

LANSEN

WMBUS Data format *LAN-WMBUS-SMK3*

Lansen Systems AB

Version 1.1, 2026-08-28

WMBUS data format

Table 1. Data records of the SMKIII packet

Data Record	Description
DR1	Times the meter was dismounted
DR2	Last time the meter was dismounted
DR3	Times the test button has been pressed since start
DR4	Last time the test button was pressed
DR5	Times the smoke alarm has been triggered since start
DR6	Last time the smoke alarm was triggered
DR7	Times the alarm mute switch was pressed since start
DR8	Last time the alarm mute switch was pressed
DR9	Times an obstacle was detected since start
DR10	Last time an obstacle was detected
DR11	Times the smoke chamber entry was blocked since start
DR12	Last time the smoke chamber entry was blocked
DR13	Times a smoke chamber defect was detected since start
DR14	Last time a smoke chamber defect was detected
DR15	Times the self-test failed since start
DR16	Last time the self-test failed
DR17	Times a siren defect was detected since start
DR18	Last time a siren defect was detected
DR19	Chamber pollution level (%)
DR20	Obstacle check distance (cm)
DR21	On-time since startup (seconds)
DR22	Device status 3
DR23	Fault flags (only included when Status ≠ 0)
DR24	Filler bytes

Data Link layer

Byte No.	Field Name	Content	Info	Byte data
1	L-Field	Length	Adaptive, max 209 bytes	0xD1
2	C-Field	SND-NR		0x44
3	M-Field	Manufacturer code	LUP	0xB0
4	M-Field	Manufacturer code		0x32
5	A-Field	Serial number (LSB)	Example: 00004376	0x76
6	A-Field	Serial number		0x43
7	A-Field	Serial number		0x00
8	A-Field	Serial number (MSB)		0x00
9	A-Field	Protocol version		0x01
10	A-Field	Device type	Smoke detector	0x1A
11	CI-Field	ELL (short)		0x8C
12	CC	Communication control		0x20
13	Acc. No.	ELL access number		0xB5
14	CI-Field	Short header		0x7A

Network layer

Byte No.	Field Name	Content	Info	Byte data
15	Access no.	Transmission counter	Example: 175	0xAF
16	Status	Meter status	No errors	0x00
17	Configuration	Encrypted blocks		0x70
18	Configuration	Encryption		0x25
19	AES-Verify	Verification		0x2F
20	AES-Verify	Verification		0x2F

Application layer (header)

Byte No.	Field Name	Content	Info	Byte data
21	Timestamp	DIF	48-bit int	0x06
22		VIF	Time point (time & date)	0x6D
23		Value		0x9C
24				0x06
25				0x0A
26				0x1A
27				0x32
28				0x00

Data record 1: Times the meter was dismantled

Byte No.	Field Name	Content	Info	Byte data
29	DR1	DIF	8-bit int + extension	0x81
30	DR1	DIFE	Storage 4	0x02
31	DR1	DIFE		0x7C
32	DR1	DIFE		0x03
33	DR1	DIFE		0x49
34	DR1	DIFE		0x55
35	DR1	DIFE		0x23
36	DR1	Value		0x00

Data record 2: Last time the meter was dismantled

Byte No.	Field Name	Content	Info	Byte data
37	DR2	DIF	32-bit int + storage	0x84
38	DR2	DIFE	Storage 4	0x02
39	DR2	VIF	Time point	0x6D
40	DR2	Timestamp	Type F	0x05
41	DR2			0x2A
42	DR2			0x1A
43	DR2			0x32

Data record 2: Last time the meter was dismantled

Byte No.	Field Name	Content	Info	Byte data
44	DR2	DIF	32-bit int + storage	0x84
45	DR2	DIFE	Storage 4	0x02
46	DR2	VIF	Time point	0x6D
47	DR2	Timestamp	Type F	0x05
48	DR2			0x2A
49	DR2			0x1A
50	DR2			0x32

Data record 3: Times test button pressed

Byte No.	Field Name	Content	Info	Byte data
51	DR3	DIF	8-bit int + extension + storage	0xC1
52	DR3	DIFE	Storage 5	0x02
53	DR3	DIFE		0x7C
54	DR3	DIFE		0x03
55	DR3	DIFE		0x54
56	DR3	DIFE		0x46
57	DR3	DIFE		0x23
58	DR3	Value		0x00

