COMUNICAÇÃO SERIAL MONITEMP

Communication Protocol: ***MODBUS RTU***
Transmission Rate: 1,200 to 57,600 (Auto Baud Rate)
Data Bites: 8
Parity: None / Even / Odd
Stop bits: 1
Variable Type: Read Holding Register (40,000)

Address MODBUS	Range of Reading	Bits Index	State	Description Point Name	Written Reading	Scale
02	-50.0 – 250.0	-	-	Oil Sensor Alarm Temperature;	E / L	-1000:10
03	-50.0 – 250.0	-	-	Sensor alarm temperature 1;	E / L	-1000:10
04	-50.0 – 250.0	-	-	Sensor alarm temperature 2;	E / L	-1000:10
05	-50.0 – 250.0	-	-	Shutdown by inhabited loading;	E / L	-1000:10
06	-50.0 – 250.0	-	-	Oil Sensor shutdown temperature;	E / L	-1000:10
07	-50.0 – 250.0	-	-	Winding Sensor Shutdown Temperature 1;	E / L	-1000:10
08	-50.0 – 250.0	-	-	Winding Sensor Shutdown Temperature 2;	E / L	-1000:10
09	-50.0 – 250.0	-	-	Drive temperature of the 1st ventilation group;	E / L	-1000:10
10	-50.0 – 250.0	-	-	Drive Temperature of the 1st Sensor Ventilation Group Winding 1;	E / L	-1000:10
11	-50.0 – 250.0	-	-	Drive Temperature of the 1st Sensor Ventilation Group Winding 2;	E / L	-1000:10
12	-50.0 – 250.0	-	-	Drive Temperature of the 2nd ventilation group of the Oil Sensor;	E / L	-1000:10
13	-50.0 – 250.0	-	-	Drive Temperature of the 2nd Sensor Ventilation Group Winding 1;	E / L	-1000:10

COMUNICAÇÃO SERIAL MONITEMP

Address MODBUS	Range of Reading	Bits Index	State	Description Point Name	Written Reading	Scale
14	-50.0 – 250.0	-	-	Alarm shutdown hysteresis;	E / L	-1000:10
15	-50.0 – 250.0	-	-	Ventilation shutdown hysteresis;	E / L	-1000:10
16	-50.0 – 250.0	-	-	Delay time for shutdown (minutes);	E / L	-1000:10
17	-	-		Recorder – Type of Ventilation Drive;	E / L	-1000:10
		0	0	Automatic Inversion of the Ventilation group turned off;	-	
		0	1	Automatic inversion of the activated ventilation group;	E / L	-
		1	1	Activation of the activated ventilation group;	E / L	-
18	0 - 4	-		Recorder – Type of analog output;	E / L	-1000:10
		-	0	When 0, sets the Analog Output from 0 to 1 mA;	E / L	-
		-	1	When 1, sets the Analog Output from 0 to 5 mA;	E / L	-
		-	2	When 2, sets the Analog Output from 0 to 10 mA;	E / L	-
		-	3	When 3, sets the Analog Output from 0 to 20 mA;	E / L	-
		-	4	When 4, sets the Analog Output from 4 to 20 mA;	E / L	-
19	-	-		Registrar – Commands;	-	
		0	0	When 0, defines forced ventilation as AUT GROUP 1;	E / L	-
			1	When 1 defines forced ventilation as ON GROUP 1;	E / L	-
		1	0	When 0, defines forced ventilation as AUT GROUP 1;	E / L	-
			1	When 3, defines forced ventilation as ON GROUP 2;	E / L	-
		2	1	Resets maximum temperature of the Oil sensor;	E / L	-
		3	1	Restarts maximum temperature of Winding 1;	And	-
		4	1	Restarts maximum temperature of Winding 2;	And	-
		5	1	Restarts the equipment;	And	-

