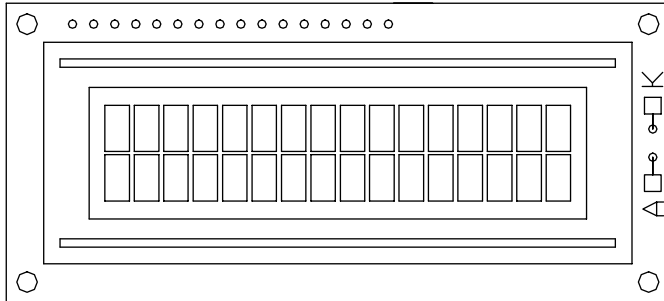


### JM 162 D

### LCD- Standard Charaktermodul



#### Hauptmerkmale

- 16 Charakter / 2 Zeilen
- Ziffernhöhe 5.55 mm
- Single Supply +5 Volt
- STN-Technologie
- Einstellbarer Kontrast
- Option LED / EL-Beleuchtung

Kontroller: KS0070B

#### PIN Belegung

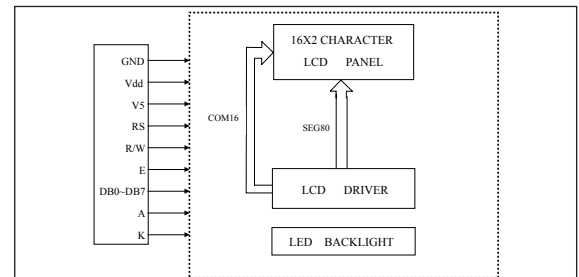
PIN	SYMBOL	SIGNAL DESCRIPTION
1	GND	Power Supply (GND)
2	Vdd	Power Supply (+5V)
3	V5	Contrast Adjust
4	RS	Register Select (H=Data, L=Instruction)
5	R/W	Read/Write (L=MPU to LCM, H=LCM to MPU)

PIN	SYMBOL	SIGNAL DESCRIPTION
6	E	Enable Signal
7-14	DB0-DB7	Data Bus Line
15	K	Cathode of LED Unit
16	A	Anode of LED Unit

#### Spezifikationen (TA=25 °C)

ITEM	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Voltage (Logic)	Vdd-GND	-	4.5	5.0	5.5	V
Supply Current (Logic)	Idd	-	-	1.0	-	mA
Driving Current (LCD)	I <sub>ee</sub>	-	-	0.6	-	mA
Driving Voltage (LCD)	Vdd-V5	Vdd=5V	3.8	4.5	4.9	V
Input Voltage "H"	V <sub>IH</sub>	-	2.2	-	Vdd	V
Input Voltage "L"	V <sub>IL</sub>	-	-0.3	-	0.6	V
Output Voltage "H"	V <sub>OH</sub>	I <sub>OH</sub> =-0.205mA	2.4	-	-	V
Output Voltage "L"	V <sub>OL</sub>	I <sub>OL</sub> =-1.2mA	-	-	0.4	V

#### Block Diagramm



#### Mechanische Abmessung

