Software Release: [App: 02.09.10051.00; Config: 2.9.20024 or greater]

MPC-10 & TEC-10 RS485 Modbus Registers

NOTE: The registers labeled Read/Write will allow the operator to change values through the Modbus as a temporary modification. If power is cycled to the MPC-10 / TEC-10, the values changed via Modbus will revert back to the last value entered locally. Writing a 1 to register 40240 will allow saving register changes to controller.

REGISTER #	TYPE	DESCRIPTION	UNITS
40001-40002	Read Only	Current Engine Hours (32 Bit)	Hours
40003	Read Only	Actual Engine Speed	RPM
40004	Read Only	System Voltage (12.5 will read 125)	VDC
40005	Read Only	Actual Engine Oil Pressure	kPa
40006	Read Only	Actual Engine Temperature	Celsius
40007	Read Only	Controller State (Active State: Numeral Indicated)	Numerals
		0 = ECU Stabilize Delay	
		1 = Engine Stopped	
		2 = Controller in Standby	
		3 = Prestart 1 Delay	
		4 = Check Safe to Start	
		5 = Prestart 2 Delay	
		6 = Crank On	
		7 = Crank Rest	
		8 = False Start Check	
		9 = Engine Warmup Delay	
		10 = Line Fill 1 Delay	
		11 = Line Fill 2 Delay	
		12 = Running Loaded	
		13 = Running Cooldown Delay	
		14 = Energize to Stop Delay	
		15 = Engine Spindown Delay	
		16 = Wait to Start Delay	
40008	Read Only	Active Shutdown Status (Active Fault: Bit = 1, Inactive: Bit = 0)	
		0 = Overspeed SD	(0 or 1)
		1 = Underspeed SD	(0 or 1)
		2 = Overcrank SD	(0 or 1)
		3 = Low Oil Pressure SD	(0 or 1)
		4 = High Engine Temp SD	(0 or 1)
		5 = Low Fuel SD	(0 or 1)
		6 = Low Discharge Pressure SD	(0 or 1)
		7 = High Discharge Pressure SD	(0 or 1)
		8 = No Speed Signal During Crank SD	(0 or 1)
		9 = Low Lube Level SD	(0 or 1)
		10 = Fuel Leak SD	(0 or 1)
		11 = Fuel Filter Restriction SD	(0 or 1)
		12 = Reserved	Reserved
		13 = Reserved	Reserved
		14 = Reserved	Reserved
		15 = Remote Stop SD	(0 or 1)

40009	Read Only	Active Shutdown Status (Active Fault: Bit = 1, Inactive: Bit = 0)	
		0 = Coolant Level SD	(0 or 1)
		1 = High Level SD	(0 or 1)
		2 = Low Level SD	(0 or 1)
		3 = High Flow SD	(0 or 1)
		4 = Low Flow SD	(0 or 1)
		5 = Reserved	Reserved
		6 = Reserved	Reserved
		7 = Water in Fuel SD	(0 or 1)
		8 = Low Suction SD	(0 or 1)
		9 = High Suction SD	(0 or 1)
		10 = Reserved	Reserved
		11 = High Engine Oil Temp SD	(0 or 1)
		12 = Low Gear Box Pressure SD	(0 or 1)
		13 = High Gear Box Pressure SD	(0 or 1)
		14 = Reserved	Reserved
		15 = Red Lamp Status	(0 or 1)
40010	Read Only	Active Shutdown Status (Active Fault: Bit = 1, Inactive: Bit = 0)	
		0 = Pivot Alignment SD	(0 or 1)
		1 = INDEX Coolant Level SD	(0 or 1)
		2 = Speed Signal Lost While Running SD	(0 or 1)
		3 = Reserved	Reserved
		4 = Reserved	Reserved
		5 = Reserved	Reserved
		6 = Reserved	Reserved
		7 = Reserved	Reserved
		8 = Reserved	Reserved
		9 = Reserved	Reserved
		10 = Reserved	Reserved
		11 = Reserved	Reserved
		12 = Reserved	Reserved
		13 = Reserved	Reserved
		14 = Reserved	Reserved
		15 = Reserved	Reserved
40011	Read Only	Actual System Level	Feet
40012	Read & Write	Modbus Engine Start/Stop Auto Mode Only (Stop = 0, Start = 1)	(0 or 1)
40013	Read & Write	Maximum Engine Speed Setpoint	RPM
40014	Read Only	Actual Ambient Temp	Celsius
40015	Read & Write	Auto/Manual Mode (Manual = 0, Auto = 1)	(0 or 1)
40016	Read & Write	Running Loaded Speed in Auto Setpoint	RPM
40017	Read & Write	Manual Only (Manual Only Enabled = 1, Disabled = 0)	(0 or 1)
40018	Read & Write	Prestart 1 Auto Only (Prestart Auto Only = 1, Prestart Auto & Manual = 0)	(0 or 1)
40019	Read & Write	Prestart 2 Auto Only (Prestart Auto Only = 1, Prestart Auto & Manual = 0)	(0 or 1)
40020	Read Only	J1939.Actual Engine Torque	Percent
40021	Read Only	Reserved	Reserved
40022	Read Only	J1939.Diesel Particulate Filter Outlet Temperature	Celsius
40023	Read Only	J1939.Diesel Particulate Filter Intake Temperature	Celsius

