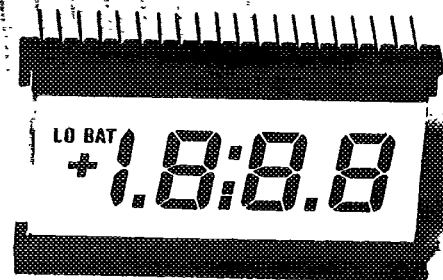
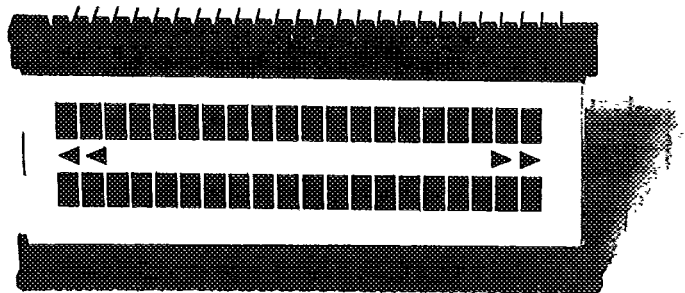


Videlec[®]

Liquid Crystal Displays



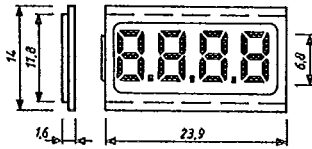
AmpereX[®]

Videlec[®]

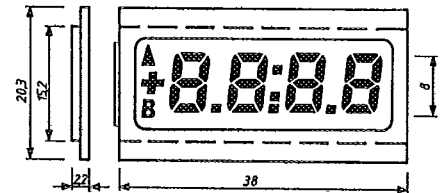
Liquid Crystal Displays

STANDARD TYPE RANGE AND GLASS SIZES

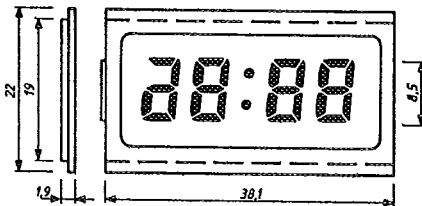
LC 241440-101*



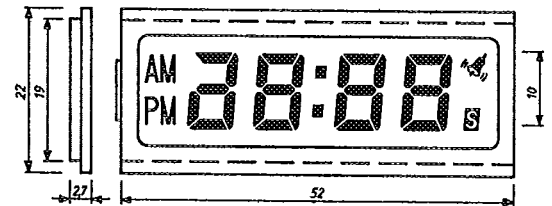
LC 382040-401*



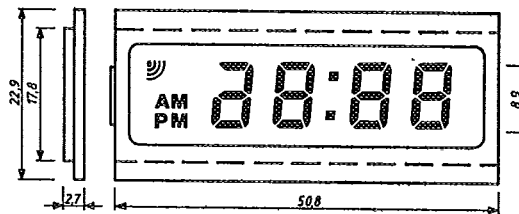
LC 382232-700*



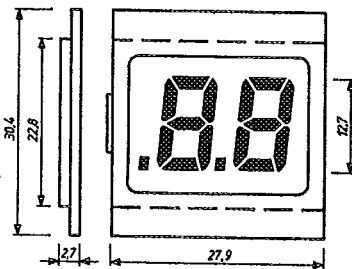
LC 522232-300*



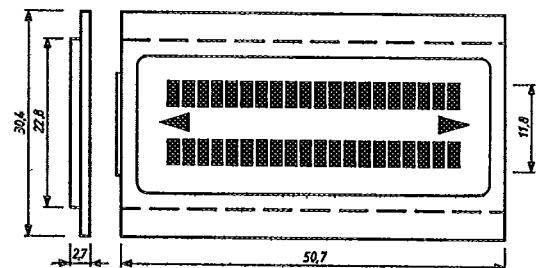
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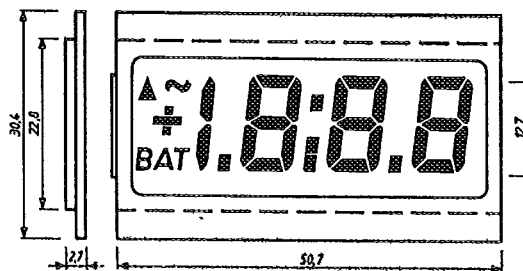
LC 283020-300*/301**



