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# WMBUS DATA FORMAT

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SMOKE DETECTOR: LAN-WMBUS-SMK-1



## Verify correct device and version

This document applies to the device LAN-WMBUS-SMK-1 with protocol version 3. 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.00000001.1A.03, where

- **Manufacturer code:** LAS
- **Serial number:** 00000001
- **Device type:** 1A
- **Protocol version:** 03



## WMBUS-format

Art nr.	LAN-WMBUS-SMK-1
Version	3 (0x03)
Information	Packet is sent every 13 minutes in T-mode
DR1	Smoke status
DR2	Unique message number for asynchronous message
DR3	Minutes since last manual test

Byte No	Field Name	Content	Info	Byte data	
1	L-Field	Length			Linklayer
2	C-Field	SND-NR		0x44	
3	M-Field	Manufacturer code	LAS	0x33	
4	M-Field	Manufacturer code		0x30	
5	A-Field	Serial number (LSB)	<b>Example:</b> 0001067	0x67	
6	A-Field	Serial number		0x00	
7	A-Field	Serial number		0x01	
8	A-Field	Serial number (MSB)		0x00	
9	A-Field	Protocol version		0x03	
10	A-Field	Pulse counter type	Radio converter unit	0x1A	
11	CI-Field	Short header		0x7A	Networklayer
12	Access no.	Transmission counter	<b>Example:</b> 7	0x07	
13	Status	Device status (error/alarms)	Refer to <b>Tabell 1</b> for possible values	0x00	
14	Configuration	Number of encrypted blocks	<b>Example:</b> 3	0x03	
15	Configuration	Encryption		<b>Encryption mode 5:</b> 0x05	
16	AES-Verify	Encryption Verification		0x2F	DATA blocks
17	AES-Verify	Encryption Verification		0x2F	
18	DR1	DIF	2 byte integer	0x02	
19	DR1	VIF	Extension table	0xFD	
20	DR1	VIFE	Error flags (binary)	0x97	
21	DR1	VIFE	Standard conform data content	0x1D	
22	DR1	Value (LSB)	Refer to <b>Tabell 2</b> for possible values	0x00	
23	DR1	Value (MSB)		0x00	
24	DR2	DIF	32-bit integer	0x04	
25	DR2	VIF	Extension table or other unit	0xFD	
26	DR2	VIFE	Message identification number	0x08	
27	DR2	Value (LSB)	Unique number counter	0x0E	
28	DR2	Value		0x08	
29	DR2	Value		0x00	
30	DR2	Value (MSB)		<b>Example:</b> 0x0000080E	
31	DR3	DIF	32-bit integer	0x04	
32	DR3	VIF	Extension table	0xFD	
33	DR	VIFE	Dimensionless	0x3A	
34	DR3	Value (LSB)	Minutes since last	0x01	
35	DR3	Value		0x00	
36	DR3	Value		<b>Example:</b> 1 minute	
37	DR3	Value (MSB)		0x00	

Tabell 1: Errors and alerts of device

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

Tabell 2: Smoke status

Bit	Info
0 (0x01)	X
1 (0x02)	Low battery
2 (0x04)	Alarm
3 (0x08)	Manual test
4 (0x10)	Malfunction
5 (0x20)	No connection to smoke detector
6 (0x40)	X
7 (0x80)	X
8 (0x100)	Smoke sensor end of life