
SC Net Module System



The SC Net Module System

The SC Net System is a flexible solution to perform nearly all types of media control. Various SC Net modules for different output / input requirements are available, which are connected via one single bi-directional data line. The control centre is always formed by an SC Master unit with a program stored on Compact Flash Card, which may also contain interactive sequences and synchronized sound. The control program is created comfortably and easily on a graphic and timeline-oriented interface using our authoring software Wings Platinum.



Cabling

One single signal line made of standard Cat5 cable with a maximum length of up to 300 m controls all SC Net modules. Usually, the modules are connected in series. With a distributor module, however, the arrangement of cables can also be star-shaped. Please bear in mind, that such an arrangement will drastically reduce the possible overall length of the network cabling. For such an installation we urgently recommend using CAN repeaters. Due to their compactness, the modules can be placed next to the devices to be controlled, so that the lengths of the numerous connecting cables can be kept short.



Unused SC Net outputs must be provided with a terminating resistor of 120 Ohm.

Power supply

SC Net modules are supplied via the SC Master unit and the signal line. For special applications, the modules can also be supplied via the external power supply NG1. The power supplied additionally is not only available for the module connected to the power supply unit, but for all SC Net modules within the network.

SC Net Module Configuration

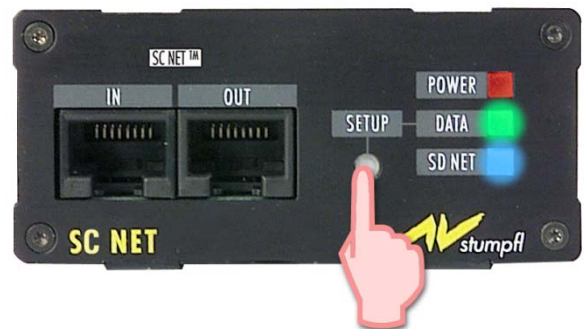
Device address 1 is always allocated to the master unit. Device addresses 2 to 125 are used for the modules (slaves) within the network. If address 2 or higher is allocated to an SC Master unit, it is regarded as a module within the network.

Every SC Net device offers particular functions which can be addressed via sub-addresses. After adding SC Net devices under Devices in the Wings Platinum Media Pool, they are listed with their particular functions while Wings Platinum automatically allocates an address. This address, however, can be altered at any time. An SC RELAY 8out, for instance, would be visible as 8 switching contacts and that might have addresses 2/1 to 2/8. In this case, 2 would be the device address and 1 to 8 the subaddresses of the individual relay contacts.

For an SC Net Module to be able to perform the programmed functions, the device address listed in the Media Pool under **Devices** must be set in the module. Currently the address setting is performed via SC Master components.

This is how you can make the device address setting for an SC Net Module:

1. Connect the SC Master with the SC Net modules and switch on the system.
2. In the SC Master menu go to "Options – SC-Net – **IntNetAddress**" and select **INetAddrs = 1**.
3. In order to establish communication within the SC Net, switch on the SC Master and off again. When starting up the SC Master, a message such as "**SC Net Baudrate: 184320**" must briefly be displayed (the value depends on the baud rate). After communication has been established, the blue SC NET LED at the SC Net modules will briefly blink at an interval of three seconds.
4. Return to the menu and select the address you want to allocate to an SC Net Module under "Options – SC-Net – **ExtNetAddress**", e.g. **ENetAddrs = 2**.
5. By pressing Enter at the SC Master, all connected SD Net modules are set to configuration mode. This is indicated by the **DATA** LEDs blinking while the SC Master is sending the address into the network. Both remain active for 20 seconds.
6. During this time, press the Setup button on the SC Net Module to be configured to save the address. You may have to use a pen to press the setup button. This terminates configuration mode for the corresponding module.
7. Repeat items 4 to 6 until all SC Net modules have been addressed in accordance with your requirements.



Addresses for SC Net modules for DLC operation

If a show is programmed via a DLC port in order to be able to control slide projectors as well, e.g. via an SD EC 2X4, only the lower SC Net addresses must be used.

A DLC port allows 32 switches, 32 RS232 channels and 32 analog channels to be used with the same DLC address, as the information is saved as separate commands in every address. An exception are DMX channels, which contain identical information on the first 32 channels, i.e. they are arranged in parallel, just like analog channels.

Here are some configuration examples:

32 relays, to be implemented via four **SC RELAY 8out** units:

1st module, device address 2, 8 switching outputs with DLC addresses A1 to D2

2nd module, device address 3, 8 switching outputs with DLC addresses A3 to D4

3rd module, device address 4, 8 switching outputs with DLC addresses A5 to D6

4th module, device address 5, 8 switching outputs with DLC addresses A7 to D8

32 OC switches to be implemented via two **SC OPEN COLLECTOR 16out** components:

1st module, device address 2, 16 switching outputs with DLC addresses A1 to D4

2nd module, device address 3, 16 switching outputs with DLC addresses A5 to D8

8 relays via **SC RELAY 8out** and

16 OC switches via **SC OPEN COLLECTOR 16out**:

1st module, device address 2, 8 switching outputs with DLC addresses A1 to D2

2nd module, device address 3, 16 switching outputs with DLC addresses A5 to D8

16 OC switches via one **SC OPEN COLLECTOR 16out**,

16 channels 0 – 10 Volts via two **SC ANALOG 8out** units and

4 channels RS 232 via one **SC SERIAL 4in-out** component:

1st module, device address 2, 16 switching outputs with DLC addresses A1 to D4

2nd module, device address 2, 8 channels 0 – 10 Volts with DLC addresses A1 to D2

3rd module, device address 3, 8 channels 0 – 10 Volts with DLC addresses A3 to D4

4th module, device address 2, 4 serial outputs with DLC addresses A1 to D1

16 channels 0 – 10 volts via two **SC ANALOG 8out** units and

16 channels DMX via one **SC DMX 512in-out unit**

1st module, device address 2, 8 channels 0 – 10 Volts with DLC addresses A1 to D2

2nd module, device address 3, 8 channels 0 – 10 Volts with DLC addresses A3 to D4

3rd module, device address 2, 64 DMX channels with DLC addresses A1 to D8

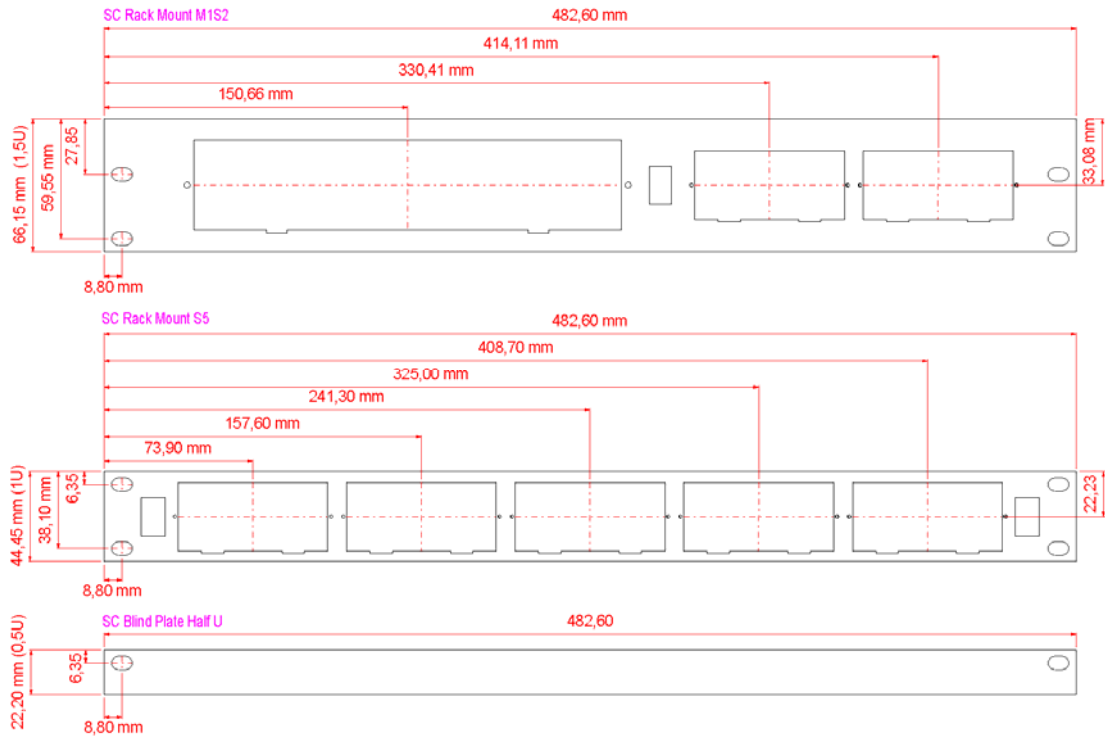
Although SC DMX512 in-out can output 512 channels, only 32 analog/DMX channels can be programmed for a DLC port.

