

A46 Digital Motor Electronics

Connector location views

Number	X-pin, colour	Description
A211*1B	48-pin, black	Component connector Digital Motor Electronics
A211*5B	12-pin, black	Component connector Digital Motor Electronics
A211*6B	24-pin, black	Component connector Digital Motor Electronics
A282*2B	58-pin, black	Component connector Digital Motor Electronics
A282*3B	58-pin, black	Component connector Digital Motor Electronics
A282*4B	11-pin, black	Component connector Digital Motor Electronics

Pin assignments at plug connector A211*1B

Pin	Type	Description /Signal type	Connection /Measuring information
1	A	M4 GTS Activation Water injection relay 2	Water injection relay 2
2	A	Speed signal	Diagnosis socket
3	A	Activation Electrical exhaust flap	Electrical exhaust flap
4	--	Not used	
5	--	Not used	
6	--	Not used	
7	E/A	PT-CAN bus signal	PT-CAN bus connection
8	E/A	PT-CAN bus signal	PT-CAN bus connection
9	--	Not used	
10	--	Not used	
11	--	Not used	
12	E	Signal	Low pressure fuel sensor
13	E	with petrol particulate filter Signal Exhaust gas pressure sensor of petrol particulate filter 2	Exhaust gas pressure sensor of petrol particulate filter 2
13	E	M4 GTS Signal Water temperature sensor	Water temperature sensor
14	E	Hall sensor signal	Accelerator pedal module
15	E	Hall sensor signal	Accelerator pedal module
16	E	M4 GTS Sensor signal	Water tank level sensor
17	--	Not used	
18	A	Activation	Electrical exhaust flap 2
19	--	Not used	

20	A	Activation Electric fan	Electric fan
21	E	Signal Natural Vacuum Leak Detection temperature sensor and pressure switch	Natural Vacuum Leak Detection temperature sensor and pressure switch
22	--	Not used	
23	A	Activation Cut-out relay, electric fan	Cut-out relay, electric fan
24	A	Supply, Hall sensor	Accelerator pedal module
25	A	Supply, Hall sensor	Accelerator pedal module
26	A	Supply	Low pressure fuel sensor
27	M	Ground, Hall sensor	Accelerator pedal module
28	M	Ground, Hall sensor	Accelerator pedal module
29	M	M4 GTS Sensor ground	Water temperature sensor
29	M	with petrol particulate filter Sensor ground	Exhaust gas pressure sensor of petrol particulate filter 2
30	M	Sensor ground	Low pressure fuel sensor
31	E	Signal Clutch module	Clutch module
32	--	Not used	
33	E/A	FlexRay bus signal	Front Electronic Module
34	E/A	FlexRay bus signal	Front Electronic Module
35	--	Not used	
36	A	M4 GTS Activation Water injection relay	Water injection relay
37	A	Activation	Coolant pump, charge air cooler
38	--	Not used	
39	E	Supply, terminal 15	Front Electronic Module
40	E/A	LIN bus signal	Connector X328*1V
41	--	Not used	
42	E	Power supply, terminal 30B	Fuse F23
43	A	with petrol particulate filter Supply Exhaust gas pressure sensor of petrol particulate filter 2	Exhaust gas pressure sensor of petrol particulate filter 2
44	E/A	PT-CAN bus signal	PT-CAN2 bus connection
45	E/A	PT-CAN bus signal	PT-CAN2 bus connection
46	E	Wake-up signal, terminal 15	Front Electronic Module
47	--	Not used	
48	E	Signal, Sport button	Centre console control panel

Pin assignments at plug connector A211*5B

Pin	Type	Description /Signal type	Connection /Measuring information
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1	M	Ground	Ground point
2	E	Supply Valvetronic	Fuse F06
3	M	Ground	Ground point
4	M	Ground	Ground point
5	A	Activation Valvetronic relay	Integrated supply module
6	E	Supply Fuel injectors	Fuse F04
7	M	Ground	Ground point
8	A	Activation Load shedding relay for ignition and fuel injection	Integrated supply module
9	E	Supply, terminal 15	Fuse F03
10	E	Supply Ignition	Fuse F05
11	E	Supply, terminal 15	Fuse F01
12	E	Supply, terminal 15	Fuse F02

