



Siemens MS42 Pinout

X60001 - Voltage Supply

X60001 9-pin			
Pin	Type	Description / Signal type	Connection / Measuring notes
1	Input	Voltage Supply Terminal 15	Ignition Coil Relay K6326
2			
3	I/O	Diagnostic Link TXD	K-Line
4	Ground	Ground	Ground Connector X6454
5	Ground	Ground	Ground Connector X6454
6	Ground	Ground	Ground Connector X6454
7	Input	Voltage Supply Terminal 30	B+ Potential Distributor A2076

8	Input	Voltage Supply Terminal 87	Fuse Carrier Engine Electronics A8680
9	Input	Voltage Supply Terminal 87	Fuse Carrier Engine Electronics A8680

X60002 - Peripherals

X60002 24-pin			
P in	Type	Description / Signal type	Connection / Measuring notes
1	Output	[PWM] O2 Sensor Heater Pre-Cat Bank 1	Heated O2 Sensor Pre-Cat Bank 1 B62101
2	Input	Reversing light signal	Reversing light switch
3	I/O	Gearbox CAN-Low	Transmission Control Unit A7000 (AT/SMG only)
4	I/O	Gearbox CAN-High	Transmission Control Unit A7000 (AT/SMG only)
5			
6	I/O	Gearbox Diagnostic Link TXD2	Transmission Control Unit A7000 (AT/SMG only)

7	Output	[PWM] O2 Sensor Heater Post-Cat Bank 1	Heated O2 Sensor Post-Cat Bank 1 B62102
8			
9			
10			
11			
12	Output	[0/1] Changeover Valve Tank Leakage Diagnosys	3-Way Valve Y6550 (US only)
13	Output	[PWM] O2 Sensor Heater Pre-Cat Bank 2	Heated O2 Sensor Pre-Cat Bank 2 B62201
14	Input	[0-5V] Signal O2 Sensor Pre-Cat Bank 1	Heated O2 Sensor Pre-Cat Bank 1 B62101
15	Input	[0-5V] Signal O2 Sensor Pre-Cat Bank 2	Heated O2 Sensor Pre-Cat Bank 2 B62201
16	Input	[0-5V] Signal O2 Sensor Post-Cat Bank 1	Heated O2 Sensor Post-Cat Bank 1 B62102
17			

18	Input	[0-5V] Signal O2 Sensor Post-Cat Bank 2	Heated O2 Sensor Post-Cat Bank 2 B62202
19	Output	[PWM] O2 Sensor Heater Post-Cat Bank 2	Heated O2 Sensor Post-Cat Bank 2 B62202
20	Ground	O2 Sensor Pre-Cat Bank 1	Heated O2 Sensor Pre-Cat Bank 1 B62101
21	Ground	O2 Sensor Pre-Cat Bank 2	Heated O2 Sensor Pre-Cat Bank 2 B62201
22	Ground	O2 Sensor Post-Cat Bank 1	Heated O2 Sensor Post-Cat Bank 1 B62102
23	Output	[0/1] ECU Main Relay Control	ECU Main Relay K6300
24	Ground	O2 Sensor Post-Cat Bank 2	Heated O2 Sensor Post-Cat Bank 2 B62202

X60003 - Engine

X60003 52-pin			
P i n	Type	Description / Signal type	Connection / Measuring notes

1	Input	[0-5V] Signal Hot Film Mass Air Flow Sensor	Hot Film Mass Air Flow Sensor
2	Input	Signal Exhaust Camshaft Sensor	Exhaust Camshaft Sensor
3	Output	Suction Jet Pump Shut-Off Valve	Suction Jet Pump Y6165
4	Output	[+5V] Voltage Supply Electric Throttle Body Circuit 1	Electric Throttle Body
5	Input	Signal Intake Camshaft Sensor	Intake Camshaft Sensor
6			
7	Output	[+5V] Voltage Supply Electric Throttle Body Circuit 2	Electric Throttle Body
8	Input	Signal Crankshaft Sensor	Crankshaft Sensor
9	Input	[0-5V] Signal Electric Throttle Body Circuit 2 - Pedal Value Sensor	Electric Throttle Body
10	Input	[0-5V] Signal Electric Throttle Body Circuit 2 - Throttle Position Sensor	Electric Throttle Body