As the first 16 addresses in our example are used by the 0 – 10 Volt channels, or the same information is output there as DMX, respectively, only DLC addresses starting from A5 can be used for DMX control in this case.

Accessories

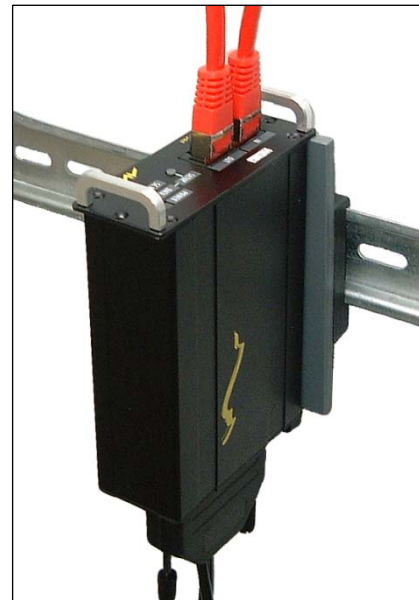
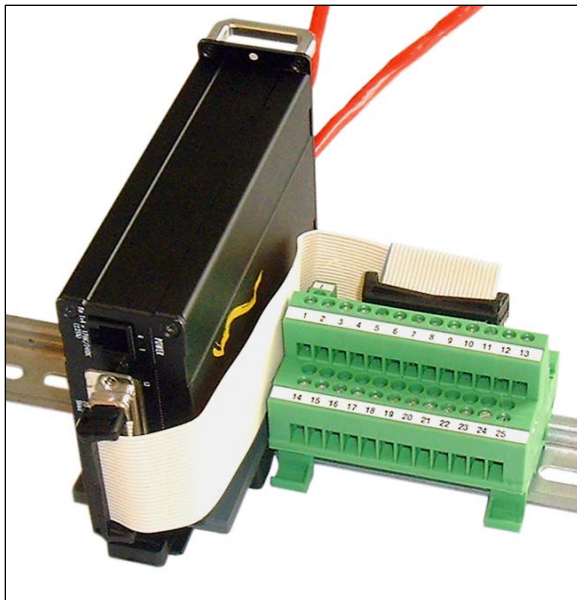
SC Rack Mount

For mounting SC Master units and SC Net modules in a 19" rack system there are 2 adapter plates and a dummy panel available.



SC
DIN
Rail
Mount
For

mounting SC Net modules on DIN rails, as is customary for installations.

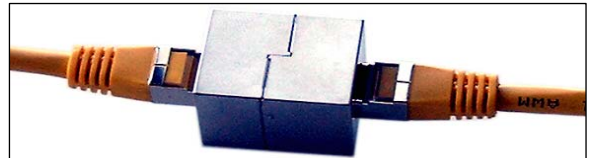
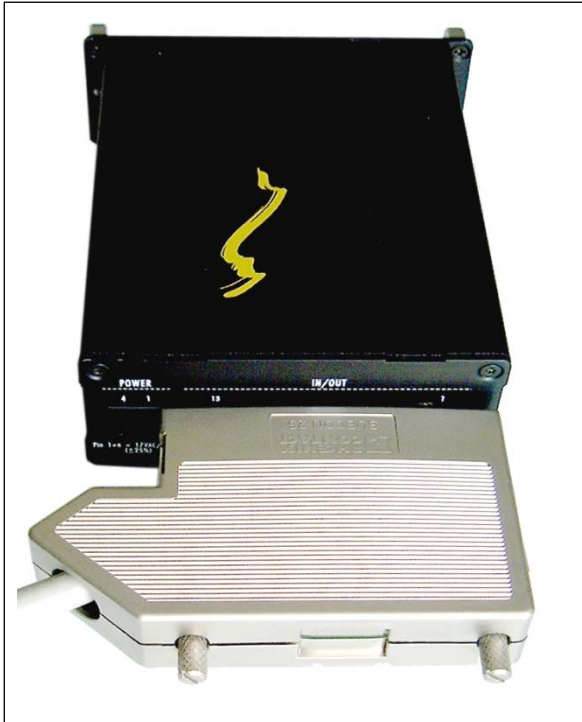


SC NET system cabling

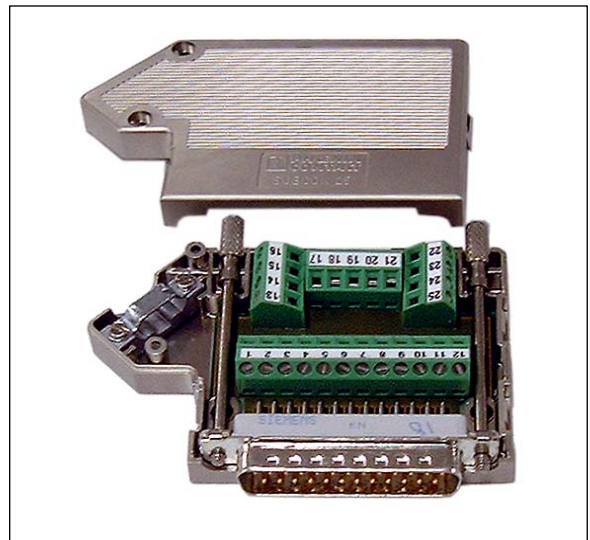
Standard SC Net cables in various lengths (0.15 to 20 m) and for various requirements (shielded/unshielded, twisted pair) are available. Special lengths are available on demand.

Installation material

Connectors with terminal screws as well as terminal blocks for DIN rail mounting to provide the customary electrical installation environment.



Coupling for linking up two SC Net system cables, shielded version



Technical Data

Connectors

IN/OUT: 25-pin Sub-D connector

For the pin assignment refer to the corresponding module

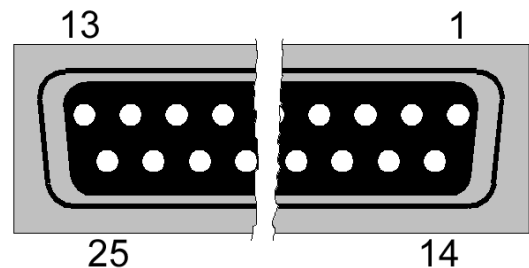
Technical data of connector pins:

Maximum voltage for every connector pin: 48 VDC/VAC

Maximum current for every connector pin: 3 A

Minimum isolation resistance between connector pins: 5000 MOhm

Maximum contact resistance of a connector pin: 5 mOhm

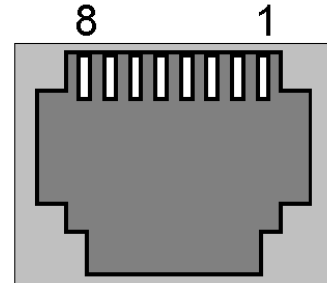
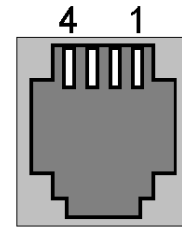


POWER: 4-pin TelJack connector
 Input for additional power supply at pin 1+3 and pin 2+4

SC NET: 8-pin TelJack connector
 Input/Output for system networking.

IN connector:
 Pin 1: GND
 Pin 2: 12VDC ($\pm 25\%$)
 Pin 3: RS232_TXD
 Pin 4: SCNet0_H
 Pin 5: SCNet0_L
 Pin 6: RS232_RXD
 Pin 7: N.C
 Pin 8: N.C

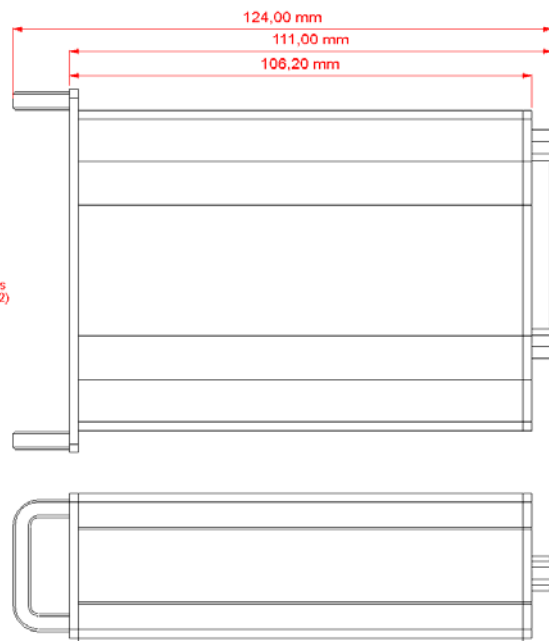
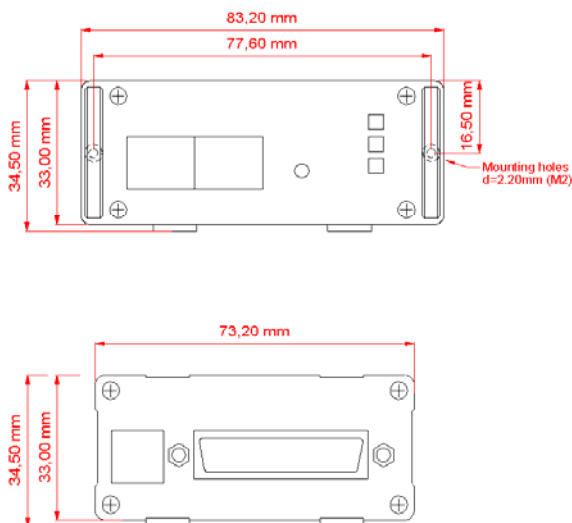
OUT connector:
 Pin 1: GND
 Pin 2: 12VDC ($\pm 25\%$)
 Pin 3: N.C.
 Pin 4: SCNet0_H
 Pin 5: SCNet0_L
 Pin 6: N.C.
 Pin 7: N.C
 Pin 8: N.C