LC 513000-300*



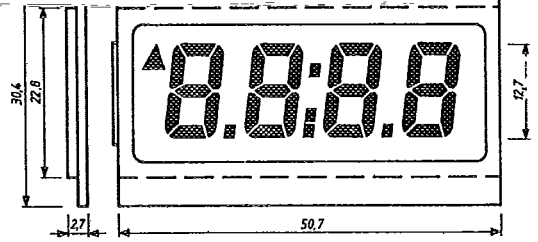
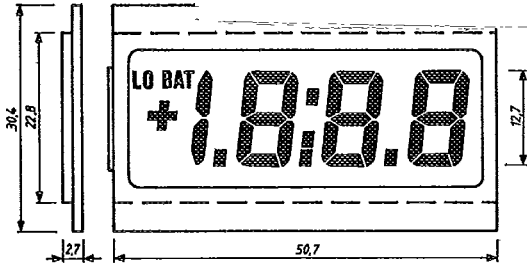
LC 513031-300**



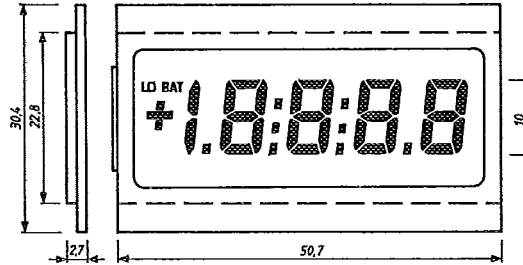
LC 513031-302**/303*

LC 513040-301**/303*

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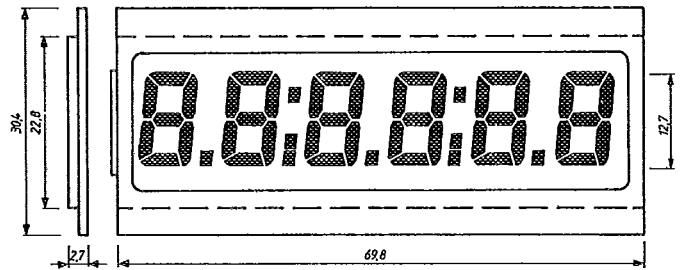
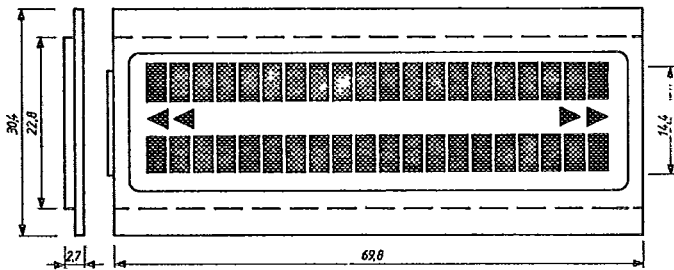


