LANSEN
WIRELESS BUILDING TECHNOLOGY

WMBUS DATA FORMAT

OUTDOOR PULSE COUNTER: LAN-WMBUS-O-P(-DB)

Version: 1.2

Verify correct device and version

This document applies to the device LAN-WMBUS-O-P and LAN-WMBUS-O-P-DB with protocol version 10. 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.

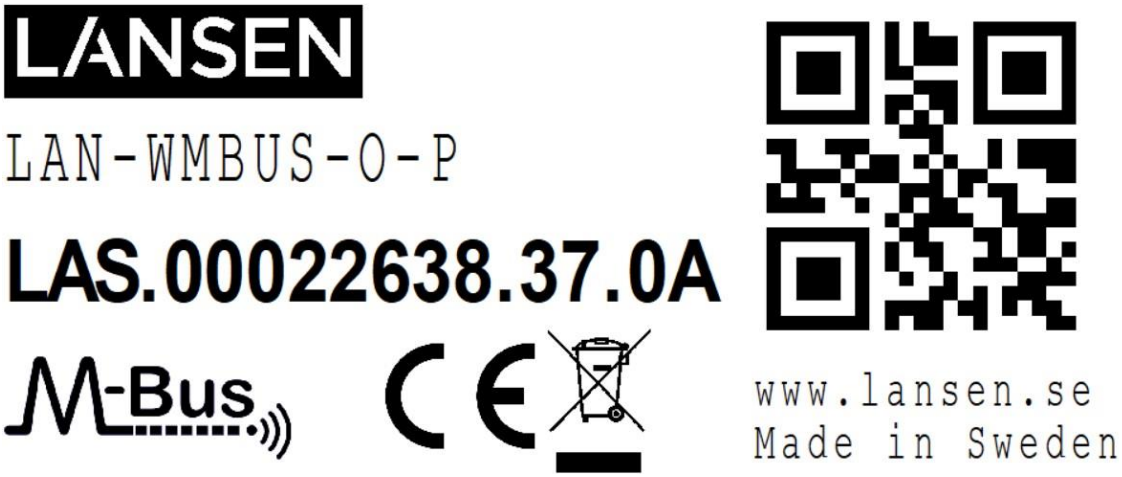
Protocol version in data packets

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.00022638.37.0A, where

- **Manufacturer code**: LAS
- **Serial number**: 00022638
- **Device type**: 37
- **Protocol version**: 0A



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WMBUS-format

Art nr.	LAN-WMBUS-O-P(-DB)
Version	10 (0x0A)
Information	**LAN-WMBUS-O-P**: Packet is sent every 300 seconds (default, can be configured) in T-mode **LAN-WMBUS-O-P-DB**: Packet is sent every 20 seconds (default, can be configured) in T-mode
DR1	Current time
DR2	Number of pulses
DR3	Error flags **Note:** Only visible for software version older than 46
DR4	Number of pulses storage 1 (Due date #0) **Note**: This is only included if the parameter **Due date 0** is active
DR5	Time storage 1 (Due date #0) **Note**: This is only included if the parameter **Due data 0** is active
DR6	Number of pulses storage 2 (Due date #1) **Note**: This is only included if the parameter **Due date 1** is active
DR7	Time storage 2 (Due date #1) **Note**: This is only included if the parameter **Due data 1** is active
DR8	Number of pulses storage 3 (Due date #2) **Note**: This is only included if the parameter **Due date 2** is active
DR9	Time storage 3 (Due date #2) **Note**: This is only included if the parameter **Due data 2** is active
DR10	Software version

