

LCD MODULE

1 GENERAL

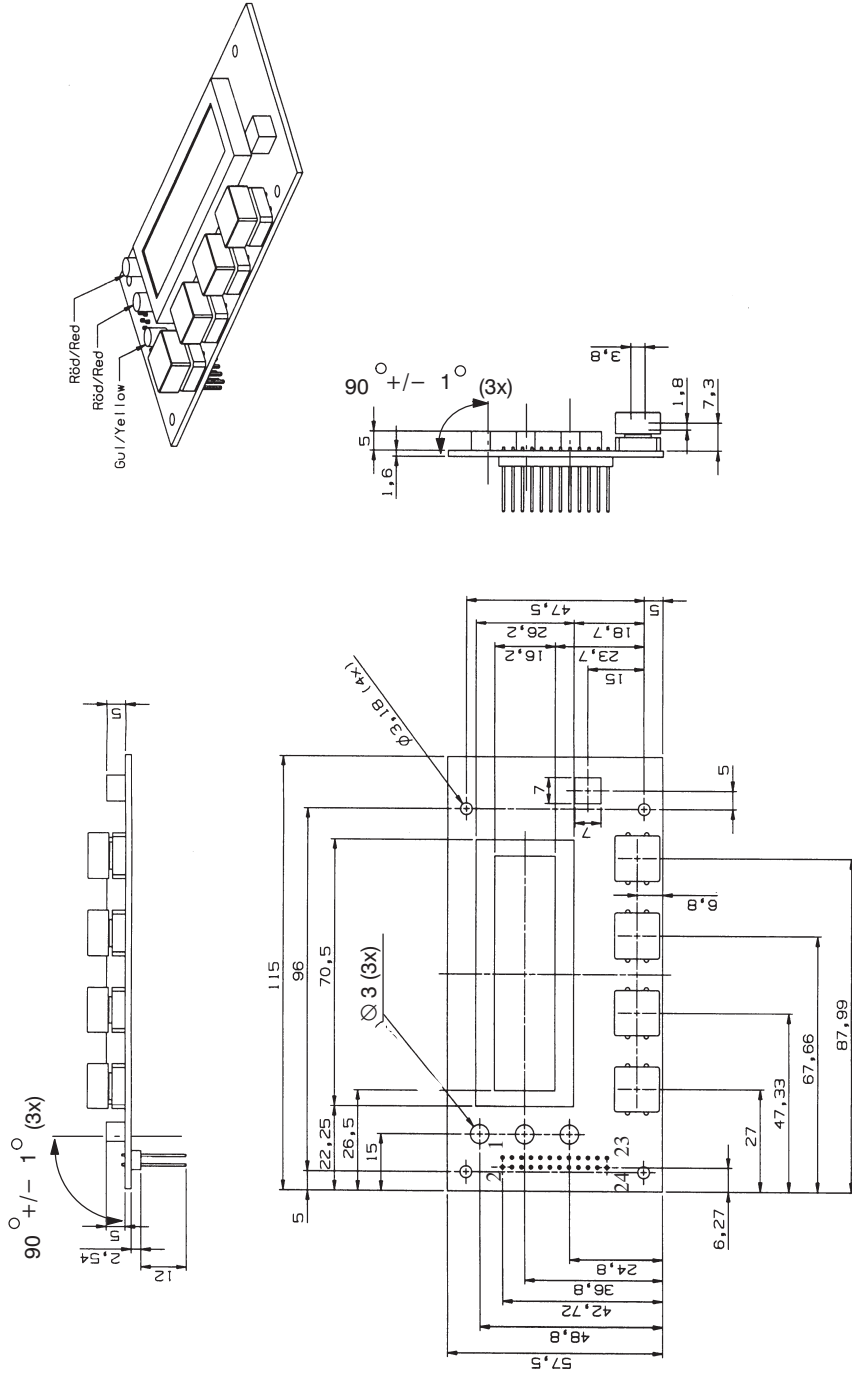
The module consists of a 5x7 dots 16 characters 2– line LCD panel, LCD driver and controller, gold– plated switches (SPST), LED's, a potentiometer, gold– plated connectors and a printed circuit board. The PCB layout enforces EMC and ESD protection.

