cylinder heated sample probe can be fitted so that gas can be sampled from within a few millimetres of the plug electrodes.

Typical applications for this equipment are shown below and include:

- In-cylinder HC measurement for Gasoline Direct Injection development and cold start fuel delivery
- In-cylinder CO_2 measurement of trapped residual burned gas for Variable Valve Timing development or HCCI studies
- Instantaneous NO production in-cylinder

If required, the in-cylinder sample probe can be inserted through the cylinder head, located on its M3 thread.



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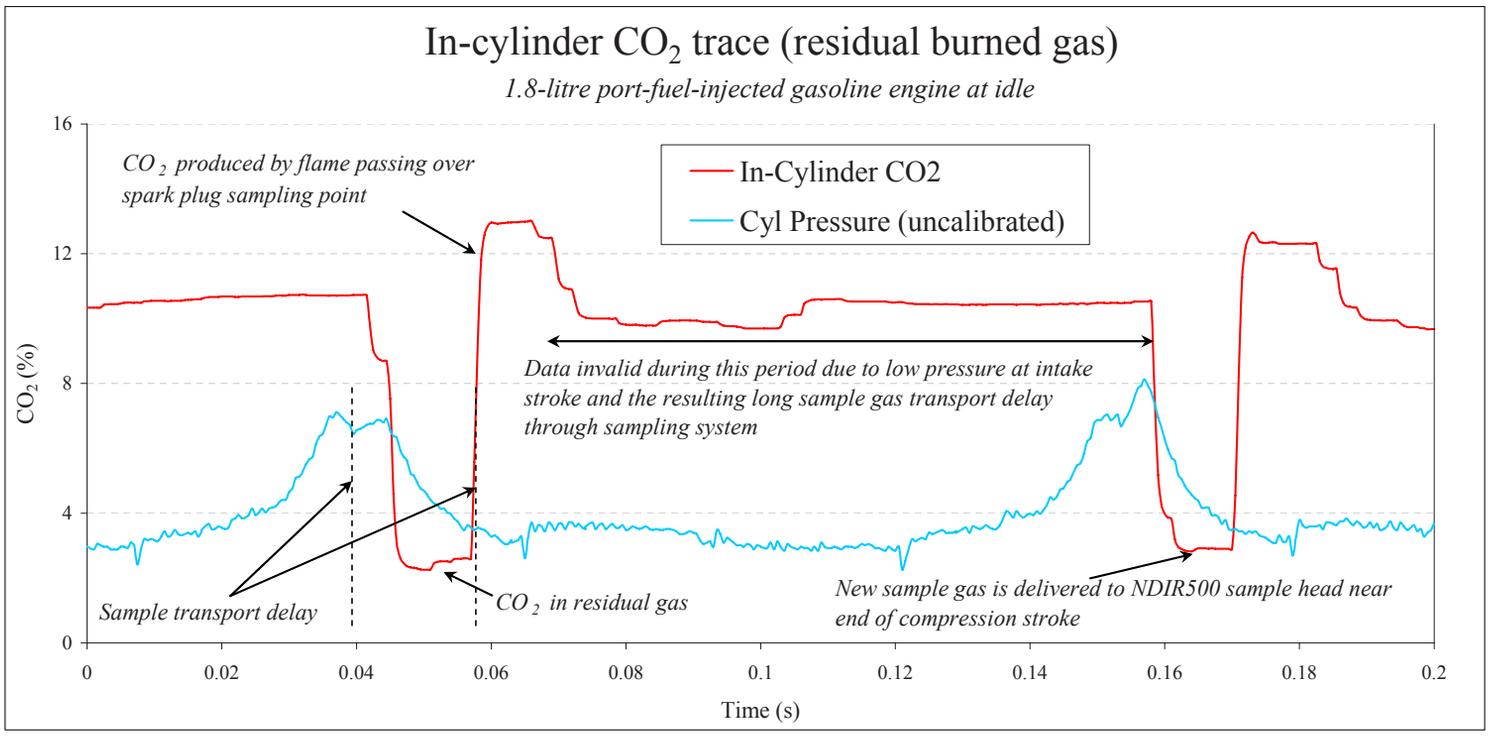


Kit contents

The Sampling Spark Plug kit consists of:

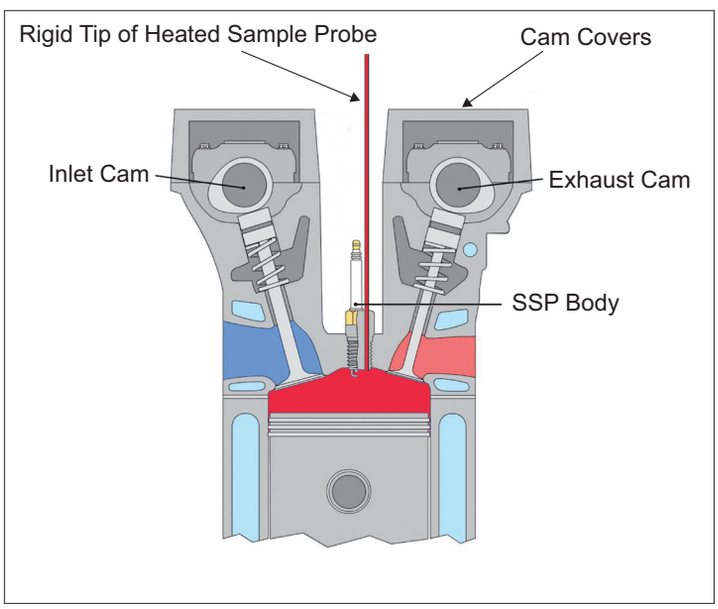
- sampling spark plug (from a range as close as possible to customer's specification)
- 2 x Heated in-cylinder sample probes to suit your Cambustion analyzer (one of these is a spare)
- H-T extension for the spark plug
- extended pressure volume for accommodating the cylinder pressure pulses without producing pressure interference on the signal
- manuals and gas transit delay time correction software

Specifications

We can offer a range of spark plug designs with variations in thread and seat type, heat range and electrode configuration. We can also procure custom-built plugs, if required.

The design of heated in-cylinder sample probe is also specified for each application. This is to maintain as fast an instrument response time as possible by minimising the required rigid length of sample probe (part name "TSL-H") after considering dimensions "X" shown in this schematic diagram.

It is normal to engage in some dialogue with Cambustion to discuss applications and optimise the SSP kit's design and we welcome enquiries to this end via the contact details shown below.



Typical engine speed range	Idle to 2,500 rpm depending on sample probe length, engine load etc
Spark plug thread	M14 or M12
Sample probe thread	M3 x 0.5mm, 15mm long

For more information or to see a video featuring the SSP please visit http://www.cambustion.com/products/samplingsparkplug

and click on "Video about in-cylinder HC sampling" link

or contact:

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