Byte No	Field Name	Content	Info	Byte data	
1	L-Field	Length			Linklayer
2	C-Field	SND-NR		0x44	
3	M-Field	Pulse counter manufacturer code	LAS	0x33	
4	M-Field	Pulse counter manufacturer code		0x30	
5	A-Field	Pulse counter serial number (LSB)	**Example**: 0001067	0x67	
6	A-Field	Pulse counter serial number		0x00	
7	A-Field	Pulse counter serial number		0x01	
8	A-Field	Pulse counter serial number (MSB)		0x00	
9	A-Field	Protocol version		0x0A	
10	A-Field	Device type	Other	0x00	
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	32-bit integer	0x04	
19	DR1	VIF	Time type F-format	0x6D	
20	DR1	Value (LSB)	Current time **Example**: 2019-10-09 09:33	0x21	
21	DR1	Value		0x29	
22	DR1	Value		0x69	
23	DR1	Value (MSB)		0x2A	
24	DR2	DIF	32-bit integer	0x04	
25	DR2	VIF	Value depends on parameter *VIF* **Example:** Dimensionless	0xFD	
26	DR2	VIFE		0x3A	
27	DR2	Value (LSB)	Number of pulses **Example:** 67 305 958	0x01	
28	DR2	Value		0x02	
29	DR2	Value		0x03	
30	DR2	Value (MSB)		0x04	
31	DR3	DIF	16-bit integer	0x02	
32	DR3	VIF	Extension table or other unit	0xFD	
33	DR3	VIFE	Error flags (binary)	0x97	
34	DR3	VIFE	Standard conform data content	0x1D	
35	DR3	Value (LSB)	**Example**: No error	0x00	
36	DR3	Value (MSB)		0x00	
37	DR4	DIF	32-bit integer + Storage 1	0x44	
38	DR4	VIF	Value depends on parameter *VIF* **Example:** Dimensionless	0xFD	
39	DR4	VIFE		0x3A	

40	DR4	Value (LSB)	Number of pulses **Example**: 67 305 985	0x01	
41	DR4	Value		0x02	
42	DR4	Value		0x03	
43	DR4	Value (MSB)		0x04	
44	DR5	DIF	32-bit integer + Storage 1	0x44	
45	DR5	VIF	Time type F-format	0x6D	
46	DR5	Value (LSB)	Due date and time **Example:** 2019-10-09 09:33	0x21	
47	DR5	Value		0x29	
48	DR5	Value		0x69	
49	DR5	Value (MSB)		0x2A	
50	DR6	DIF	32-bit integer + extension	0x84	
51	DR6	DIFE	Storage 2	0x01	
52	DR6	VIF	Value depends on parameter *VIF* **Example:** Dimensionless	0xFD	
53	DR6	VIFE		0x3A	
54	DR6	Value (LSB)	Number of pulses **Example:** 67 305 985	0x01	
55	DR6	Value		0x02	
56	DR6	Value		0x03	
57	DR6	Value (MSB)		0x04	
58	DR7	DIF	32-bit integer + extension	0x84	
59	DR7	DIFE	Storage 2	0x01	
60	DR7	VIF	Time type F-format	0x6D	
61	DR7	Value (LSB)	Due date and time **Example:** 2019-10-09 09:33	0x21	
62	DR7	Value		0x29	
63	DR7	Value		0x69	
64	DR7	Value (MSB)		0x2A	
65	DR8	DIF	32-bit integer + extension	0xC4	
66	DR8	DIFE	Storage 3	0x01	
67	DR8	VIF	Value depends on parameter *VIF* **Example:** Dimensionless	0xFD	
68	DR8	VIFE		0x3A	
69	DR8	Value (LSB)	Number of pulses **Example:** 67 305 985	0x01	
70	DR8	Value		0x02	
71	DR8	Value		0x03	
72	DR8	Value (MSB)		0x04	
73	DR9	DIF	32-bit integer + extension	0xC4	
74	DR9	DIFE	Storage 3	0x01	
75	DR9	VIF	Time type F-format	0x6D	
76	DR9	Value (LSB)	Due date and time **Example:** 2019-10-09 09:33	0x21	
77	DR9	Value		0x29	
78	DR9	Value		0x69	
79	DR9	Value (MSB)		0x2A	
80	DR10	DIF	16-bit integer	0x02	
81	DR10	VIF	Extension table	0xFD	
82	DR10	VIFE	Version	0x0F	
83	DR10	Value (LSB)	**Example:** 0x0025	0x25	
84	DR10	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)	X
6 (0x40)	X
7 (0x80)	X