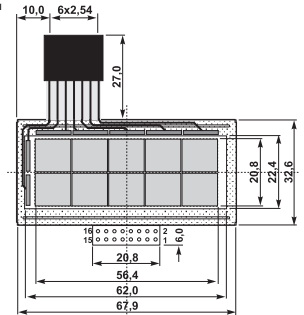
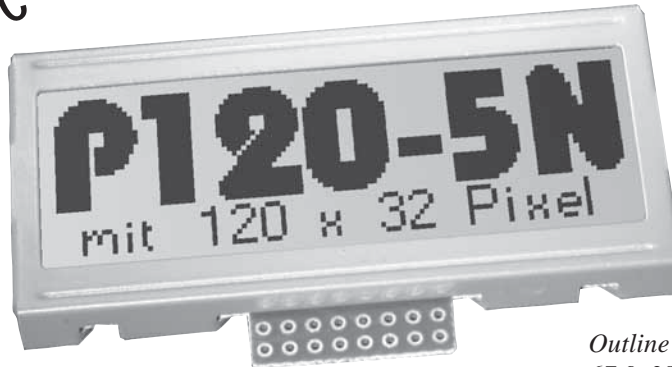


# LCD- GRAPHIC MODULE 120x32

INCL. CONTROLLER SED 1520 FOR 8-BIT BUS  
OPTIONALLY WITH TOUCH-PANEL

-20...+70°C



Outline dimension:  
67,9x38,6mm

## FEATURES

- \* HIGH CONTRAST SUPERTWIST DISPLAY (GREEN OR BLUE)
- \* CONTROLLER SED 1520 OR COMPATIBLE BUILT-IN
- \* DIRECT INTERFACE TO 8-BIT DATA BUS
- \* POWER SUPPLY +5V / -0.6..-2.2V max. 800µA
- \* POWER SAVE MODE AND 3.3V OPERATION
- \* OPERATING TEMPERATURE RANGE -20 ... +70°C

## OPTIONAL

- \* TOUCH PANEL 5x2, ANTIGLARE
- \* DRIVER IC WITH RS-232 (NOT FOR VERSION TP)
- \* EL-BACKLIGHT (BLUE)
- \* LED-BACKLIGHT (YELLOW/GREEN, typ.90mA)
- \* LED-BACKLIGHT (WHITE, max.45mA)
- \* BEZEL EA 017-8UKE (60.8x24.2mm)

## ORDERING INFORMATION

LCD GRAPHIC MODULE 120x32 PIXEL  
 LCD GRAPHIC MODULE 120x32 WITH EL-BACKLIGHT  
 LCD GRAPHIC MODULE 120x32 WITH LED-BACKLIGHT  
 LCD GRAPHIC MODULE WITH TOUCH PANEL 5X2  
 LCD GRAPHIC MODULE 120x32 BLUE-WHITE  
 LCD GRAPHIC MODULE BLUE-WHITE, TOUCH PANEL  
 HIGH-LEVEL-GRAPHIC CONTROLLER WITH RS-232C  
 SUITABLE INVERTER FOR EL-BACKLIGHT  
 BEZEL (WINDOW 60.8 x 24.2 mm)



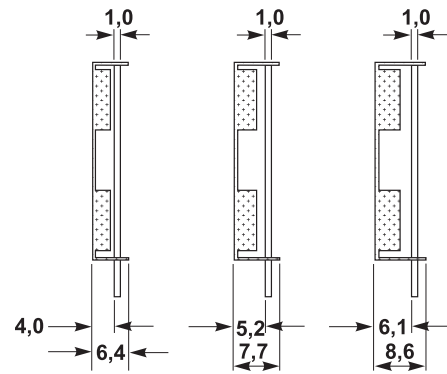
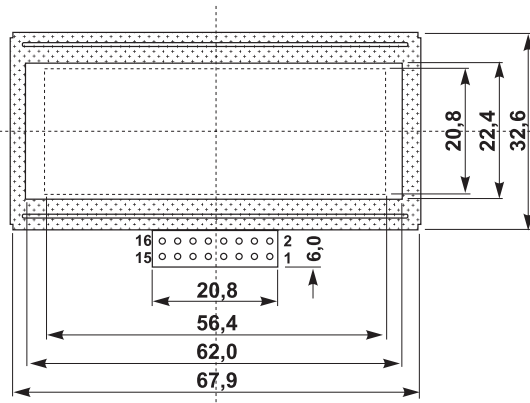
EA P120-5N  
 EA P120-5NEL  
 EA P120-5NLED  
 EA P120-5NLEDTP  
 EA P120B-5NLW  
 EA P120B-5NLWTP  
 EA IC1520-1PGH  
 EA PSEL-6  
 EA 017-8UKE



