

ECU MS 3 Sport

The MS 3 Sport is the first Bosch engine management system to be manufactured with full hybrid technology. Therefore it is very small, lightly and robust against vibrations. The MS 3 Sport is suitable for engines with up to 6 cylinders and has internal ignition output stages. Two sensor inputs are available for vibration knock detection and knock control. Various engine parameters can be measured with different input channels and transferred via CAN interface to an optional data logger or dash display.



Application	
Engine layout	up to 6 cylinders, 2 bank
Control strategy	alpha/n
Lambda control	dual
Speed limiter	✓
Gear cut for sequential gear box	✓
Map switch (3 positions - each corresponds to different target lambda and spark maps)	✓
Fuel cut off	✓
Turbo boost control	-
Knock control	optional
Electronic throttle control	optional
Traction control	optional
Sequential fuel injection	✓
Asymmetric injection timing	✓
Asymmetric ignition timing	✓
Interface to Bosch Motorsport ABS M4 kit	✓
Support of 60-2 and 36-2 ignition trigger wheels	
Max. vibration	<i>Vibration Profile 3</i> (see Appendix or www.bosch-motorsport.com)

Mechanical Data	
Extremely small and flat aluminium pressure casting housing	
Four mounting points on housing	
2 connectors with high pin density	
Extremely shock and vibration proof hybrid technology	
Size	120 x 90 x 40 mm
Weight	250 g
Temperature range	-40 ... 125 °C

Connectors	
Mating connector I	D 261 205 139
Mating connector II	D 261 205 140

Software	
Modas Sport Calibration Software	inclusive
WinDarab Analysis Software	on request

Electrical Data	
Max. power consumption	10 W at 14 V
Inputs	
2 lambda sensor interfaces LSU	
4 inputs for Hall-effect wheel speed sensors	
1 input for inductive crankshaft sensor	
1 input for Hall-effect camshaft sensor	
17 analog inputs 0 ... 5 V	
2 knock sensor inputs	
6 digital inputs	
Outputs	
6 injection power stages	
6 ignition power stages	
16 power stages (2 A/1 A; low side; PWM)	
2 power stages for lambda heater	
1 H-bridge (5 A)	
2 sensor supply	5 V/100 mA
Communication interfaces	
1 K-line serial interface	
1 CAN interface for external communication	

Optional Accessories	
MSA-Box II	
Data logger C Sport	
Data logger C 40	
Data logger C 40 Plus	
Display DDU Sport (incl. logger)	
Display DDU 4	
Display DDU 6	

Optional Functionality	
Knock Control SW upgrade	F 01T A20 053-01
Electronic Throttle Control SW upgrade	F 01T A20 051-01
Traction Control SW upgrade	F 01T A20 052-01

Part Number	
MS 3 Sport	F 01T A20 067-01