40024	Read Only	J1939.Exhaust Temperature	Celsius
40025	Read Only	J1939.Engine Exhaust Manifold Bank 1 Temperature	Celsius
40026	Read Only	J1939.Boost Pressure	kPa
40027	Read Only	J1939.Engine Fuel Temperature	Celsius
40028	Read Only	J1939.Engine Intercooler Temperature	Celsius
40029	Read Only	J1939.Diesel Particulate Filter Ash Load Percent	Percent
40030	Read Only	J1939.Diesel Exhaust Fluid Tank Temperature	Celsius
40031	Read Only	J1939.Engine Fuel Delivery Pressure	kPa
40032	Read Only	J1939.Barometric Pressure	kPa
40033	Read Only	J1939.Air Filter Diff. Pressure	kPa
40034	Read Only	J1939.Exhaust Gas Temperature	Celsius
40035	Read Only	J1939.Hydraulic Pressure	kPa
40036	Read Only	J1939.Hydraulic Temperature	Celsius
40037	Read Only	J1939.Diesel Particulate Filter Active Regeneration Status: The following is a description of enumeration values.	Numerals
		0 = Not Active	
		1 = Active	
		2 = Regeneration Needed	
		3 = Not Available	
40038	Read & Write	System Level Engine Start (Auto)	Feet
40039	Read & Write	System Level Engine Stop (Auto)	Feet
40040	Read & Write	System Level Maintain Value (Auto)	Feet
40041	Reserved	Reserved	Reserved
40042	Reserved	Reserved	Reserved
40043-40044	Read Only	Actual Discharge Pressure	kPa
40045-40046	Read & Write	Pressure Engine Start (Auto)	kPa
40047-40048	Read & Write	Pressure Engine Stop (Auto)	kPa
40049-40050	Read & Write	Pressure Maintain Value (Auto)	kPa
40051-40200	Read Only	Reserved	Reserved
40201	Read Only	Version.App.1	Numerals
40202	Read Only	Version.App.2	Numerals
40203	Read Only	Version.App.3	Numerals
40204	Read Only	Version.App.4	Numerals
40205	Read Only	Version.Config.1	Numerals
40206	Read Only	Version.Config.2	Numerals
40207	Read Only	Version.Config.3	Numerals
40208	Read Only	Reserved	Reserved
40210	Read Only	J1939.Engine Catalyst Tank Level	Percent
40211	Read Only	J1939.Diesel Particulate Filter 1 Soot Load Percent	Percent
40212	Read Only	J1939.Diesel Particulate Filter Regeneration Inhibit Switch (Inhibit Switch Active = 1)	(0 or 1)
40213	Read Only	The following is a description of bits:	
		0 = J1939.Diesel Particulate Filter Active Regeneration Inhibited Due to Inhibit Switch (Inhibited = 1)	(0 or 1)
		1 = Reserved	Reserved
		2 = Reserved	Reserved
		3 = Reserved	Reserved
		4 = Reserved	Reserved
		5 = Reserved	Reserved

