

# SA-DESK-TOP\_1

Universal Desk-Top Unit

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## USER MANUAL

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## ABBREVIATIONS

SAUM	User Manual
int	internal
ext	external
RC	RackCard
DT	DeskTop

## VERSION CONTROL

UM Version	Date	Major changes to previous version
1.0	July 2007	Start Version
1.4	January 2009	Added Wallmount KIT – different smal changes

## SAFETY REGULATIONS

IF THE UNIT IS NOT USED IN ACCORDANCE TO REGULATIONS DESCRIBED AND DEFINED IN THE CHAPTER'S "SAFETY REGULATIONS" AND "TECHNICAL SPECIFICATIONS", S-ACCESS GMBH REFUSES TO TAKE ANY RESPONSIBILITY. FURTHERMORE, NO WARRANTY IS GRANTED IN SUCH CASE!

IT'S ONLY ALLOWED TO USE EXTERNAL POWER SUPPLIES THAT ARE APPROVED ACOORDING TO THE SAFETY STANDARD IEC/EN 60950-1.

THE HOUSING HAS TO BE CONNECTED PERMANENTLY TO A RELIABLE PROTECTIVE EARTH CONDUCTOR.

THE INSERTED UNIT HAS TO BE FIXED TO THE RACK PERMANENTLY WITH THE TWO PANEL SCREWS.

INCORRECT USE OF THIS DEVICE, USE IN ANY OTHER ENVIRONMENT AND/OR HOUSING THAN PROVIDED BY S-ACCESS GMBH MIGHT LEAD TO HARMFUL CONDITIONS. FAILURE TO FOLLOW THESE PRECAUTIONS MAY RESULT IN DEATH, SEVERE INJURY OR PROPERTY DAMAGE.

IT'S FORBIDDEN TO PLUG THE UNIT TO THE RACK WITH MOUNTED CONNECTORS!

Please read this manual carefully before operating the system.  
Installation of this equipment has to be executded by qualified personnel only.

## EU Directive 2002/96/EC and EN50419



This equipment is marked with the above recycling symbol. It means that at the end of the life of the equipment you must dispose of it separately at an appropriate collection point and not place it in the normal domestic unsorted waste stream. (European Union only)

# 1 UNITS DESCRIPTION

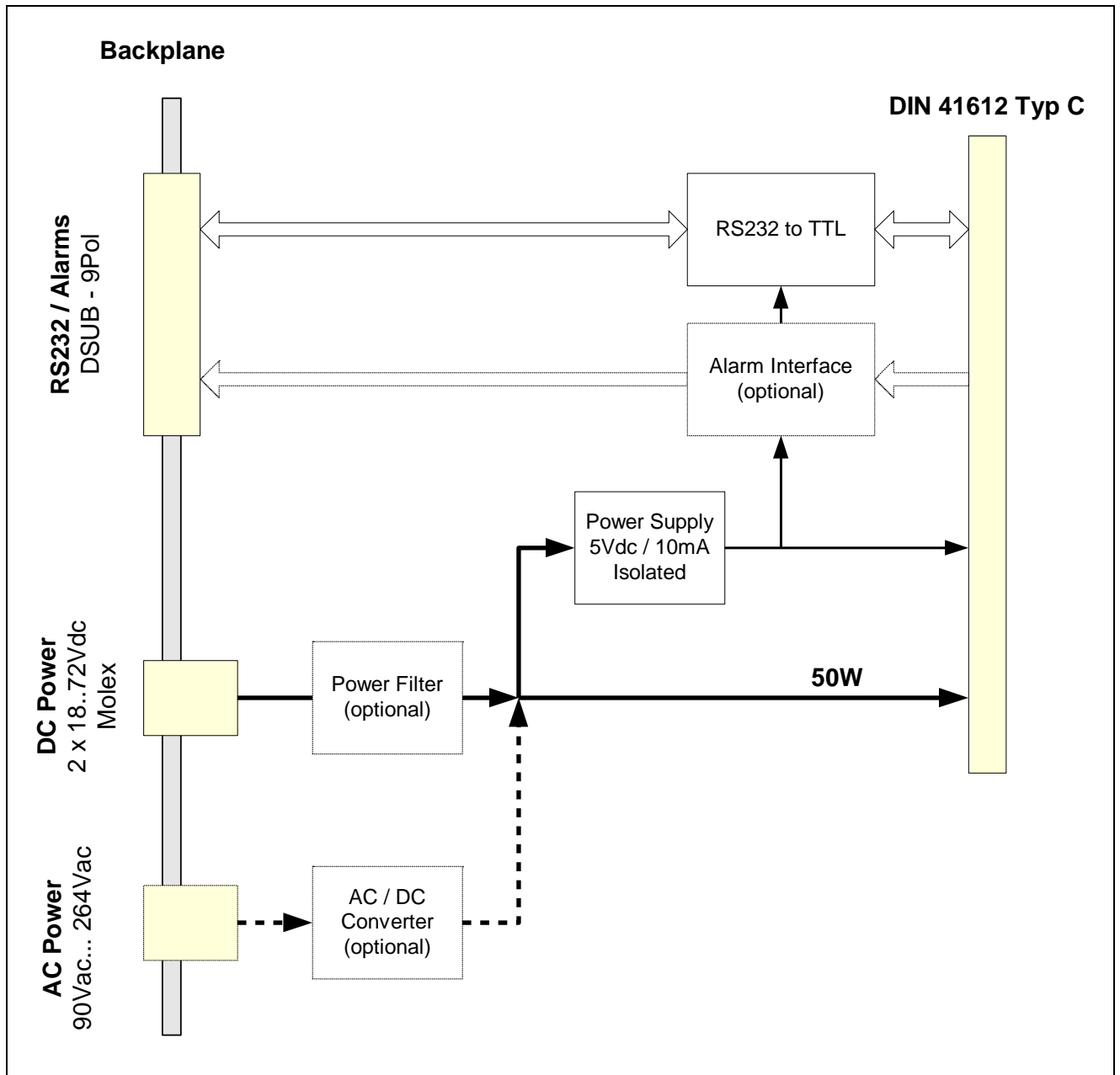
The DESK-TOP\_1 provides the following standard services:

- redundant DC power feeding
- RS232 access to the inserted SA-xxx-SR units
- 5Vdc power Supply for RS232 TTL interface

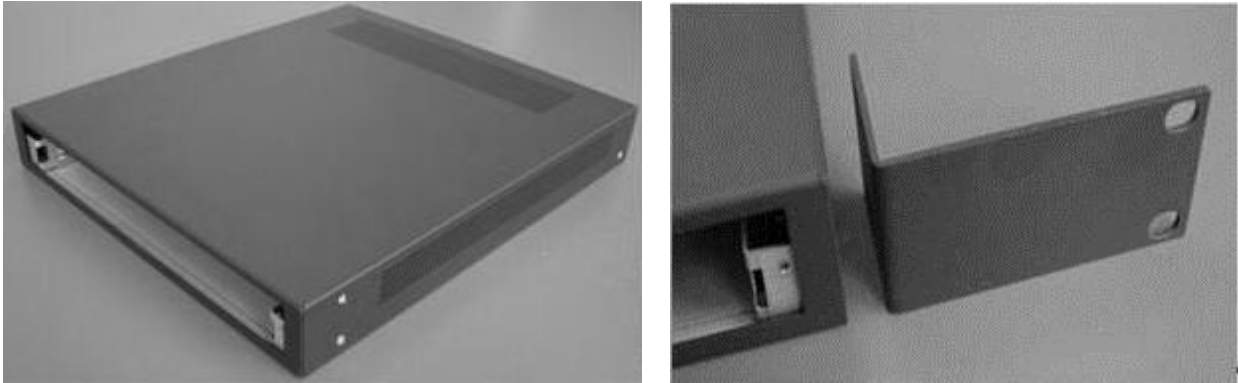
Optional Services available on request:

- AC power feeding
- DC Power Filtering
- int major / minor alarm signaling with alarm relays

## 1.1 Block schematic

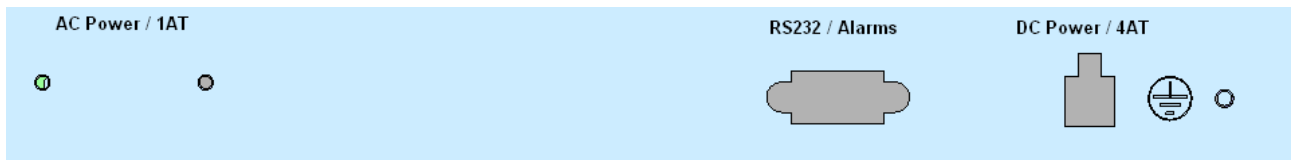


## 1.2 Housing




The DESK-TOP\_1 housing can be used as desktop or as 19" 1U rack mount. The 19" holders have to be ordered separately.