Data record 4: Last time test button was pressed

Byte No.	Field Name	Content	Info	Byte data
59	DR4	DIF	32-bit int	0xC4
60	DR4	DIFE	Storage 5	0x02
61	DR4	VIF	Time point	0x6D
62	DR4	Timestamp	Type F	0x05
63	DR4			0x2A
64	DR4			0x1A
65	DR4			0x32

Data record 5: Times smoke alarm triggered

Byte No.	Field Name	Content	Info	Byte data
66	DR5	DIF	8-bit int + extension	0x81
67	DR5	DIFE	Storage 6	0x03
68	DR5	DIFE		0x7C
69	DR5	DIFE		0x03
70	DR5	DIFE		0x4C
71	DR5	DIFE		0x41
72	DR5	DIFE		0x23
73	DR5	Value		0x00

Data record 6: Last time smoke alarm was triggered

Byte No.	Field Name	Content	Info	Byte data
74	DR6	DIF	32-bit int + storage	0x84
75	DR6	DIFE	Storage 6	0x03
76	DR6	VIF	Time point	0x6D
77	DR6	Timestamp	Type F	0x05
78	DR6			0x2A
79	DR6			0x1A
80	DR6			0x32

Data record 7: Times alarm mute pressed

Byte No.	Field Name	Content	Info	Byte data
81	DR7	DIF	8-bit int + extension + storage	0xC1
82	DR7	DIFE	Storage 7	0x03
83	DR7	DIFE		0x7C
84	DR7	DIFE		0x03
85	DR7	DIFE		0x4D
86	DR7	DIFE		0x41
87	DR7	DIFE		0x23
88	DR7	Value		0x00

Data record 8: Last time alarm mute was pressed

Byte No.	Field Name	Content	Info	Byte data
89	DR8	DIF	32-bit int	0xC4
90	DR8	DIFE	Storage 7	0x03
91	DR8	VIF	Time point	0x6D
92	DR8	Timestamp	Type F	0x05
93	DR8			0x2A
94	DR8			0x1A
95	DR8			0x32

Data record 9: Times obstacle detected

Byte No.	Field Name	Content	Info	Byte data
96	DR9	DIF	8-bit int + extension	0x81
97	DR9	DIFE	Storage 8	0x04
98	DR9	DIFE		0x7C
99	DR9	DIFE		0x03
100	DR9	DIFE		0x44
101	DR9	DIFE		0x4F
102	DR9	DIFE		0x23
103	DR9	Value		0x00

Data record 10: Last time obstacle detected

Byte No.	Field Name	Content	Info	Byte data
104	DR10	DIF	32-bit int + storage	0x84
105	DR10	DIFE	Storage 8	0x04
106	DR10	VIF	Time point	0x6D
107	DR10	Timestamp	Type F	0x05
108	DR10			0x2A
109	DR10			0x1A
110	DR10			0x32

Data record 11: Times smoke chamber entry was blocked

Byte No.	Field Name	Content	Info	Byte data
111	DR11	DIF	8-bit int + extension + storage	0xC1
112	DR11	DIFE	Storage 9	0x04
113	DR11	DIFE		0x7C
114	DR11	DIFE		0x03
115	DR11	DIFE		0x42
116	DR11	DIFE		0x53
117	DR11	DIFE		0x23
118	DR11	Value		0x00

Data record 12: Last time smoke chamber was blocked

Byte No.	Field Name	Content	Info	Byte data
119	DR12	DIF	32-bit int	0xC4
120	DR12	DIFE	Storage 9	0x04
121	DR12	VIF	Time point	0x6D
122	DR12	Timestamp	Type F	0x05
123	DR12			0x2A
124	DR12			0x1A
125	DR12			0x32

Data record 13: Times smoke chamber defect detected

Byte No.	Field Name	Content	Info	Byte data
126	DR13	DIF	8-bit int + extension	0x81
127	DR13	DIFE	Storage 10	0x05
128	DR13	DIFE		0x7C
129	DR13	DIFE		0x04
130	DR13	DIFE		0x44
131	DR13	DIFE		0x43
132	DR13	DIFE		0x53
133	DR13	DIFE		0x23
134	DR13	Value		0x00

Data record 14: Last time smoke chamber defect detected

Byte No.	Field Name	Content	Info	Byte data
135	DR14	DIF	32-bit int	0x84
136	DR14	DIFE	Storage 10	0x05
137	DR14	VIF	Time point	0x6D
138	DR14	Timestamp	Type F	0x05
139	DR14			0x2A
140	DR14			0x1A
141	DR14			0x32

