

User's Guide

C40-1405

VFD

(Vacuum Fluorescent Character Display Module)

For product support, contact

New haven Display International
2511 Technology Drive #101
Elgin , IL 601 24
Tel: (847) 8 44-8795 Fax: (847) 8 44-8796

October 31, 2006

Vacuum Fluorescent Display Specification

PART NUMBER: **C40-1405**

FEATURES: 140 Segments– 14 x 10 Dot Matrix Grid

APPLICATION: Elevator

RATINGS: Below

Outer Dimensions	Panel Length	P.L.	65.2	mm	
	Panel Height	P.H.	40.0	mm	
	Panel Thickness	P.T.	9.0	mm	
Leads	Lead Pitch	L.P.	1.50	mm	
	Lead Out	-	SIL		
Character Size	Character Height	C.H.	1.75	mm	
	Character Width	C.W.	1.14	mm	
Item	Symbol	Min.	Recommended	Max.	Unit
Filament Voltage	Ef	1.89	2.1	2.31	Vac
Grid Voltage	ec	-	27.0	32.0	Vp-p
Anode Voltage	eb	-	27.0	32.0	Vp-p
Cut-off Bias	Ek	-	3.5	-	Vdc
Duty Cycle	Du	-	1/17.5	-	-
Pulse Width	tp	-	80	-	uS
Operating Temperature	Topr	-20	-	+ 70	C
Storage Temperature	Tstg	-55	-	+ 80	C
Color of Illumination	Green: X=0.250, Y=0.440				

