



Motronic MS 2.8.2

The MS 2.8.2 is a highly sophisticated engine management system. All internal power stages are designed with a diagnosis interface. Various engine and chass is parameters can be measured and logged. Four vibration sensor inputs allow knock detection and knoc k control. Injection time, injection end t iming and ignition timing are calculated from basic maps and can be c orrected by different engine parameters.



Functionality

Injection timing

Ignition timing

Lambda control

Boost control (option)

Knock control

Data acquisition

Mechanical data

Dust and waterproof aluminium housing Connectors in military technology with high pin density

Each pin individually filtered

Vibration damped circuit boards

Flexible housing fixation points

Size with connectors 194 x 245 x 71 mm

Weight 2200

Conditions for use

ECU temperature $-40^{\circ}\text{C} \dots 75^{\circ}\text{C}$ Max. power consumption 18 W at 14 V Max. vibration 50 g sinus at 20 Hz ... 2 kHz for t < 5 h

Electronic data

In general

8 microcontrollers with 16 bit organisation Calculation capacity 530 MIPS Real time clock

Inputs

- 4 inputs for Ni-Ci-Ni exhaust gas temperature sensors
- 4 lambda LSM 11
- 4 inputs for inductive wheel speed sensors (Hall optional)
- 42 universal inputs 0 to 5 V
- 6 differential inputs ± 5 V
- 1 input for inductive or Hall crankshaft sensor
- 1 input for inductive or Hall camshaft sensor
- 4 knock sensors inputs

Outputs

All power stages short circuit protected

6 high speed power stages (2 A) for servo motor control

- 7 diagnosis signal outputs
- 12 peak and hold injection power stages with diagnosis interface
- 3 high current power stages (12 A) with diagnosis interface
- 6 ignition power stages with diagnosis interface
- 3 sensors supply 5 V/100 mA
- 3 sensors supply 10 V/200 mA

Communication interfaces

- 2 RS232 interface for telemetry and laptrigger
- 1 x 2 Mbaud interface for memory and data read out or high speed telemetry
- 3 CAN interfaces

Memory

4 MB memory for data acquisition, storage time > 1 year