SIM 35

Serial Interface Module

From production version 190615 and FW version 02.02.00

Firmware versions:
- ASD 531/532 from 01.00.00
- ASD 535 from 01.04.00
- ADW 535 from 01.01.11

The SIM 35 is an additional module for networking ASD or ADW special fire detectors.

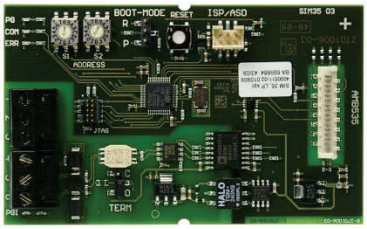

Fig. 1 SIM 35

Description

The SIM 35 serial interface module is for networking multiple ASD or ADW special fire detectors via RS485 bus. Using the "ASD / ADW Config" configuration software, all ASD or ADW units present in the network can be visualised and operated from a PC. The SIM 35 provides galvanic separation between the RS485 interface and the special fire detectors.

Mounting / Installation

There are four expansion slots for mounting the optional additional modules in the detector housing of the ASD 535.

In the mounting set of the SIM 35 there are module holders, retainer screws and the connection cable for connecting to the AMB 35.

The SIM 35 interface module is connected by means of the 16-pin ribbon cable to connector Option2 (or Option1). It must be ensured that the flat ferrite cores on the ribbon cable are on the AMB side (see Fig. 2).

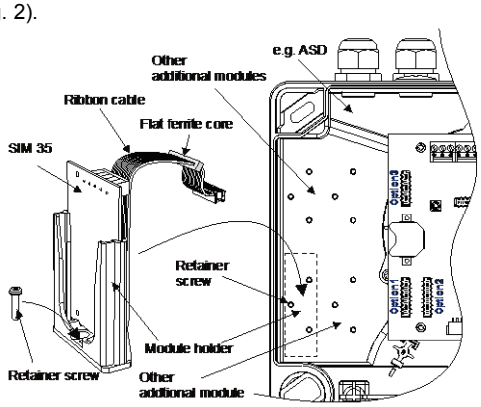

Fig. 2 Installation of the SIM 35

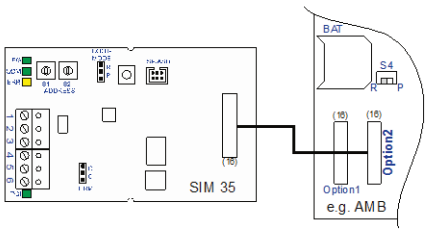

Fig. 3 Connecting the SIM 35 in the ASD 535

Design of the network

An network can have up to 250 participants. The master module in the network is the SMM 535, by means of which a PC is connected.

The normative alarm transmission of the special fire detector to the higher level point does not use the network. The "Alarm" / "Fault" relays in the special fire detector or SecuriLine (SLM 35) are used for that.

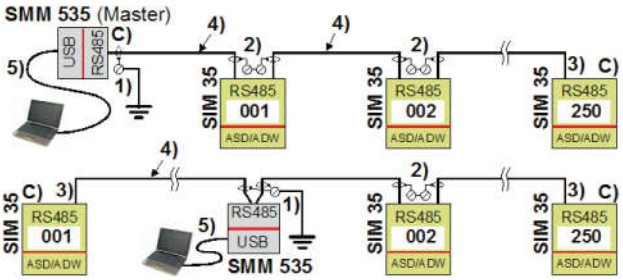

Fig. 4 Design of the ASD network

1) Screen with equipotential bonding connected, always only on the SMM 535, do not connect on the last SIM 35; **3).**
2) Screen connected by means of a lustre terminal.
3) If SMM 535 is in the network, do not connect the screen on the first and last SIM 35 (beginning and end).
4) Network cable: 4-core, twisted / screened (only 3 wires are used, total length max. 1.000 m).
5) USB cable; max. 3 m in length.
C) There must be **bus termination** on both sides of the network (beginning and end); jumper "**TERM**", position "**C**".

Programming

Jumper TERM	**Bus termination (position "C" = active)**
Position **O**	SIM 35 is **not** first or last module
Position **C**	SIM 35 is **first** or **last** module
Jumper BOOT MODE	**FW upgrade (not equipped, needed only for production)**
Position **R**	Normal position
Position **P**	Local FW upgrade on the SIM 35
Button RESET	**SIM reset**
Press	Triggers a HW reset of the SIM 35

Data sheet

Network address

Each SIM 35 or special fire detector is assigned its own address. They are assigned based on the wiring topology **ascending** (see also **Fig. 4**).

The SIM 35 has two rotary switches (S1 and S2) for setting the network address in hexadecimal code. Setting the hexadecimal codes is shown in the table below.

