Chirag Patel
CRESTRON ELECTRONICS INC
15 VOLVO DR
ROCKLEIGH NJ 07647-2507

Date:	2018/04/27
Subscriber:	432288002
PartySite:	100186
File No:	E344836
Project No:	4788356225
PD No:	18M15730
Type:	R
PO Number:	351704

Subject: **Procedure And/Or Report Material**

The following material resulting from the investigation under the above numbers is enclosed.

Issue Date	Vol	Sec	Pages	Revised Date
	1		Revised Index Page(s) 3	2018/04/25
	1		Revised Appendix D6,D6A,D7	2018/04/25
2018/04/25	1	7	Cert of Compliance	
2018/04/25	1	7	Add New Proc/Report Sect	

Please file revised pages and illustrations in place of material of like identity. New material should be filed in its proper numerical order.

NOTE: Follow-Up Service Procedure revisions DO NOT include Cover Pages, Test Records and Conclusion Pages. Report revisions DO NOT include Authorization Pages, Indices, Section General Pages and Appendixes.

Please review this material and report any inaccuracies to UL's Customer Service Professionals. Contact information for all of UL's global offices can be found at http://ul.com/aboutul/locations.

If you'd like to receive updated materials FASTER, UL offers electronic access and/or delivery of this material. For more details, contact UL's Customer Service Professionals as shown above.

This material is provided on behalf of UL LLC(UL) or any authorized licensee of UL.

MEL File

INDEX

Approval Abbreviation:

A – Evaluated to United States Standards Only
B – Evaluated to United States Standards and Canadian National Standards
C – Evaluated to Canadian National Standards Only

III. TEST EQUIPMENT

Production-Line Dielectric Voltage-Withstand Test - The following equipment has been evaluated with respect to the requirements expressed in Appendix D and has been found suitable for this test.

Manufacturer _____ Model/Cat. No._____

Reserved for future use.

IV. EXCEPTIONS

A. Production-Line Dielectric Voltage-Withstand Test - Based on engineering judgement, this test is not required to be performed on the following products.

Product Name	Product Designation	Procedure Section or Date
Wallbox Dimmer	ZUMMESH-5A-LV-x-x	Sec. 4, dated 2016-11-10
Wallbox Dimmer	CLW-DIMFLVEX-x-x-x-x	Sec. 4, dated 2016-11-10
Wallbox Switch	ZUMMESH-5A-SW-x-x	Sec. 4, dated 2016-11-10
Wallbox Keypad	ZUMMESH-KPxxy-z-z	Sec. 4, dated 2016-11-10
Junction Box Dimmer	ZUMMESH-JBOX-5A-LV	Sec. 5, dated 2017-02-23
Junction Box Dimmer	ZUMMESH-JBOX-16A-LV	Sec. 5, dated 2017-02-23
Junction Box Switch	ZUMMESH-JBOX-20A-SW	Sec. 5, dated 2017-02-23
Junction Box Switch	ZUMMESH-JBOX-20A-PLUG	Sec. 5, dated 2017-02-23
Junction Box Power Supply	ZUMMESH-JBOX-PSU	Sec. 5, dated 2017-02-23
Relay Module	ZUMMESH-CCO	Sec. 5, dated 2017-02-23
Network Bridge	ZUMMESH-NETBRIDGE	Sec. 5, dated 2017-02-23
Battery Operated Keypad	ZUMMESH-KPxxyyxBATT-z-z-z	Sec. 6, dated 2017-02-24
Battery Operated Photocell	ZUMMESH-OL-PHOTOCELL-BATT	Sec. 6, dated 2017-02-24
Battery Operated Occupancy Sensor	ZUMMESH-PIR-OCCUPANCY-BATT	Sec. 6, dated 2017-02-24
Battery Operated Vacancy Sensor	ZUMMESH-PIR-VACANCY-BATT	Sec. 6, dated 2017-02-24
DIN Rail Thermostat Interface	**DIN-TSTATIM-FCU-120**	**Sec. 7**
DIN Rail Thermostat Interface	**DIN-TSTATIM-FCU-277**	**Sec. 7**

B. Production-Line Grounding Continuity Test - Based on engineering judgement, this test is not required to be performed on the following products.