General data:

Weight:	250g
Dimensions:	83.20 x 34.50 x 124.00 mm (W/H/D)
Operating voltage:	12-15VAC (50/60Hz, $\pm 25\%$) or 12VDC ($\pm 25\%$)
Power consumption:	Depends on type of module → see module description
Operating temperature:	10 to 40°C
Operating humidity:	35 to 85% (non condensing)
Storage temperature:	-20 to 60°C
Storage humidity:	10 to 90% (non condensing)

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Update of operating software

Since your SC Net modules include a processor with operating software, they can very simply be kept up-to-date by loading new software.

→ Download an Update File from the Internet. It is available at www.stumpfl.com under "Download" / "Firmware Updates". If you do not have access to the Internet, turn to our Support for help.

→ Use cable **SCK-N_PC** to connect the SC Net module to a serial port on your computer (Com 1....4).

→ Start your computer and switch on the SC Net module power supply.

→ Double-click the downloaded file **SDUpdateEx...x.exe** to start it. Information about updateable devices will appear. Now click "**Setup**".



→ Click on "**Update**". The progress can be monitored in the dialog box. During the update the LED lights on the SC Net Module will be running.

→ After about 15 minutes the updating process should be complete – a corresponding message will appear on the display. The SC Net Module will boot automatically and be ready for use again after that.

Important note:

- During the update process neither the SC Net Module power supply nor the connection to the computer must be interrupted!
- If a screen saver is activated during the update, the update dialog may appear in white. In this case you should definitely wait until the update is completed, the light has stopped running and the Power LED has started flashing again at an interval of a second.
- To be on the safe side, you should disable the screen saver during the update.

SC Net Module Variants

SC RELAY 8out

Switching module with 8 floating relays for any switching operations.

Maximum current consumption of the module ("+12 VDC out" no load):

All outputs inactive: 100 mA

All outputs active: 180 mA

Technical data of switching contacts:

Type of switching contact: SPST-NO (single-pole single-throw – normally open)

Maximum contact load: 30VDC / 3A, 48VAC / 3A

Maximum resistance of closed contact: 30 mOhm (at 1 A / 6 VDC)

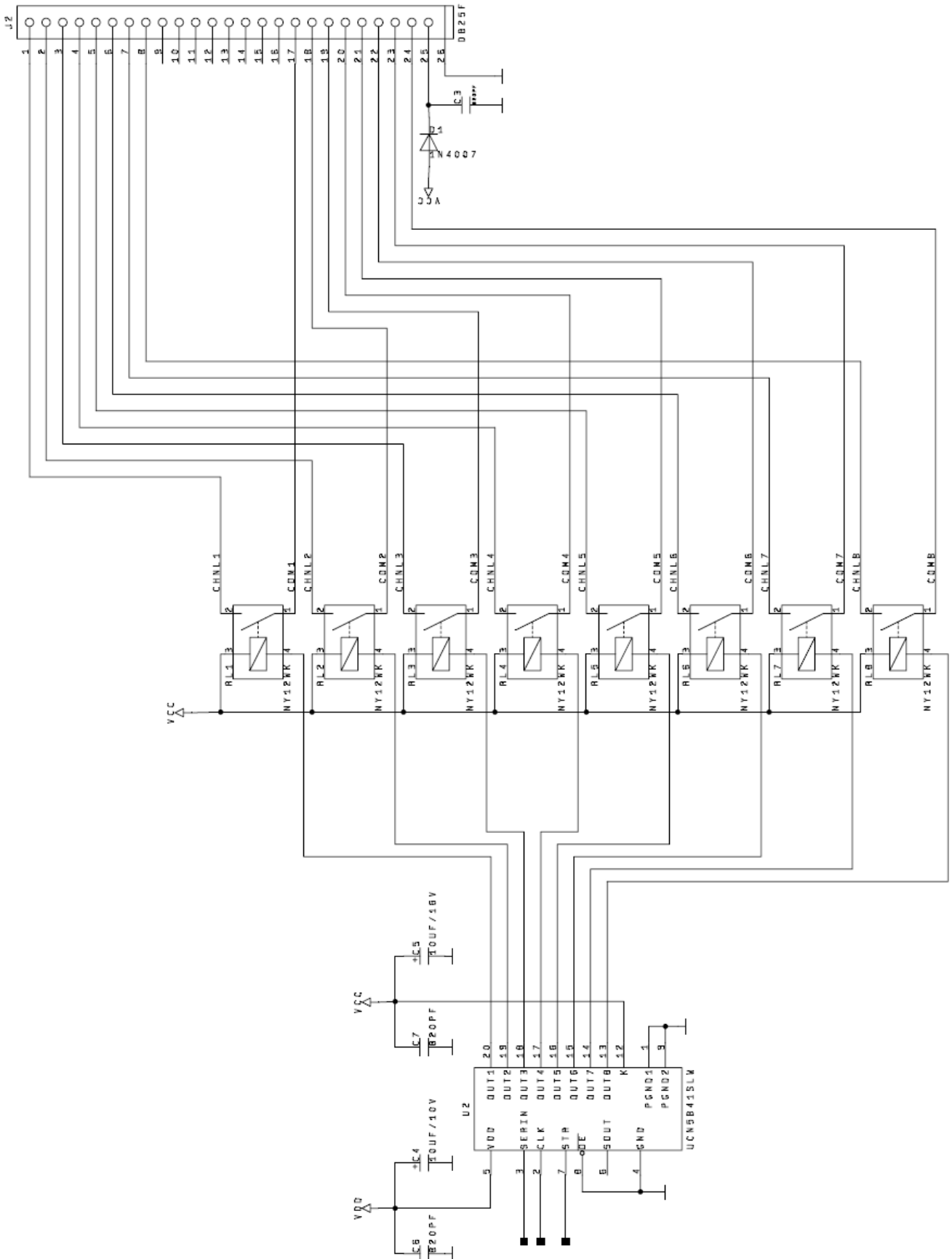
Minimum isolation resistance of open contact: 1000 MOhm (at 500 VDC)

Minimum contact life: 1.5×10^5 operations

Output pin assignment (25-pin Sub D connector):

Pin	Function
1	Channel 1
2	Channel 2
3	Channel 3
4	Channel 4
5	Channel 5
6	Channel 6
7	Channel 7
8	Channel 8
9	N.C.
10	N.C.
11	N.C.
12	N.C.
13	N.C.
14	N.C.
15	N.C.
16	N.C.
17	Common channel 1
18	Common channel 2
19	Common channel 3
20	Common channel 4
21	Common channel 5
22	Common channel 6
23	Common channel 7
24	Common channel 8
25	+12VDC out (max 100mA)
Shield	GND

Circuit diagram SC RELAY 8out



SC OPEN COLLECTOR 16out

Module with 16 open-collector outputs for switching any load, such as small lamps, motors, power relays, electromagnets, etc. Open-collector switches are particularly suited for high switching frequencies, as they are non-wearing compared to relays.

Important: For inductive loads, a free wheel diode must be connected in parallel with the load.