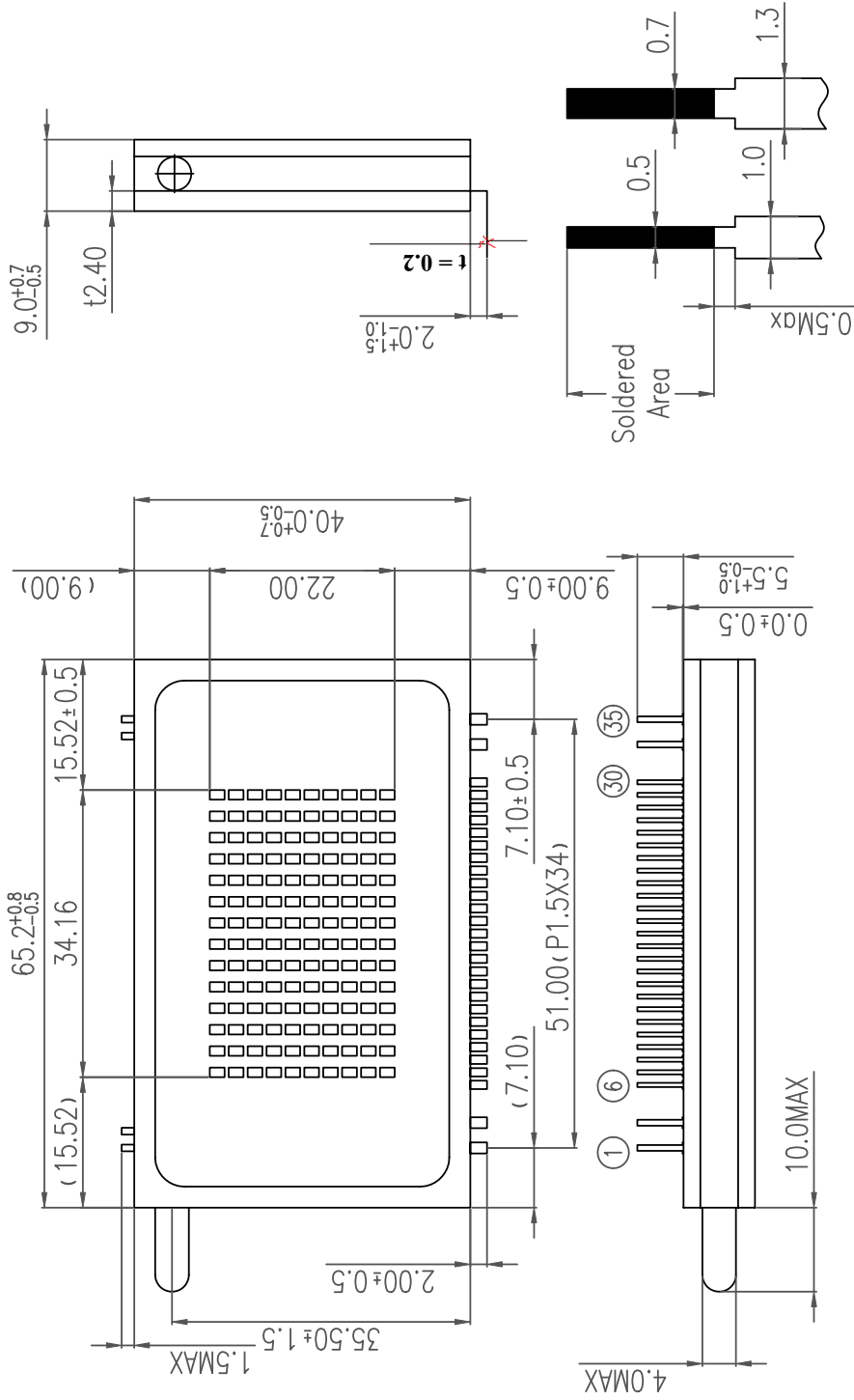
电气特性 Electrical Characteristics

项 目 Item	符 号 Symbol	测试条件 Test Condition	最小值 Min	典型值 Typical	最大值 Max	单位 Unit
灯丝电流 Filament Current	If	Ef=2.1 Vac eb=ec=0	203.0	225.0	248.0	mAac
阳极电流 Anode Current	ib/1G~14G	Ef=2.1 Vac	—	5.0	10.0	mAp-p
	—	eb=27.0 Vp-p	—	—	—	mAp-p
	—	ec=27.0 Vp-p	—	—	—	mAp-p
	—	Du=1/17.5	—	—	—	mAp-p
	—	tp=80μs tb=20μs	—	—	—	mAp-p
栅极电流 Grid Current	ic/1G~14G	(笔段全亮)	—	4.5	9.0	mAp-p
	—		—	—	—	mAp-p
	—		—	—	—	mAp-p
	—		—	—	—	mAp-p
	—		—	—	—	mAp-p
亮度 Luminance	L(G)		350 (102)	700 (204)	—	cd/m ² (fl)
	—		—	—	—	cd/m ² (fl)
	—		—	—	—	cd/m ² (fl)
	—		—	—	—	cd/m ² (fl)
位间亮度比 Luminance Ratio	Lmin/Lmax		50	—	—	%
栅极截止电压 Grid Cut-off Voltage	Ecco	Ef=2.1 Vac Eb=27.0 Vdc	-3.5	—	—	Vdc
阳极截止电压 Anode Cut-off Voltage	Ebco	Ef=2.1 Vac ec=27.0 Vp-p Du=1/17.5 tp=80 μs	-3.5	—	—	Vdc

注：驱动方式 动态
Drive mode:Dynamic state

control No.	QG/ZBOE 030.07.3-05
Spec. No.	SPC04.09.09-01
MODEL	C40-1405

附图1：外形图 Outline Drawing (Unit:mm)



管脚连接 (PIN CONNECTION)

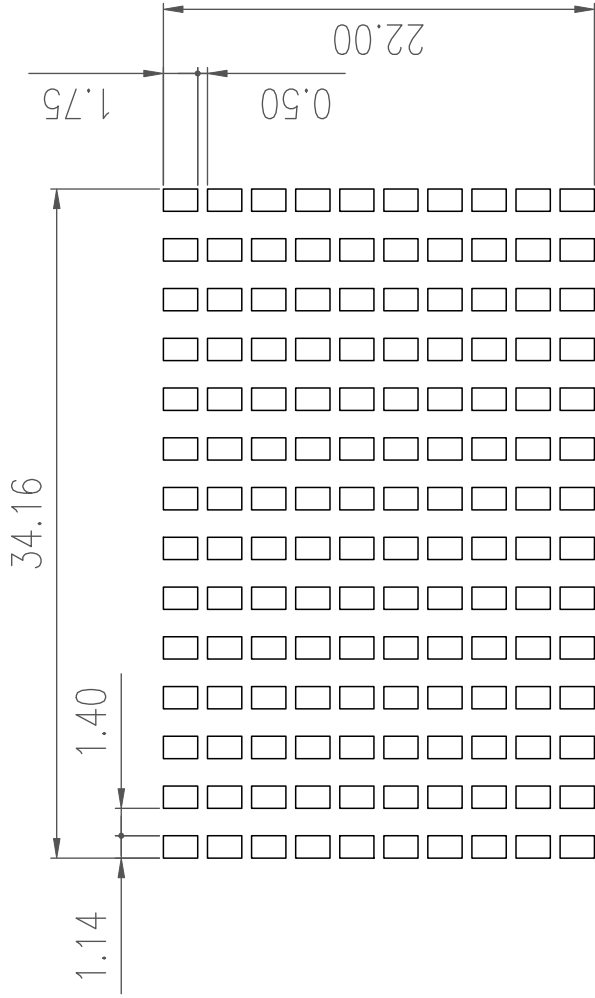
端子序号 (PIN NO.)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
连接 (CONNECTION)	F1	NP	F1	NP	P1	P2	P3	P4	P5	P10	P9	P8	P7	P6	NC	14G	13G	
端子序号 (PIN NO.)	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	
连接 (CONNECTION)	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	NP	F2	NP	F2	

注：F：灯丝 (Filament) P：阳极 (Anode) G：栅极 (Grid) NC：无连接 (No connection) NP：无引出脚 (No pin) NX：无外引脚 (No extended pin)

