

Modbus Register Map

S35

Revision B

All registers are unsigned 16bit integer holding registers.

*Units will be determined by the menu selection under Display->Units.

Parameters with 32bit values will be sent as two separate holding registers labeled LSB and MSB.

Parameters with a decimal place of 1 will be sent as a integer scaled x10. Example: Battery Potential Voltage of 12.5 volts will be sent as 125.

Register	Description	Decimal Places	*Units	Range per Bit	Resolution available	Value for data not available
40001	Accelerator Pedal Position	1	%	0.0 - 100.0	0.4%	FFFFh, -1d
40002	Percent Load	0	%	0 - 125	1%	FFFFh, -1d
40003	Actual Engine Percent Torque	0	%	-125 - 125	1%	7FFFh, 32767d
40004	Engine Speed	0	RPM	0 - 8031	1 RPM	FFFFh, -1d
40005	Trip Distance LSB	0	M	0 - 327080569	1 Mile	FFFFFFFFh, -1d
40006	Trip Distance MSB					
40007	Total Vehicle Distance LSB	0	M	0 - 327080569	1 Mile	FFFFFFFFh, -1d
40008	Total Vehicle Distance MSB					
40009	Total Engine Hours LSB	1	HRS	0.0 - 210554060.7	0.1 Hours	FFFFFFFFh, -1d
40010	Total Engine Hours MSB					
40011	Trip Fuel LSB	1	Gal	0.0 - 429496729.4	0.1 Gallons	FFFFFFFFh, -1d
40012	Trip Fuel MSB					
40013	Total Fuel Used LSB	1	Gal	0.0 - 429496729.4	0.1 Gallons	FFFFFFFFh, -1d
40014	Total Fuel Used MSB					
40015	Engine Coolant Temperature	0	F	-40 - 410	1 deg. F	7FFFh, 32767d
40016	Fuel Temperature	0	F	-40 - 410	1 deg. F	7FFFh, 32767d
40017	Engine Oil Temperature	0	F	-459 - 3155	1 deg. F	7FFFh, 32767d
40018	Engine Intercooler Temperature	0	F	-40 - 410	1 deg. F	7FFFh, 32767d
40019	Fuel Delivery Pressure	0	PSI	0 - 145	1 PSI	FFFFh, -1d
40020	Engine Oil Level	0	%	0 - 100	1%	FFFFh, -1d
40021	Engine Oil Pressure	0	PSI	0 - 145	1 PSI	FFFFh, -1d
40022	Coolant Pressure	0	PSI	0 - 72	1 PSI	FFFFh, -1d
40023	Coolant Level	0	%	0 - 100	1%	FFFFh, -1d
40024	Wheel Based Vehicle Speed	0	MPH	0 - 155	1 MPH	FFFFh, -1d
40025	Fuel Rate	1	G/HR	0.0 - 848.9	0.1 Gallon/H	FFFFh, -1d
40026	Instantaneous Fuel Economy	1	M/G	0.0 - 295.3	0.1 Mile/Gallon	FFFFh, -1d
40027	Average Fuel Economy	1	M/G	0.0 - 295.3	0.1 Mile/Gallon	FFFFh, -1d
40028	Barometric Pressure	0	PSI	0 - 18	1 PSI	FFFFh, -1d
40029	Air Inlet Temperature	0	F	-40 - 410	1 deg. F	7FFFh, 32767d
40030	Boost Pressure	0	PSI	0 - 72.5	1 PSI	FFFFh, -1d
40031	Intake Manifold Temperature	0	F	-40 - 410	1 deg. F	7FFFh, 32767d
40032	Air Filter Differential Pressure	2	PSI	0 - 1.8	.01 PSI	FFFFh, -1d
40033	Exhaust Gas Temperature	0	F	-459 - 3155	1 deg. F	7FFFh, 32767d
40034	Alternator Potential (Voltage)	1	VDC	0.0 - 3212.7	0.1 Volts	FFFFh, -1d
40035	Electrical Potential (Voltage)	1	VDC	0.0 - 3212.7	0.1 Volts	FFFFh, -1d
40036	Battery Potential (Voltage)	1	VDC	0.0 - 3212.7	0.1 Volts	FFFFh, -1d

