



Motronic MS 2.8

The MS 2.8 is a highly sophisticated engine management system. The system layout is basically made for 6-cylinder engines. All internal power stages are designed with a diagnosis interface. Various engine and chassis parameters can be measured and logged. Four vibration sensor inputs allow knock detection and knock control. Injection time, injection end timing and ignition timing are calculated from basic maps and can be corrected by different engine parameters.



Functionality

Injection timing
Ignition timing
Lambda control
Boost control (option)
Knock control
Data acquisition

Mechanical data

Dust and water proof aluminium housing
Connectors in military technology
Each pin individually filtered
Vibration damped circuit boards
Flexible housing fixation points
Size with connectors 194 x 245 x 51 mm
Weight 2068 g

Conditions for use

ECU temperature -40 ... 75°C
Max. power consumption 18 W at 14 V
Max. vibration 15 g sinus
at 20 Hz ... 2 kHz for t < 5 h

Electronic data

In general

7 microcontrollers with 16 bit organisation;
calculator capacity 50 MIPS
Real time clock

Inputs

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

Outputs

All power stages short circuit protected
6 high speed power stages (2A) 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 sensor supply 5 V/100 mA
3 sensor supply 10 V/200 mA

Communication interfaces

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

Memory

4 MB memory for data acquisition