Product Name	Product Designation	Procedure Section or Date
Wallbox Dimmer	ZUMMESH-5A-LV-x-x	Sec. 4, dated 2016-11-10
Wallbox Dimmer	CLW-DIMFLVEX-x-x-x-x	Sec. 4, dated 2016-11-10
Wallbox Switch	ZUMMESH-5A-SW-x-x	Sec. 4, dated 2016-11-10
Wallbox Keypad	ZUMMESH-KPxxy-z-z	Sec. 4, dated 2016-11-10
Junction Box Dimmer	ZUMMESH-JBOX-5A-LV	Sec. 5, dated 2017-02-23
Junction Box Dimmer	ZUMMESH-JBOX-16A-LV	Sec. 5, dated 2017-02-23
Junction Box Switch	ZUMMESH-JBOX-20A-SW	Sec. 5, dated 2017-02-23
Junction Box Switch	ZUMMESH-JBOX-20A-PLUG	Sec. 5, dated 2017-02-23
Junction Box Power Supply	ZUMMESH-JBOX-PSU	Sec. 5, dated 2017-02-23
Relay Module	ZUMMESH-CCO	Sec. 5, dated 2017-02-23
Network Bridge	ZUMMESH-NETBRIDGE	Sec. 5, dated 2017-02-23
Battery Operated Keypad	ZUMMESH-KPxxyyxBATT-z-z-z	Sec. 6, dated 2017-02-24
Battery Operated Photocell	ZUMMESH-OL-PHOTOCELL-BATT	Sec. 6, dated 2017-02-24
Battery Operated Occupancy Sensor	ZUMMESH-PIR-OCCUPANCY-BATT	Sec. 6, dated 2017-02-24
Battery Operated Vacancy Sensor	ZUMMESH-PIR-VACANCY-BATT	Sec. 6, dated 2017-02-24
DIN Rail Thermostat Interface	**DIN-TSTATIM-FCU-120**	**Sec. 7**
DIN Rail Thermostat Interface	**DIN-TSTATIM-FCU-277**	**Sec. 7**

C. Production-Line Dead-Case Mounted Semiconductor Test - Based on engineering judgement, this test is not required to be performed on the following products.

Product Name	Product Designation	Procedure Section or Date
Wallbox Dimmer	ZUMMESH-5A-LV-x-x	Sec. 4, dated 2016-11-10
Wallbox Dimmer	CLW-DIMFLVEX-x-x-x-x	Sec. 4, dated 2016-11-10
Wallbox Switch	ZUMMESH-5A-SW-x-x	Sec. 4, dated 2016-11-10
Wallbox Keypad	ZUMMESH-KPxxy-z-z	Sec. 4, dated 2016-11-10
Junction Box Dimmer	ZUMMESH-JBOX-5A-LV	Sec. 5, dated 2017-02-23
Junction Box Dimmer	ZUMMESH-JBOX-16A-LV	Sec. 5, dated 2017-02-23
Junction Box Switch	ZUMMESH-JBOX-20A-SW	Sec. 5, dated 2017-02-23
Junction Box Switch	ZUMMESH-JBOX-20A-PLUG	Sec. 5, dated 2017-02-23
Junction Box Power Supply	ZUMMESH-JBOX-PSU	Sec. 5, dated 2017-02-23
Relay Module	ZUMMESH-CCO	Sec. 5, dated 2017-02-23
Network Bridge	ZUMMESH-NETBRIDGE	Sec. 5, dated 2017-02-23
Battery Operated Keypad	ZUMMESH-KPxxyyxBATT-z-z-z	Sec. 6, dated 2017-02-24
Battery Operated Photocell	ZUMMESH-OL-PHOTOCELL-BATT	Sec. 6, dated 2017-02-24
Battery Operated Occupancy Sensor	ZUMMESH-PIR-OCCUPANCY-BATT	Sec. 6, dated 2017-02-24
Battery Operated Vacancy Sensor	ZUMMESH-PIR-VACANCY-BATT	Sec. 6, dated 2017-02-24
DIN Rail Thermostat Interface	**DIN-TSTATIM-FCU-120**	**Sec. 7**
DIN Rail Thermostat Interface	**DIN-TSTATIM-FCU-277**	**Sec. 7**

CERTIFICATE OF COMPLIANCE

Certificate Number	20180427-E344836
Report Reference	E344836-20180425
Issue Date	2018-APRIL-27
Issued to:	CRESTRON ELECTRONICS INC 15 VOLVO DR, ROCKLEIGH NJ 07647-2507
This is to certify that representative samples of	MANAGEMENT EQUIPMENT, ENERGY Open Type Energy management Equipment, Models: DIN-TSTATIM-FCU-120 and DIN-TSTATIM-FCU-277.
	Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	UL 916, ENERGY MANAGEMENT EQUIPMENT CSA C22.2 NO. 205-17, SIGNAL EQUIPMENT
Additional Information:	See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Director North American Certification Program

UL LLC

File E344836
Project 4788356225

April 25, 2018

REPORT

on

MANAGEMENT EQUIPMENT, ENERGY

CRESTRON ELECTRONICS INC
Rockleigh, NJ

DESCRIPTION

PRODUCT COVERED:

USL, CNL – Open Type Energy management Equipment, Models: DIN-TSTATIM-FCU-120 and DIN-TSTATIM-FCU-277.

