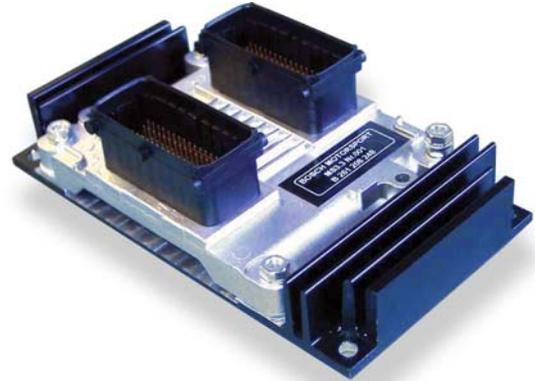


Motronic MS 3.3

The MS 3.3 is an engine management system in full hybrid technique and for engines up to 8 cylinders. Two independent circuits are available for vibration 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. Also two closed loop wide range lambda circuits are available. Various engine parameters can be measured with different input channels and transferred via CAN interface to an optional flash card data logger.



Functionality

Engine management system for 8-cylinder engines
Sequential fuel injection
Ignition timing
Lambda control
Knock control
Fuel cut off
Component diagnosis

Mechanical data

Extremely small and flat aluminium pressure casting housing	
Connectors with high pin density	
Extremely shock and vibration proof hybrid technology	
Four housing fixation points	
Size	162 x 90 x 44 mm
Weight	450 g

Conditions for use

ECU temperature	-40 ... 75°C
Max. power consumption	10 W at 14 V
Max. vibration	50 g sinus at 20 Hz ... 2 kHz for t < 5 h

Communication interfaces

1 CAN interface
1 K-Line interface

Necessary equipment

KIC2-standard connector	B 261 206 859
KIC2-diagnosis connector with ignition bridge	B 261 206 866
KIC2-diagnosis connector without ignition bridge	B 261 206 867

Electronic data

In general

2 microcontrollers with 16 bit organisation
calculation capacity 20 MIPS

Inputs

2 lambda LSU4 interfaces
3 analogous inputs 0 ... 5 V for water temperature, oil temperature, intake air temperature
3 analogous inputs 0 ... 5 V for oil pressure, fuel pressure, ambient pressure
1 analogous input 0 ... 5 V for throttle position sensor
1 digital input for lap trigger
1 digital input for wheel speed sensor
1 input for inductive crankshaft sensor
1 input for hall camshaft sensor
2 knock sensor interfaces

Outputs

8 injection power stages with diagnosis interface	
2 high current power stages (8 A) with diagnosis interface for LSU heating	
4 ignition power stages	
Sensors supply output	5 V/100 mA
Separate supply output for throttle position sensor	5 V/100 mA
2 power stages (1 A) for main relay and fuel pump relay control	

Cable harness connectors

Order numbers:	D 261 205 139
	D 261 205 140

Order numbers

MS 3.3 incl. Modas for notebook	B 261 208 250
---------------------------------	----------------------