2 DESIGN

2.1

DIMENSIONS

Values in millimeters. Maximum unless otherwise stated.



2.2

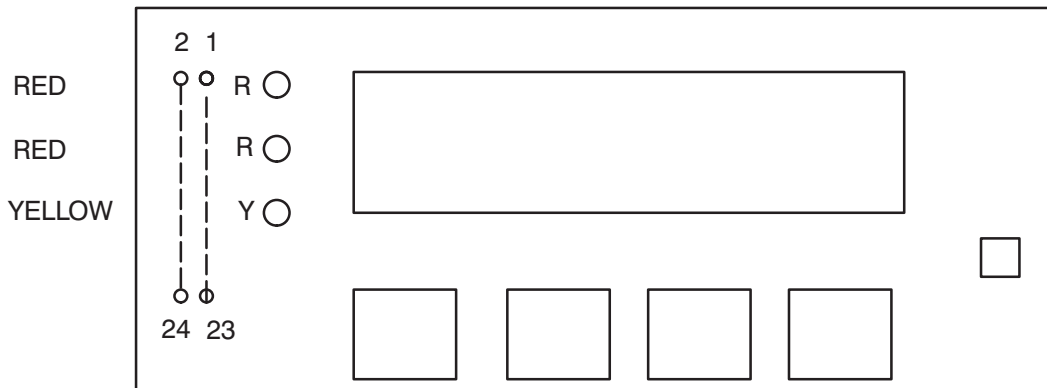
CONNECTIONS (DESCRIPTION)