LC 513041-300**/301*

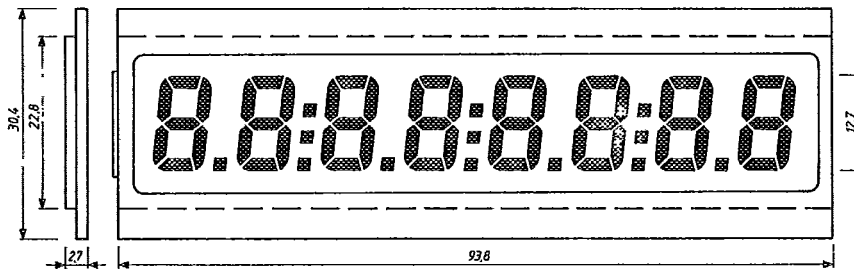


LC 703000-300**

LC 703060-301**

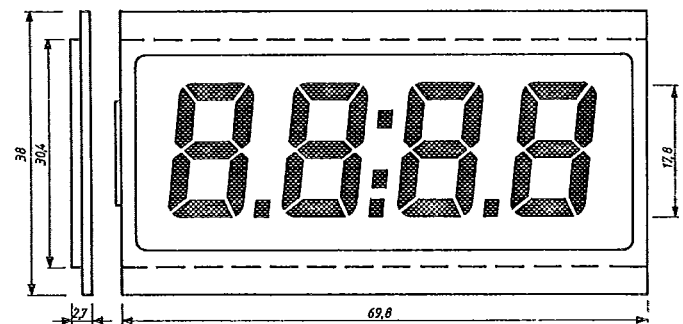
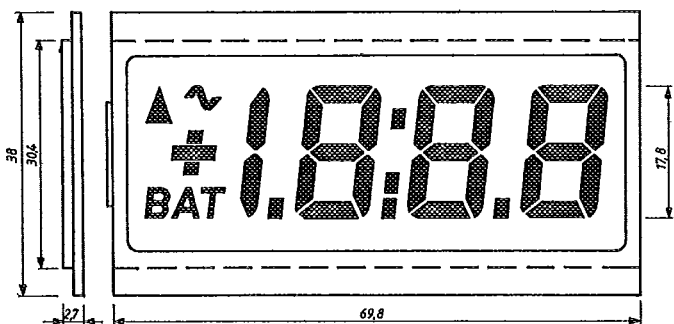