## ELECTRONIC ASSEMBLY

### DIMENSIONS

ohne Touch Panel

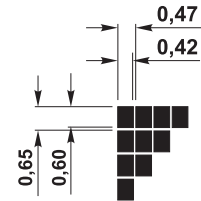


EA P120-5N EA P120-5NLED EA P120B-5NLW

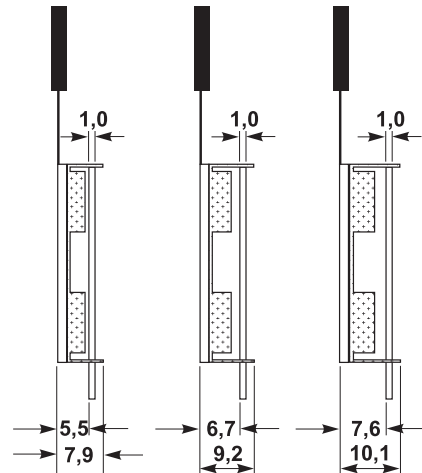
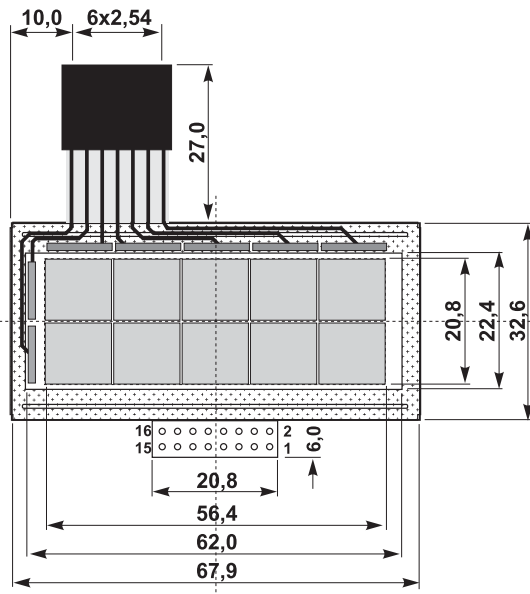


**Achtung!**  
Handhabungs-  
vorschriften  
beachten  
Elektrostatisch  
gefährdete  
Bauelemente

all dimensions in mm

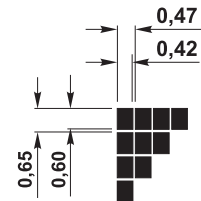


with Touch Panel



EA P120-5NTP EA P120-5NLEDTP EA P120B-5NLWTP

all dimensions in mm



### TOUCH PANEL

The surface of touch panel is hardened and anti glare.

Technology: resistive matrix touch with 5x2 areas.  
Connection will be done similar to a membrane key switch. Software will scan lines or columns then.

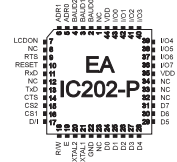
### Technische Daten

Spezifikation	min	typ	max	Einheit
On-Widerstand	300		10.000	Ω
Spannung	0,5		5	V
Schaltstrom	10u		10m	A
Betätigungskraft	150		200	g
Kontaktprellen		10		ms
Temperaturbereich	-30		+75	°C
Lebensdauer	1.000.000			Schaltspiele

# READY TO USE EQUIPMENT

## EA IC1520-1PGH HIGH-LEVEL-GRAPHIC CONTROLLER, 2 FONTS, RS-232

<b>Package</b>	PLCC44
<b>for display</b>	EA P120-5xx/ P122-5xx
<b>Power Supply</b>	+5V / 6,5/25mA
<b>Connection</b>	2x10 Pins, pitch 2.54mm
<b>Operating temperature</b>	-40 ... +85°C



- \* provides various graphic routines for e.g. EA P120-5NLED
- \* 2/3 FONTS 4x6, 6x8 and 8x16 ( -2PGH only)
- \* draw line, delete area, invert area
- \* RS-232 connection
- \* power supply: +5V / typ. 6.5/20mA
- \* BAUD RATES 1200,2400,4800,9600,38400BD

### Ordering information

High-Level-Graphic controller, 2 Fonts  
with 3 Fonts, Bargraph, PowerSave, Hardcopy  
Ceramic resonator 7.37MHz

**EA IC1520-1PGH**  
**EA IC1520-2PGH**  
**EA KERS7M37-C**

## EA GE120-5NV24 GRAPHIC UNIT 120x32, 2 FONTS, RS-232

<b>Dimensions</b>	68 x 39 x 11mm
<b>Display</b>	120x32, Supertwist, LED-backlighted
<b>Power Supply</b>	+5V / 100mA
<b>Connection</b>	2x5 pin, pitch 2,54mm
<b>Operating temperature</b>	-20 ... +70°C
<b>Storage temperature</b>	-30 ... +80°C

inkl.  
EA IC1520-1PGH



- \* Supertwist-LCD with LED-Backlight yellow/green
- \* 2 FONTS from 3.2mm (5x30 character) via 4.6mm (4x20) up to 18.2 mm (1x5)
- \* draw line, delete area, invert area
- \* OPERATING VOLTAGE: +5V / typ. 100mA
- \* BAUD RATES 1200,2400,4800,9600,19200BD

### Ordering information

Graphic unit 120x32 with LED-B./L.  
Cable with 9-pin. D-SUB connector (female)

**EA GE120-5NV24**  
**EA KV24-9B**

## EA KIT120-5LEDTP CONTROL UNIT 120x32, 5 FONTS, RS-232

<b>Dimensions</b>	68 x 45 mm
<b>Display</b>	120x32, Supertwist, LED-backlighted
<b>Touch Panel</b>	5x2 fields
<b>Power Supply</b>	+5V / 20/180mA
<b>Connection</b>	2x10 Pins, pitch 2.54mm
<b>Operating temperature</b>	-20 ... +70°C
<b>Storage temperature</b>	-30 ... +80°C

with Touch Panel



- \* Supertwist-LCD with LED-Backlight yellow/green
- \* 5 FONTS from 3.2mm (5x30 char.) via 4.6mm (4x20) up to 18.2 mm (1x5)
- \* draw line, delete area, invert area
- \* optionally with Matrix Touch panel
- \* draw Touch Panel, mark, activate..
- \* Macro programming 32kB on-board
- \* Supply: +5V / typ. 20/180mA
- \* BAUD RATES 1200,2400,4800,9600,19200BD

### Ordering information

Control unit 120x32 with LED-B./L.  
with Touch Panel 5x2  
Cable with 9-pol. D-SUB connector (female)

**EA KIT120-5LED**  
**EA KIT120-5LEDTP**  
**EA KV24-9B10**