

# SECTION T CONTROL & STATUS BITS

Revision Date: 12-30-22

SCADA Register Address	Description of Register Contents (Where a Modbus Coil is represented by a Bit in a Register)																
<b>40001</b>	Coil															Coil	
	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2		1
	D16 - Discrete Input Status	D15 - Discrete Input Status	D14 - Discrete Input Status	D13 - Discrete Input Status	D12 - Discrete Input Status	D11 - Discrete Input Status	D10 - Discrete Input Status	D9 - Discrete Input Status	D8 - Discrete Input Status	D7 - Discrete Input Status	D6 - Discrete Input Status	D5 - Discrete Input Status	D4 - Discrete Input Status	D3 - Discrete Input Status	D2 - Discrete Input Status		D1 - Discrete Input Status
Bit															Bit		
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1		0	
<b>40002</b>	Coil															Coil	
	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18		17
	Spare	Spare	D30 - Discrete Input Status	D29 - Discrete Input Status	D28 - Discrete Input Status	D27 - Discrete Input Status	D26 - Discrete Input Status	D25 - Discrete Input Status	D24 - Discrete Input Status	D23 - Discrete Input Status	D22 - Discrete Input Status	D21 - Discrete Input Status	D20 - Discrete Input Status	D19 - Discrete Input Status	D18 - Discrete Input Status		D17 - Discrete Input Status
Bit															Bit		
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1		0	
<b>40003</b>	Coil															Coil	
	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34		33
	High Level Alarm Status (From All Sources)	Low Level Alarm Status (From All Sources)	Pump 6 - Call to Run Status	Pump 5 - Call to Run Status	Pump 4 - Call to Run Status	Pump 3 - Call to Run Status	Pump 2 - Call to Run Status	Pump 1 - Call to Run Status	Spare	Spare	Spare	Spare	Spare	Spare	Spare		Spare
Bit															Bit		
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1		0	
<b>40004</b>	Coil															Coil	
	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50		49
	Spare	Spare	Spare	Spare	ROX 12 Relay Status	ROX 11 Relay Status	ROX 10 Relay Status	ROX 9 Relay Status	ROX 8 Relay Status	ROX 7 Relay Status	ROX 6 Relay Status	ROX 5 Relay Status	ROX 4 Relay Status	ROX 3 Relay Status	ROX 2 Relay Status		ROX 1 Relay Status
Bit															Bit		
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1		0	

## CONTROL & STATUS BITS

SCADA Register Address	Description of Register Contents (Where a Modbus Coil is represented by a Bit in a Register)																
<b>40005</b>	80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	Coil
	Spare	Spare	Spare	Spare	ROX 12 Relay - Remote Control	ROX 11 Relay - Remote Control	ROX 10 Relay - Remote Control	ROX 9 Relay - Remote Control	ROX 8 Relay - Remote Control	ROX 7 Relay - Remote Control	ROX 6 Relay - Remote Control	ROX 5 Relay - Remote Control	ROX 4 Relay - Remote Control	ROX 3 Relay - Remote Control	ROX 2 Relay - Remote Control	ROX 1 Relay - Remote Control	
	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	Bit
<b>40006</b>	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81	Coil
	Forced Alternation Group 2	Forced Alternation Group 1	Flush Cycle Active Status Calling All Pumps to Run	Flush Cycle Active Status Waiting For Well to Fill Up	Flush Cycle Active Status	Stop Flush Cycle	Start Flush Cycle	Spare	Spare	Spare	Pump 6 - Force On	Pump 5 - Force On	Pump 4 - Force On	Pump 3 - Force On	Pump 2 - Force On	Pump 1 - Force On	
	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	Bit
<b>40007</b>	112	111	110	109	108	107	106	105	104	103	102	101	100	99	98	97	Coil
	Spare	Spare	Spare	Spare	Spare	Spare	Level Simulation - Probe Up Control	Level Simulation - Probe Down Control	Level Simulation - Probe On / Off Control	Level Simulation - Analog On / Off Control	Pump 6 - Disable	Pump 5 - Disable	Pump 4 - Disable	Pump 3 - Disable	Pump 2 - Disable	Pump 1 - Disable	
	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	Bit
<b>40008</b>	128	127	126	125	124	123	122	121	120	119	118	117	116	115	114	113	Coil
	Spare	Spare	24VDC Supply Power Low Voltage Alarm Status	Spare	Spare	Spare	Spare	Spare	Spare	Spare	ETM 6 - Reset	ETM 5 - Reset	ETM 4 - Reset	ETM 3 - Reset	ETM 2 - Reset	ETM 1 - Reset	
	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	Bit

