

## 24/7 ASSET MONITORING SOLUTION ENERGY

## AMS01 MODBUS TABLE

## SENSeOR (head office)

Bâtiment Natura 2  
1198, avenue du Docteur  
Maurice Donat  
06250 Mougins  
France

ISO 9001:2015

BUREAU VERITAS  
Certification

Contact address:

[support.senseor@wika.com](mailto:support.senseor@wika.com)

## Regional distributors

Visit [www.senseor.com](http://www.senseor.com) for  
the latest distribution  
locations.



## OVERVIEW

The AMS01 Modbus table described in this document is the **version 1.1.0**. The registers described are intended for AMS01 readers with AMS01 compatibility mode applied.

## MODBUS REGISTERS

Description		Register address	Data type	Min. value	Max. value	Error value	Meaning
<b>INPUT REGISTERS (READ ONLY)</b>							
SAW TEMPERATURE SENSOR DATA							
Antenna 1	SAW DATA 1	<b>30001</b>	Signed	-300 (for °C)	1 500 (for °C)	-32 768	1/10°  *Specific use
	SAW DATA 2	<b>30002</b>					
	SAW DATA 3	<b>30003</b>					
	SAW DATA 4	<b>30004</b>					
	SAW DATA 5	<b>30005</b>					
	SAW DATA 6	<b>30006</b>					
	SAW DATA 7*	30007*					
	SAW DATA 8*	30008*					
	SAW DATA 9*	30009*					
Antenna 2	SAW DATA 10	<b>30010</b>					
	SAW DATA 11	<b>30011</b>					
	SAW DATA 12	<b>30012</b>					
	SAW DATA 13	<b>30013</b>					
	SAW DATA 14	<b>30014</b>					
	SAW DATA 15	<b>30015</b>					
	SAW DATA 16*	30016*					
	SAW DATA 17*	30017*					
	SAW DATA 18*	30018*					
Antenna 3	SAW DATA 19	<b>30019</b>					
	SAW DATA 20	<b>30020</b>					
	SAW DATA 21	<b>30021</b>					
	SAW DATA 22	<b>30022</b>					
	SAW DATA 23	<b>30023</b>					
	SAW DATA 24	<b>30024</b>					
	SAW DATA 25*	30025*					
	SAW DATA 26*	30026*					
	SAW DATA 27*	30027*					

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Antenna 4	SAW DATA 28	<b>30028</b>							
	SAW DATA 29	<b>30029</b>							
	SAW DATA 30	<b>30030</b>							
	SAW DATA 31	<b>30031</b>							
	SAW DATA 32	<b>30032</b>							
	SAW DATA 33	<b>30033</b>							
	SAW DATA 34*	30034*							
	SAW DATA 35*	30035*							
	SAW DATA 36*	30036*							
Antenna 5	SAW DATA 37	<b>30037</b>							
	SAW DATA 38	<b>30038</b>							
	SAW DATA 39	<b>30039</b>							
	SAW DATA 40	<b>30040</b>							
	SAW DATA 41	<b>30041</b>							
	SAW DATA 42	<b>30042</b>							
	SAW DATA 43*	30043*							
	SAW DATA 44*	30044*							
	SAW DATA 45*	30045*							
<b>ENVIRONMENTAL SENSOR DATA</b>									
Ambient temperature		<b>30136</b>	Signed	-450 (for °C)	1 750 (for °C)	-32 768	1/10°		
Ambient humidity		<b>30137</b>	Unsigned	0	1 000	65 535	1/10 %rH		
Ambient dew point		<b>30138</b>	Signed	-450 (for °C)	1 750 (for °C)	-32 768	1/10°		
<b>PARTIAL DISCHARGE DATA</b>									
Probe 1	PD indicator code	<b>31000</b>	Unsigned	0	3	65 535	<i>*see Table 5</i>		
	Ratio	<b>31001</b>					65 534	1/10 dB	
	EPPC	<b>31002</b>					65 534	1/10 peaks/cycle	
	PD level (2 registers)	<b>31003</b>						4 294 967 295	1/10 a.u.
Probe 2	PD indicator code	<b>31009</b>			3	65 534	65 535	<i>*see Table 5</i>	
	Ratio	<b>31010</b>						65 534	1/10 dB
	EPPC	<b>31011</b>						65 534	1/10 peaks/cycle
	PD level (2 registers)	<b>31012</b>							4 294 967 295
Probe 3	PD indicator code	<b>31018</b>			3	65 534	65 535	<i>*see Table 5</i>	
	Ratio	<b>31019</b>						65 534	1/10 dB
	EPPC	<b>31020</b>						65 534	1/10 peaks/cycle
	PD level (2 registers)	<b>31021</b>							4 294 967 295
Probe 4	PD indicator code	<b>31027</b>			3	65 534	65 535	<i>*see Table 5</i>	
	Ratio	<b>31028</b>						65 534	1/10 dB
	EPPC	<b>31029</b>						65 534	1/10 dB
	PD level (2 registers)	<b>31030</b>							4 294 967 295
Probe 5	PD indicator code	<b>31036</b>			3	65 534	65 535	<i>*see Table 5</i>	
	Ratio	<b>31037</b>						65 534	1/10 dB
	EPPC	<b>31038</b>						65 534	1/10 peaks/cycle
	PD level (2 registers)	<b>31039</b>							4 294 967 295

