

AiM Infotech

Bosch MS43 GA and Bosch MS43 Clubsport ECU

Release 1.02



ECU



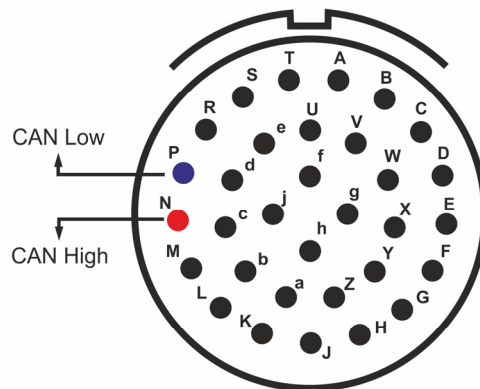
1 Supported models

This tutorial explains how to connect Bosch MS43 ECU to AiM devices. Supported models are:

- Bosch MS43 GA
- Bosch MS43 Clubsport

2 CAN bus connection

Bosch MS43 GA and MS43 Clubsport ECUs feature a data transmission bus based on CAN on the 32 pins Deutsch connector. Its part number is: **MS 3476 L18-32P**. Here below is the connector pinout.



Deutsch connector pin	Pin function	AiM cable
N	CAN High	CAN+
P	CAN Low	CAN-

3

AiM device configuration

Before connecting the ECU to AiM device set it up using AiM Race Studio software. The parameters to select in the device configuration are:

- ECU manufacturer "Bosch"
- ECU Model
 - "MS43_GA" or
 - "MS 43_CLUBSPORT"

3

Available channels

Channels received by AiM devices connected to Bosch ECUs changes according to the set protocol.

3.1

"Bosch" "MS43_GA" protocol

Channels received by AiM devices connected to "Bosch" "MS 43_GA" protocol are.

ID	CHANNEL NAME	FUNCTION
ECU_1	MS43_RPM	RPM
ECU_2	MS43_SPEED	Vehicle speed
ECU_3	MS43_WH_SPD_FL	Front left wheel speed
ECU_4	MS43_WH_SPD_FR	Front Right wheel speed
ECU_5	MS43_WH_SPD_RL	Rear left wheel speed
ECU_6	MS43_WH_SPD_RR	Rear Right wheel speed
ECU_7	MS43_TPS	Throttle position
ECU_8	MS43_MAP_BE_T1	Manifold air pressure before throttle 1
ECU_9	MS43_MAP_BE_T2	Manifold air pressure before throttle 2



ECU_10	MS43_MAP_AF_T1	Manifold air pressure after throttle 1
ECU_11	MS43_MAP_AF_T2	Manifold air pressure after throttle 2
ECU_12	MS43_BARO_PR	Barometric pressure
ECU_13	MS43_WATER_PR	Water pressure
ECU_14	MS43_CRANK_PR	Crank pressure
ECU_15	MS43_OIL_PR	Oil pressure
ECU_16	MS43_BRK_PRESS	Brake pressure
ECU_17	MS43_SWPOS_ABS	ABS switch position
ECU_18	MS43_FUEL_PR1	Fuel pressure 1
ECU_19	MS43_FUEL_PR2	Fuel pressure 2
ECU_20	MS43_FUEL_USED	Used fuel
ECU_21	MS43_ECT	Engine coolant temperature
ECU_22	MS43_OIL_T	Oil temperature
ECU_23	MS43_FUEL_T	Fuel temperature
ECU_24	MS43_AIR_T	Intake air temperature
ECU_25	MS43_EXH_T1	Exhaust temperature 1
ECU_26	MS43_EXH_T2	Exhaust temperature 2
ECU_27	MS43_GEAR_T1	Gearbox temperature
ECU_28	MS43_LAMBDA_T1	Lambda temperature 1
ECU_29	MS43_LAMBDA_T2	Lambda temperature 2
ECU_30	MS43_LAMBDA1	Lambda value 1
ECU_31	MS43_LAMBDA2	Lambda value 2
ECU_34	MS43_INJ_TIME1	Injection time 1
ECU_35	MS43_INJ_TIME2	Injection time 2
ECU_36	MS43_IGN_ANG	Ignition angle
ECU_37	MS43_GEAR	Engaged gear
ECU_38	MS43_YAW_ACC	Yaw acceleration
ECU_39	MS43_YAW	Yaw rate
ECU_40	MS43_TC_ACTIVE	Traction control active
ECU_41	MS43_ACC_X	Lateral acceleration
ECU_42	MS43_ACC_Y	Longitudinal acceleration
ECU_44	MS43_RL_AIR_CH	Relative air charge
ECU_45	MS43_LAM_SET_P	Lambda setting
ECU_46	MS43_OILP_GAUGE	Oil pressure gauge