11			
12	Input	[0/1] Signal Engine Start Feedback	Starter M6510
13	Input	[0/1] Signal Battery Charge Indicator Lamp	Alternator G6524
14	Ground	Electric Throttle Body Circuit 1	Electric Throttle Body
15	Ground	Exhaust Camshaft Sensor	Exhaust Camshaft Sensor
16	Input	[0-5V] Signal Electric Throttle Body Circuit 1 - Pedal Value Sensor	Electric Throttle Body
17	Ground	Hot Film Mass Air Flow Sensor	Hot Film Mass Air Flow Sensor
18	Ground	Intake Camshaft Sensor	Intake Camshaft Sensor
19	Input	[0-5V] Signal Electric Throttle Body Circuit 1 - Throttle Position Sensor	Electric Throttle Body
20	Ground	Electric Throttle Body Circuit 2	Electric Throttle Body

21	Input	Ground Crankshaft sensor	Crankshaft sensor
22	Input	[0-5V] Signal Intake Air Temperature	Intake Air Temperature Sensor
23	Ground	Intake Air Temperature	Intake Air Temperature Sensor
24	Input	[0-5V] Signal Coolant Temperature	Coolant Temperature Sensor
25	Ground	Coolant Temperature	Coolant Temperature Sensor
26	Input	[0/1] Signal Oil Pressure	Oil Pressure Sensor B6231
27	Input	[0-5V] Signal Engine Oil Temperature	Oil Temperature Sensor
28	Ground	Engine Oil Temperature	Oil Temperature Sensor
29	Input	Signal Knock Sensor 1A	Knock Sensor Cylinder 1-3
30	Input	Signal Knock Sensor 1B	Knock Sensor Cylinder 1-3

3 1	Input	Signal Knock Sensor 2A	Knock Sensor Cylinder 4-6
3 2	Input	Signal Knock Sensor 2B	Knock Sensor Cylinder 4-6
3 3	Output	[0/1] Signal Fuel Injector Cylinder 1	Fuel Injector Cylinder 1 Y6101 Pin 1
3 4	Output	[0/1] Signal Fuel Injector Cylinder 2	Fuel Injector Cylinder 2 Y6102 Pin 1
3 5	Output	[0/1] Signal Fuel Injector Cylinder 3	Fuel Injector Cylinder 3 Y6103 Pin 1
3 6	Output	[0/1] Signal Fuel Injector Cylinder 4	Fuel Injector Cylinder 4 Y6104 Pin 1
3 7	Output	[0/1] Signal Fuel Injector Cylinder 5	Fuel Injector Cylinder 5 Y6105 Pin 1
3 8	Output	[0/1] Signal Fuel Injector Cylinder 6	Fuel Injector Cylinder 6 Y6106 Pin 1
3 9	Input	[PWM] Signal Oil Level Sensor	Oil Level Sensor
4 0	Output	[PWM] Signal VANOS Intake Solenoid	VANOS Intake Solenoid

4 1	Out put	[PWM] Signal VANOS Exhaust Solenoid	VANOS Exhaust Solenoid
4 2	Out put	[PWM] Signal Fuel Tank Vent Valve	Fuel Tank Vent Valve
4 3	Out put	[H-Bridge] Electric Throttle Body Actuator 1	Electric Throttle Body
4 4	Out put	[H-Bridge] Electric Throttle Body Actuator 2	Electric Throttle Body
4 5	Out put	[0/1] Characteristic Map Cooling Thermostat	Thermostat
4 6	Out put	[H-Bridge] Idle Speed Actuator Closing Coil	Idle Speed Actuator
4 7	Out put	[H-Bridge] Idle Speed Actuator Opening Coil	Idle Speed Actuator
4 8	Gro und	Shield Knock Sensors	Knock Sensors
4 9	Out put	[0/1] Variable Intake Manifold Flap (VIM/DISA)	Variable Intake Manifold Flap (VIM/DISA)
5 0			