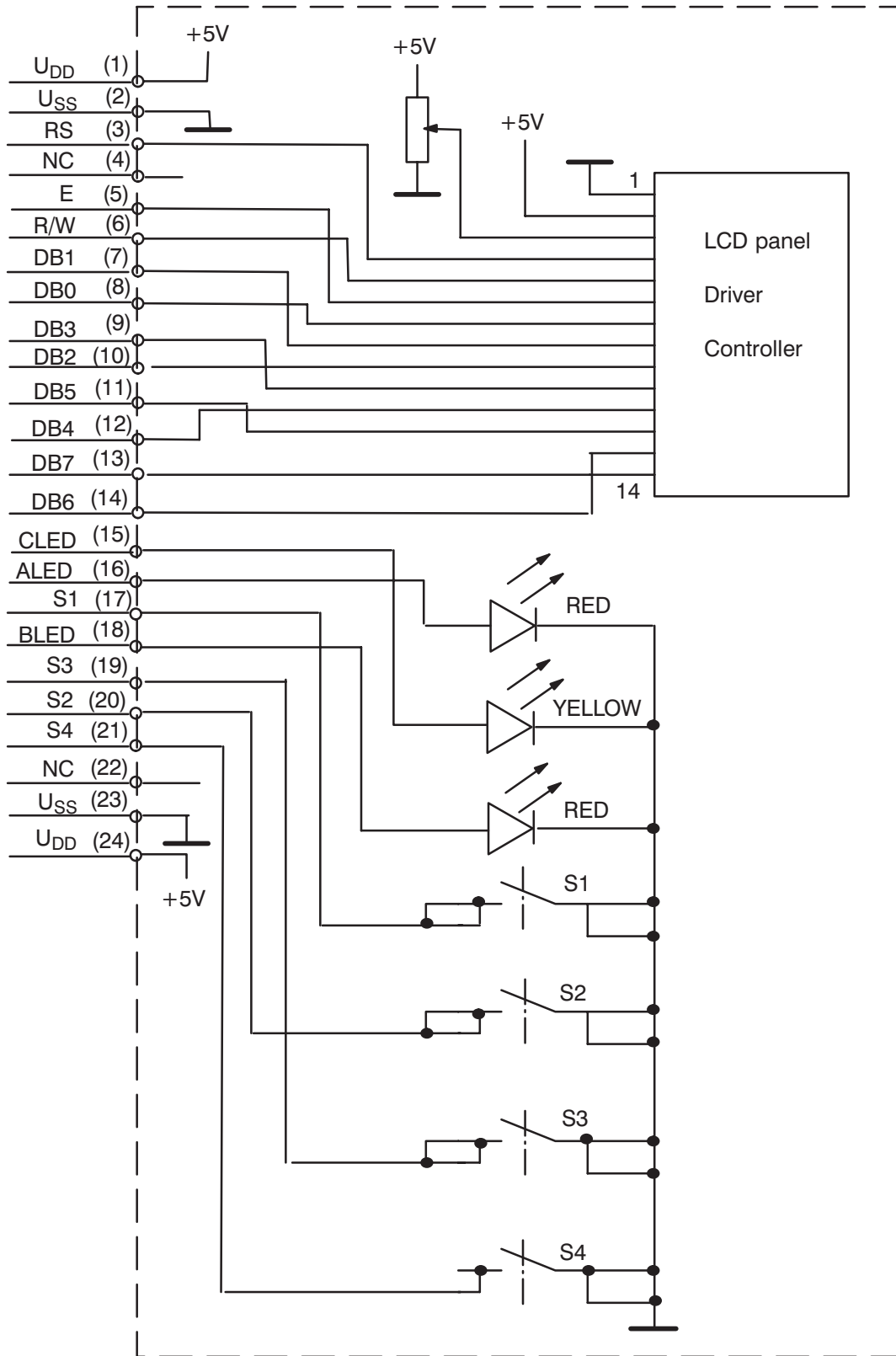
<u>Terminal</u>	<u>Symbol</u>	<u>Function</u>
1	U_{DD}	Supply voltage
2	U_{SS}	GND
3	RS	Register select
4	NC	No connection
5	E	Read/ write enable
6	R/W	Read/ write select
7	DB1	Data bit 1
8	DB0	Data bit 0
9	DB3	Data bit 3
10	DB2	Data bit 2
11	DB5	Data bit 5
12	DB4	Data bit 4
13	DB7	Data bit 7
14	DB6	Data bit 6
15	CLED(+)	LED C
16	ALED(+)	LED A
17	S1	Switch 1
18	BLED(+)	LED B
19	S3	Switch 3
20	S2	Switch 2
21	S4	Switch 4
22	NC	No connection
23	U_{SS}	GND
24	U_{DD}	Supply voltage

2.3

LED POSITION

Top view





3 LIMITING VALUES

	Quantity	Symbol	Value	Unit
3.1	SUPPLY VOLTAGE	U_{DD}	-0.3...+6.5	V
3.2	INPUT VOLTAGE (at pin 3, 5–14)	U_{IN}	-0.3... $U_{DD}+0.3$	V
3.3	REVERSE VOLTAGE (at pin 15, 16 and 18)	U_R	3	V
3.4	FORWARD CURRENT (at pin 15, 16 and 18)	I_F	25	mA
3.5	SWITCHING CAPACITY (at pin 17, 19 – 21)		5...24 1..50	Vdc mA
3.6	AMBIENT TEMPERATURE	T_{amb}	0...+50	°C
3.7	STORAGE TEMPERATURE	T_{stg}	-25...+70	°C

4 CHARACTERISTICAL VALUES

Unless otherwise stated $T_{amb} = 25^\circ\text{C}$

	Quantity	Symbol	Condition	Value min max	Unit
4.1	LED SECTION				
4.1.1	FORWARD VOLTAGE (at pin 15, 16 and 18)	U_F	$I_F = 10\text{ mA}$	1.9	V
4.1.2	REVERSE CURRENT (at pin 15, 16 and 18)	I_R	$U_R = 3\text{V}$	100	μA

4.3 LCD PANEL

Characteristical values and function description according to product specification 1301 – RNH 950 05.