## 1.3 Back panel



### 1.3.1 Panel Interface description

<i>Item</i>	<i>Function</i>
DC Power	DC Input Power connector
RS232 / Alarms	RS232 Monitor Interface, Minor / Major Alarm interface (optional)
AC Power	AC Input Power connector (optional)
	Earth screw. Has to be connected to a reliable, protective earth conductor

## 2 RS232 INTERFACE

### 2.1 RS232 Monitor settings

The module can be connected to a terminal or a PC (with terminal emulation) in order to monitor relevant events and to display additional information from the plugged in unit. Depending on the inserted unit, full system configuration and fault localization can be done over the monitor interface

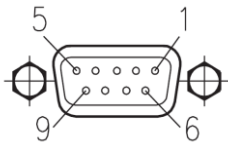
The terminal for monitoring should be VT100 compatible and configured as follows:

- 9600 baud, asynchronous
- 8 bits, no parity, one stop bit
- no new line on carriage return (i.e. no line feed on carriage return)

## 3 CONNECTOR DESCRIPTION

### 3.1 Monitor Interface

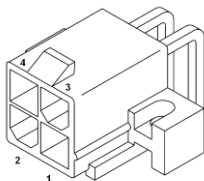
Type: DB9 female



Number	Signal	Description
1	FPE	Functional Protective Earth
2	TXD	EIA-232 Transmit Data
3	RXD	EIA-232 Receive Data
4	AL_COM	Common Contact
5	SGND	EIA-232 Signal Ground
6	AL_MAJ_NC	Major Alarm Contact, normally closed
7	AL_MAJ_NO	Major Alarm Contact, normally open
8	AL_MIN_NC	Minor Alarm Contact, normally closed
9	AL_MIN_NO	Minor Alarm Contact, normally open

### 3.2 DC Power Interface

Type: Molex



Number	Signal	Description
1	- V1	Negative power supply terminal 1
2	FPE	Functional Protective Earth
3	- V2	Negative power supply terminal 1
4	+ 0V	Positive power supply terminal (common)

### 3.3 AC Power Interface (optional)

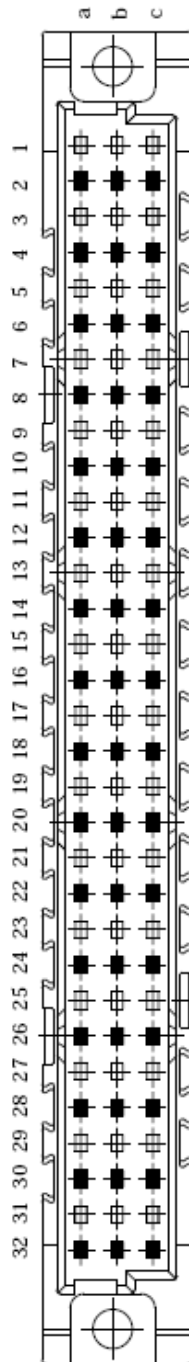
Type:



Number	Signal	Description
L	Phase	Fuse protected AC power line
E	Earth	Functional Protective Earth
N	Neutral line	AC power line