CNL – Indicates investigation to Canadian National Standard C22.2 No. 205.
USL – Indicates investigation to UL 916, Energy management Equipment.

GENERAL:

All models are housed in a polymeric housing and are not provided with a complete enclosure; these are open-type devices intended for DIN rail field installation within a separate enclosure. These devices interface with a Class 2 thermostat and serve to directly, or indirectly via pilot duty contacts, control loads within an HVAC system. These controls are supplied by line voltage and incorporate a linear, Class 2 transformer. Relays are employed to control line voltage loads; the relays are controlled by Class 2 signals from the thermostat. The 24 VAC, Class 2 secondary supplies the external thermostat; the thermostat is not covered by this report. Field wiring terminals are employed for field connections.

These devices have been investigated as Operating Controls and provide no safety critical or protective functionality.

ELECTRICAL RATINGS –

Supply and Load

Models	Input Voltage (supply)	Output Voltage	Load Type And Ratings	Terminal
DIN-TSTATIM-FCU-120	TB1: 120 VAC, 60Hz	120 VAC, 60Hz	Switched: 5 A, Inductive ¼ HP, Motor	TB2: GH, GM, GL
			Switched: 3.0 A Pilot Duty	TB3: Y, W
		24 VAC, Class 2	Unswitched: 100 mA	TB4: 24C, 24R
DIN-TSTATIM-FCU-277	TB1: 277 VAC, 60Hz	277 VAC, 60Hz	Switched: 5 A, Inductive ¼ HP, Motor	TB2: GH, GM, GL
			Switched: 1.5 A Pilot Duty	TB3: Y, W
		24 VAC, Class 2	Unswitched: 100 mA	TB4: 24C, 24R

Control Inputs

Models	Input Voltage (supply)	Terminal
DIN-TSTATIM-FCU-120, DIN-TSTATIM-FCU-277	24 VAC, Class 2	TB4: GH, GM, GL, Y, W

ENVIRONMENTAL RATINGS:

Ambient Temperature: 0 – 40°C
Pollution Degree: 2
Indoor / Outdoor Use: Indoor Use Only

FIGURES AND ILLUSTRATIONS:

Ill. No.	Description
1	PCB Artwork – All Models
2	Housing Dimensional Drawing – All Models

Fig. No.	Description
1	Model DIN-TSTATIM-FCU-120 – Overall View
2	Model DIN-TSTATIM-FCU-120 – Overall Top View without Cover
3	Model DIN-TSTATIM-FCU-120 - Disassembled View
4	Model DIN-TSTATIM-FCU-120 – PCB Top View
5	Model DIN-TSTATIM-FCU-120 – PCB Bottom View
6	Model DIN-TSTATIM-FCU-277 – Overall View
7	Model DIN-TSTATIM-FCU-277 – Overall Top View without Cover
8	Model DIN-TSTATIM-FCU-277 - Disassembled View
9	Model DIN-TSTATIM-FCU-277 – PCB Top View
10	Model DIN-TSTATIM-FCU-277 – PCB Bottom View

CONSTRUCTION DETAILS:

The product shall be constructed in accordance with the following description.

Spacing – Spacings are not specified in non-safety, Class 2 Circuits.

Spacings on the printed circuit board were evaluated in accordance with UL 840, Third Edition and CSA C22.2 No. 0.2.

Clearance has been judged on the basis of the required Clearances in Table 8.1 of UL 840 and Table 2 of CSA C22.2 No. 0.2:

Model	Distance under consideration	Phase-to-Ground System Voltage	Overvoltage Category	Pollution Degree	Clearance (mm)	
					Required	measured
DIN-TSTATIM-FCU-120	power supply primary, areas of opposite polarity	120	III	2	1.5 mm	5.0 mm
	Primary to 24 V Class 2 Secondary	120	III	2	1.5 mm	7.8 mm
DIN-TSTATIM-FCU-277	power supply primary, areas of opposite polarity	277	III	2	3.0 mm	5.0 mm
	Primary to 24 V Class 2 Secondary	277	III	2	3.0 mm	7.8 mm

Creepage has been judged on the basis of the required Creepage in Table 9.2 of UL 840 and Table 4 of CSA C22.2 No. 0.2:

Model	Distance under consideration	Working voltage (V)	Pollution degree	Material group	creepage(mm)	
					required	measured
DIN-TSTATIM-FCU-120	power supply primary, areas of opposite polarity	120	2	IIIa	0.25 mm (+)	5.0 mm
	Primary to 24 V Class Secondary	120	2	IIIa	0.25 mm (+)	7.8 mm
DIN-TSTATIM-FCU-277	power supply primary, areas of opposite polarity	277	2	IIIa	1.6 mm (+)	5.0 mm
	Primary to 24 V Class Secondary	277	2	IIIa	1.6 mm (+)	7.8 mm

(+) – Required Clearance distance used for required Creepage since required Creepage cannot be less than required clearance at the same location.

