

LCD-MODULE 2x16 - 6.68mm INCL. CONTROLLER HD44780

no mounting
required



EA DIP162J-DN3LW
75 x 27 x 11 mm

EA DIP162-DN3LW
75 x 27 x 11 mm



EA DIP162-DHNLED
68 x 27 x 11 mm

FEATURES

- * HIGH CONTRAST LCD SUPERTWIST DISPLAY
- * EA DIP162-DNLED: YELLOW/GREEN WITH LED BACKLIGHT
- * EA DIP162-DN3LW AND DIP162J-DN3LW WITH WHITE LED B/L., LOW POWER
- * INCL. HD 44780 OR COMPATIBLE CONTROLLER
- * INTERFACE FOR 4- AND 8-BIT DATA BUS
- * POWER SUPPLY +5V OR $\pm 2.7V$ OR $\pm 3.3V$
- * OPERATING TEMPERATURE $0 \sim +50^{\circ}C$ (-DN3LW, -DHNLED: $-20 \sim +70^{\circ}C$)
- * LED BACKLIGHT Y/G max. 150mA@+25°C
- * LED BACKLIGHT WHITE max. 45mA@+25°C
- * SOME MORE MODULES WITH SAME MECHANIC AND SAME PINOUT:
 - DOTMATRIX 1x8, 4x20
 - GRAPHIC 122x32
- * NO SCREWS REQUIRED: SOLDER ON IN PCB ONLY
- * DETACHABLE VIA 9-PIN SOCKET EA B200-9 (2 PCS. REQUIRED)

ORDERING INFORMATION

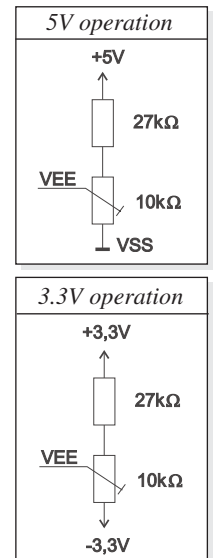
LCD MODULE 2x16 - 6.68mm WITH BACKLIGHT Y/G
 SAME BUT WITH T_{OP.} -20..+70°C INCL. TEMP. COMPENSATION
 SAME IN BLUE-WHITE OPTIC, T_{OP.} -20..+70°C INCL. TEMP. COMP.
 SAME IN BLACK&WHITE, T_{OP.} -20..+70°C INCL. TEMP. COMP.
 9-PIN SOCKET, HEIGHT 4.3mm (1 PC.)
 SUITABLE BEZEL (WINDOW 60.0x14.8 mm)
 ADAPTOR PCB WITH STANDARD PINOUT PITCH 2.54mm

EA DIP162-DNLED
 EA DIP162-DHNLED
 EA DIP162-DN3LW
 EA DIP162J-DN3LW
 EA B200-9
 EA 017-2UKE
 EA 9907-DIP

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Pinout

Pin	Symbol	Level	Function	Pin	Symbol	Level	Function
1	VSS	L	Power Supply 0V (GND)	10	D3	H / L	Display Data
2	VDD	H	Power Supply +5V	11	D4 (D0)	H / L	Display Data
3	VEE	-	Contrast adjust. (about 0V)	12	D5 (D1)	H / L	Display Data
4	RS	H / L	H=Command, L=Data	13	D6 (D2)	H / L	Display Data
5	R/W	H / L	H=Read, L=Write	14	D7 (D3)	H / L	Display Data, MSB
6	E	H	Enable (falling edge)	15	-	-	NC (see EA DIP122-5N)
7	D0	H / L	Display Data, LSB	16	-	-	NC (see EA DIP122-5N)
8	D1	H / L	Display Data	17	A	-	LED B/L+ Resistor required
9	D2	H / L	Display Data	18	C	-	LED B/L -



Contrast Adjustment

Contrast voltage for all displays of EA DIP162-D series is typ. 5V. That means that for 3.3V operation an additional negative voltage of min. 1.7V is required.