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TEMPERATURE NOTIFIERS						
Global temperature notifier indicator		<b>32000</b>				
Notifier 1	Overheating status	<b>32001</b>	Unsigned	0	2	65 535
	Deviation status	<b>32002</b>				
Notifier 2	Overheating status	<b>32003</b>				
	Deviation status	<b>32004</b>				
Notifier 3	Overheating status	<b>32005</b>				
	Deviation status	<b>32006</b>				
Notifier 4	Overheating status	<b>32007</b>				
	Deviation status	<b>32008</b>				
Notifier 5	Overheating status	<b>32009</b>				
	Deviation status	<b>32010</b>				
Notifier 6	Overheating status	<b>32011</b>				
	Deviation status	<b>32012</b>				
Notifier 7	Overheating status	<b>32013</b>				
	Deviation status	<b>32014</b>				
Notifier 8	Overheating status	<b>32015</b>				
	Deviation status	<b>32016</b>				
Notifier 9	Overheating status	<b>32017</b>				
	Deviation status	<b>32018</b>				
Notifier 10	Overheating status	<b>32019</b>				
	Deviation status	<b>32020</b>				
PARTIAL DISCHARGE NOTIFIERS						
Global PD notifier indicator		<b>33000</b>				
Notifier 1	PD indicator	<b>33001</b>	Signed	0	3	65 535
Notifier 2	PD indicator	<b>33002</b>				
Notifier 3	PD indicator	<b>33003</b>				
Notifier 4	PD indicator	<b>33004</b>				
Notifier 5	PD indicator	<b>33005</b>				
SYSTEM DATA						
Serial number		<b>39001</b>	String (11)	-	-	Serial number SENSeOR <i>*see Table 1</i>
Product vendor		<b>39012</b>	String (7)	-	-	
Product model		<b>39019</b>	String (10)	-	-	
Hardware version		<b>39029</b>	String (2)	-	-	
Software	Major version	<b>39031</b>	Unsigned	0	65 535	
	Minor version	<b>39032</b>				
	Patch version	<b>39033</b>				
	Type version	<b>39034</b>				
Modbus table version	Major version	<b>39035</b>				
	Minor version	<b>39036</b>				
	Patch version	<b>39037</b>				

<b>HOLDING REGISTERS</b>							
<b>SYSTEM CONFIGURATION</b>							
Modbus	Address	<b>40001</b>	Unsigned	1	247	65 535	Reader S/N + 1
	Baudrate code	<b>40002</b>		0	7		*see Table 2
	Parity code	<b>40003</b>		0	2		*see Table 3
	Stop bits	<b>40004</b>		0	3		Default value: 1
Temperature unit code		<b>40005</b>		0	1		*see Table 4
Ethernet IP address	Byte 0	<b>40006</b>		0	255	-	Default value: 10
	Byte 1	<b>40007</b>					Default value: 200
	Byte 2	<b>40008</b>					Depends of S/N
	Byte 3	<b>40009</b>					Depends of S/N
Subnet mask	Byte 0	<b>40010</b>					Default value: 255
	Byte 1	<b>40011</b>					Default value: 255
	Byte 2	<b>40012</b>					Default value: 0
	Byte 3	<b>40013</b>					Default value: 0
Default gateway	Byte 0	<b>40014</b>					Default value: 10
	Byte 1	<b>40015</b>					Default value: 200
	Byte 2	<b>40016</b>					Default value: 0
	Byte 3	<b>40017</b>					Default value: 1

**NOTE**

FOR LEGACY MODBUS TABLES, PLEASE CONTACT THE SENSEOR SUPPORT [SUPPORT.SENSEOR@WIKA.COM](mailto:SUPPORT.SENSEOR@WIKA.COM).

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*Table 1: Reader product register code*

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<b>Model</b>	<b>Description</b>
AMS01-T	Temperature monitoring only
AMS01-P	Partial discharge monitoring only
AMS01-TP	Temperature and partial discharge monitoring

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*Table 2: Modbus baudrate register code*

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

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*Table 3: Modbus parity register code*

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<b>Register value</b>	<b>Parity</b>
0	None (default value)
1	Odd
2	Even

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*Table 4: System temperature unit register code*

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<b>Register value</b>	<b>Configuration</b>
0	Celsius (default value)
1	Fahrenheit

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*Table 5: Partial discharge indicator code*

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Register value	Configuration
0	No presence
1	Presence
2	Warning
3	Alert

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*Table 6: Temperature notifier indicator code*

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Register value	Configuration
0	No concern
1	(At least one notifier has) Level 1 exceeded
2	(At least one notifier has) Level 2 exceeded

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*Table 7: Partial discharge notifier indicator code*

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Register value	Configuration
0	No concern
1	(At least one notifier has) Low level activity
2	(At least one notifier has) Medium level activity
3	(At least one notifier has) High level activity