COMUNICAÇÃO SERIAL MONITEMP

Address MODBUS	Range of Reading	Bits Index	State	Description Point Name	Written Reading	Scale
20	0 – 4	-		Recorder – DSPT Display Presentation Mode;	-	
		-	0	When 0, sets Fixed Display in Scan Mode;	E / L	-
		-	1	When 1, sets fixed display of the Oil sensor;	E / L	-
		-	2	When 2, sets fixed sensor display of Winding 1;	E / L	-
		-	3	When 3, sets fixed sensor display of Winding 2;	E / L	-
		-	4	When 4 sets fixed display at the highest temperature;	E / L	-
23	-	-		Recorder – Alarm Return Logic:	-	
		0	0	Oil Alarm Return - Automatic;	E / L	-
			1	Oil Alarm Return - Manual;	E / L	-
		2	0	Return of oil shutdown - automatic;	E / L	-
			1	Oil Shutdown Return - automatic;	E / L	-
		1	0	Winding Alarm Return 1 - automatic;	E / L	-
			1	Winding Alarm Return 1 - manual;	E / L	-
		3	0	Return of winding shutdown - automatic;	E / L	-
			1	Return of winding shutdown - manual;	E / L	-
		4	0	Return of the failure relay - automatic;	E / L	-
			1	Return of the fault relay - manual;	E / L	-
		5	0	Winding alarm return 2 - automatic;	E / L	-
			1	2-manual winding alarm return;	E / L	-
24	-50.0 – 250.0	-		Minimum temperature of the current output of the Oil;	E / L	-1000:10
25	-50.0 – 250.0	-		Maximum temperature of the current output of the Oil;	E / L	-1000:10
26	-50.0 – 250.0	-		Minimum temperature of the current output of Winding 1;	E / L	-1000:10

COMUNICAÇÃO SERIAL MONITEMP

Address MODBUS	Range of Reading	Bits Index	State	Description Point Name	Written Reading	Scale
27	-50.0 – 250.0	-		Maximum temperature of the current output of Winding 1;	E / L	-1000:10
28	-50.0 – 250.0	-		Minimum current output temperature of Winding 2;	E / L	-1000:10
29	-50.0 – 250.0	-		Maximum temperature of the current output of Winding 2;	E / L	-1000:10
30	-			Recorder – Sensor Situations.	-	
	0	0		Sensor 1 disabled;	L	-
		1		Sensor 1 enabled;	L	-
	1	0		Disabled Oil Sensor;	E / L	-
		1		Oil Sensor Enabled;	E / L	-
	2	0		Winding Sensor Disabled;	E / L	-
		1		Winding Sensor Enabled;	E / L	-
31	-			Recorder – Ventilation Exercise	-	
	-	0		Ventilation exercise disabled;	L	-
	-	1		Ventilation exercise enabled;	L	-
32	0 - 200	-		HS+ Fator Hot-Spot;	E / L	1:10
33	10 – 15	-		HS* Fator Hot-Spot;	E / L	1:10
34	10 – 20	-		2M – Winding Exponent;	E / L	1:10
35	0 – 300	-		Winding Temperature Gradient 1;	E / L	1:10
36	0 – 300	-		Winding Temperature Gradient 2;	E / L	1:10
37	0 – 500	-		Time constant of the thermal inertia of Winding 1;	E / L	1:1
38	0 – 500	-		Time constant of the thermal inertia of Winding 2;	E / L	1:1
39	1 – 9999	-		Nominal Winding Current 1;	E / L	1:1000
40	1 – 9999	-		Nominal Winding Current 2;	E / L	1:1000
41	1 – 9999	-		Winding current transformation ratio 1;	E / L	1:1