Pin assignments at plug connector A211*6B

Pin	Type	Description /Signal type	Connection /Measuring information
1	A	Activation Fuel injector, cylinder 3	Fuel injector, cylinder 3
2	A	Supply Fuel injector, cylinder 3	Fuel injector, cylinder 3
3	A	Supply Fuel injector, cylinder 4	Fuel injector, cylinder 4
4	A	Activation Fuel injector, cylinder 4	Fuel injector, cylinder 4
5	A	Activation Fuel injector, cylinder 5	Fuel injector, cylinder 5
6	A	Supply Fuel injector, cylinder 5	Fuel injector, cylinder 5
7	A	Activation Ignition coil, cylinder 1	Ignition coil, cylinder 1
8	A	Activation Ignition coil, cylinder 2	Ignition coil, cylinder 2
9	A	Activation Ignition coil, cylinder 3	Ignition coil, cylinder 3
10	A	Activation Ignition coil, cylinder 4	Ignition coil, cylinder 4
11	A	Activation Ignition coil, cylinder 5	Ignition coil, cylinder 5
12	A	Activation Ignition coil, cylinder 6	Ignition coil, cylinder 6
13	A	Supply Fuel injector, cylinder 2	Fuel injector, cylinder 2
14	A	Activation Fuel injector, cylinder 2	Fuel injector, cylinder 2
15	A	Activation Fuel injector, cylinder 1	Fuel injector, cylinder 1
16	A	Supply Fuel injector, cylinder 1	Fuel injector, cylinder 1
17	A	Activation Fuel injector, cylinder 6	Fuel injector, cylinder 6
18	A	Supply Fuel injector, cylinder 6	Fuel injector, cylinder 6

19	A	Supply Ignition coil, cylinder 1	Ignition coil, cylinder 1
20	A	Supply Ignition coil, cylinder 2	Ignition coil, cylinder 2
21	A	Supply Ignition coil, cylinder 3	Ignition coil, cylinder 3
22	A	Supply Ignition coil, cylinder 4	Ignition coil, cylinder 4
23	A	Supply Ignition coil, cylinder 5	Ignition coil, cylinder 5
24	A	Supply Ignition coil, cylinder 6	Ignition coil, cylinder 6

Pin assignments at plug connector A282*2B

Pin	Type	Description /Signal type	Connection /Measuring information
1	A	Supply Volume control valve	Quantity control valve
2	A	Activation Volume control valve	Quantity control valve
3	E	Oxygen sensor signal	Oxygen sensor 2 before catalytic converter
4	A	Supply Quantity control valve 2	Quantity control valve 2
5	E	Signal Zero-gear sensor	Zero-gear sensor
6	E	Signal Crankshaft sensor	Crankshaft sensor
7	E	Signal Knock sensor	Knock sensor
8	E	Signal Knock sensor	Knock sensor
9	E	Signal Knock sensor	Knock sensor
10	E	Signal Knock sensor	Knock sensor
11	E	Oxygen sensor signal	Oxygen sensor before catalytic converter
12	M	Ground Oxygen sensor before catalytic converter	Oxygen sensor before catalytic converter
13	E	Oxygen sensor signal	Oxygen sensor 2 before catalytic converter
14	E	Oxygen sensor signal	Oxygen sensor before catalytic converter
15	E	Oxygen sensor signal	Oxygen sensor 2 before catalytic converter
16	M	Ground Oxygen sensor 2 before catalytic converter	Oxygen sensor 2 before catalytic converter
17	E	Oxygen sensor signal	Oxygen sensor before catalytic converter
18	A	Activation Quantity control valve 2	Quantity control valve 2
19	M	Ground Electric throttle valve actuator	Electromotive throttle actuator
20	M	Ground Oxygen sensor after catalytic converter	Oxygen sensor after catalytic converter
21	M	Ground Oxygen sensor 2 after catalytic converter	Oxygen sensor 2 after catalytic converter

