

Sample Point Switching for DMS500

Now with enhanced features



Automated switching of DMS500 between two sample locations

Ideal for DPF/GPF development

Introduction

The well-established Cambustion DMS500 measures particle size, number and mass data at up to 10Hz.

Using two additional heated sampling lines and duplicating the 1st dilution system and sample flow control, the DSA allows externally controlled switching of the DMS500 sample location under test bench control.

The DMS500's suitability for engine and after-treatment development (extensive integration via AK protocol, raw sampling capability) is further enhanced by the updated Dual Sampling Accessory (DSA Mk2).

Full integration via AK with DMS500 and test cell

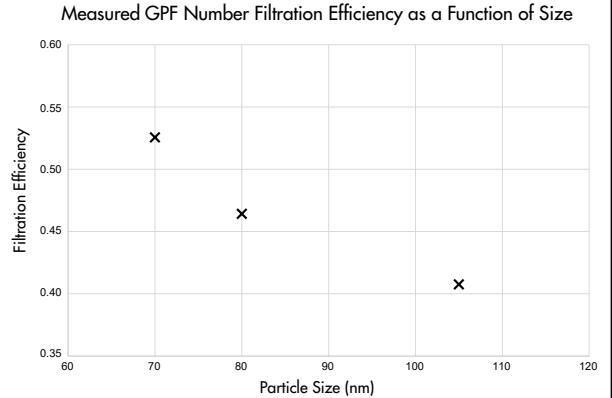
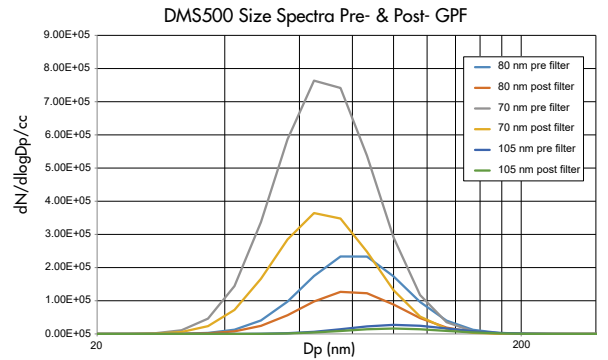
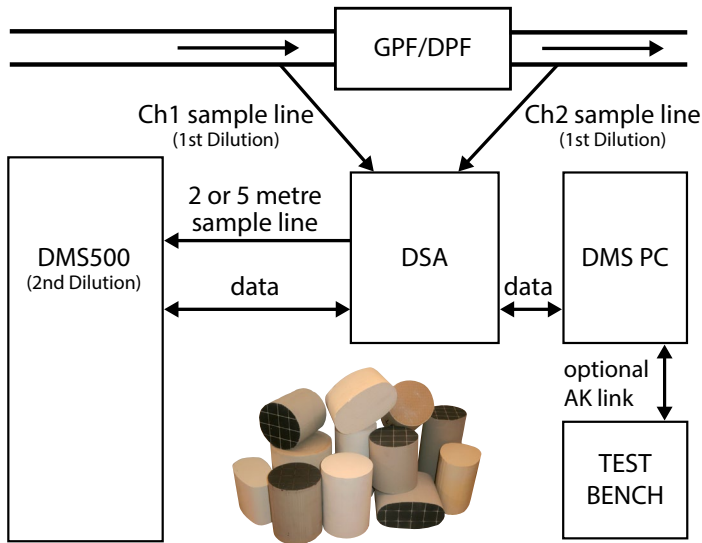
191°C sampling system

Upgraded software allows full integration of both DSA and DMS500 with the test bench, making the combination ideal for filter performance investigations.

Other applications include crankcase fume separator and EGR cooler fouling studies.

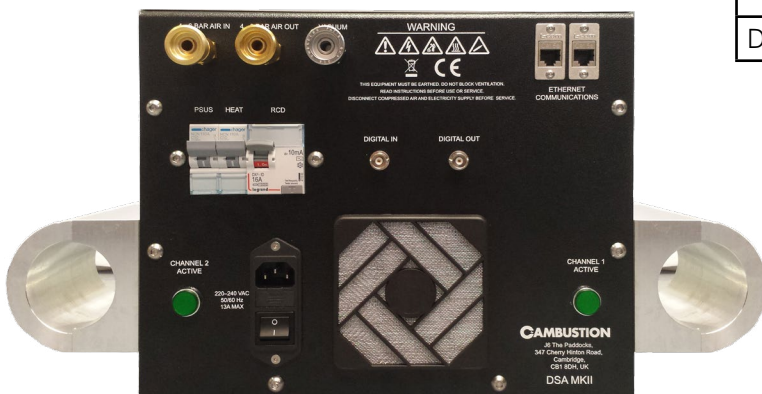
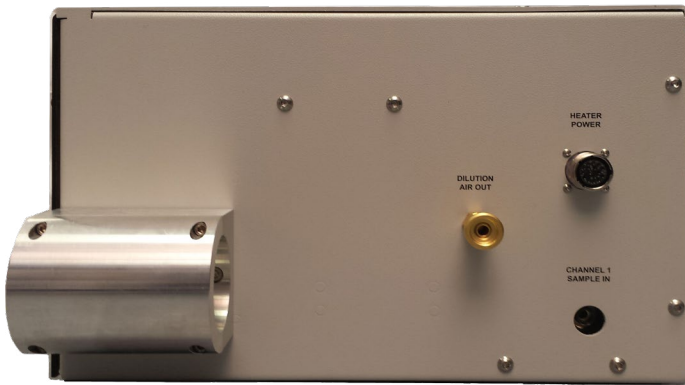
Use of the AK remote control allows programmed and unattended operation and is used for R&D and durability testing. This also allows programmed selection of the most appropriate 2nd dilution ratio in the DMS500 for measuring upstream (more concentrated soot) or downstream (less concentrated soot) of a filter.

Example application: GPF or DPF filtration efficiency



Whilst one line is selected to measure, the line which is not in use is automatically purged with clean air to avoid contamination.

The DSA MkII allows software selection of line temperatures up to 191°C, and features low-loss heated sample selection valves.



Specifications

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|---|---|
| Switching time | < 30 seconds < 10 seconds (DMS500 settings dependent) |
| 1st dilution | 5:1 at 191 °C |
| 2nd dilution (provided by DMS500) | 1:1 bypass 12:1 – 500:1 Set independently for Ch1 and Ch2 |
| Heated lines | Flexible, two running at 191 °C 2 or 5 metre length (5 m at 220V only) |
| Switching signal (input) | AK over Ethernet or voltage free input |
| Switching signal (output) | AK over Ethernet or 0 / 5 V signal |
| Electrical supply | 110 or 220 VAC max. 1,400 or 2,500 W (sample line length dependent) |
| Dimensions | 46w × 48d × 26h cm |

All specifications subject to review and change without notice

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