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Register	Description	Decimal Places	*Units	Range per Bit	Resolution available	Value for data not available
40037	Transmission Oil Pressure	0	PSI	0 - 580	1 PSI	FFFFh, -1d
40038	Transmission Oil Temperature	0	F	-459 - 3155	1 deg. F	7FFFh, 32767d
40039	Fan Drive	0	%	0-100	1 %	FFFFh, -1d
40040	Auxiliary Temperature	0	F	-40 - 410	1 deg. F	7FFFh, 32767d
40041	Auxiliary Pressure	0	PSI	0 - 580	1 PSI	FFFFh, -1d
40042	Selected Gear	0	NA	-125 - 125	1 Gear	7FFFh, 32767d
40043	Current Gear	0	NA	-125 - 125	1 Gear	7FFFh, 32767d
Register	Description	Decimal Places	Units	Range per Bit	Resolution available	Value for data not available
40044	Output Shaft Speed	0	RPM	0 - 8031	1 RPM	FFFFh, -1d
40045	Input Shaft Speed	0	RPM	0 - 8031	1 RPM	FFFFh, -1d
40046	Torque Converter Lockup	0	NA	ON / OFF	Digital ON/OFF	FFFFh, -1d
40047-50	Reserved					
40051	Analog Input 1 Value	0	Note 1	Note 1	1	0xFFFF
40052	Analog Input 2 Value	0	Note 1	Note 1	1	0xFFFF
40053	Frequency Input Value	0	Note 2	0 - 8000	1	0xFFFF
40054	Digital Output 1 & 2 Status	0	Status	0=Off, 1 = On	1	0xFFFF

Note 1:

Analog Input Setting	Units	Range per bit	Resolution
Resistive	Ohms	0 – 10K ohm	1 ohm
Voltage	mVolt	0 – 5000 mV	1 mV
Current 4-20mA	uAmp	0 – 20000 uA	1 uA

Note 2:

Frequency Input Setting	Units	Range per bit	Resolution
Engine Speed	rpm	0 - 8000	1 rpm
Vehicle Speed	Mph or kph	0 - 8000	1 mph/kph

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Register	Description	Decimal Places	*Units	Range per Bit	Resolution available	Value for data not available
41001	Number of Sets of Active Fault Codes	0	NA	0 - 255	1 Fault	FFFFh, -1d
41002	Malfunction Indicator Lamp Status	0	NA	0 = OFF 1 = ON 3 = NOT SUPPORTED	OFF ON NOT SUPPORTED	FFFFh, -1d
41003	Red Stop Lamp Status	0	NA	0 = OFF 1 = ON 3 = NOT SUPPORTED	OFF ON NOT SUPPORTED	FFFFh, -1d
41004	Amber Warning Lamp Status	0	NA	0 = OFF 1 = ON 3 = NOT SUPPORTED	OFF ON NOT SUPPORTED	FFFFh, -1d
41005	Protect Lamp Status	0	NA	0 = OFF 1 = ON 3 = NOT SUPPORTED	OFF ON NOT SUPPORTED	FFFFh, -1d
41006	Active SPN 1 LSB	0	NA	0 - 524287	1	FFFFFFFFh, -1d
41007	Active SPN 1 MSB					
41008	Active FMI 1	0	NA	0 - 31	1	FFFFh, -1d
41009	Active Occurrence Count 1	0	NA	0 - 127	1	FFFFh, -1d
41010	Active SPN 2 LSB	0	NA	0 - 524287	1	FFFFFFFFh, -1d
41011	Active SPN 2 MSB					
41012	Active FMI 2	0	NA	0 - 31	1	FFFFh, -1d
41013	Active Occurrence Count 2	0	NA	0 - 127	1	FFFFh, -1d
:	:	:	:	:	:	:
:	:	:	:	:	:	:
:	:	:	:	:	:	:
:	:	:	:	:	:	:
41222	Active SPN 55 LSB	0	NA	0 - 524287	1	FFFFFFFFh, -1d
41223	Active SPN 55 MSB					
41224	Active FMI 55	0	NA	0 - 31	1	FFFFh, -1d
41225	Active Occurrence Count 55	0	NA	0 - 127	1	FFFFh, -1d
41226 - 43000	Future Use					

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Register	Description	Decimal Places	*Units	Range per Bit	Resolution available	Value for data not available
43001	Number of Sets of Stored Fault Codes	0	NA	0 - 255	1 Fault	FFFFh, -1d
43002	Stored SPN 1 LSB	0	NA	0 - 524287	1	FFFFFFFFh, -1d
43003	Stored SPN 1 MSB					
43004	Stored FMI 1	0	NA	0 - 31	1	FFFFh, -1d
43005	Stored Occurrence Count 1	0	NA	0 - 127	1	FFFFh, -1d
43006	Stored SPN 2 LSB	0	NA	0 - 524287	1	FFFFFFFFh, -1d
43007	Stored SPN 2 MSB					
43008	Stored FMI 2	0	NA	0 - 31	1	FFFFh, -1d
43009	Stored Occurrence Count 2	0	NA	0 - 127	1	FFFFh, -1d
:	:	:	:	:	:	:
:	:	:	:	:	:	:
:	:	:	:	:	:	:
:	:	:	:	:	:	:
43218	Stored SPN 55 LSB	0	NA	0 - 524287	1	FFFFFFFFh, -1d
43219	Stored SPN 55 MSB					
43220	Stored FMI 55	0	NA	0 - 31	1	FFFFh, -1d
43221	Stored Occurrence Count 55	0	NA	0 - 127	1	FFFFh, -1d
43222 - 45000	Future Use					