

# 4x20 STN LCD

## 4mm ZH, LED-BELEUCHTET

**nur 77mm breit  
ideal für Handheld**



*Abmessungen 77x47mm*



### TECHNISCHE DATEN

- \* KONTROLLER IN CHIP-ON-BOARD TECHNOLOGIE, 44780-KOMPATIBEL
- \* 4- ODER 8BIT DATENBUS + STEUERLEITUNGEN E, RS, R/W
- \* VERSORGUNG 5V / typ. 1,8mA
- \* KONTRASTREICHES SUPERTWIST-DISPLAY (-4NLED: YELLOW/-4N: BLUE)
- \* LED-HINTERGRUNDBELEUCHTUNG (LIGHT BOX), EXT. R<sub>v</sub> 50-200mA
- \* BETRIEBSTEMPERATUR 0°C ... 50°C
- \* LAGERTEMPERATUR -20°C ... +70°C
- \* SINGLE 5V - KEINE NEGATIVE SPANNUNG ERFORDERLICH

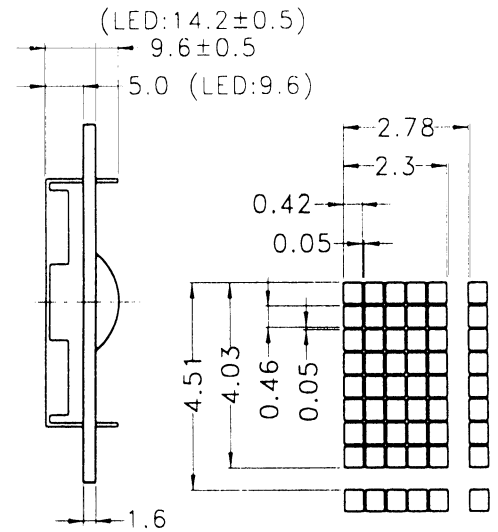
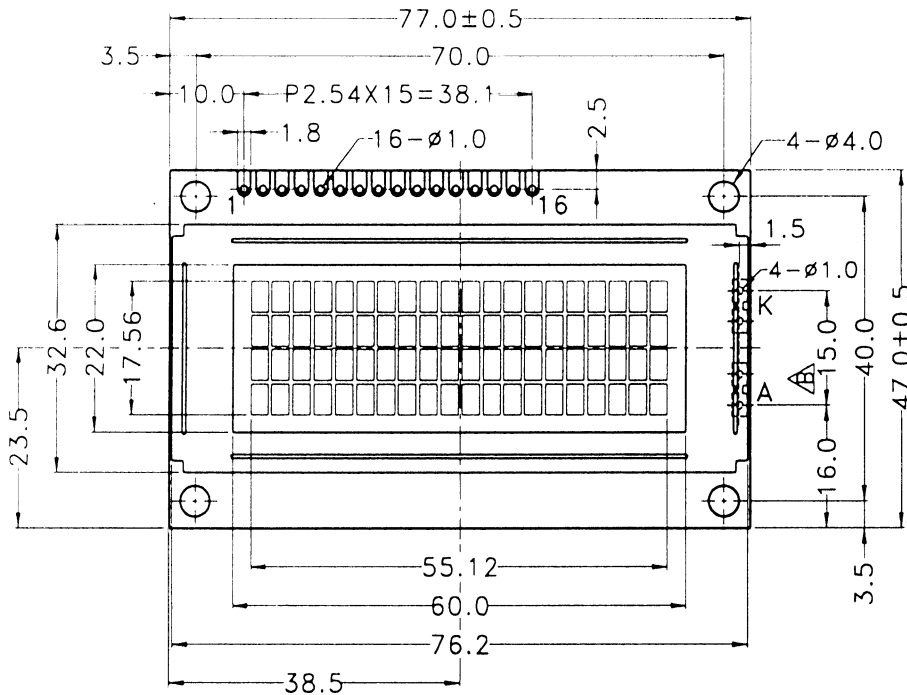
### BESTELLBEZEICHNUNG

DOTMATRIX LCD 4x20 ZEICHEN, STN blue  
MIT LED-BELEUCHTUNG, STN yellow

**EA P204-4N**  
**EA P204-4NLED**

# EA P204-4NLED

## ABMESSUNGEN



alle Maße in mm

## BEFEHLSTABELLE / PINBELEGUNG

Instruction	Code										Description	Execute Time (max.)
	RS	R/W	DB 7	DB 6	DB 5	DB 4	DB 3	DB 2	DB 1	DB 0		
Clear Display	0	0	0	0	0	0	0	0	0	1	Clears all display and returns the cursor to the home position (Address 0).	1.64ms
Cursor At Home	0	0	0	0	0	0	0	0	1	*	Returns the Cursor to the home position (Address 0). Also returns the display being shifted to the original position. DD RAM contents remain unchanged.	1.64ms
Entry Mode Set	0	0	0	0	0	0	0	1	I/D	S	Sets the Cursor move direction and specifies or not to shift the display. These operation are performed during data write and read.	40µs
Display On/Off Control	0	0	0	0	0	0	1	D	C	B	Sets ON/OFF of all display (D) cursor ON/OFF (C), and blink of cursor position character (B).	40µs
Cursor / Display Shift	0	0	0	0	0	1	S/C	R/L	*	*	Moves the Cursor and shifts the display without changing DD RAM contents.	40µs
Function Set	0	0	0	0	1	DL	N	F	*	*	Sets interface data length (DL) number of display lines (L) and character font (F).	40µs
CG RAM Address Set	0	0	0	1	ACG					Sets the CG RAM address. CG RAM data is sent and received after this setting.	40µs	
DD RAM Address Set	0	0	1	ADD					Sets the DD RAM address. DD RAM data is sent and received after this setting.	40µs		
Busy Flag / Address Read	0	1	BF	AC					Reads Busy flag (BF) indicating internal operation is being performed and reads address counter contents.	-		
CG RAM / DD RAM Data write	1	0	Write Data					Writes data into DD RAM or CG RAM	40µs			
CG RAM / DD RAM Data Read	1	1	Read Data					Reads data from DD RAM or CG RAM	40µs			

Pinbelegung			
Pin	Symbol	Pegel	Beschreibung
1	VSS	L	Versorgung 0V, GND
2	VDD	H	Versorgung +5V
3	VEE	-	Displayspannung 0..0,5V
4	RS	H / L	Register Select
5	R/W	H / L	H: Read / L: Write
6	E	H	Enable
7	D0	H / L	Datenleitung 0 (LSB)
8	D1	H / L	Datenleitung 1
9	D2	H / L	Datenleitung 2
10	D3	H / L	Datenleitung 3
11	D4	H / L	Datenleitung 4
12	D5	H / L	Datenleitung 5
13	D6	H / L	Datenleitung 6
14	D7	H / L	Datenleitung 7 (MSB)
15	LED +	-	LED-Versorgung Plus /Vorwiderstand!
16	LED -	-	LED-Versorgung Minus