## CONTROL & STATUS BITS

SCADA Register Address	<b>Description of Register Contents</b> (Where a Modbus Coil is represented by a Bit in a Register)																																																	
<b>40009</b>	<table border="1"> <tr> <td>144</td><td>143</td><td>142</td><td>141</td><td>140</td><td>139</td><td>138</td><td>137</td><td>136</td><td>135</td><td>134</td><td>133</td><td>132</td><td>131</td><td>130</td><td>129</td> </tr> <tr> <td>Spare</td><td>Float - High Level Status Discrete Input Function 60, 62, 70</td><td>Float Control - 6th On Level Discrete Input Function 69</td><td>Float Control - 5th On Level Discrete Input Function 68</td><td>Float Control - 4th On Level Discrete Input Function 67</td><td>Float Control - 3rd On Level Discrete Input Function 66</td><td>Float Control - 2nd On Level Discrete Input Function 65</td><td>Float Control - 1st On Level Discrete Input Function 64</td><td>Float Control - Off Level Discrete Input Function 63</td><td>Float - Low Level Status Discrete Input Function 59, 61</td><td>Float Control Fault Status Float Out of Sequence</td><td>Float Control Active Status Calling Pump(s) to Run</td><td>Pump Cutoff High-High Level Active Disabling Pump Operation</td><td>Pump Cutoff Low-Low Level Active Disabling Pump Operation</td><td>On Generator Status Discrete Input Function 18</td><td>All Pump Disable Status Discrete Input Function 17</td> </tr> <tr> <td>15</td><td>14</td><td>13</td><td>12</td><td>11</td><td>10</td><td>9</td><td>8</td><td>7</td><td>6</td><td>5</td><td>4</td><td>3</td><td>2</td><td>1</td><td>0</td> </tr> </table>	144	143	142	141	140	139	138	137	136	135	134	133	132	131	130	129	Spare	Float - High Level Status Discrete Input Function 60, 62, 70	Float Control - 6th On Level Discrete Input Function 69	Float Control - 5th On Level Discrete Input Function 68	Float Control - 4th On Level Discrete Input Function 67	Float Control - 3rd On Level Discrete Input Function 66	Float Control - 2nd On Level Discrete Input Function 65	Float Control - 1st On Level Discrete Input Function 64	Float Control - Off Level Discrete Input Function 63	Float - Low Level Status Discrete Input Function 59, 61	Float Control Fault Status Float Out of Sequence	Float Control Active Status Calling Pump(s) to Run	Pump Cutoff High-High Level Active Disabling Pump Operation	Pump Cutoff Low-Low Level Active Disabling Pump Operation	On Generator Status Discrete Input Function 18	All Pump Disable Status Discrete Input Function 17	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	Coil
	144	143	142	141	140	139	138	137	136	135	134	133	132	131	130	129																																		
	Spare	Float - High Level Status Discrete Input Function 60, 62, 70	Float Control - 6th On Level Discrete Input Function 69	Float Control - 5th On Level Discrete Input Function 68	Float Control - 4th On Level Discrete Input Function 67	Float Control - 3rd On Level Discrete Input Function 66	Float Control - 2nd On Level Discrete Input Function 65	Float Control - 1st On Level Discrete Input Function 64	Float Control - Off Level Discrete Input Function 63	Float - Low Level Status Discrete Input Function 59, 61	Float Control Fault Status Float Out of Sequence	Float Control Active Status Calling Pump(s) to Run	Pump Cutoff High-High Level Active Disabling Pump Operation	Pump Cutoff Low-Low Level Active Disabling Pump Operation	On Generator Status Discrete Input Function 18	All Pump Disable Status Discrete Input Function 17																																		