22	M	Ground Intake-manifold pressure sensor	Intake-manifold pressure sensor
23	M	Ground	Position sensor, high pressure pump
24	M	Activation Intake air temperature/intake-manifold pressure sensor	Intake air temperature/intake-manifold pressure sensor
25	A	Supply Pressure converter, wastegate valve	Pressure converter, wastegate valve not Exhaust emission standard EURO 6
26	A	Supply Oxygen sensor after catalytic converter	Oxygen sensor after catalytic converter
27	A	Supply Oxygen sensor 2 before catalytic converter	Oxygen sensor 2 before catalytic converter
28	--	Not used	
29	A	Supply Oxygen sensor 2 after catalytic converter	Oxygen sensor 2 after catalytic converter
30	A	Supply Oxygen sensor before catalytic converter	Oxygen sensor before catalytic converter
31	E	Signal Oxygen sensor 2 after catalytic converter	Oxygen sensor 2 after catalytic converter
32	E	Signal Oil-level sensor	Oil-level sensor
33	A	Supply Electric throttle valve actuator	Electric throttle valve actuator
34	A	Supply Charging pressure sensor	Charging pressure sensor
35	A	Supply Position sensor, high pressure pump	Position sensor, high pressure pump
36	M	Ground Crankshaft sensor	Crankshaft sensor
37	A	Supply Crankshaft sensor	Crankshaft sensor
38	A	Supply Intake air temperature/intake-manifold pressure sensor	Intake air temperature/intake-manifold pressure sensor
39	A	Supply Zero-gear sensor	Zero-gear sensor
40	M	Sensor ground	Zero-gear sensor
41	--	Not used	
42	E/A	LIN bus signal	Alternator
43	--	Not used	
44	A	Supply Oil-level sensor	Oil-level sensor
45	E	Oxygen sensor signal	Oxygen sensor after catalytic converter
46	--	Not used	
47	M	Ground Oil-level sensor	Oil condition sensor
48	E	Signal, pressure sensor	Intake air temperature/intake-manifold pressure sensor

49	E	Signal Electromotive throttle actuator	Electromotive throttle actuator
50	E	Signal Electromotive throttle actuator	Electromotive throttle actuator
51	E	Signal, pressure sensor	Charging pressure sensor
52	E	Signal Position sensor, high pressure pump	Position sensor, high pressure pump
53	E	Signal, temperature sensor	Intake air temperature/intake-manifold pressure sensor
54	E	Oxygen sensor signal	Oxygen sensor after catalytic converter
55	E	Signal Oxygen sensor 2 after catalytic converter	Oxygen sensor 2 after catalytic converter
56	--	Not used	
57	A	Activation Electromotive throttle actuator	Electromotive throttle actuator
58	A	Activation Electromotive throttle actuator	Electromotive throttle actuator

Pin assignments at plug connector A282*3B

Pin	Type	Description /Signal type	Connection /Measuring information
1	A	Activation Electrical wastegate valve 2	Electrical wastegate valve 2
2	A	Activation Electrical wastegate valve 2	Electrical wastegate valve 2
3	A	Activation Oil pressure control valve	Oil pressure control valve
4	A	Activation VANOS solenoid valve, inlet	VANOS solenoid valve, inlet
5	A	M4 GTS Activation Water injection valve 1	Water injection valve 1
6	A	Activation Engine ventilation heating	Engine ventilation heating
7	A	M4 GTS Activation Water injection valve 2	Water injection valve 2
8	A	with petrol particulate filter Supply Exhaust gas pressure sensor for petrol particulate filter	Exhaust gas pressure sensor for petrol particulate filter
8	A	M4 GTS Supply Water pressure sensor	Valve block, water injection
9	A	Activation Tank vent valve	Tank vent valve
10	A	Activation VANOS solenoid valve, exhaust	VANOS solenoid valve, exhaust
11	E	M4 GTS Signal Water pressure sensor	Valve block, water injection

