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24/7 ASSET MONITORING SOLUTION ENERGY

AMS01 MODBUS TABLE

HTR02 compatibility mode

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OVERVIEW

This document describes Modbus registers table intended for AMS01 readers with **HTR02 compatibility mode applied**.

This AMS01 Modbus table is compliant with **HTR02 Modbus table version 1.2.0**.

MODBUS REGISTERS

Description		Register address	Data type	Min. value	Max. value	Error value	Meaning
INPUT REGISTERS (READ ONLY)							
SAW SENSOR TEMPERATURE DATA							
Group A (Antenna 1)	SAW ID 1 (A1)	**30001**	Signed	-300 (for °C)	1 500 (for °C)	-32 768	1/10°
	SAW ID 2 (A2)	**30002**					
	SAW ID 3 (A3)	**30003**					
Group B (Antenna 1)	SAW ID 4 (B1)	**30004**					
	SAW ID 5 (B2)	**30005**					
	SAW ID 6 (B3)	**30006**					
Group C (Antenna 2)	SAW ID 7 (C1)	**30007**					
	SAW ID 8 (C2)	**30008**					
	SAW ID 9 (C3)	**30009**					
Group D (Antenna 2)	SAW ID 10 (D1)	**30010**					
	SAW ID 11 (D2)	**30011**					
	SAW ID 12 (D3)	**30012**					
Group E (Antenna 3)	SAW ID 13 (E1)	**30013**					
	SAW ID 14 (E2)	**30014**					
	SAW ID 15 (E3)	**30015**					
Group F (Antenna 3)	SAW ID 16 (F1)	**30016**					
	SAW ID 17 (F2)	**30017**					
	SAW ID 18 (F3)	**30018**					
ENVIRONMENTAL SENSOR DATA							
Ambient temperature		**30037**	Signed	-450	1 750	-32 768	1/10°
Ambient humidity		**30038**	Unsigned	0	1 000	65 535	1/10 %rH
Ambient dew point		**30039**	Signed	-450	1 750	-32 768	1/10°
PARTIAL DISCHARGE DATA							
Probe 1	LFB ratio	**31001**			65 534		1/10 dB
	LFB EPPC	**31002**					1/10 peaks/cycle
	MFB ratio	**31004**					1/10 dB
	MFB EPPC	**31005**					1/10 peaks/cycle

	HFB ratio	**31007**					1/10 dB
	HFB EPPC	**31008**					1/10 peaks/cycle
Probe 2	LFB ratio	**31014**					1/10 dB
	LFB EPPC	**31015**					1/10 peaks/cycle
	MFB ratio	**31017**					1/10 dB
	MFB EPPC	**31018**			65 534		1/10 peaks/cycle
	HFB ratio	**31020**					1/10 dB
	HFB EPPC	**31021**					1/10 peaks/cycle
Probe 3	LFB ratio	**31027**					1/10 dB
	LFB EPPC	**31028**					1/10 peaks/cycle
	MFB ratio	**31030**					1/10 dB
	MFB EPPC	**31031**			65 534		1/10 peaks/cycle
	HFB ratio	**31033**					1/10 dB
	HFB EPPC	**31034**					1/10 peaks/cycle
SYSTEM DATA							
Serial number		**39001**	String(10)	0	-		Last 10 characters of S/N
Product vendor		**39011**	String(7)	-			SENSeOR
Product model		**39018**	String(14)				*see Table 1*
Main board	Major HW version	**39032**	Unsigned	0	65 535	-	
	Minor HW version	**39033**					
	Major SW version	**39034**					
	Minor SW version	**39035**					
	Patch SW version	**39036**					
PDD board	Major HW version	**39037**					Default value: 65 535
	Minor HW version	**39038**					
	Major SW version	**39039**					
	Minor SW version	**39040**					
	Patch SW version	**39041**					
Modbus table version	Major version	**39042**					Default value: 1
	Minor version	**39043**					Default value: 2
	Patch version	**39044**					Default value: 0
HOLDING REGISTERS (READ ONLY)							
READER SETTINGS							
Modbus	Address	**40001**	Unsigned	1	247	65 535	Reader S/N + 1
	Baudrate code	**40002**		0	7		*see Table 2*
	Parity code	**40003**			2		*see Table 3*
	Stop bits	**40004**		1	2		Default value: 1
Temperature unit code		**40005**		0	1		*see Table 4*
Ethernet IP address	Byte 0	**40006**			255	-	Default value: 10
	Byte 1	**40007**					Default value: 200
	Byte 2	**40008**					Depend of S/N
	Byte 3	**40009**					Depend of S/N
Subnet mask	Byte 0	**40010**					Default value: 255
	Byte 1	**40011**					Default value: 255

	Byte 2	**40012**					Default value: 0
	Byte 3	**40013**					Default value: 0
Default gateway	Byte 0	**40014**					Default value: 10
	Byte 1	**40015**					Default value: 200
	Byte 2	**40016**					Default value: 0
	Byte 3	**40017**					Default value: 1
ALARM ACKNOWLEDGEMENTS							
Group A	Alarm acknowledgement	**40101**	Unsigned	0	65 535	-	Default value: 65 535
Group B		**40102**					
Group C		**40103**					
Group D		**40104**					
Group E		**40105**					
Group F		**40106**					
PD probe 1		**40107**					
PD probe 2		**40108**					
PD probe 3		**40109**					

NOTE

FOR LEGACY MODBUS TABLES, PLEASE CONTACT THE SENSEOR SUPPORT SUPPORT.SENSEOR@WIKA.COM.

Table 1: Reader product register code

Model	Description
AMS01-T	Temperature monitoring only
AMS01-P	Partial discharge monitoring only
AMS01-TP	Temperature and partial discharge monitoring

Table 2: Modbus baudrate register code

Register value	Baudrate (bps)
0	9 600
1	*19 200 (default value)*
2	38 400
3	57 600
4	115 200

Table 3: Modbus parity register code

Register value	Parity
0	None
1	Odd
2	*Even (default value)*

Table 4: System temperature unit register code

Register value	Configuration
0	*Celsius (default value)*
1	Fahrenheit