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0																																			
Bit																																																		
<b>40010</b>	<table border="1"> <tr> <td>160</td><td>159</td><td>158</td><td>157</td><td>156</td><td>155</td><td>154</td><td>153</td><td>152</td><td>151</td><td>150</td><td>149</td><td>148</td><td>147</td><td>146</td><td>145</td> </tr> <tr> <td>Spare</td><td>Spare</td><td>Spare</td><td>Spare</td><td>Spare</td><td>Level Probe - Electrode 10 Discrete Input Function 10</td><td>Level Probe - Electrode 9 Discrete Input Function 9</td><td>Level Probe - Electrode 8 Discrete Input Function 8</td><td>Level Probe - Electrode 7 Discrete Input Function 7</td><td>Level Probe - Electrode 6 Discrete Input Function 6</td><td>Level Probe - Electrode 5 Discrete Input Function 5</td><td>Level Probe - Electrode 4 Discrete Input Function 4</td><td>Level Probe - Electrode 3 Discrete Input Function 3</td><td>Level Probe - Electrode 2 Discrete Input Function 2</td><td>Level Probe - Electrode 1 Discrete Input Function 1</td><td>Level Probe Fault Status Electrode Out of Sequence</td> </tr> <tr> <td>15</td><td>14</td><td>13</td><td>12</td><td>11</td><td>10</td><td>9</td><td>8</td><td>7</td><td>6</td><td>5</td><td>4</td><td>3</td><td>2</td><td>1</td><td>0</td> </tr> </table>	160	159	158	157	156	155	154	153	152	151	150	149	148	147	146	145	Spare	Spare	Spare	Spare	Spare	Level Probe - Electrode 10 Discrete Input Function 10	Level Probe - Electrode 9 Discrete Input Function 9	Level Probe - Electrode 8 Discrete Input Function 8	Level Probe - Electrode 7 Discrete Input Function 7	Level Probe - Electrode 6 Discrete Input Function 6	Level Probe - Electrode 5 Discrete Input Function 5	Level Probe - Electrode 4 Discrete Input Function 4	Level Probe - Electrode 3 Discrete Input Function 3	Level Probe - Electrode 2 Discrete Input Function 2	Level Probe - Electrode 1 Discrete Input Function 1	Level Probe Fault Status Electrode Out of Sequence	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	Coil
	160	159	158	157	156	155	154	153	152	151	150	149	148	147	146	145																																		
	Spare	Spare	Spare	Spare	Spare	Level Probe - Electrode 10 Discrete Input Function 10	Level Probe - Electrode 9 Discrete Input Function 9	Level Probe - Electrode 8 Discrete Input Function 8	Level Probe - Electrode 7 Discrete Input Function 7	Level Probe - Electrode 6 Discrete Input Function 6	Level Probe - Electrode 5 Discrete Input Function 5	Level Probe - Electrode 4 Discrete Input Function 4	Level Probe - Electrode 3 Discrete Input Function 3	Level Probe - Electrode 2 Discrete Input Function 2	Level Probe - Electrode 1 Discrete Input Function 1	Level Probe Fault Status Electrode Out of Sequence																																		
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0																																			
