

# Engine Control Unit MS 25 Sport



- ▶ 8 injection output stages
- ▶ For solenoid injectors
- ▶ 96 data inputs
- ▶ Software options available

The MS 25 Sport is an ECU for Diesel engines with up to 8 cylinders. It is developed for use with Bosch solenoid injectors. The MS 25 Sport utilizes a software development process based on MATLAB® & Simulink®.

The MS 25 Sport is able to operate in 12 V or 24 V systems. The base SW is able to control one hydraulic bank configuration with Fuel Metering Unit (FMU) and Pressure Control Valve (PCV).

## Application

Engine layout	3, 4, 5, 6, 8, <3 on request
Injector type	Solenoid valve injectors
Control strategy	Quantity based
Hydraulic system	Fuel metering unit + Pressure control valve (2 bank optional)
Injection timing	2 pilot injections 1 main injection 2 post injections
Turbo boost control	Single or Bi-Turbo
Lambda measurement	Optional controls on request
Two bank hydraulic control	Optional
Traction control	Optional
Gear cut for sequential gear-box	Optional
Speed limiter	
Optional function packages available	
Calibration interface	CCP via CAN
Interface to Bosch Data Logging System	3 CAN interfaces
Max. vibration	Vibration Profile 1 (see <a href="http://www.bosch-motorsport.com">www.bosch-motorsport.com</a> )

## Technical Specifications

### Mechanical Data

Aluminum product housing	Base plate with fluid cooling incl. pressure compensation element (PCE)
2 production type connectors with 192 pins	Separate coding each (192 x 1.2 mm pins)
Vibration damped circuit boards	Engine mountable with additional dampers
8 housing fixation points	
Size	260 x 250 x 81 mm
Protection classification	IP x 6k and IP x 9K
Weight	1,800 g
Temperature range	-40 to 85°C

### Electrical Data

Power supply	12 or 24 V
1 internal atmospheric pressure sensor	
1 internal ECU temperature sensor for max. temperature	

### Inputs

1 lambda interface LSU	LSU 4.9
7 general frequency inputs	4 wheel speed and one vehicle speed hall effect sensor inputs and 2 inductive turbo speed
1 input for inductive crankshaft sensor	Hall optional
1 input for Hall-effect camshaft sensor	Inductive optional
29 analog inputs	
14 digital inputs	

**Outputs**

8 injection power stages	3 banks for 8 cylinders
2 Fuel Metering Unit (High Pressure Pump)	2 bank system optional
2 Pressure Control Valve (Rail)	2 bank system optional
12 power stages (low side)	
1 power stage for lambda heater	
2 H-bridges	
3 sensor supply 5 V	

**Software**

RaceCon Calibration Software	free download
WinDarab Analysis Software	free download

**Optional Functionality**

Traction control SW upgrade	
2 bank hydraulic control SW upgrade	

**Environment (not included)**

Programming interface MS-ABox II	F 02U V00 327-03
Data logger C 70	F 02U V02 302-01
Display DDU 9	F 02U V02 300-02

**Mating connectors (not included)**

Mating connector I	F 02U V0U 147-01
CONNECTOR KIT; MS 25 SPORT - X1 (Vehicle)	
Mating connector II	F 02U V0U 148-01
CONNECTOR KIT; MS 25 SPORT - X2 (Engine)	

**Installation Notes**

Depending on your experiences with calibration of Diesel ECUs we recommend calibration support from Bosch Motorsport.

Please remember that mating connectors and the programming interface MSA-Box II are not included and must be ordered separately.

**Communication**

3 CAN interfaces (dash, application, customer use)	J1939 optional
1 LIN	Optional
1 SENT	Optional

**Ordering Information****Engine Control Unit MS 25 Sport**

Order number **F 02U V0U 800-02**