Maximum current consumption of the module ("+12 VDC out" no load): 100 mA

Technical data of switching contacts:

Type of switching contact: Transistor Open-Collector Output

Maximum contact breaking capacity: 48 VDC / 400 mA

Max. sum current of contacts 1-8 or 9-16, respectively: 1000 mA

Maximum resistance of closed contact: 30 mOhm (at 1 A / 6 VDC)

Collector-emitter saturation voltage of a contact: 1 V – 1.6 V

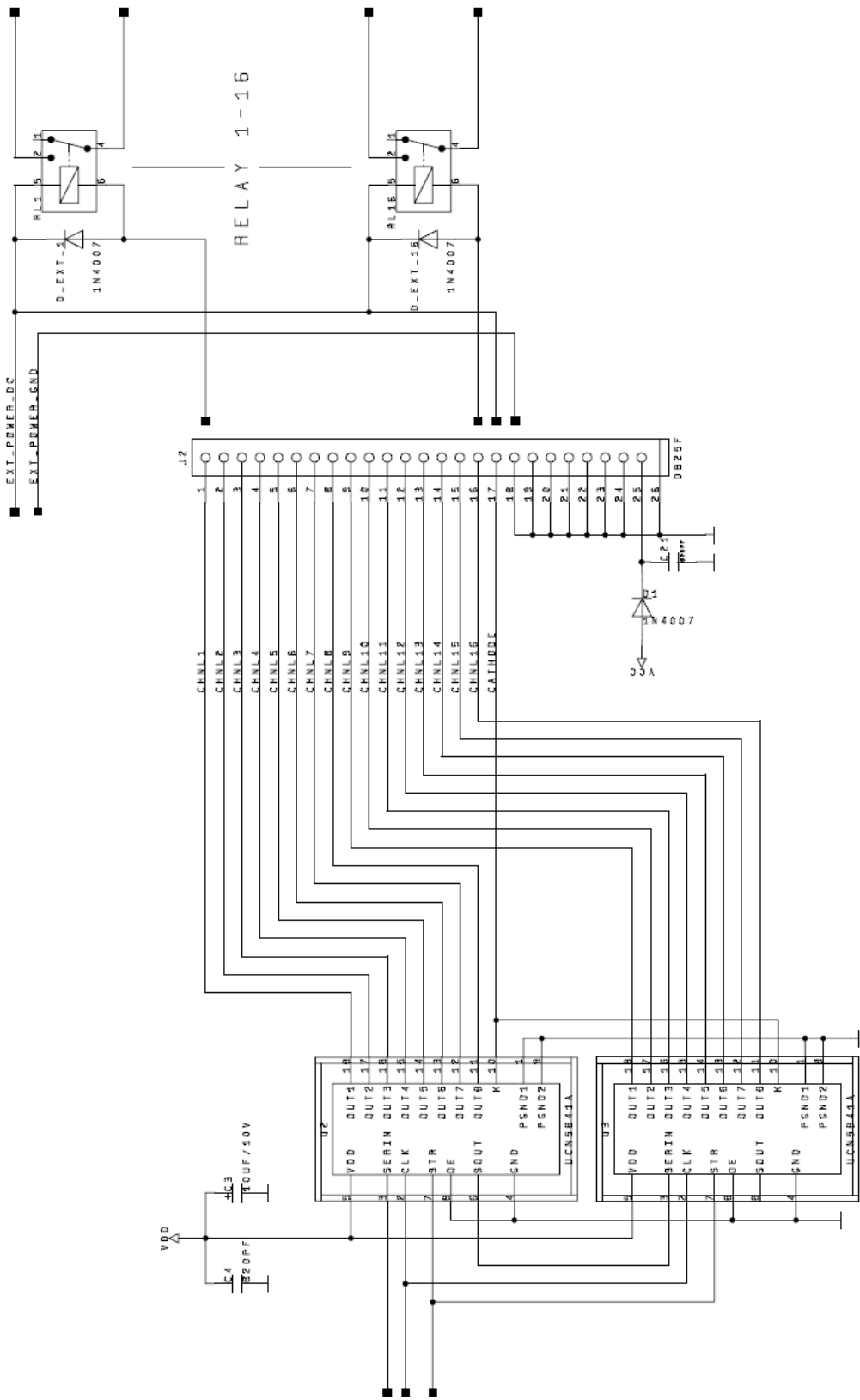
Minimum contact life: unlimited number of switching operations

Important: Outputs must not be connected to negative voltages or voltages higher than 48V with reference to GND!

Output pin assignment (25-pin Sub D connector):

Pin	Function
1	Channel 1
2	Channel 2
3	Channel 3
4	Channel 4
5	Channel 5
6	Channel 6
7	Channel 7
8	Channel 8
9	Channel 9
10	Channel 10
11	Channel 11
12	Channel 12
13	Channel 13
14	Channel 14
15	Channel 15
16	Channel 16
17	Joint cathode of internal protective diodes
18	Common (GND)
19	Common (GND)
20	Common (GND)
21	Common (GND)
22	Common (GND)
23	Common (GND)
24	Common (GND)
25	+12VDC out (max 100mA)
Shield	GND

Circuit diagram SC OPEN COLLECTOR 16out



SC OPEN COLLECTOR 32out

Module with 32 open-collector outputs for switching any load, such as small lamps, motors, power relays, electromagnets, etc. Open-collector switches are particularly suited for high switching frequencies, as they are non-wearing compared to relays.

Important: For inductive loads, a free wheel diode must be connected in parallel with the load.

Maximum current consumption of the module ("+12 VDC out" no load): 100 mA

Technical data of switching contacts:

Type of switching contact: Transistor Open-Collector Output

Maximum contact breaking capacity: 48VDC / 400mA

Max. sum current of contacts 1-8, 9-16, 17-24 and 25-32: 1000 mA each

Maximum resistance of closed contact: 30 mOhm (at 1 A / 6 VDC)

Collector-emitter saturation voltage of a contact: 1 V – 1.6 V

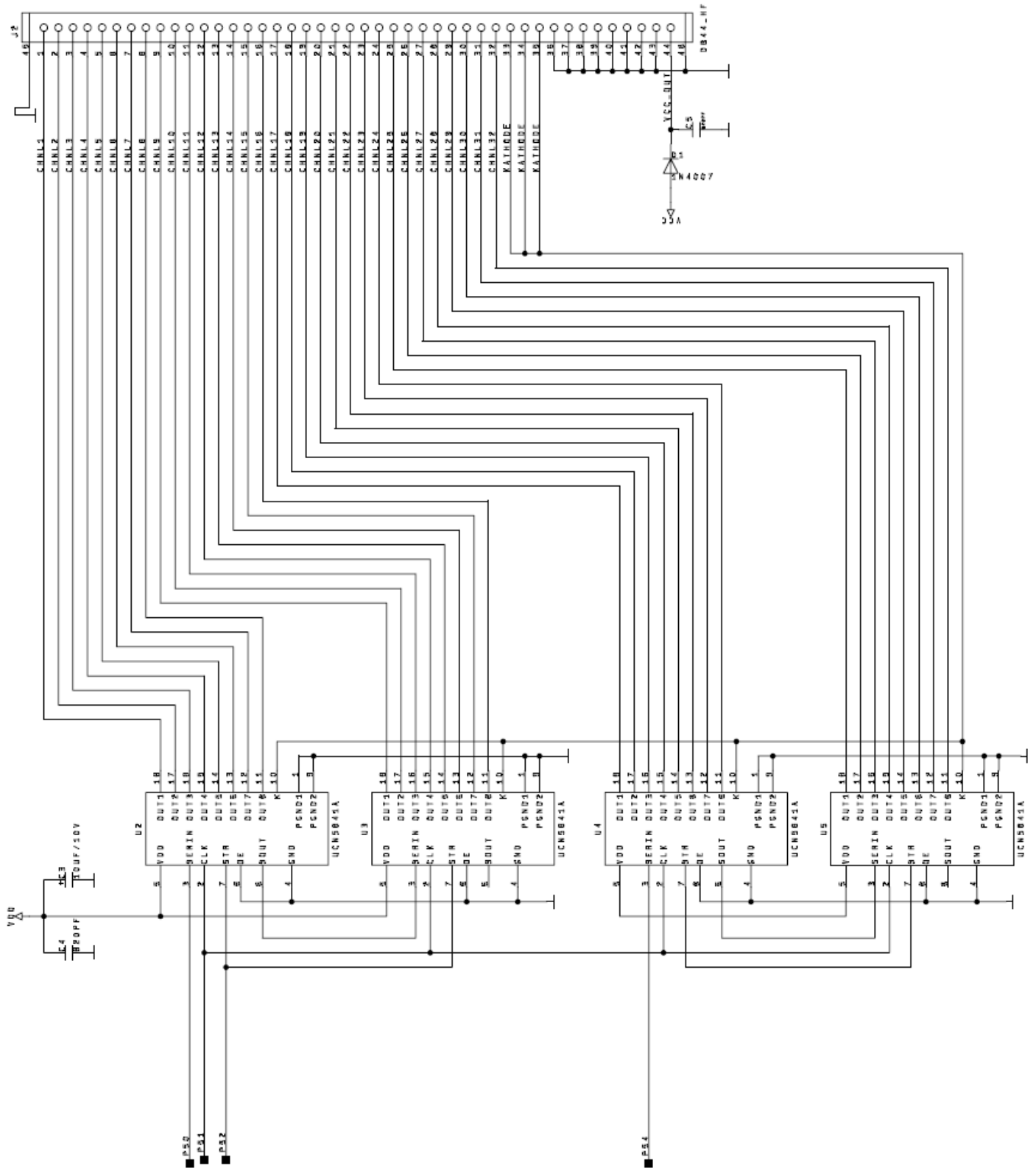
Minimum contact life: unlimited number of switching operations

Important: Outputs must not be connected to negative voltages or voltages higher than 48V with reference to GND!