Bit																																																		
<b>40011</b>	<table border="1"> <tr> <td>176</td><td>175</td><td>174</td><td>173</td><td>172</td><td>171</td><td>170</td><td>169</td><td>168</td><td>167</td><td>166</td><td>165</td><td>164</td><td>163</td><td>162</td><td>161</td> </tr> <tr> <td>Spare</td><td>Spare</td><td>Spare</td><td>Spare</td><td>Spare</td><td>Spare</td><td>Spare</td><td>Spare</td><td>Spare</td><td>Spare</td><td>Spare</td><td>Spare</td><td>Spare</td><td>Spare</td><td>Spare</td><td>Spare</td> </tr> <tr> <td>15</td><td>14</td><td>13</td><td>12</td><td>11</td><td>10</td><td>9</td><td>8</td><td>7</td><td>6</td><td>5</td><td>4</td><td>3</td><td>2</td><td>1</td><td>0</td> </tr> </table>	176	175	174	173	172	171	170	169	168	167	166	165	164	163	162	161	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	Coil
	176	175	174	173	172	171	170	169	168	167	166	165	164	163	162	161																																		
	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare																																		
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0																																			
Bit																																																		
<b>40012</b>	<table border="1"> <tr> <td>192</td><td>191</td><td>190</td><td>189</td><td>188</td><td>187</td><td>186</td><td>185</td><td>184</td><td>183</td><td>182</td><td>181</td><td>180</td><td>179</td><td>178</td><td>177</td> </tr> <tr> <td>Fault Code Register (FLC) Has Non-zero Fault Code</td><td>Spare</td><td>Spare</td><td>Parameter Security Alert</td><td>Spare</td><td>Spare</td><td>Spare</td><td>Spare</td><td>Spare</td><td>Spare</td><td>Pump 6 - Available For Service Status</td><td>Pump 5 - Available For Service Status</td><td>Pump 4 - Available For Service Status</td><td>Pump 3 - Available For Service Status</td><td>Pump 2 - Available For Service Status</td><td>Pump 1 - Available For Service Status</td> </tr> <tr> <td>15</td><td>14</td><td>13</td><td>12</td><td>11</td><td>10</td><td>9</td><td>8</td><td>7</td><td>6</td><td>5</td><td>4</td><td>3</td><td>2</td><td>1</td><td>0</td> </tr> </table>	192	191	190	189	188	187	186	185	184	183	182	181	180	179	178	177	Fault Code Register (FLC) Has Non-zero Fault Code	Spare	Spare	Parameter Security Alert	Spare	Spare	Spare	Spare	Spare	Spare	Pump 6 - Available For Service Status	Pump 5 - Available For Service Status	Pump 4 - Available For Service Status	Pump 3 - Available For Service Status	Pump 2 - Available For Service Status	Pump 1 - Available For Service Status	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	Coil
	192	191	190	189	188	187	186	185	184	183	182	181	180	179	178	177																																		
	Fault Code Register (FLC) Has Non-zero Fault Code	Spare	Spare	Parameter Security Alert	Spare	Spare	Spare	Spare	Spare	Spare	Pump 6 - Available For Service Status	Pump 5 - Available For Service Status	Pump 4 - Available For Service Status	Pump 3 - Available For Service Status	Pump 2 - Available For Service Status	Pump 1 - Available For Service Status																																		
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0																																			
Bit																																																		