OTHER F-LEAD
LEAD DETAILS

control No.	QG/ZB0E 030.07.3-05
Spec. No.	SPC04.09.09-01
MODEL	C40-1405

附图2：显示内容 Display Pattern

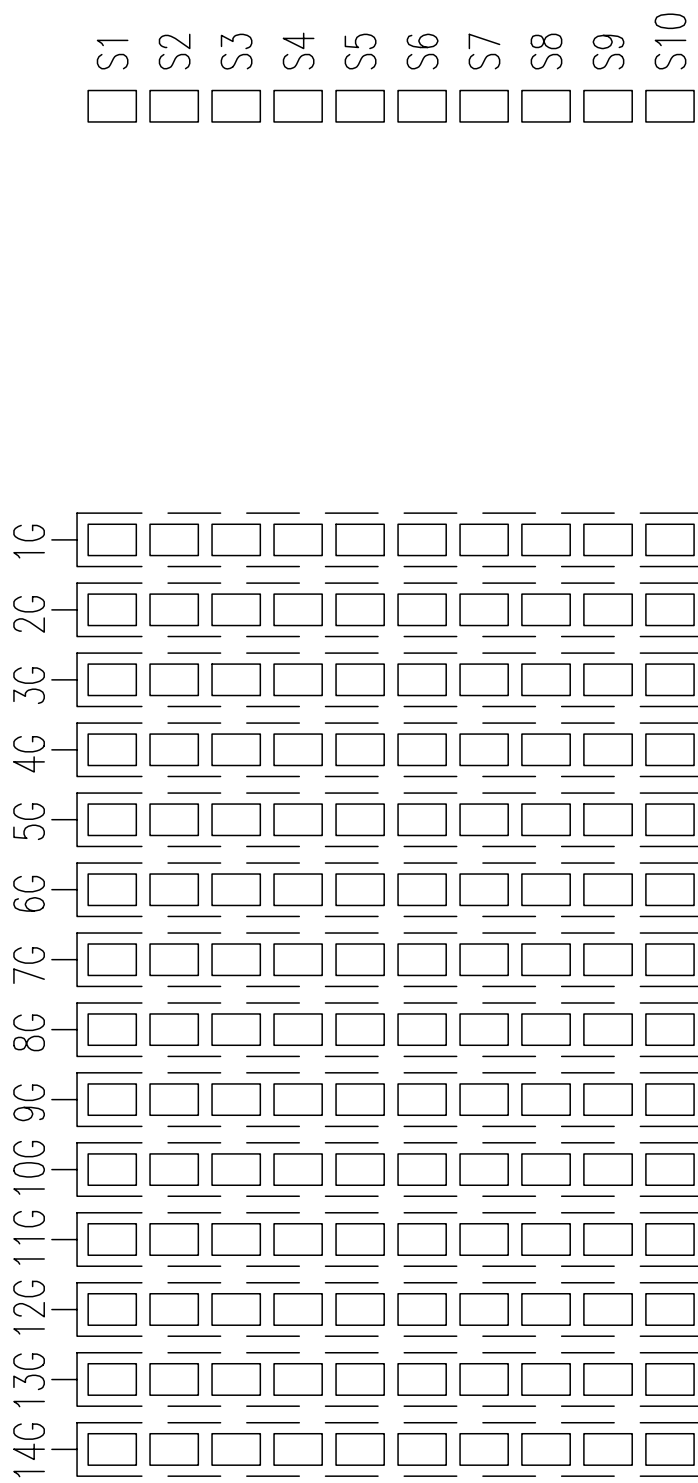


显示颜色(Color of illumination)

绿色 (Green:x=0.250,y=0.440): 全部 All

control No.	QG/ZB0E 030.07.3-05
Spec. No.	SPC04.09.09-01
MODEL	C40-1405

附图3: 栅网分割 Grid Assignment



(14G~1G)

control No.	QG/ZB0E 030.07.3-05
Spec. No.	SPC04.09.09-01
MODEL	C40-1405

附图4：阳极连接 Anode Connection

	14G	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	S1	S1	S1	S1	S1	S1	S1	S1	S1	S1	S1	S1	S1	S1
P2	S2	S2	S2	S2	S2	S2	S2	S2	S2	S2	S2	S2	S2	S2
P3	S3	S3	S3	S3	S3	S3	S3	S3	S3	S3	S3	S3	S3	S3
P4	S4	S4	S4	S4	S4	S4	S4	S4	S4	S4	S4	S4	S4	S4
P5	S5	S5	S5	S5	S5	S5	S5	S5	S5	S5	S5	S5	S5	S5
P6	S6	S6	S6	S6	S6	S6	S6	S6	S6	S6	S6	S6	S6	S6
P7	S7	S7	S7	S7	S7	S7	S7	S7	S7	S7	S7	S7	S7	S7
P8	S8	S8	S8	S8	S8	S8	S8	S8	S8	S8	S8	S8	S8	S8
P9	S9	S9	S9	S9	S9	S9	S9	S9	S9	S9	S9	S9	S9	S9
P10	S10	S10	S10	S10	S10	S10	S10	S10	S10	S10	S10	S10	S10	S10

control No.	QG/ZB0E 030.07.3-05
Spec. No.	SPC04.09.09-01
MODEL	C40-1405