Output pin assignment (44-pin Sub D connector):

Pin	Function
1 – 32	Channel 1 to channel 32
33	Joint cathode of internal protective diodes
34	Joint cathode of internal protective diodes
35	Joint cathode of internal protective diodes
36	Common (GND)
37	Common (GND)
38	Common (GND)
39	Common (GND)
40	Common (GND)
41	Common (GND)
42	Common (GND)
43	Common (GND)
44	+12VDC out (max 100mA)
Shield	GND

Circuit diagram SC OPEN COLLECTOR 32out



SC ANALOG 8out

This module allows control of room illumination, floodlights, amplifiers (VCA), servo motors and other devices, which can be controlled by 0 to 10 V DC. It has 8 control channels with a 10-bit resolution, corresponding to 10 mV steps.

Maximum current consumption of the module ("+12 VDC out" no load):

All outputs unloaded: 100 mA

Max. load on all outputs: 260 mA

Technical data of outputs:

Output type: Voltage source 0-10 V, 10-bit resolution (approx. 10 mV steps)

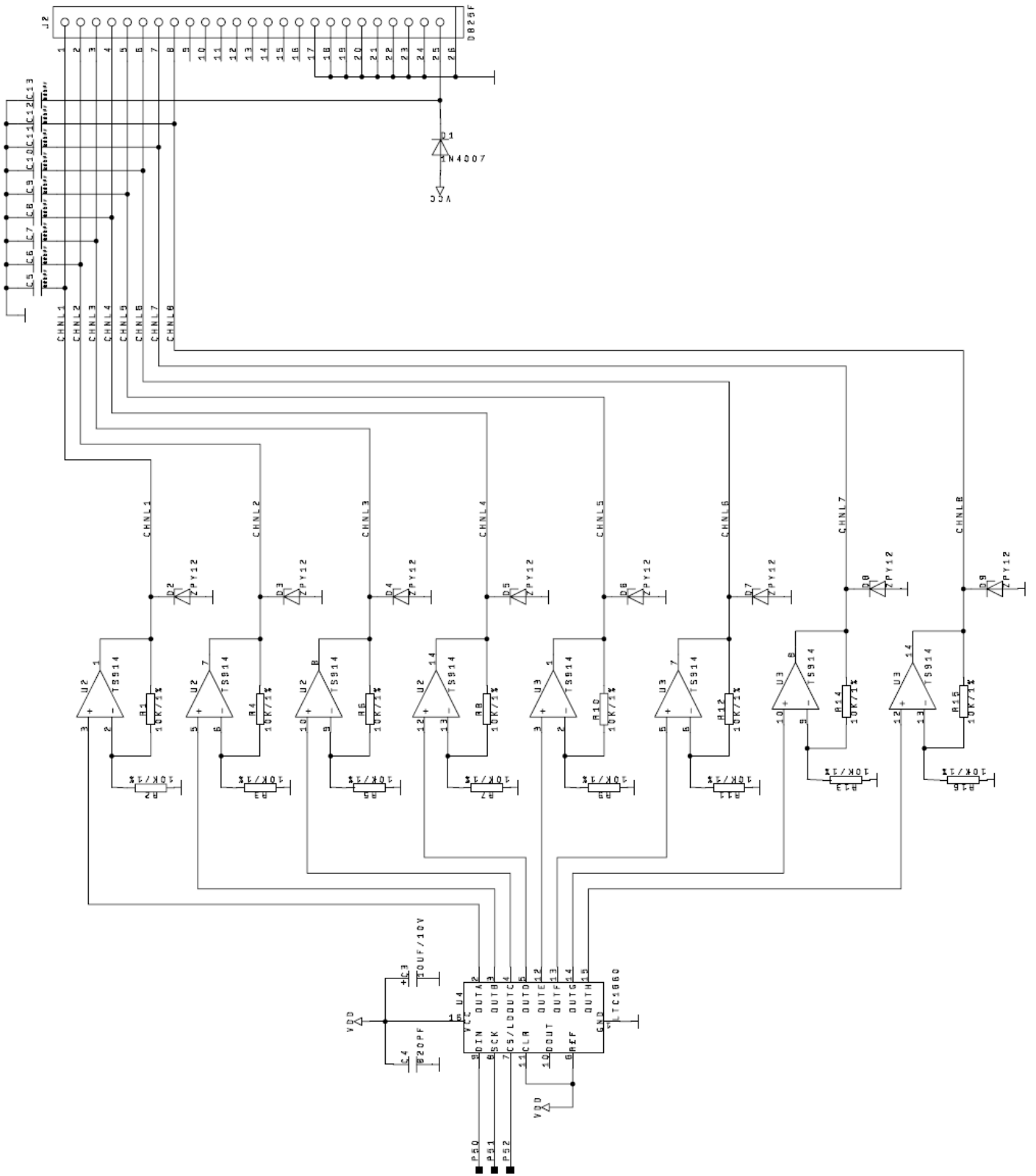
Maximum output current: 20 mA (source and sink)

Important: Outputs must not be connected to negative voltages or voltages higher than 10V with reference to GND!

Output pin assignment (25-pin Sub D connector):

Pin	Function
1	Channel 1
2	Channel 2
3	Channel 3
4	Channel 4
5	Channel 5
6	Channel 6
7	Channel 7
8	Channel 8
9	N.C.
10	N.C.
11	N.C.
12	N.C.
13	N.C.
14	N.C.
15	N.C.
16	N.C.
17	Common (GND)
18	Common (GND)
19	Common (GND)
20	Common (GND)
21	Common (GND)
22	Common (GND)
23	Common (GND)
24	Common (GND)
25	+12VDC out (max 100mA)
Shield	GND

Circuit diagram SC ANALOG 8out



SC SERIAL 4in-out

This universal module has four configurable serial inputs/outputs (RS 232) for controlling any type of component with the corresponding interfaces, such as professional CD players, DVD players, video recorders, data projectors, displays, etc.

The interface configuration is software selectable (baud rate, data bits, stop bits, parity bit), with Software Handshake being available, too.

Maximum current consumption of the module ("+12 VDC out" no load): 120 mA

Technical data of in/outputs:

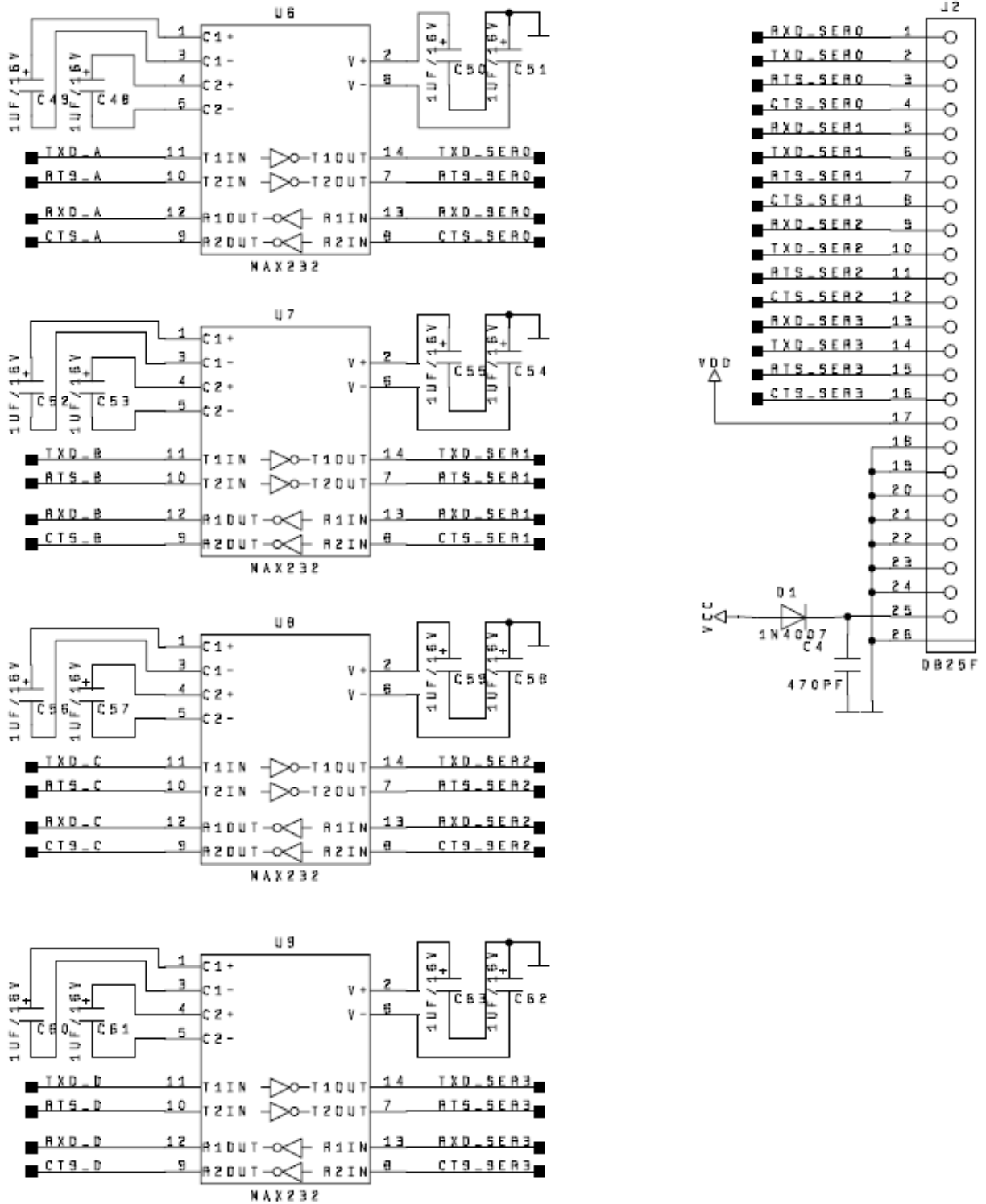
In/outputs: Standard RS232 voltage level.