3.2

"Bosch" "MS43_CLUBSPORT" protocol

Channels received by AiM devices connected to "Bosch" "MS 43_CLUBSPORT" protocol are.

ID	CHANNEL NAME	FUNCTION
ECU_1	MS43_RPM	RPM
ECU_2	MS43_SPEED	Speed
ECU_3	MS43_WH_SPD_FL	Front Left wheel speed
ECU_4	MS43_WH_SPD_FR	Front rear wheel speed
ECU_5	MS43_WH_SPD_RL	Rear left wheel speed
ECU_6	MS43_WH_SPD_RR	Rear right wheel speed
ECU_7	MS43_TPS	Throttle position sensor
ECU_8	MS43_MAP_BEF_THR1	Map before Throttle 1
ECU_9	MS43_MAP_BEF_THR2	Map before Throttle 2
ECU_10	MS43_MAP_AFT_THR1	Map after throttle 1
ECU_11	MS43_MAP_AFT_THR2	Map after throttle 2
ECU_12	MS43_AIR_P	Air pressure
ECU_13	MS43_WATER_P	Water pressure
ECU_14	MS43_CRANK_P	Crank pressure
ECU_15	MS43_OIL_P	Oil pressure
ECU_16	MS43_BRAKE_F_P	Front brake pressure sensor
ECU_17	MS43_BRAKE_R_P	Rear brake pressure sensor
ECU_18	MS43_FUEL_P1	Fuel pressure 1
ECU_19	MS43_FUEL_P2	Fuel pressure 2
ECU_20	MS43_FUEL_USED	Injected fuel
ECU_21	MS43_ECT	Engine coolant temperature
ECU_22	MS43_OIL_T	Oil temperature
ECU_23	MS43_FUEL_T	Fuel temperature
ECU_24	MS43_AIR_T	Air temperature
ECU_25	MS43_EXHAUST_T1	Exhaust temperature 1



ECU_26	MS43_EXHAUST_T2	Exhaust temperature 2
ECU_27	MS43_GEAR_T1	Gearbox temperature 1
ECU_28	MS43_LAMBDA_T1	Lambda temperature 1
ECU_29	MS43_LAMBDA_T2	Lambda temperature 2
ECU_30	MS43_LAMBDA1	Lambda sensor 1
ECU_31	MS43_LAMBDA2	Lambda sensor 2
ECU_32	MS43_LAMBDA_CTR1	Lambda control 1
ECU_33	MS43_LAMBDA_CTR2	Lambda control 2
ECU_34	MS43_INJ_TIME1	Injection time 1
ECU_35	MS43_INJ_TIME2	Injection time 2
ECU_36	MS43_IGN_ANG	Ignition angle
ECU_37	MS43_GEAR	Engaged gear
ECU_38	MS43_STR_WHEEL_ANG	Steering wheel angle
ECU_39	MS43_YAW_RATE	Yaw rate
ECU_40	MS43_TC_ACTIVE	Active traction control
ECU_41	MS43_ACC_X	Longitudinal acceleration (X axis)
ECU_42	MS43_ACC_Y	Lateral acceleration (Y axis)
ECU_43	MS43_ACC_Z	Vertical acceleration (Z axis)