Display modules for -20..+70°C are equipped with an on-board temperature compensation. So there's no more need for contrast adjustment while operation anymore.

Backlight

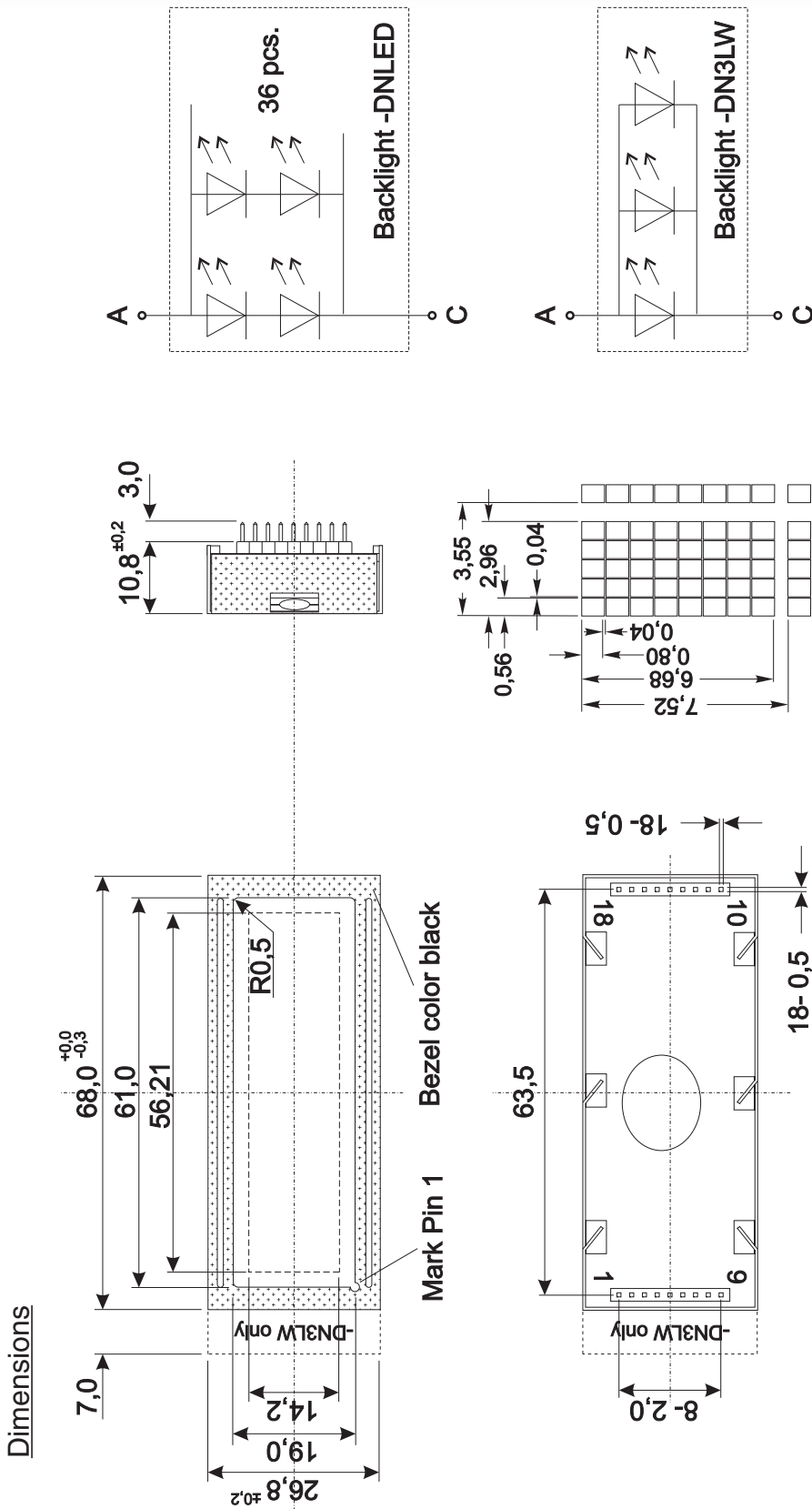
Using the LED backlight requires an current source or external current-limiting resistor. Forward voltage for yellow/green backlight is 3.9~4.2V and for white LED backlight 3.0~3.6V. Please take care of derating for $T_a > +25^\circ\text{C}$

Note: Do never drive backlight direct to 5V; immediately damage my happen !