COMUNICAÇÃO SERIAL MONITEMP

Address MODBUS	Range of Reading	Bits Index	State	Description Point Name	Written Reading	Scale
42	1 – 9999	-		Winding current transformation ratio 2;	E / L	1:1
43	-10,0 – 10,0	-		Correction of Oil Temperature Deviation;	E / L	-1000:10
46	1,00 – 1,00	-		Correction of current deviation in Winding 1;	E / L	-1000:10
47	1,00 – 1,00	-		Correction of current deviation in Winding 2;	E / L	-1000:10
48	-	0	0	Activation of the 1st Ventilation Group – Normal;	E / L	-
			1	Activation of the 1st Ventilation Group – Inverse;	E / L	-
		1	0	Activation of the 2nd Ventilation Group – Normal;	E / L	-
			1	Activation of the 2nd Ventilation Group – Inverse;	E / L	-
		2	0	Activation of the Oil Alarm – Normal;	E / L	-
			1	Activation of the Oil Alarm -Inverse;	E / L	-
		3	0	Activation of the Winding Alarm 1 – Normal;	E / L	-
			1	Activation of the Winding Alarm 1 – Inverse;	E / L	-
		4	0	Activation of the Winding Alarm 2 – Normal;	E / L	-
			1	Activation of the Winding Alarm 2 – Inverse;	E / L	-
		5	0	Activation of the Fault Relay – Normal;	E / L	-
			1	Failure Relay Drive – Inverse;	E / L	-
		6	0	Activation of the Oil Shutdown – Normal;	E / L	-
			1	Oil Shutdown Trigger – Inverse;	E / L	-
		7	0	Activation of the Windings Shutdown – Normal;	E / L	-
			1	Winding Shutdown Activation – Inverse;	E / L	-
50	-50.0 – 250.0	-		Temperature in the Oil sensor;	L	-1000:10
51	-50.0 – 250.0	-		Temperature in the sensor of Winding 1;	L	-1000:10
52	-50.0 – 250.0	-		Temperature in the sensor of Winding 2;	L	-1000:10

COMUNICAÇÃO SERIAL MONITEMP PLUS

Address MODBUS	Range of Reading	Bits Index	State	Description Point Name	Written Reading	Scale
55	-50.0 – 250.0	-		Maximum temperature reached by the Oil sensor;	E / L	-1000:10
56	-50.0 – 250.0	-		Maximum temperature reached by the Winding 1 sensor;	E / L	-1000:10
57	-50.0 – 250.0	-		Maximum temperature reached by the Winding 2 sensor;	E / L	-1000:10
58	0 – 2000	-		Final Winding Temperature Gradient 1;	L	1:10
59	0 – 2000	-		Final Winding Temperature Gradient 2;	L	1:10
60	0 – 9999	-		Winding Percentage Loading 1;	L	1:10
61	0 – 9999	-		Winding Percentage Loading 2;	L	1:100
62	0 – 9999	-		Current in the Secondary of the TC1 of Thermal Imaging;	L	1:100
63	0 – 9999	-		Current in the Secondary of the TC2 of Thermal Imaging;	L	1:100
64	0 – 9999	-		Current in the Primary of the TC1 of Thermal Imaging;	L	1:100
65	0 - 9999	-		Current in the Primary of the TC2 of Thermal Imaging;	L	1:100
66	-			Recorder – Status of Alarms	-	
		0	0	Oil Alarm Triggered;	L	-
			1	Oil Alarm Triggered;	L	-
		1	0	Winding Alarm 1 Off;	L	-
			1	Winding Alarm 1 Triggered;	L	-
		2	0	Winding Alarm 1 Off;	L	-
			1	Winding Alarm 1 Triggered;	L	-

COMUNICAÇÃO SERIAL MONITEMP PLUS

Address MODBUS	Range of Reading	Bits Index	State	Description Point Name	Written Reading	Scale
67	-	-		Registrar – Shutdown Count Situation;	-	
		0	0	Deactivated Oil Shutdown Count;	L	-
			1	Triggered Oil Shutdown Count;	L	-
		1	0	Winding Shutdown Count 1 Off;	L	-
			1	Winding Shutdown Count 1 Triggered;	L	-
		2	0	Winding Shutdown Count 2 Deactivated;	L	-
			1	Winding Shutdown Count 2 Triggered;	L	-
68	-	-		Registrar – Shutdown Status;	-	
		0	0	Fan/Oil Pump Deactivated;	L	-
			1	Driven Oil Fan/Pump;	L	-
		1	0	Shutdown of Winding 1 Deactivated;	L	-
			1	Shutdown of Winding 1 Triggered;	L	-
		2	0	Shutdown of Winding 2 Deactivated;	L	-
			1	Shutdown of Winding 2 Triggered;	L	-
69	-	-		Recorder – Group 1 Fan/Pump Situation;	-	
		0	0	Fan/Oil Pump Deactivated;	L	-
			1	Driven Oil Fan/Pump;	L	-
		1	0	Shutdown of Winding 1 Deactivated;	L	-
			1	Shutdown of Winding 1 Triggered;	L	-
		2	0	Shutdown of Winding 2 Deactivated;	L	-
			1	Shutdown of Winding 2 Triggered;	L	-