51			
52	Output	[0/1] Signal Secondary Air Pump Valve	Secondary Air Pump Valve

X60004 - Vehicle

X60004 40-pin			
P i n	Typ e	Description / Signal type	Connection / Measuring notes
1	Output	[0/1] Signal Battery Charge Indicator Lamp	Instrument Cluster A2
2	Output	[0/1] Signal Engine Start Feedback	Instrument Cluster A2
3	Output	[0/1] Signal Secondary Air Pump Relay	Secondary Air Pump Relay
4	Output	[PWM] Signal Electric Cooling Fan	Electric Cooling Fan
5			

6			
7			
8			
9			
10	Output	[0/1] Signal Fuel Pump Relay	Fuel Pump Relay
11	Output	[0/1] Signal Oil Pressure	Instrument Cluster A2
12			
13			
14			
15			
16			

17	Output	Engine Speed Signal	OBD-II Connector
18	Output	[0/1] Signal Exhaust Flap Valve (RHD)	Exhaust Flap Valve
19	Output	Signal Reversing light	Instrument Cluster A2
20			
21	Output	[PWM] Signal Oil Level Sensor	Instrument Cluster A2
22	Input	Signal Processed Wheel Speed Sensor Rear Right	ABS/ASC or ABS/DSC Control Unit
23	Input	[0-5V] Signal Clutch Switch	Clutch Switch
24	Input	[0-5V] Signal Brake Light Switch (BLS)	Light Control Module
25			
26	Input	Voltage Supply Terminal 15	Fuse F29

27	I/O	Data Link Multi Function Steering Wheel	Volute Spring Steering Wheel
28	Input	[0-5V] Signal Brake Light Test Switch (BTS)	Brake Light Switch
29	Output	[0/1] Signal A/C Compressor Relay	A/C Compressor Relay
30	Output	[0/1] Signal Diagnostic Module Fuel Tank Leakage Pump (DMTL)	Diagnostic Module Fuel Tank Leakage
31			
32	I/O	Engine Diagnostic Link TXD	OBD-II Connector
33	[I/O]	Electronic Vehicle Immobilisation Crosslink	Electronic Vehicle Immobilisation Unit (EWS)
34	Input	[0-5V] Signal Diagnostic Module Fuel Tank Leakage (DMTL)	Diagnostic Module Fuel Tank Leakage
35	Ground	Cruise control interface	Cruise control interface (Z3 only)
36	I/O	CAN High	CAN Bus Connector

3 7	I/O	CAN Low	CAN Bus Connector
3 8	Ground	Coolant Outlet Temperature	Coolant Outlet Temperature Sensor
3 9	Input	[0-5V] Signal Coolant Outlet Temperature	Coolant Outlet Temperature Sensor
4 0			

X60005 - Ignition

X60005 9-pin			
Pin	Type	Description / Signal type	Connection / Measuring notes
1	Output	Ignition Signal Cylinder 3	Ignition Coil Cylinder 3
2	Output	Ignition Signal Cylinder 2	Ignition Coil Cylinder 2
3	Output	Ignition Signal Cylinder 1	Ignition Coil Cylinder 1
4			
5	Ground	Ignition Coil Ground	Ground Connector X6458

6	Input	Signal Feedback Ignition Coils	Ignition Coil Wiring Harness
7	Output	Ignition Signal Cylinder 6	Ignition Coil Cylinder 6
8	Output	Ignition Signal Cylinder 5	Ignition Coil Cylinder 5
9	Output	Ignition Signal Cylinder 4	Ignition Coil Cylinder 4