### 3.4 RC Interface

Type: DIN41612  
female



Number	Signal	Description
a2	0V	Power supply +
b2	-Vf2	Power supply V2 -
c2	0V	Power supply +
a4	-Vf1	Power supply V1 -
b4	-Vf1	Power supply V1 -
c4	-Vf2	Power supply V2 -
a6	GND	Ground
b6	GND	Ground
c6	GND	Ground
a8	GND	Ground
b8	GND	Ground
c8	Nc	Not connected
a10	Nc	Not connected
b10	GND	Ground
c10	Nc	Not connected
a12	TXD	RS232 transmit line
b12	GND	Ground
c12	RXD	RS232 receive line
a14	GND	Ground
b14	GND	Ground
c14	+5Vdc	5Vdc Service voltage
a16	AlMaj	Major Alarm line
b16	GND	Ground
c16	AlMin	Minor Alarm line
a18	Nc	Not connected
b18	Nc	Not connected
c18	Nc	Not connected
a20	GND	Ground
b20	Nc	Not connected
c20	Nc	Not connected
a22	Nc	Not connected
b22	Nc	Not connected
c22	Nc	Not connected
a24	Nc	Not connected
b24	Nc	Not connected
c24	Nc	Not connected
a26	Nc	Not connected
b26	Nc	Not connected
c26	Nc	Not connected
a28	Nc	Not connected
b28	Nc	Not connected
c28	Nc	Not connected
a30	GND	Ground
b30	GND	Ground
c30	GND	Ground
a32	Nc	Not connected
b32	GND	Ground
c32	Nc	Not connected



## 4 TECHNICAL SPECIFICATION

### 4.1 User Interfaces

#### 4.1.1 Monitor

Specification	EIA-232 / V.28
Data Rate	9600 baud, asynchronous
Protocol	8 bit, no parity, 1 stop bit no linefeed with carriage return XON/XOFF enabled
Signal Level	V.28 on DB9 female connector
Connector Type	DB9 female connector

#### 4.1.2 DIN 41612

Model	DIN41612, Type C, female
Nr. Pins	48 (pair a, b c)
Number of Slots	1

#### 4.1.3 Alarm (optional)

Alarm Outputs	Major, Minor
Output Contact Ratings	Ratings: 1A @ 24VDC resistive. 1A @ 120VAC resistive.
	Max. Switched Voltage: AC: 120V. DC: 30V.
	Max. Switched Current: 1A.
	Max. Switched Power: 120VA, 24W.
Alarm Inputs	Major, Minor
Input impedance	> 10K Ohm
Alarm On Voltage Level	≤ 2.0 Vdc
Alarm Off Voltage Level	≤ 0.5 Vdc
Connector Type	DB9 female connector

### 4.2 Power Supply

#### 4.2.1 DC input

Specification	ETSI ETS 300 132-2
2 redundant Supplies	-V1, -V2, 0V
	2 Fuses 4.0AT
Input Voltage range	18 .. 72Vdc
Current	≤ 3.0 Adc

#### Optional

Common Mode Choke filter  
with Varistors

#### 4.2.2 5Vdc Supply (output)

Input Voltage range	18 .. 72Vdc
Voltage Tolerance	5.0Vdc ± 5%
Output Current	min 10 mAdc
Isolation Voltage	min 500Vac

### 4.2.3 AC Input (Optional)

Approvals	EMI: FCC "B", EN55022"B"
Input Voltage range	Safety: UL 60950-1,EN 60950-1, 100Vac .. 250Vac
Output power	≤ 50 W
Type:	C14, Male connector, included filter optional
Assembly:	screw
Fuse:	1AT, 5x20mm, included in connector

## 4.3 Environment

### 4.3.1 Climatic Conditions

Storage:	ETS 300 019-1-1 Class 1.2
Transportation:	ETS 300 019-1-2 Class 2.3
Operation:	ETS 300 019-1-3 Class 3.3 ext. (0°C ... +75°C)

### 4.3.2 Safety / EMC

According to:  
IEC 60950-1:2005  
EN 60950-1:2006  
EN 55022, Class B  
EN 300386  
EN 50121-4

## 4.4 Mechanical Dimensions

Height:	45 mm
Width:	288 mm
Depth:	335 mm (including earth screw)
Weight:	2460 g standard 2700 g with Option AC

## 4.5 Models and Order Number

SA-DESK-TOP_1-48	Compact desktop housing for 1 sub rack module with RS-232 monitor interface and redundant 18-72VDC power input.
SA-DESK-TOP_1-48AF	Compact desktop housing for 1 sub rack module with RS-232 monitor interface and redundant 18-72VDC power input. Alarm Interface and Filtering included.
SA-DESK-TOP_1-48AF230	Compact desktop housing for 1 sub rack module with RS-232 monitor interface and redundant 18-72VDC power input. Alarm Interface and Filtering included. Additional 230VAC/50Watt input.
SA-DESK-TOP_1-Wallmount	Four wall mount holder for compact desktop housing
SA-DESK-TOP_1-Holder19"	Two 19" holder for compact desktop housing