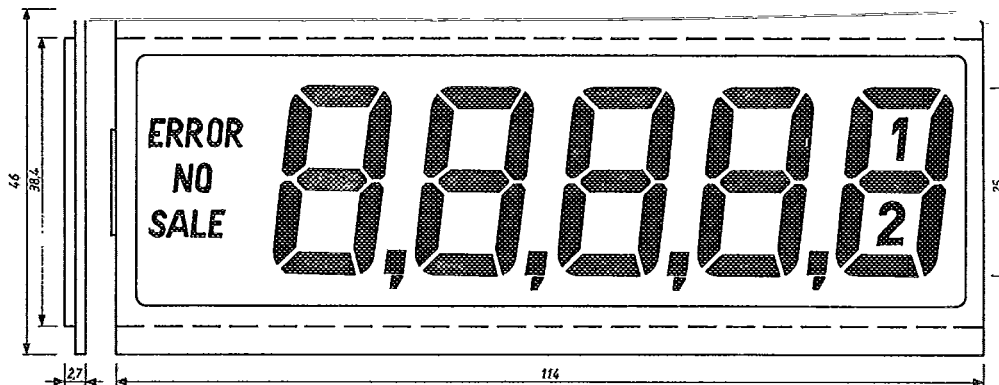
LC 943080-301**



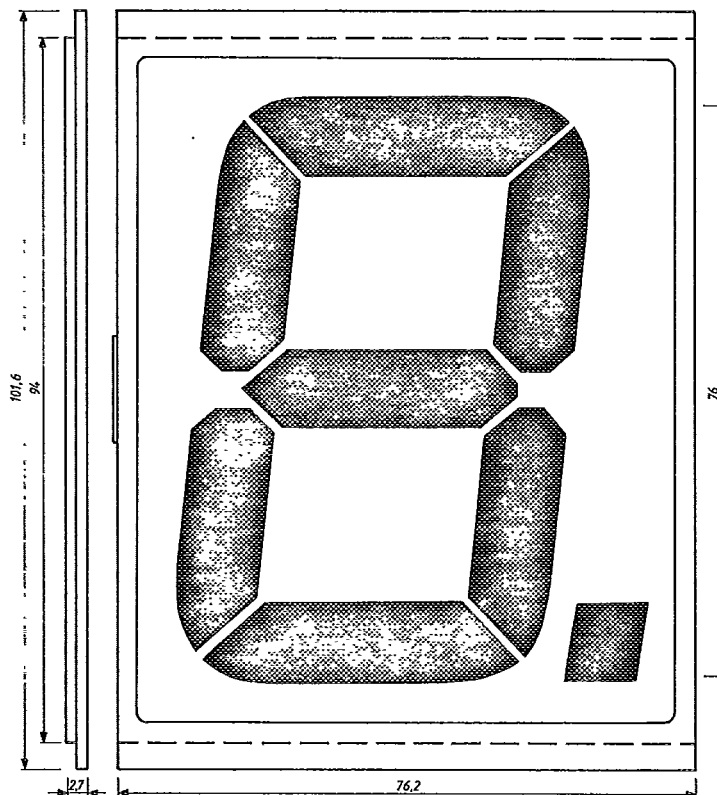
LC 703831-300**

LC 703840-300**





LC 07610110-300**



*For elastomer connection

**For DIP connection

Illustrations shown actual size

Dimensions shown in millimeters

LC382080-411

LC7020160-412

LC11402600-310

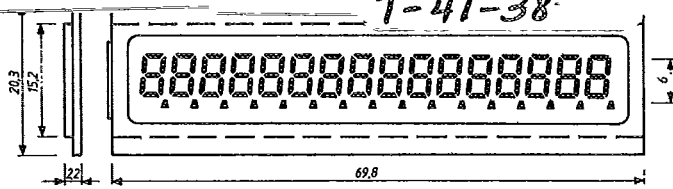
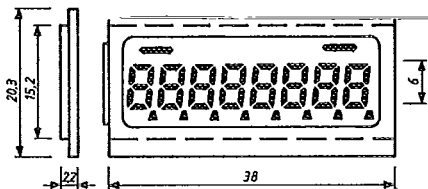
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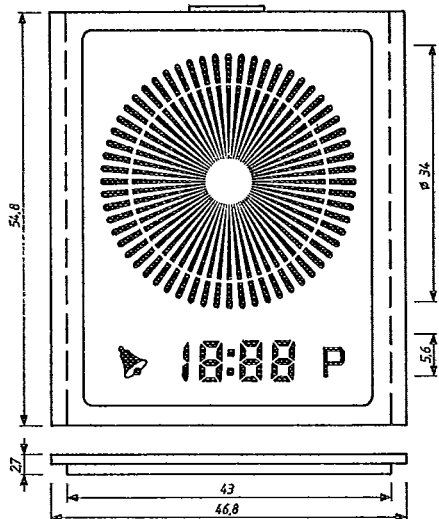
LC9430160-344.....continued on next page

LC 382080-411* (Mux 1:2)

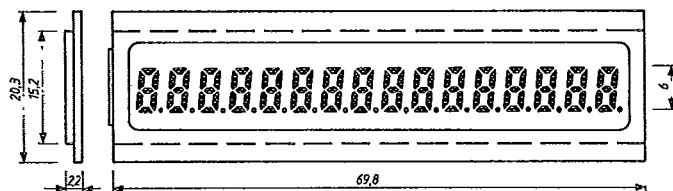
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LC 554731-311* (Mux 1:2)

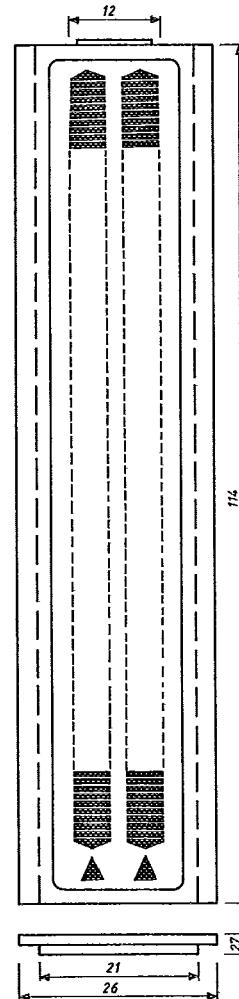
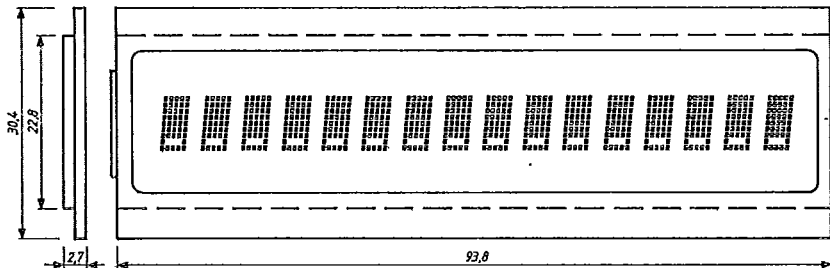