		6 = Reserved	Reserved
		7 = Reserved	Reserved
		8 = Reserved	Reserved
		9 = Reserved	Reserved
		10 = Reserved	Reserved
		11 = Reserved	Reserved
		12 = Reserved	Reserved
		13 = Reserved	Reserved
		14 = Reserved	Reserved
		15 = Reserved	Reserved
40214	Read Only	Controller State Timer	Seconds
40215	Read Only	Target Engine Speed from Controller	RPM
40216	Read Only	All Purpose Auto Start Function: (Active Function: Numeral Indicated)	Numerals
		0 = Single Contact	
		1 = Local Start Button	
		2 = Two Contact Maintained	
		3 = Pressure Transducer	
		4 = Level Transducer	
40217	Read & Write	Pressure Maintain Deadband (Auto)	kPa
40218	Read & Write	System Level Maintain Deadband (Auto)	Feet
40219	Reserved	Reserved	Reserved
40220	Read & Write	Ambient Temperature Engine Start (Auto)	Celsius
40221	Read & Write	Ambient Temperature Engine Stop (Auto)	Celsius
40222	Reserved	Reserved	Reserved
40223	Reserved	Reserved	Reserved
40224	Read & Write	Minimum Engine Speed Setpoint	RPM
40225	Read Only	Service Reminder - Air Filter Life	Hours
40226	Read Only	Service Reminder - Air Filter Life Remaining	Hours
40227	Read Only	Service Reminder - Battery Life	Hours
40228	Read Only	Service Reminder - Battery Life Remaining	Hours
40229	Read Only	Service Reminder - Belt Life	Hours
40230	Read Only	Service Reminder - Belt Life Remaining	Hours
40231	Read Only	Service Reminder - Fuel Filter Life	Hours
40232	Read Only	Service Reminder - Fuel Filter Life Remaining	Hours
40233	Read Only	Service Reminder - Oil Filter Life	Hours
40234	Read Only	Service Reminder - Oil Filter Life Remaining	Hours
40235	Read Only	Service Reminder - Oil Life	Hours
40236	Read Only	Service Reminder - Oil Life Remaining	Hours
40237	Read Only	Service Reminder - Overhaul Life	Hours
40238	Read Only	Service Reminder - Overhaul Life Remaining	Hours
40239	Read Only	Actual Fuel Level	Percent
40240	Read & Write	Modbus EEPROM Values Save (Save = 1)	(0 or 1)
40241	Read Only	Modbus EEPROM Values Saved Confirmation (Saved = 1)	(0 or 1)
40242	Read Only	Active Warning Status (Active Fault: Bit = 1, Inactive: Bit = 0)	
		0 = Low Fuel Warn	(0 or 1)
		1 = Fuel Leak Warn	(0 or 1)
		2 = Fuel Filter Restriction Warn	(0 or 1)

		3 = Low Lube Level Warn	(0 or 1)
		4 = Coolant Level Warn	(0 or 1)
		5 = Water in Fuel Warn	(0 or 1)
		6 = No Flow Warn	(0 or 1)
		7 = High Engine Oil Temp Warn	(0 or 1)
		8 = Low Oil Pressure Warn	(0 or 1)
		9 = High Engine Temp Warn	(0 or 1)
		10 = High Discharge Pressure Warn	(0 or 1)
		11 = Low Discharge Pressure Warn	(0 or 1)
		12 = High Suction Warn	(0 or 1)
		13 = Low Suction Warn	(0 or 1)
		14 = High Level Warn	(0 or 1)
		15 = Low Level Warn	(0 or 1)
40243	Read Only	Active Warning Status (Active Fault: Bit = 1, Inactive: Bit = 0)	
		0 = High Flow Warn	(0 or 1)
		1 = Low Flow Warn	(0 or 1)
		2 = Reserved	(0 or 1)
		3 = Reserved	(0 or 1)
		4 = Low Gear Box Pressure Warn	(0 or 1)
		5 = High Gear Box Pressure Warn	(0 or 1)
		6 = Reserved	(0 or 1)
		7 = Reserved	(0 or 1)
		8 = Reserved	(0 or 1)
		9 = Low Engine Temp Warn	(0 or 1)
		10 = Reserved	(0 or 1)
		11 = Reserved	(0 or 1)
		12 = Run To Destruct Warn	(0 or 1)
		13 = Battery High Warn	(0 or 1)
		14 = Battery Low Warn	(0 or 1)
		15 = Amber Lamp Status	(0 or 1)
40244	Read Only	Active Warning Status (Active Fault: Bit = 1, Inactive: Bit = 0)	
		0 = Pivot Alignment Warn	(0 or 1)
		1 = Reserved	Reserved
		2 = Reserved	Reserved
		3 = Reserved	Reserved
		4 = Reserved	Reserved
		5 = Reserved	Reserved
		6 = Reserved	Reserved
		7 = Reserved	Reserved
		8 = Reserved	Reserved
		9 = Reserved	Reserved
		10 = Reserved	Reserved
		11 = Reserved	Reserved
		12 = Reserved	Reserved
		13 = Reserved	Reserved
		14 = Reserved	Reserved
		15 = Reserved	Reserved
40245-40246	Read Only	J1939.Aftertreatment 1 Diesel Particulate Filter Time to Next Active Regeneration	Seconds

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40247	Read & Write	Remote Alarm Acknowledgement	(0 or 1)
40500	Read Only	J1939.DM1 SPN	Numerals
40501	Read Only	J1939.DM1 FMI	Numerals