Rotary switch S1 / S2	Network address in hexadecimal code

Dec	Hex S1	Hex S2	Dec	Hex S1	Hex S2	Dec	Hex S1	Hex S2	Dec	Hex S1	Hex S2	Dec	Hex S1	Hex S2	Dec	Hex S1	Hex S2
0	0	0	32	2	0	64	4	0	96	6	0	128	8	0	160	A	0	192	C	0	224	E	0
1	0	1	33	2	1	65	4	1	97	6	1	129	8	1	161	A	1	193	C	1	225	E	1
2	0	2	34	2	2	66	4	2	98	6	2	130	8	2	162	A	2	194	C	2	226	E	2
3	0	3	35	2	3	67	4	3	99	6	3	131	8	3	163	A	3	195	C	3	227	E	3
4	0	4	36	2	4	68	4	4	100	6	4	132	8	4	164	A	4	196	C	4	228	E	4
5	0	5	37	2	5	69	4	5	101	6	5	133	8	5	165	A	5	197	C	5	229	E	5
6	0	6	38	2	6	70	4	6	102	6	6	134	8	6	166	A	6	198	C	6	230	E	6
7	0	7	39	2	7	71	4	7	103	6	7	135	8	7	167	A	7	199	C	7	231	E	7
8	0	8	40	2	8	72	4	8	104	6	8	136	8	8	168	A	8	200	C	8	232	E	8
9	0	9	41	2	9	73	4	9	105	6	9	137	8	9	169	A	9	201	C	9	233	E	9
10	0	A	42	2	A	74	4	A	106	6	A	138	8	A	170	A	A	202	C	A	234	E	A
11	0	B	43	2	B	75	4	B	107	6	B	139	8	B	171	A	B	203	C	B	235	E	B
12	0	C	44	2	C	76	4	C	108	6	C	140	8	C	172	A	C	204	C	C	236	E	C
13	0	D	45	2	D	77	4	D	109	6	D	141	8	D	173	A	D	205	C	D	237	E	D
14	0	E	46	2	E	78	4	E	110	6	E	142	8	E	174	A	E	206	C	E	238	E	E
15	0	F	47	2	F	79	4	F	111	6	F	143	8	F	175	A	F	207	C	F	239	E	F
16	1	0	48	3	0	80	5	0	112	7	0	144	9	0	176	B	0	208	D	0	240	F	0
17	1	1	49	3	1	81	5	1	113	7	1	145	9	1	177	B	1	209	D	1	241	F	1
18	1	2	50	3	2	82	5	2	114	7	2	146	9	2	178	B	2	210	D	2	242	F	2
19	1	3	51	3	3	83	5	3	115	7	3	147	9	3	179	B	3	211	D	3	243	F	3
20	1	4	52	3	4	84	5	4	116	7	4	148	9	4	180	B	4	212	D	4	244	F	4
21	1	5	53	3	5	85	5	5	117	7	5	149	9	5	181	B	5	213	D	5	245	F	5
22	1	6	54	3	6	86	5	6	118	7	6	150	9	6	182	B	6	214	D	6	246	F	6
23	1	7	55	3	7	87	5	7	119	7	7	151	9	7	183	B	7	215	D	7	247	F	7
24	1	8	56	3	8	88	5	8	120	7	8	152	9	8	184	B	8	216	D	8	248	F	8
25	1	9	57	3	9	89	5	9	121	7	9	153	9	9	185	B	9	217	D	9	249	F	9
26	1	A	58	3	A	90	5	A	122	7	A	154	9	A	186	B	A	218	D	A	250	F	A
27	1	B	59	3	B	91	5	B	123	7	B	155	9	B	187	B	B	219	D	B			
28	1	C	60	3	C	92	5	C	124	7	C	156	9	C	188	B	C	220	D	C			
29	1	D	61	3	D	93	5	D	125	7	D	157	9	D	189	B	D	221	D	D			
30	1	E	62	3	E	94	5	E	126	7	E	158	9	E	190	B	E	222	D	E			
31	1	F	63	3	F	95	5	F	127	7	F	159	9	F	191	B	F	223	D	F			

Dimensioned drawing

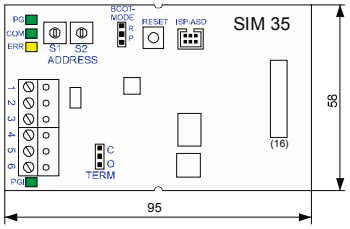

Fig. 5 SIM 35 dimensioned drawing

Indicators

Four LEDs on the SIM 35 indicate the operating state.

LED	State / meaning
PG (green)	**continuously lit**, power supply from AMB/LMB OK
PGI (green)	**continuously lit**, supply voltage OK (after galvanic separation)
COM (green)	**flashes**, communication running, "ASD / ADW Config" is active
ERR (yellow)	**flashes**, address is in invalid range; **continuously lit**, SIM has a fault

Terminal assignment

Terminal	Signal	Installation		
1	GND	Input	1st conductor from wire pair 2	
2	D +	Input	1st conductor from wire pair 1	twisted
3	D –	Input	2nd conductor from wire pair 1	twisted
4	GND	Output	1st conductor from wire pair 2	
5	D +	Output	1st conductor from wire pair 1	twisted
6	D –	Output	2nd conductor from wire pair 1	twisted

Connection of screening, see **Fig. 4**.

Article numbers / Spare parts

Brief description	Article number
SIM 35, incl. mounting set	11-2200000-01-XX
Technical Description ASD 532	T 140 421
Data sheet ASD 532	T 140 422
Technical Description ASD 535	T 131 192
Data sheet ASD 535	T 131 193
Technical Description ADW 535	T 140 358
Data sheet ADW 535	T 140 359
Data sheet SMM 535	T 140 010

Technical data

Type	SIM 35	
Operating voltage from AMB 35	5	VDC
Maximum power consumption	20	mA
Ambient conditions acc. to IEC 721-3-3 / EN 60721-3-3 (1995)	3K5 / 3Z1	Class
Extended ambient conditions:		
• SIM 35 temperature range	–30 – +70	°C
• Max. permitted storage temperature (without condensation)	–30 – +70	°C
• Humidity ambient condition (transient without condensation)	95	% rel. hum.
• Humidity ambient temperature (continuous)	70	% rel. hum.
Plug-in terminals	2.5	mm²
Cable type: 4-core, twisted in pairs, screened, impedance 120R	at least 0.2	mm²
maximum line length of the entire network	1,000	m
Dimensions (W x H x D)	95 x 58 x 17	mm
Weight (including module holder)	55	g

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