LC 7020160-430* (Mux 1:4)



LC 9430160-344* (Mux 1:8)

LC 11402600-310* (Mux 1:2)



* For elastomer connection

** For DIP connection

Illustrations shown actual size
Dimensions shown in millimeters

Amperex-Videlec

T-41-38

Liquid Crystal Displays

Very low power consumption • Low operating voltage • Flat and light • Excellent readability in any ambient light
 Wide temperature range • High quality, high reliability • Expected life time more than 10 years
 Large selection of standard designs • Custom design displays on request • Several displays also in modules with
 integrated driving circuits available • Advanced technology due to inhouse research and development

LCD Applications

Measuring and controlling equipment • Clocks and watches • Telephony • Entertainment electronics • Domestic
 appliances • Cars • Information boards • Data-terminals, typewriters • Gasoline pumps, cash registers, scales etc.

Operating Characteristics

		Parallel/direct drive						Multiplex 1:2						Multiplex 1:8						Units
		Standard			Extended			Standard			Extended			Standard			Extended			
		min.	typ.	max.	min.	typ.	max.	min.	typ.	max.	min.	typ.	max.	min.	typ.	max.	min.	typ.	max.	
Operating temperature range	1)	-10		+60	-25		+80	-10		+60	-25		+80	-10		+50	-20		+70	°C
Storage Temperature range	2)	-25		+70	-40		+90	-25		+70	-40		+90	-25		+70	-40		+90	°C
Operating voltage V _{op}	1)	3	4.5	6	3	4.5	6	3.0	3.1	3.2	4.2	4.35	4.5	3.75	3.85	4.0	5.2	5.35	5.5	V
DC component				100			100			100			100			100			100	mV
Operating frequency		30		200	30		200	30		100	30		100	30		100	30		100	Hz
Current consumption of energized area			15	30		10	20		15	30		10	20		40	75		25	50	nA/mm ²
Turn on time (t _{on})			40		40			80			40			270			150			ms
Turn off time (t _{off})			80		40			120			60			80			70			ms
Cycle time (t _{on} + t _{off})				250			200			300			160			600			350	ms
Max. contrast ratio			>20		>20			>20			>20			>12			>12			
Expected life time			10 ⁵			10 ⁵			10 ⁵			10 ⁵			10 ⁵			10 ⁵		h

Standard measuring conditions: 25°C, V_{op}=V_{typ}, 32Hz

- 1) Multiplex: with temperature compensation of V_{op}. No T.C. causes a smaller operating temperature range.
- 2) Extreme temperatures and high humidity should be avoided for permanent storage.

Area and Regional Sales Offices

Arizona:	AMPEREX SALES CORPORATION, 1270 E. Broadway, Bldg. E, Suite 204, TEMPE, AZ 85282, Tel. (602) 968-7917
California:	AMPEREX SALES CORPORATION, 3000 Scott Blvd., Suite 107, SANTA CLARA, CA 95050, Tel. (408) 727-6132
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CUSTOM DESIGNS

Design flexibility is a key advantage of using LCD's for your particular application.

In addition to the standard design formats shown in this brochure, we welcome any request you may have regarding custom designs.

Amperex
Electronic Corporation
 A NORTH AMERICAN PHILIPS COMPANY

SLATERSVILLE DIVISION

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