COMUNICAÇÃO SERIAL MONITEMP PLUS

Address MODBUS	Range of Reading	Bits Index	State	Description Point Name	Written Reading	Scale
70	-	-		Recorder – Group 1 Fan/Pump Situation;	-	
		0	0	Fan/Oil Pump Deactivated;	L	-
			1	Driven Oil Fan/Pump;	L	-
		1	0	Shutdown of Winding 1 Deactivated;	L	-
			1	Shutdown of Winding 1 Triggered;	L	-
		2	0	Shutdown of Winding 2 Deactivated;	L	-
			1	Shutdown of Winding 2 Triggered;	L	-
71	-	-		Recorder – Sensor Failure Situation;	-	
		0	1	Oil Sensor system failure;	L	-
		1	1	Winding Sensor 1 system failure;	L	-
		2	1	Winding Sensor 2 system failure;	L	-
74	0 - 1	-		Registrar – Protection against Parameter change.	-	
		-	0	Protection disabled;	L	-
		-	1	Protection Enabled;	L	-
75	-	-		Registrar – Communication Parity;	-	
		-	0	Automatically detects the speed of communication;	L	-
		-	1	Fixed speed at 1,200 bps;	L	-
		-	2	Fixed speed at 2,400 bps;	L	-
		-	3	Fixed speed at 4,800 bps;	L	-
		-	4	Fixed speed at 9,600 bps;	L	-
		-	5	Fixed speed at 19,200 bps	L	-
		-	6	Fixed speed at 38,400 bps;	L	-
		-	7	Fixed speed at 57,600 bps;	L	-

COMUNICAÇÃO SERIAL MONITEMP PLUS

Address MODBUS	Range of Reading	Bits Index	State	Description Point Name	Written Reading	Scale
76	0 - 2	-		Registrar – Communication Parity;	-	
		-	0	No parity;	L	-
		-	1	Parity pair;	L	-
		-	2	Odd Parity;	L	-
77	0 – 1	-		Registration – Communication Protocol;	-	
		-	0	DNP 3;	L	-
		-	1	Modbus RTU;	L	-
78	1 – 254	-		Serial Network Address;	L	1:1
79	0 – 9999	-		Password Reminder;	L	1:1
80	1 – 31	-		Manufacturing Day	L	1:1
81	1 – 12	-		Month of Manufacture;	L	1:1
82	2017 – 2099	-		Year of Manufacture;	L	1:1
83	0 – 0xFFFFFF	-		Registrar – Serial Number – LSB;	L	1:1
84		-		Registrar – Serial Number – MSB;	L	1:1
85	1 – 3	-		Recorder – Type of Ventilation Drive.	-	
		-	1	Temperature Ventilation;	E / L	-
		-	3	Temperature Ventilation and Loading;	E / L	-
86	1 – 2000	-	-	Percentage of Drive Load of the 1st Ventilation Group of the Enr. 1;	E / L	1:10
87	1 – 2000	-	-	Percentage of Drive Load of the 1st Ventilation Group of the Enr. 2;	E / L	1:10
88	1 – 2000	-	-	Percentage of Drive Load of the 2nd Ventilation Group of the Enr. 1;	E / L	1:10
89	1 – 2000	-	-	Percentage of Drive Load of the 2nd Ventilation Group of the Enr. 2;	E / L	1:10