Important: No external voltages must be applied to inputs and outputs!

Output pin assignment (25-pin Sub D connector):

Pin	Function RS232
1	Channel 1 RxD
2	Channel 1 TxD
3	Channel 1 RTS
4	Channel 1 CTS
5	Channel 2 RxD
6	Channel 2 TxD
7	Channel 2 RTS
8	Channel 2 CTS
9	Channel 3 RxD
10	Channel 3 TxD
11	Channel 3 RTS
12	Channel 3 CTS
13	Channel 4 RxD
14	Channel 4 TxD
15	Channel 4 RTS
16	Channel 4 CTS
17	+5VDC
18	GND
19	GND
20	GND
21	GND
22	GND
23	GND
24	GND
25	+12VDC out (max 100mA)
Shield	GND

Circuit diagram SC SERIAL 4in-out



SC REMOTE 16in

This module is ideal for any type of external control (.e.g. control panel for permanent installations, limit switches, buttons, other switching contacts). The show is started upon activating an input channel. Sensor input (Pin17) is used to define whether the show is to be started via a positive or a negative pulse. When the pin is not connected it responds to positive levels, when it is connected to GND a negative pulse triggers a response.

A particular input can be allocated to a particular show via the dialog "FlashCard Settings". Make sure that the module with the SC Net address **2** starts those shows specified in Remote 1 to Remote 16, with input channel 1 corresponding to Remote 1.

The module with the SC Net address **3** starts the shows from Remote 17 to Remote 32, etc. When allocating SC Net addresses you should therefore make sure that the SC REMOTE modules are assigned to the lower address spaces.

Further information can be found in the Wings Platinum Online Help or in the SC Master Manual.

Maximum current consumption of the module ("+12 VDC out" no load): 100 mA

Technical data of inputs:

Input type: Digital inputs max. 48 V (Low-Level <1V, High-Level 3-48 V)

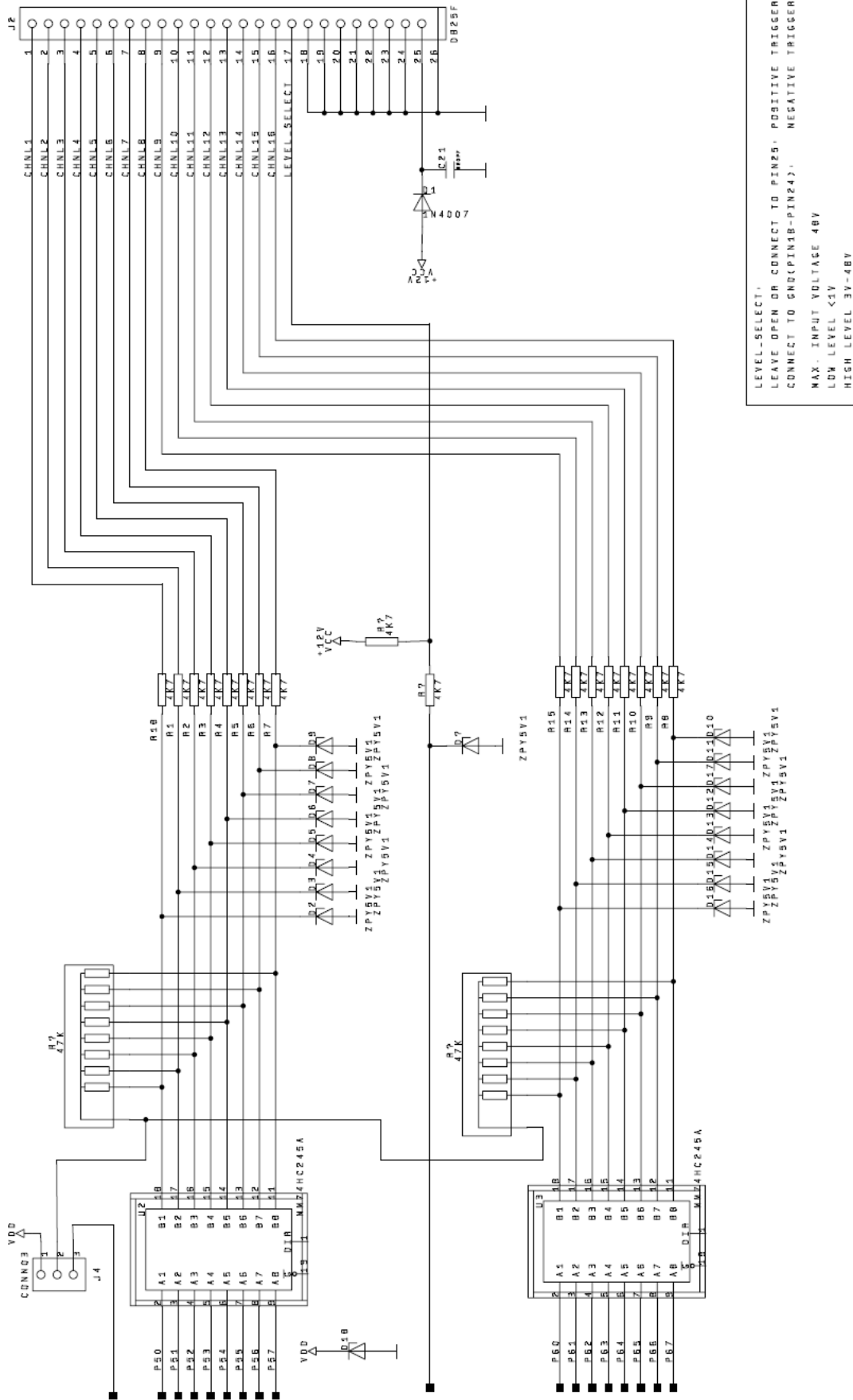
Input impedance: >4.7 kOhm

Important: Inputs must not be connected to negative voltages or voltages higher than 48V with reference to GND!

Output pin assignment (25-pin Sub D connector):

Pin	Function
1	Channel 1
2	Channel 2
3	Channel 3
4	Channel 4
5	Channel 5
6	Channel 6
7	Channel 7
8	Channel 8
9	Channel 9
10	Channel 10
11	Channel 11
12	Channel 12
13	Channel 13
14	Channel 14
15	Channel 15
16	Channel 16
17	Choice of switching level
18	Common (GND)
19	Common (GND)
20	Common (GND)
21	Common (GND)
22	Common (GND)
23	Common (GND)
24	Common (GND)
25	+12VDC out (max 100mA)
Shield	GND

Circuit diagram SC REMOTE 16in



SC REMOTE 16in-out

This module is ideal for any type of external control (.e.g. control panel for permanent installations, limit switches, buttons, other switching contacts). The show is started upon activating an input channel. Light emitting diodes can be connected in parallel with the external switching contacts. They are freely programmable and can be used for acknowledgements or any other optical information.

A particular input can be allocated to a particular show via the dialog "FlashCard Settings". Make sure that the module with the SC Net address **2** starts those shows specified in Remote 1 to Remote 16, with input channel 1 corresponding to Remote 1. The module with the SC Net address **3** starts the shows from Remote 17 to Remote 32, etc.

When allocating SC Net addresses you should therefore make sure that the SC REMOTE modules are assigned to the lower address spaces.

Further information can be found in the Wings Platinum Online Help.

Maximum current consumption of the module ("+12 VDC out" no load): 100 mA

Technical data of in/outputs:

Digital input, internal pull-up resistors, switching level <0.5 V.

