

Data Sheet

7-Segment Large Display

- Display size 60 and 100 mm
- Reading distance up to 40 m
- Display color red with redfilter
- Viewing angle $\pm 75^\circ$
- Assembled in black plastic bezel
- Left and right end brackets included
- SPS-compatible
- Data entry with BCD Code
- Parallel- and Multiplex operation possible
- Control inputs for display test and blank inhibit



General

The panel mounting large 7-segment LED display modules allows user configuration of display requirements.

The modules are available with appropriate end brackets and fixing enabling easy assembly into panel.

Two digit sizes are available 60 mm and 100 mm and the LED color is red .

The electronic interface is BCD via connector on the rear of the module. The modules are PLC compatible.

EMC Guiding rules

Emission

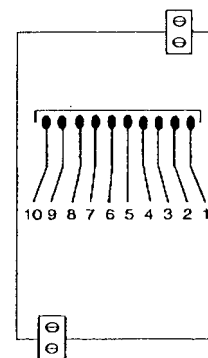
EN 61000-6-3 (Residential environments)

Immunity

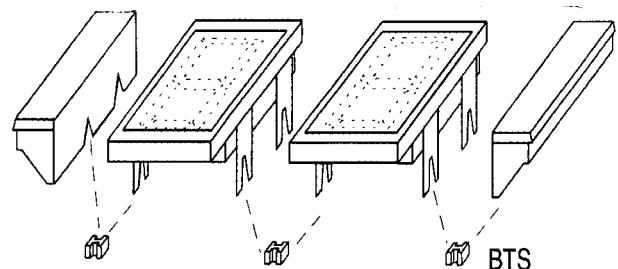
EN 61000-6-2 (Industrial environments)

Pin layout

Pin	Signal	Description
1	GND	0V
2	DP	Decimal point
3	Data 2 ⁰	Data
4	Data 2 ³	Data
5	LE	Latch enable
6	BI (inverted)	Blank inhibit
7	LT (inverted)	Segment test
8	Data 2 ²	Data
9	Data 2 ¹	Data
10	Vcc	24 V

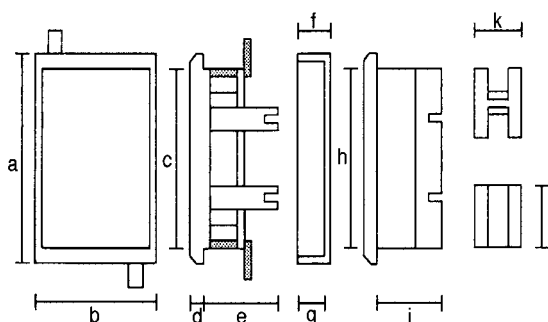


Assembly



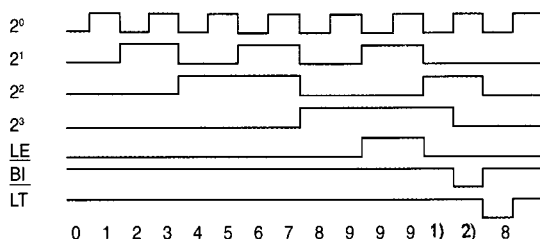
Display modules with left and right end brackets and clips.

Dimensions



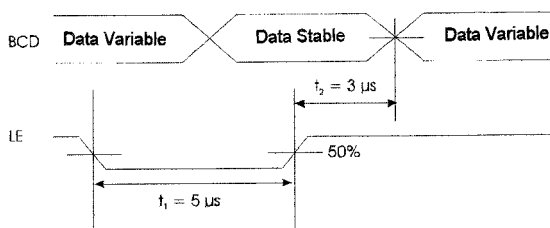
Measurement	Height 60 mm	Height 100 mm
a	96 mm	144 mm
b	57 mm	94 mm
c	91 mm	137 mm
d	4 mm	5 mm
e	27 mm	30 mm
f	12 mm	15 mm
g	10 mm	12 mm
h	91 mm	136 mm
i	31 mm	31 mm
k	8 mm	8 mm
l	11 mm	11 mm

Signal shapes



- 1) No display (blank), overflow > 9
- 2) No display (blank), BI (inverted) active

Pulse diagram multiplex operation



Truth table

Inputs							Output
LE	BI (inverted)	LT (inverted)	2 ³	2 ²	2 ¹	2 ⁰	Display
X	X	0	X	X	X	X	8
X	0	1	X	X	X	X	blank
0	1	1	0	0	0	0	0
0	1	1	0	0	0	1	1
0	1	1	0	0	1	0	2
0	1	1	0	0	1	1	3
0	1	1	0	1	0	0	4
0	1	1	0	1	0	1	5
0	1	1	0	1	1	0	6
0	1	1	0	1	1	1	7
0	1	1	1	0	0	0	8
0	1	1	1	0	0	1	9
0	1	1	1	0	1	0	blank
0	1	1	1	0	1	1	blank
0	1	1	1	1	0	0	blank
0	1	1	1	1	0	1	blank
0	1	1	1	1	1	0	blank
0	1	1	1	1	1	1	blank
1	1	1	X	X	X	X	*

* The data are displayed with the positive edge of the Signal LE.

Electrical data

Display height	60 mm, 100 mm	
Reading distance	60 mm	25 m
	100 mm	40 m
Viewing angle	±75°	
Supply voltage	V _{CC}	21 - 30 VDC
Color	red	
Signal level	U _{High}	11...30 V
	U _{Low}	0...4 V
Input resistance	R _i	10 KΩ
Cutoff frequency (Multiplex operation)	f _g	5 kHz
Segment current	I _{segm.}	20 mA
Temperature range	T _v	0...+ 50° C

Order information

Display module 60 mm	A10-057-21M
Supplied with: 1 pair of end brackets 4 pieces clips 1 Instruction leaflet	included
Display module 100 mm	B10-057-21M
Supplied with: 1 pair of end brackets 4 pieces clips 1 Instruction leaflet	included