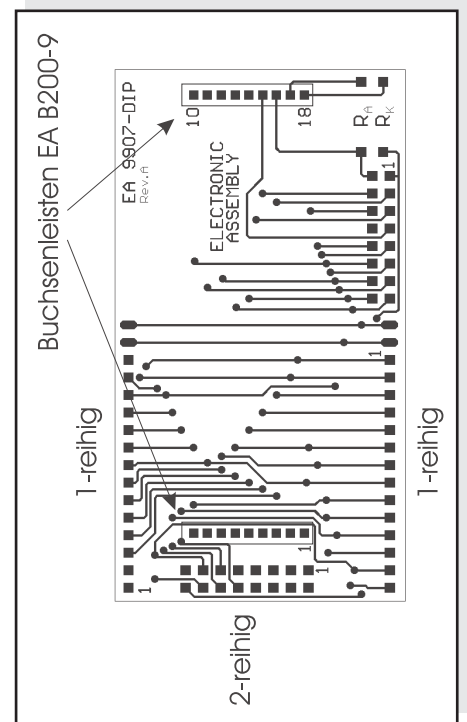
Character set

Character set shown below is already built in. In addition to that you are able to define up to 8 characters by yourself.

Lower 4 bit	Upper 4 bit	0000 (\$0x)	0010 (\$2x)	0011 (\$3x)	0100 (\$4x)	0101 (\$5x)	0110 (\$6x)	0111 (\$7x)	1010 (\$Ax)	1011 (\$Bx)	1100 (\$Cx)	1101 (\$Dx)	1110 (\$Ex)	1111 (\$Fx)
xxxx0000 (\$x0)	CG RAM (0)		0	1	2	3	4	5	6	7	8	9	A	B
xxxx0001 (\$x1)	(1)	!	!	A	Q	a	q	.	7	7	4	ä	q	
xxxx0010 (\$x2)	(2)	"	2	B	R	b	r	「	イ	ツ	ノ	β	θ	
xxxx0011 (\$x3)	(3)	#	3	C	S	c	s	」	ウ	フ	エ	ε	ω	
xxxx0100 (\$x4)	(4)	\$	4	D	T	d	t	、	I	ト	ハ	μ	Ω	
xxxx0101 (\$x5)	(5)	%	5	E	U	e	u	・	オ	ナ	ユ	σ	Ü	
xxxx0110 (\$x6)	(6)	&	6	F	V	f	v	ヲ	カ	ニ	ヨ	ρ	Σ	
xxxx0111 (\$x7)	(7)	'	7	G	W	g	w	ア	キ	ヌ	ウ	g	π	
xxxx1000 (\$x8)	CG RAM (0)	(	8	H	X	h	x	イ	ウ	ネ	リ	フ	Σ	
xxxx1001 (\$x9)	(1)	)	9	I	Y	i	y	ウ	ケ	ル	ル	「	y	
xxxx1010 (\$xA)	(2)	*	:	J	Z	j	z	エ	コ	ン	レ	j	≠	
xxxx1011 (\$xB)	(3)	+	;	K	[	k	[	オ	サ	ヒ	ロ	×	≠	
xxxx1100 (\$xC)	(4)	,	<	L	¥	l	l	カ	シ	フ	ワ	φ	≠	
xxxx1101 (\$xD)	(5)	-	=	M	]	m	]	ユ	ズ	へ	ン	ε	÷	
xxxx1110 (\$xE)	(6)	.	>	N	^	n	→	ヨ	セ	ホ	〃	ñ		
xxxx1111 (\$xF)	(7)	/	?	O	_	o	←	ッ	ソ	マ	〃	ö	||	



all dimensions are in mm



Test board for standard pinout 2.54mm
EA 9907-DIP