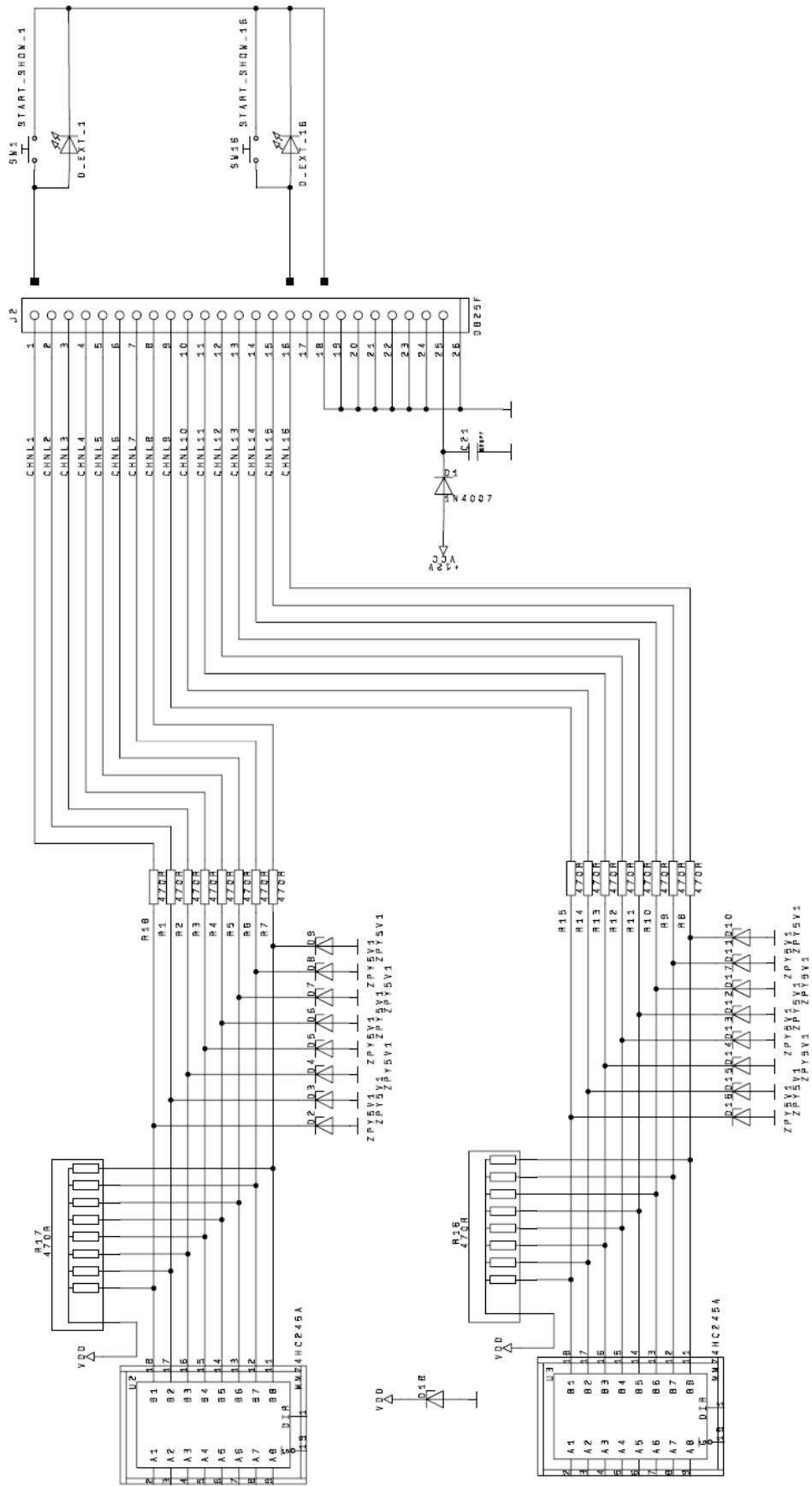
Output: Control of light emitting diodes, direct connection between output and GND.

Important: Inputs must not be connected to negative voltages or voltages higher than 12V with reference to GND!

Output pin assignment (25-pin Sub D connector):

Pin	Function
1	Channel 1
2	Channel 2
3	Channel 3
4	Channel 4
5	Channel 5
6	Channel 6
7	Channel 7
8	Channel 8
9	Channel 9
10	Channel 10
11	Channel 11
12	Channel 12
13	Channel 13
14	Channel 14
15	Channel 15
16	Channel 16
17	N.C.
18	Common (GND)
19	Common (GND)
20	Common (GND)
21	Common (GND)
22	Common (GND)
23	Common (GND)
24	Common (GND)
25	+12VDC out (max 100mA)
Shield	GND

Circuit diagram SC REMOTE 16in-out



SC DMX512 in-out

This module features an output for light control in accordance with a DMX512 protocol. 512 DMX channels can be controlled by this module. This means that even demanding stage shows can be implemented.

Maximum current consumption of the module ("+12 VDC out" no load): 100 mA

Technical data of in/outputs:

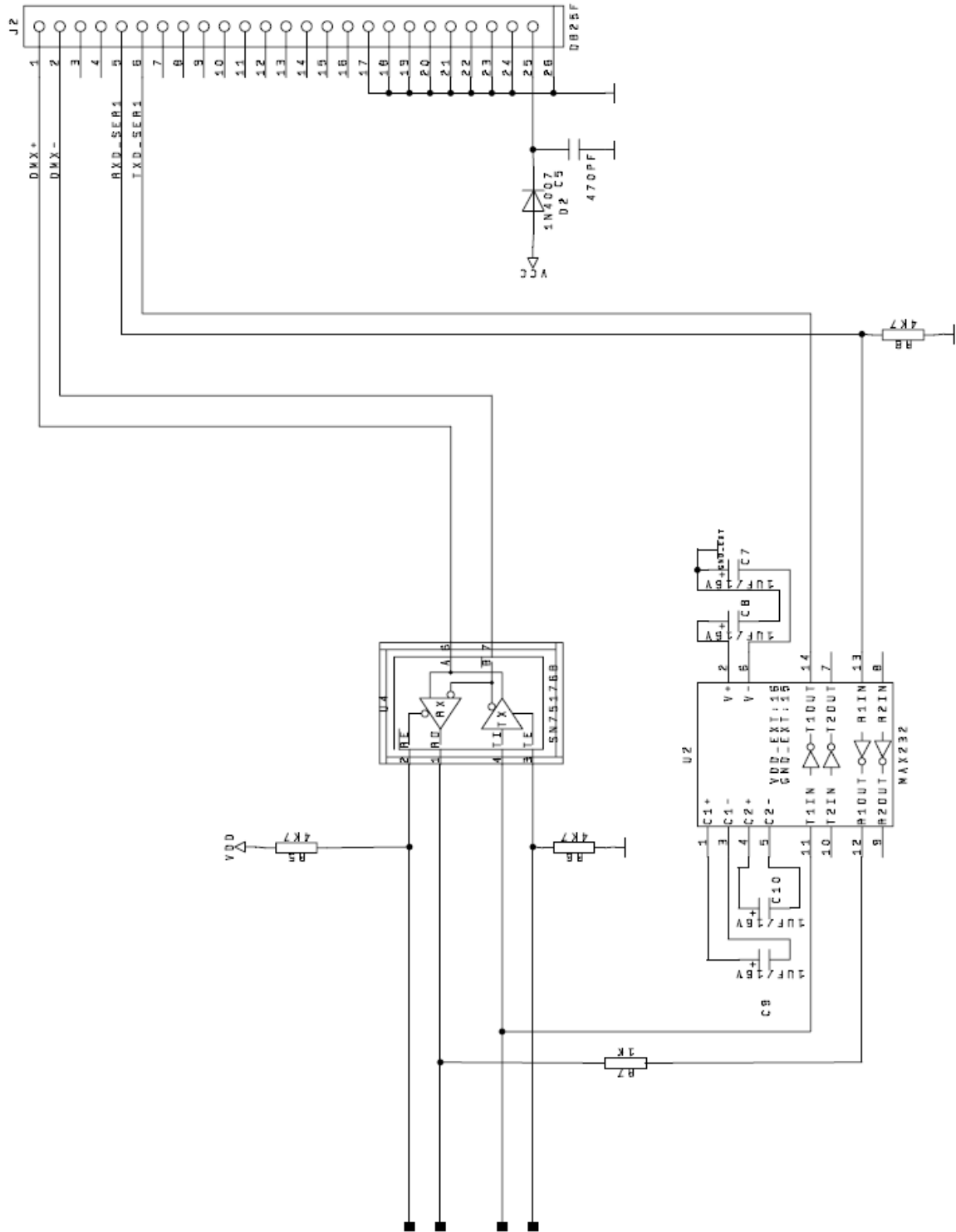
Outputs: PIN1 and PIN2 standard DMX512 voltage level max 5V.
PIN 5 and PIN 6 standard RS232 voltage level

Important: No external voltages must be applied to inputs and outputs!