Data record 15: Times self-test failed

Byte No.	Field Name	Content	Info	Byte data
142	DR15	DIF	8-bit int + extension + storage	0xC1
143	DR15	DIFE	Storage 11	0x05
144	DR15	DIFE		0x7C
145	DR15	DIFE		0x03
146	DR15	DIFE		0x46
147	DR15	DIFE		0x53
148	DR15	DIFE		0x23
149	DR15	Value		0x00

Data record 16: Last time self-test failed

Byte No.	Field Name	Content	Info	Byte data
150	DR16	DIF	32-bit int	0xC4
151	DR16	DIFE	Storage 11	0x05
152	DR16	VIF	Time point	0x6D
153	DR16	Timestamp	Type F	0x05
154	DR16			0x2A
155	DR16			0x1A
156	DR16			0x32

Data record 17: Times siren defect detected

Byte No.	Field Name	Content	Info	Byte data
157	DR17	DIF	8-bit int + extension	0x81
158	DR17	DIFE	Storage 12	0x06
159	DR17	DIFE		0x7C
160	DR17	DIFE		0x03
161	DR17	DIFE		0x44
162	DR17	DIFE		0x53
163	DR17	DIFE		0x23
164	DR17	Value		0x00

Data record 18: Last time siren defect was detected

Byte No.	Field Name	Content	Info	Byte data
165	DR18	DIF	32-bit integer	0x84
166	DR18	DIFE	Storage 12	0x06
167	DR18	VIF	Time point (time & date)	0x6D
168	DR18	Timestamp	Type F	0x05
169	DR18	Timestamp		0x2A
170	DR18	Timestamp		0x1A
171	DR18	Timestamp		0x32

Data record 19: Chamber pollution level (%)

Byte No.	Field Name	Content	Info	Byte data
172	DR19	DIF	8-bit int + extension + storage	0xC1
173	DR19	DIFE	Storage 13	0x06
174	DR19	DIFE		0x7C
175	DR19	DIFE		0x03
176	DR19	DIFE		0x50
177	DR19	DIFE		0x43
178	DR19	DIFE		0x25
179	DR19	Value	Example: 28%	0x1C

Data record 20: Obstacle check distance (cm)

Byte No.	Field Name	Content	Info	Byte data
180	DR20	DIF	8-bit int + extension	0x81
181	DR20	DIFE	Storage 14	0x07
182	DR20	DIFE		0x7C
183	DR20	DIFE		0x02
184	DR20	DIFE		0x6D
185	DR20	DIFE		0x63
186	DR20	Value	Example: 75 cm	0x4B

Data record 21: On-time since startup (seconds)

Byte No.	Field Name	Content	Info	Byte data
187	DR21	DIF	32-bit integer	0x04
188	DR21	DIFE	Storage 0	0x20
189	DR21	Value	LSB	0x12
190	DR21	Value		0x56
191	DR21	Value		0xC8
192	DR21	Value	MSB	0x01

Data record 22: Device status 3

Byte No.	Field Name	Content	Info	Byte data
193	DR22	DIF	16-bit integer	0x02
194	DR22	DIFE	Storage 0	0x7C
195	DR22	DIFE		0x03
196	DR22	DIFE		0x33
197	DR22	DIFE		0x53
198	DR22	DIFE		0x44
199	DR22	Value	MSBF	0x00
200	DR22	Value		0x00

Data record 23: Fault flags

Byte No.	Field Name	Content	Info	Byte data
201	DR23	DIF	8-bit integer. Only included if Status ≠ 0	0x01
202	DR23	DIFE	Storage 0	0xFD
203	DR23	DIFE		0x17
204	DR23	Value		0x00

Data record 24: Filler bytes

Byte No.	Field Name	Content	Info	Byte data
205	DR24	Filler		0x2F
206	DR24	Filler		0x2F
207	DR24	Filler		0x2F
208	DR24	Filler		0x2F
209	DR24	Filler		0x2F
210	DR24	Filler		0x2F
211	DR24	Filler		0x2F
212	DR24	Filler		0x2F
213	DR24	Filler		0x2F
214	DR24	Filler		0x2F
215	DR24	Filler		0x2F
216	DR24	Filler		0x2F
217	DR24	Filler		0x2F
218	DR24	Filler		0x2F