

# BABCOCK

MODEL: **DI16702**

DISPLAY PRODUCTS DIVISION

**0.7" (17,8 mm), 16-CHARACTER, ALPHANUMERIC, GAS-PLASMA DISPLAY**

Babcock's 16-character, 14-segment, Alphanumeric, Gas-Plasma Display is designed for coin-op, pinball games and POS terminals. The flat display has a wide viewing angle and it is easily read at distances up to 35 feet (10 meters). Legibility is assured by the 0.7-inch- high characters, and bright, neon-orange output. The display has an attached, hermetically sealed, lead system for added protection in humid environments.

In most applications, this part is a direct substitute for any of the following industry standard models:

## CROSS REFERENCE GUIDE

CHERRY	DISPLAY'S INC	WILIAMS
W316-1070	AR16702	5670-12308-00

## FEATURES

- 0.7 inch (17.8 mm) character height
- Alphanumeric, 14-segment Characters
- 16-character field width
- Decimal point and comma in 16 character positions
- Superior lead integrity and reliability
- Luminance of 100 fL

## SPECIFICATIONS

### *Absolute Maximum Ratings*

PARAMETER	MIN	MAX	UNITS
Voltage Differential between cathode terminals		125	V(dc)
Cathode Current Density (Duty Cycle = 1/16)		500	mA/in <sup>2</sup>
Storage Temperature	-40	+85	°C
Operating Temperature	-10	70	°C

### *Recommended Operating Conditions*

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS
Anode Supply Voltage	Vbb	170	190	200	V(dc)
Anode Voltage Swing			60		V(dc)
Anode to Cathode Voltage Drop at Ik(TYP)	Vop		150		V(dc)
Cathode Voltage Swing		50	80		V(dc)
Current, Cathode (b,c,e,f),(1)	Ik	1.8	2.25	2.7	mA
Current, Keep-alive(2)	Ika		50	200	µA
Anode on-time			350		µs
Interdigit Blanking (Duty Cycle = 1/20)			40		µs
Refresh Period(3)			10		ms
Initial Ionization Time				5	Sec
Reionization Time			7		µs

(1) Cathode currents should be proportional to their respective segment areas.

(2) Use of the Keep-alive cathode is recommended for all applications.

(3) Scan direction is from left-to-right.

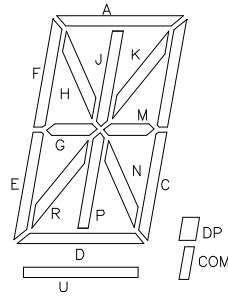
SPECIFICATIONS ARE FOR REFERENCE ONLY

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**Terminal/Assignments**

Terminal No.	Segment/Function	Terminal No.	Segment/Function	Terminal No.	Segment/Function
1	s	21	Anode-4	62, 64, 66-68	N/C
2	a	22	u	63, 65	Anode-12
3	j	23,24	N/C	69, 71	Anode-13
4	b	25	Anode-5	70, 72-74	N/C
5,7	Anode-1	26	N/C	75, 77	Anode-14
6	k	27	Anode-5	76, 78	N/C
8	h	28-30	N/C	79, 81	Anode 15
9	f	31,33	Anode-6	80	Com
10	m	32, 34-36	N/C	82	p
11,13	Anode-2	37, 39	Anode-7	83	r
13	Comma	41, 43	Anode-8	84	e
14	u	42, 44-46	N/C	85, 87	Anode-16
15,17	Anode-3	47, 49	Anode-9	88	g
16	Dec. Pt.	50-52	N/C	89	K.A. Cathode
18	d	53, 55	Anode-10	90	N/C
19,21	Anode-4	54, 56, 58-60	N/C		
20	Dec. Pt.	57, 61	Anode 11		

