
WMBUS DATA FORMAT

AC FINDING DEVICE: LAN-WMBUS-G2-ACF



Verify correct device and version

This document applies to the device LAN-WMBUS-G2-ACF with protocol version 35. There are two ways of finding out the protocol version of the device; either by looking at the label on the device or by looking at the data packets sent out by the device. See chapters **Protocol version in data packets** and **Protocol version in label** below for more information.

Protocol version in data packets

If it is possible to check the information in the data packets sent out by the device, then the protocol version is included in the data field called *A-Field Protocol version*. For more information, see chapter **WMBUS-format**.

Protocol version in label

The protocol version can be found on the label. An example of a label is shown in the figure below and the relevant information is described by LAS.00013870.1D.35 or LAS.00013870.1D.23, where

- **Manufacturer code:** LAS
- **Serial number:** 00013870
- **Device type:** 1D
- **Protocol version:** 35

LANSEN

LAN - WMBUS - G2 - ACF

LAS.00013870.1D.23

M-Bus)))

CE



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WMBUS-format

Art nr.	LAN-WMBUS-G2-ACF																						
Version	35 (0x23)																						
Information	Packet is sent every 2 minutes in T-mode (default, can be configured) or when IO changes status																						
DR1	Digital input value: Current status of input Note: Alarm is triggered if no 50 Hz field is detected OR contact with cable is lost																						
DR2	Error messages: Current status of battery																						
DR3	Duration (seconds) of current alarm. 0 = No alarm																						
DR4	Duration (seconds) of previous alarm. 0 = No alarm has been detected																						
DR5	Time (seconds) since last alarm. 0 = No alarm has been detected yet OR there is currently an alarm																						
DR6	Total accumulated time (seconds) of all alarms since startup Note: This value resets if battery is removed																						
DR7	Total number of power losses Note: This value resets if battery is removed																						
Byte No	Field Name	Content	Info	Byte data																			
1	L-Field	Length			Link layer																		
2	C-Field	SND-NR		0x44																			
3	M-Field	Meter Manufacturer code	LAS	0x33																			
4	M-Field	Meter Manufacturer code		0x30																			
5	A-Field	Meter serial number (LSB)	Example: 00010067	0x67																			
6	A-Field	Meter serial number		0x00																			
7	A-Field	Meter serial number		0x01																			
8	A-Field	Meter serial number (MSB)		0x00																			
9	A-Field	Protocol version		0x23																			
10	A-Field	Meter type	Door/Window	0x1D																			
11	CI-Field	Short header		0x7A	Network layer																		
12	Access no.	Transmission counter	Example: 7	0x07																			
13	Status	Device status (error/alarms)	Refer to Table 1 for possible values	0x00																			
14	Configuration	Number of encrypted blocks	Example: 3	0x03																			
15	Configuration	Encryption		No encryption: 0x00 Encryption mode 5: 0x05																			
16	AES-Verify	Encryption Verification		0x2F																			
17	AES-Verify	Encryption Verification		0x2F																			
18	DR1	DIF	2-byte integer	0x02	Current status of input																		
19	DR1	VIF	Extension table	0xFD																			
20	DR1	VIFE	Digital input	0x1B																			
21	DR1	Value (LSB)	Refer to	0x00																			
22	DR1	Value (MSB)	<table border="1"> <thead> <tr> <th>Bit</th> <th>Status on input</th> </tr> </thead> <tbody> <tr> <td>0 (0x01)</td> <td>X</td> </tr> <tr> <td>1 (0x02)</td> <td>X</td> </tr> <tr> <td>2 (0x04)</td> <td>Input is high</td> </tr> <tr> <td>3 (0x08)</td> <td>X</td> </tr> <tr> <td>4 (0x10)</td> <td>X</td> </tr> <tr> <td>5 (0x20)</td> <td>X</td> </tr> <tr> <td>6 (0x40)</td> <td>Input is high</td> </tr> <tr> <td>7 (0x80)</td> <td>X</td> </tr> </tbody> </table>	Bit		Status on input	0 (0x01)	X	1 (0x02)	X	2 (0x04)	Input is high	3 (0x08)	X	4 (0x10)	X	5 (0x20)	X	6 (0x40)	Input is high	7 (0x80)	X	0x00
Bit	Status on input																						
0 (0x01)	X																						
1 (0x02)	X																						
2 (0x04)	Input is high																						
3 (0x08)	X																						
4 (0x10)	X																						
5 (0x20)	X																						
6 (0x40)	Input is high																						
7 (0x80)	X																						
			for possible values																				
23	DR2	DIF	2-byte integer	0x02	Current status of battery																		
24	DR2	VIF	Extension table	0xFD																			
25	DR2	VIFE	Error flags (16-bit)	0x97																			
26	DR2	VIFE		0x1D																			
27	DR2	Value (LSB)	Refer to Table 2 for possible values	0x00																			
28	DR2	Value (MSB)	possible values	0x00																			
29	DR3	DIF	2-byte integer	0x04	Duration (seconds) of current alarm																		
30	DR3	VIF	Actual duration time	0x74																			
31	DR3	Value (LSB)	Example: 2567 seconds (0x0A07)	0x07																			
32	DR3	Value		0x0A																			
33	DR3	Value		0x00																			
34	DR3	Value (MSB)		0x00																			
35	DR4	DIF	2-byte integer + extension	0x84	Duration (seconds) of previous alarm																		
36	DR4	DIFE	Subunit 1	0x40																			
37	DR4	VIF	Actual duration time	0x74																			
38	DR4	Value (LSB)	Example: 57193 seconds (0xDF69)	0x69																			
39	DR4	Value		0xDF																			
40	DR4	Value		0x00																			
41	DR4	Value (MSB)		0x00																			
42	DR5	DIF	2-byte integer + extension	0x84	Time (seconds) since																		

43	DR5	DIFE	Subunit 2	0x80	last alarm
44	DR5	DIFE		0x40	
45	DR5	VIF	Actual duration time	0x74	
46	DR5	Value (LSB)	Example: 1600000 seconds (0x186A00)	0x00	
47	DR5	Value		0x6A	
48	DR5	Value		0x18	
49	DR5	Value (MSB)		0x00	
50	DR6	DIF	2-byte integer + extension	0x84	Total accumulated time (seconds) of all alarms since startup
51	DR6	DIFE	Subunit 3	0xC0	
52	DR6	DIFE		0x40	
53	DR6	VIF	Actual duration time	0x74	
54	DR6	Value (LSB)	Example: 2567 seconds (0x0A07)	0x07	
55	DR6	Value		0x0A	
56	DR6	Value		0x00	
57	DR6	Value (MSB)		0x00	
58	DR7	DIF	2-byte integer	0x02	Total number of power losses
59	DR7	VIF	Extension table	0xFD	
60	DR7	VIF	Cumulative counter	0x61	
61	DR7	Value (LSB)	Example: 7 (0x07)	0x07	
62	DR7	Value (MSB)		0x00	

Table 1: Status byte with errors and alerts

Bit	Info
0 (0x01)	X
1 (0x02)	X
2 (0x04)	Low battery
3 (0x08)	X
4 (0x10)	X
5 (0x20)	Input is high
6 (0x40)	X
7 (0x80)	X

Table 2: Error flag values

Bit	Info
0 (0x01)	X
1 (0x02)	Low battery

Table 3: Digital input values

Bit	Status on input
0 (0x01)	X
1 (0x02)	X
2 (0x04)	Input is high
3 (0x08)	X
4 (0x10)	X
5 (0x20)	X
6 (0x40)	Input is high
7 (0x80)	X