

SIM 35

Serial Interface Module

From production version 010421 and FW version 02.03.01

Firmware versions:

- ASD 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, retainers 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).

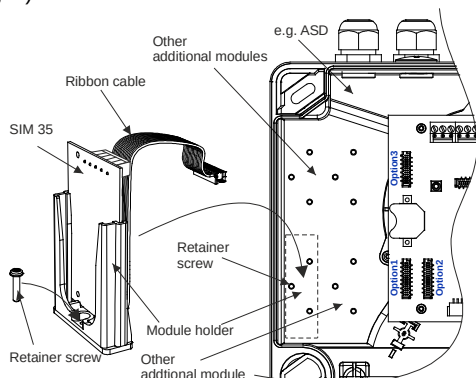


Fig. 2 Installation of the SIM 35

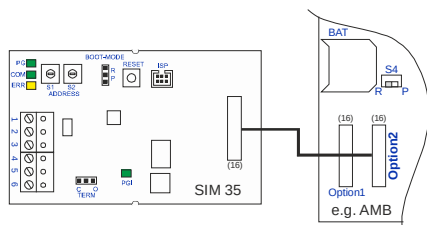


Fig. 3 Connecting the SIM 35 in the ASD 535

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.

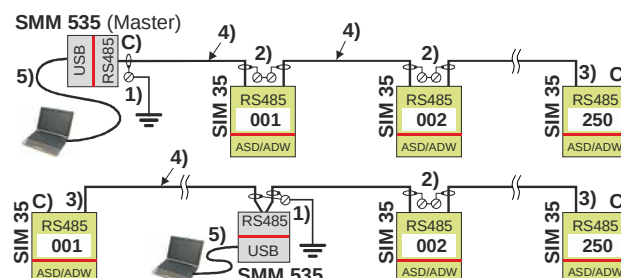


Fig. 4 Design of the ASD network

- 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		Network address in hexadecimal code															
S1 / S2		Hex		Hex		Hex		Hex		Hex		Hex		Hex		Hex	
Dec	Hex	Dec	Hex	Dec	Hex	Dec	Hex	Dec	Hex	Dec	Hex	Dec	Hex	Dec	Hex	Dec	Hex
		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				

Technical data

Type	SIM 35 (painted version)	
Operating voltage from AMB 35	5	VDC
Maximum power consumption	20	mA
Ambient conditions acc. to IEC 60721-3-3 / EN 60721-3-3	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 / continuous)	95 / 70	% rel. hum.
Plug-in terminals	2.5	mm ²
Cable type: 4-core, twisted in pairs, screened, impedance 120R	at least 0.2	mm ²
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

Change to Index "e" on page: 2

Dimensioned drawing

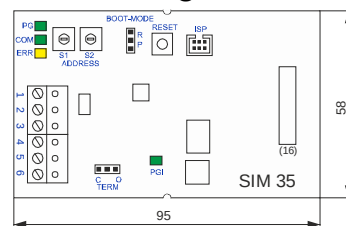


Fig. 5 SIM 35 dimensioned drawing

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 1 st conductor from wire pair 2 1 st conductor from wire pair 1 2 nd conductor from wire pair 1 twisted
2	D +	
3	D −	
4	GND	Output 1 st conductor from wire pair 2 1 st conductor from wire pair 1 2 nd conductor from wire pair 1 twisted
5	D +	
6	D −	

Connection of screening, see Fig. 4.

Article numbers and spare parts

Short designation	Article number	
SIM 35, incl. mounting set	11-2200000-01-XX	
Technical descriptions	ASD 532	T 140 421
	ASD 535	T 131 192
	ADW 535	T 140 358
Data sheets	ASD 532	T 140 422
	ASD 535	T 131 193
	ADW 535	T 140 359
	SMM 535	T 140 010