Output pin assignment (25-pin Sub D connector):

Pin	Function
1	DMX+
2	DMX-
3	N.C.
4	N.C.
5	RXD (for test only)
6	TXD (for test only)
7	N.C.
8	N.C.
9	N.C.
10	N.C.
11	N.C.
12	N.C.
13	N.C.
14	N.C.
15	N.C.
16	N.C.
17	Common (GND)
18	Common (GND)
19	Common (GND)
20	Common (GND)
21	Common (GND)
22	Common (GND)
23	Common (GND)
24	Common (GND)
25	+12VDC out (max 100mA)
Shield	GND

Circuit diagram SC DMX512 in-out



SC SERVO 8out

Standard modeling servo motors can be connected to this module. The rotary movement is conveniently programmed by drawing a ramp in Wings Platinum or Wings Pro. This feature, which allows rotary positioning, allows interesting mechanical effects to be implemented without any extra efforts. The servo motors are supplied via the supplied switched mode mains power supply. The power supply unit is to be connected to the POWER connector.

Maximum current consumption of the module ("+12VDC out" no load, no servo motor connected):
100 mA

Technical data of outputs:

Power supply: 5VDC/ max. 2 A overall power consumption for all 8 servo motors.

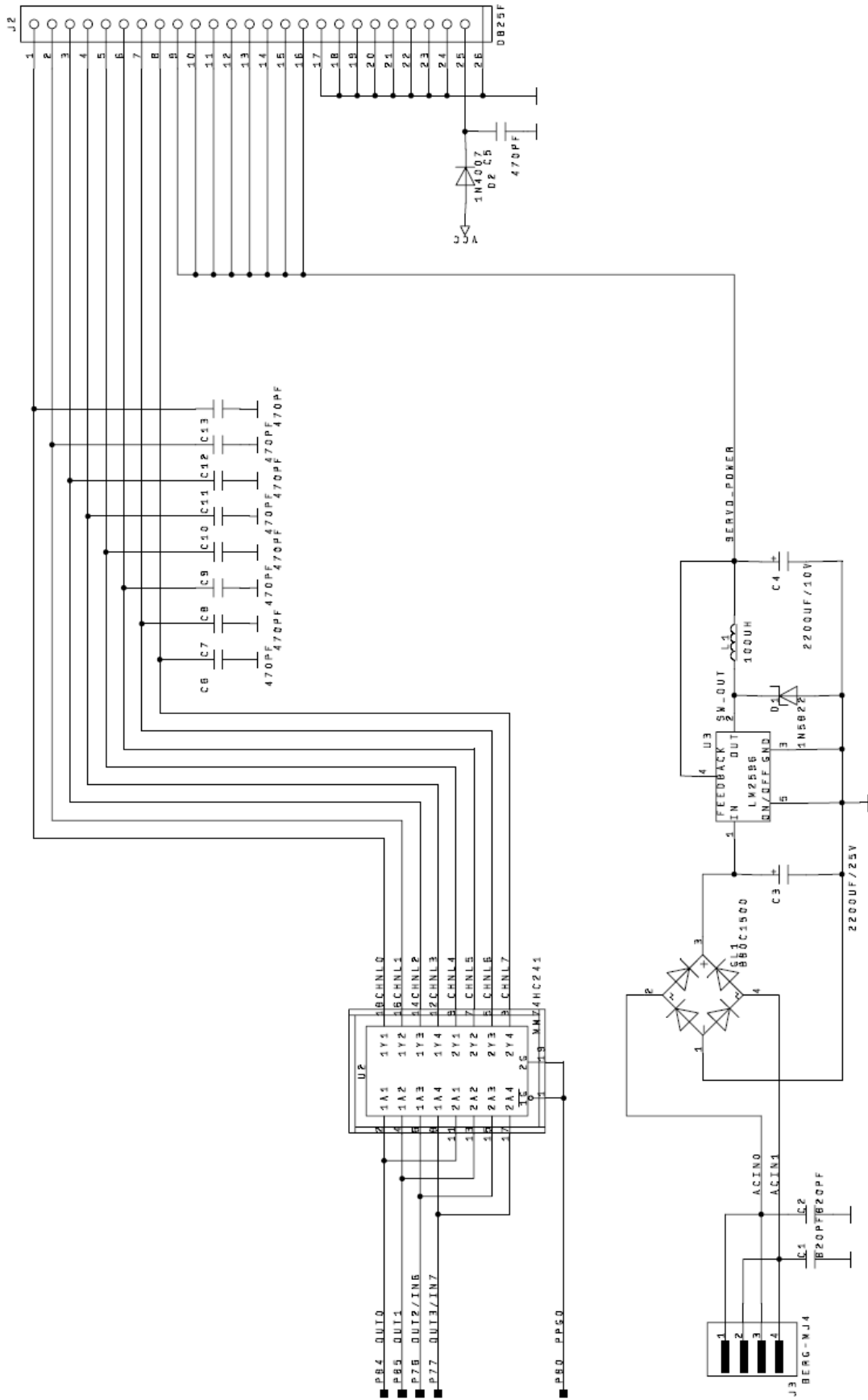
Outputs: Standard PWM output (positive pulse)

Important: No external voltages must be applied to inputs and outputs!

Output pin assignment (25-pin Sub D connector):

Pin	Function
1	Channel 1
2	Channel 2
3	Channel 3
4	Channel 4
5	Channel 5
6	Channel 6
7	Channel 7
8	Channel 8
9	+5VDC
10	+5VDC
11	+5VDC
12	+5VDC
13	+5VDC
14	+5VDC
15	+5VDC
16	+5VDC
17	Common (GND)
18	Common (GND)
19	Common (GND)
20	Common (GND)
21	Common (GND)
22	Common (GND)
23	Common (GND)
24	Common (GND)
25	+12VDC out (max 100mA)
Shield	GND

Circuit diagram SC SERVO 8out



SC REMOTE 64in

This module is ideal for any type of external control (.e.g. control panel for permanent installations, limit switches, buttons, other switching contacts).

The buttons or switching contacts are either connected to an 8x8 matrix or up to four 12-key keypads in a 4x3 matrix.

Pin 17 allows matrix selection:

Pin 17 = open: 8x8 matrix

Available connections: Horizontal 1-8 to Vertical 1-8.

Horizontal 1 linked up with Vertical 1-8 corresponds to Remote 1 to 8.

Horizontal 2 linked up with Vertical 1-8 corresponds to Remote 9 to 16, etc.

With an 8x8 matrix, closing the contact causes the corresponding show to be started.

Pin 17 = GND: 4x 4x3 matrix

This type of wiring is suitable for starting shows of an installation at up to four different locations.

Wiring:

Keypad 1: Horizontal 1_1 to 1_4 connected to Vertical 1_1 to 1_3.

Keypad 2: Horizontal 1_1 to 1_4 connected to Vertical 2_1 to 2_3.

Keypad 3: Horizontal 2_1 to 2_4 connected to Vertical 1_1 to 1_3.

Keypad 4: Horizontal 2_1 to 2_4 connected to Vertical 2_1 to 2_3.

The 4x 4x3 matrix version has an additional 1,2,3 Enter Logic. This means that the corresponding show 1 to 200 is selected via the keypad, but the show is only started after pressing the #-key (=Enter). The *-key (=Clear) deletes faulty entries.

A particular contact can be allocated to a particular show via the dialog "FlashCard Settings". Make sure that the module with the SC Net address **2** starts those shows specified in Remote 1 to Remote 64, with contact 1 corresponding to Remote 1. The module with the SC Net address **3** starts the shows from Remote 65 to Remote 128, etc. When allocating SC Net addresses you should therefore make sure that SC REMOTE 64in modules are assigned to the lower address spaces.

Further information can be found in the Wings Platinum Online Help or in the SC Master Manual.

Maximum current consumption of the module ("+12 VDC out" no load): 100 mA

Technical data of in/outputs:

Input type: Digital input, internal pull-up resistors, switching level <0.5 V.

Important: Inputs must not be connected to negative voltages or voltages higher than 48V with reference to GND!

Output pin assignment (25-pin Sub D connector):

Pin	Function with 8x8 matrix	Function with 4x4x3 matrix
1	Horizontal 1	Horizontal 1_1
2	Horizontal 2	Horizontal 1_2
3	Horizontal 3	Horizontal 1_3
4	Horizontal 4	Horizontal 1_4
5	Horizontal 5	Horizontal 2_1
6	Horizontal 6	Horizontal 2_2
7	Horizontal 7	Horizontal 2_3
8	Horizontal 8	Horizontal 2_4
9	Vertical 1	Vertical 1_1
10	Vertical 2	Vertical 1_2
11	Vertical 3	Vertical 1_3
12	Vertical 4	
13	Vertical 5	Vertical 2_1
14	Vertical 6	Vertical 2_2
15	Vertical 7	Vertical 2_3
16	Vertical 8	
17	N.C.	GND
18	Common (GND)	Common (GND)
19	Common (GND)	Common (GND)
20	Common (GND)	Common (GND)
21	Common (GND)	Common (GND)
22	Common (GND)	Common (GND)
23	Common (GND)	Common (GND)
24	Common (GND)	Common (GND)
25	+12VDC out (max 100mA)	+12VDC out (max 100mA)
Shield	GND	GND

Circuit diagram SC REMOTE 64in