## CONTROL & STATUS BITS

SCADA Register Address	Description of Register Contents (Where a Modbus Coil is represented by a Bit in a Register)																
<b>40013</b>	208	207	206	205	204	203	202	201	200	199	198	197	196	195	194	193	Coil
	Spare	Spare	Spare	Spare	USB Port - Control Restore from USB Drive	USB Port - Control Backup to USB Drive	Spare	USB Port - Status Restore Complete	USB Port - Status Saving to EEPROM	USB Port - Status Restore Aborted	USB Port - Status Restore In Progress	USB Port - Status Backup Complete	USB Port - Status Backup Aborted	USB Port - Status Backup In Progress	USB Port - Status Parameter Security	USB Port - Status +5V Supply On	Bit
	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	
<b>40014</b>	224	223	222	221	220	219	218	217	216	215	214	213	212	211	210	209	Coil
	Flow Meter - AFM3 Flow Total Reset	Flow Meter - AFM2 Flow Total Reset	Flow Meter - AFM1 Flow Total Reset	Flow Meter - PFM3 Flow Total Reset	Flow Meter - PFM2 Flow Total Reset	Flow Meter - PFM1 Flow Total Reset	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Bit
	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	
<b>40015</b>	240	239	238	237	236	235	234	233	232	231	230	229	228	227	226	225	Coil
	Analog Level Meter ALM2 Negative Sign Display	Analog Level Meter ALM1 Negative Sign Display	Analog Output (AO6) Cal. Force 20mA Output	Analog Output (AO6) Cal. Force 4.0mA Output	Analog Output (AO5) Cal. Force 20mA Output	Analog Output (AO5) Cal. Force 4.0mA Output	Analog Output (AO4) Cal. Force 20mA Output	Analog Output (AO4) Cal. Force 4.0mA Output	Analog Output (AO3) Cal. Force 20mA Output	Analog Output (AO3) Cal. Force 4.0mA Output	Analog Output (AO2) Cal. Force 20mA Output	Analog Output (AO2) Cal. Force 4.0mA Output	Analog Output (AO1) Cal. Force 20mA Output	Analog Output (AO1) Cal. Force 4.0mA Output	Analog Output (AOX1) Cal. Force 20mA Output	Analog Output (AOX1) Cal. Force 4.0mA Output	Bit
	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	
<b>40016</b>	256	255	254	253	252	251	250	249	248	247	246	245	244	243	242	241	Coil
	Spare	Spare	Spare	Spare	Flow Calculator - Active Determining Pump 6 Outflow Rate Status	Flow Calculator - Active Determining Pump 5 Outflow Rate Status	Flow Calculator - Active Determining Pump 4 Outflow Rate Status	Flow Calculator - Active Determining Pump 3 Outflow Rate Status	Flow Calculator - Active Determining Pump 2 Outflow Rate Status	Flow Calculator - Active Determining Pump 1 Outflow Rate Status	Flow Calculator - Active Determining Latest Inflow Rate Status	Flow Calculator - Active Forcing On Another Pump(s) Status	Flow Calculator Level Rising Too Fast Status	Flow Calculator Pump Outflow Rate & Run Time Reset	Flow Calculator Inflow Totalizer Reset	Flow Calculator Start New Day	Bit
	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	

## CONTROL & STATUS BITS

SCADA Register Address	<b>Description of Register Contents</b> (Where a Modbus Coil is represented by a Bit in a Register)																
<b>40017</b>	272	271	270	269	268	267	266	265	264	263	262	261	260	259	258	257	Coil
	Spare	Spare	High Flow Rate Alarm Status	Low Flow Rate Alarm Status	High Discharge Pressure Alarm Status	Low Discharge Pressure Alarm Status	High Supply Pressure Alarm Status	Low Supply Pressure Alarm Status	Spare	Spare	Spare	Spare	Spare	Supply Pressure Too Low for Pump Operation Status	Supply Level Too Low for Pump Operation Status	PID Controller Setpoint Override Active Status	Bit
	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	
<b>40018</b>	288	287	286	285	284	283	282	281	280	279	278	277	276	275	274	273	Coil
	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Motor Current Data - Reset	Active Measuring Pump 6 Motor Current Status	Active Measuring Pump 5 Motor Current Status	Active Measuring Pump 4 Motor Current Status	Active Measuring Pump 3 Motor Current Status	Active Measuring Pump 2 Motor Current Status	Active Measuring Pump 1 Motor Current Status	Bit
	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	
<b>40019</b>	304	303	302	301	300	299	298	297	296	295	294	293	292	291	290	289	Coil
	Restore Parameters To Defaults - Restore Complete	Restore Parameters To Defaults - Restore In Progress	Restore Parameters To Defaults - Unlock Status	Restore Parameters To Defaults - Start Restore	Spare	Spare	Parameter Security Setup Unlock Status	Security Code Setup Value Entered Status - SCS3	Security Code Setup Value Entered Status - SCS2	Security Code Setup Value Entered Status - SCS1	Security Code Entry Value Entered Status - SCE3	Security Code Entry Value Entered Status - SCE2	Security Code Entry Value Entered Status - SCE1	Parameter Write Access Unlock Status - COM1	Parameter Write Access Unlock Status - ENET2	Parameter Write Access Unlock Status - ENET1	Bit
	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	
<b>40020</b>	320	319	318	317	316	315	314	313	312	311	310	309	308	307	306	305	Coil
	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	Spare	FLC & LFC - Reset	Bit
	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	