
WMBUS DATA FORMAT

DOOR/WINDOW MONITORING DEVICE (LAN-WMBUS-M2)



Verify correct device and version

This document applies to the device LAN-WMBUS-M2 with protocol version 7. 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.

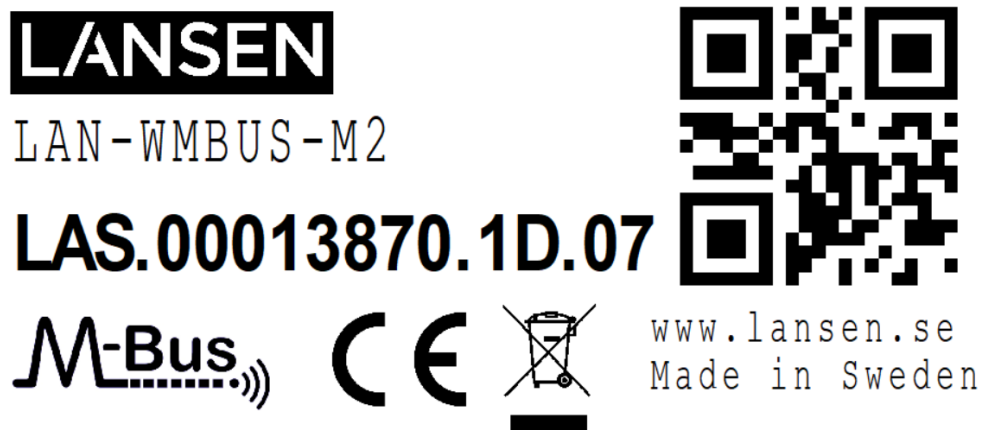
Protocol version in data packets

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.07, where

- **Manufacturer code:** LAS
- **Serial number:** 00013870
- **Device type:** 1D
- **Protocol version:** 07



WMBUS-format

Art nr.	LAN-WMBUS-M2
Version	7 (0x07)
Information	Packet is sent every 90 seconds in T-mode or every 15 minutes in S-mode. Packet is also sent whenever sabotage or alarm is activated or restored.
DR1	Digital input value (current status of alarm and sabotage)
DR2	Error message (current status of sabotage and battery)
DR3	Total number of openings with the internal reed (magnet)
DR4	Total number of openings with external cable

Byte No	Field Name	Content	Info	Byte data	
1	L-Field	Length		0x2E	Linklayer
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: 0001067	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		0x07	
10	A-Field	Meter type	Reserved for sensors (Magnet detector)	0x1D	
11	CI-Field	Short header		0x7A	Networklayer
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	DATA blocks
17	AES-Verify	Encryption Verification		0x2F	
18	DR1	DIF	16-bit integer	0x02	
19	DR1	VIF	Extension table	0xFD	
20	DR1	VIF	Digital input	0x1B	
21	DR1	Value (LSB)	Example: 0x0011 (Internal sabotage)	0x11	
22	DR1	Value (MSB)	Refer to Table 2 for possible values	0x00	
23	DR2	DIF	16-bit integer	0x02	
24	DR2	VIF	Extension table	0xFD	
25	DR2	VIFE	Error flags (binary)	0x97	
26	DR2	VIFE		0x1D	
27	DR2	Value (LSB)	Example: 0x0001 (Sabotage)	0x01	
28	DR2	Value (MSB)	Refer to Table 3 for possible values	0x00	
29	DR3	DIF	12-digit BCD	0x0E	
30	DR3	VIF	Extension table	0xFD	
31	DR3	VIFE	Dimensionless	0x3A	
32	DR3	Value (LSB)	Example: 000000000001	0x01	
33	DR3	Value		0x00	
34	DR3	Value		0x00	
35	DR3	Value		0x00	
36	DR3	Value		0x00	
37	DR3	Value (MSB)		0x00	
38	DR4	DIF	12-digits BCD + Storage 1	0x8E	
39	DR4	DIF	Subunit 1	0x40	
40	DR4	VIF	Extension table	0xFD	
41	DR4	VIFE	Dimensionless	0x3A	
42	DR4	Value (LSB)	Example: 000000000002	0x02	
43	DR4	Value		0x00	
44	DR4	Value		0x00	
45	DR4	Value		0x00	
46	DR4	Value		0x00	
47	DR4	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)	Permanent error/sabotage enclosure
4 (0x10)	X
5 (0x20)	Alarm active (internal magnet or external cable)
6 (0x40)	Sabotage enclosure
7 (0x80)	X

Table 2: Possible values for the byte DR1 - Digital input

Bit	Info	
	Sabotage	Alarm
0 (0x01)	Sabotage triggered	X
1 (0x02)	X	X
2 (0x04)	X	One or both alarms triggered
3 (0x08)	X	X
4 (0x10)	Internal	X
5 (0x20)	X	X
6 (0x40)	X	Internal magnet
7 (0x80)	X	External cable

Table 3: Possible values for the byte DR2 - Error flag

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