11	E	with petrol particulate filter Signal Exhaust gas pressure sensor for petrol particulate filter	Exhaust gas pressure sensor for petrol particulate filter
12	M	Ground Hot-film air mass meter	Hot-film air mass meter
13	A	Activation Characteristic map thermostat	Characteristic map thermostat
14	A	Supply Turbocharger coolant pump	Turbocharger coolant pump
15	A	Supply Characteristic map thermostat	Characteristic map thermostat
16	A	Supply Tank vent valve	Tank vent valve
17	A	M4 GTS Activation Water injection valve 3	Water injection valve 3
18	A	Supply Intake camshaft sensor	Intake camshaft sensor
19	A	Supply Exhaust camshaft sensor	Exhaust camshaft sensor
20	--	Not used	
21	--	Not used	
22	--	Not used	
23	A	Supply Oil pressure control valve	Oil pressure control valve
24	A	Supply Hot-film air mass meter 2	Hot-film air mass meter 2
25	--	Not used	
26	A	Supply VANOS solenoid valve, exhaust	VANOS solenoid valve, exhaust
27	A	Supply VANOS solenoid valve, inlet	VANOS solenoid valve, inlet
28	A	Supply Hot-film air mass meter	Hot-film air mass meter
29	A	Supply Engine ventilation heating	Engine ventilation heating
30	M	M4 GTS Ground Water pressure sensor	Valve block, water injection
30	M	with petrol particulate filter Sensor ground	Exhaust gas pressure sensor for petrol particulate filter
31	A	Activation Turbocharger coolant pump	Turbocharger coolant pump
32	A	Supply Electrical wastegate valve	Electrical wastegate valve
33	E	Signal Electrical wastegate valve	Electrical wastegate valve
34	M	Ground Electrical wastegate valve	Electrical wastegate valve
35	M	Ground Turbocharger coolant pump	Turbocharger coolant pump

36	M	Ground Hot-film air mass meter 2	Hot-film air mass meter 2
37	M	Ground Intake camshaft sensor	Intake camshaft sensor
38	M	Ground Exhaust camshaft sensor	Exhaust camshaft sensor
39	E	Signal Electrical wastegate valve 2	Electrical wastegate valve 2
40	A	Supply Engine oil pressure sensor	Engine oil pressure sensor
41	M	Ground Coolant temperature sensor	Coolant temperature sensor
42	M	Ground Engine oil pressure sensor	Engine oil pressure sensor
43	M	Ground Engine oil temperature sensor	Engine oil temperature sensor
44	M	Ground Rail pressure sensor	Rail pressure sensor
45	M	Ground Electrical wastegate valve 2	Electrical wastegate valve 2
46	A	Activation Electrical wastegate valve	Electrical wastegate valve
47	A	Activation Electrical wastegate valve	Electrical wastegate valve
48	E	Signal Hot-film air mass meter 2	Hot-film air mass meter 2
49	--	Not used	
50	E	Signal Hot-film air mass meter	Hot-film air mass meter
51	E	Signal Intake camshaft sensor	Intake camshaft sensor
52	E	Signal Exhaust camshaft sensor	Exhaust camshaft sensor
53	E	Signal Electrical wastegate valve 2	Electrical wastegate valve 2
54	A	Supply Rail pressure sensor	Rail pressure sensor
55	E	Signal, temperature sensor	Coolant temperature sensor
56	E	Signal, pressure sensor	Engine-oil pressure sensor
57	E	Signal, temperature sensor	Engine oil temperature sensor
58	E	Signal, pressure sensor	Rail pressure sensor

Pin assignments at plug connector A282*4B

Pin	Type	Description /Signal type	Connection /Measuring information
1	A	Supply Motor position sensor	Valvetronic actuator motor
2	E	Signal Motor position sensor	Valvetronic actuator motor
3	E	Signal Motor position sensor	Valvetronic actuator motor
4	E	Signal Motor position sensor	Valvetronic actuator motor

5	A	Activation Valvetronic actuator motor	Valvetronic actuator motor
6	A	Activation Valvetronic actuator motor	Valvetronic actuator motor
7	A	Activation Valvetronic actuator motor	Valvetronic actuator motor
8	E	Signal Motor position sensor	Valvetronic actuator motor
9	E	Signal Motor position sensor	Valvetronic actuator motor
10	M	Ground Motor position sensor	Valvetronic actuator motor
11	--	Not used	

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