Tolerances - Unless specified otherwise, all indicated dimensions are nominal.

Mechanical Electrical Connections - For electrical connection, internal wiring and leads of components are provided with crimp-on terminals such as closed loop, spade type with upturned ends, quick connect with integral detent or locking type, or are mechanically secured and soldered.

Corrosion Protection - All parts of these devices are either constructed of corrosion resistant material or are plated or painted for protection against corrosion. Where corrosion protection is specified, all surfaces of the part are so protected, unless otherwise specified.

Dimensions - All dimensions are nominal unless otherwise specified.

Soldered Connections - All soldered connections are made mechanically secure before soldering. When hand soldered, leads on printed circuit boards are bent over prior to soldering.

Exception - Printed circuit board assemblies that are wave soldered.

Printed Wiring Boards - Unless otherwise specified, all printed wiring boards are Recognized Components (ZPMV2):

1) suitable for the solder time and temperature used by the manufacturer,
2) having an operating temperature rating of at least 90°C, and
3) having a CTI rating of at least 175 V, or is constructed of R/C (QMTS2) laminate with CTI rating of at least 175 V, and
4) having a minimum flame rating of 94V-1.

The printed wiring boards used have a thickness of 1.6 mm.

Markings - All markings are either:

1) permanently ink-stamped,
2) silk-screened
3) provided on a R/C Marking and Labeling System (PGDQ2/8), suitable for application to the surface involved, and rated 40°C minimum, or
4) or provided on a R/C Printing materials (PGJI2/8) suitable for application to the surface involved; suitable for the ink and printer used; and rated 40°C minimum.

The following markings shall be provided on the device:

1. The Listee's name, trademark, UL File number, or other descriptive marking by which the organization responsible for the product may be identified;
2. Complete Electrical Ratings;
3. The date or other dating period of manufacture not exceeding any three consecutive months;
4. A distinctive model number or the equivalent; and
5. The statement "Class 2" – Applies to the 24 VAC terminal block TB4.
6. Maximum Ambient - 40°C
7. For use with CU conductors only
8. 5 – 7 lb-in torque (for all terminal blocks)

Canadian Evaluation Marking - All models in this section are eligible to bear the Canadian/UL Mark. The use of this Mark indicates compliance with the requirements in the Canadian Standard for Signal Equipment, CSA C22.2 No. 205.

Wiring terminals shall be marked to indicate the proper connections for the power supply, load, control circuit, and the like, or a wiring diagram coded to the terminal marking shall be securely attached to the equipment.

MODEL DIN-TSTATIM-FCU-120 Figures 1 - 10
(Represents model DIN-TSTATIM-FCU-277 except were differences are noted below)

General - Figs. 1 - 5 show overall exterior and interior views with various stages of disassembly for model DIN-TSTATIM-FCU-120. Figs. 6 - 10 show overall exterior and interior views with various stages of disassembly for model DIN-TSTATIM-FCU-277. All components are mounted on printed circuit board assembly, unless otherwise indicated.

1. Housing – 3 Piece Construction – R/C (QMFZ2), Lexan 920 by Sabic Innovative Plastics US LLC, minimum 1.5 mm thick, rated V-0, 130°C. See Illustration 2 for dimensional drawings.

2. Printed Circuit Board – R/C (ZMPV2). See construction details. See Illustration 1 for trace artwork. Measures approximately 154.5 mm by 86 mm.

3. Terminal Block (TB1 – TB3) –R/C (XCFR2/8), type GMKDS3/2 or GMKDS3/3 by Phoenix Contact Gmbh & Co Kg, rated 300V, 15A, 105°C; suitable for conductors sizes 12 – 30 AWG. Suitable for field wiring. Rated torque 5 – 7 lb-in. For use with Copper conductors only.

4. Terminal Block (TB4) –R/C (XCFR2/8), type MKDS3/7-5.08 by Phoenix Contact Gmbh & Co Kg, rated 300V, 15A, 105°C; suitable for conductors sizes 12 – 30 AWG. Suitable for field wiring. Rated torque 5 – 7 lb-in. For use with Copper conductors only.

5. Fuse (F1) - R/C (JFHR2/8), type BK-S505H-V-8-R or TR2-S505H-V-8-R by Cooper Bussman Inc, rated 8 A, 500 VAC.

6. Fuse (F2) - R/C (JDYX2/8), type 04611.25ER by Littelfuse Inc, rated 1.25 A, 600 VAC.

   Alternate – R/C (JDYX2/8), type B1250T by Bourns Inc, rated 1.25 A, 600 V.

7. Relays (K1 – K5) – R/C (NLDX2/8), type HF115F-A-024-1HS3AF by Xiamen Hongfa Electroacoustic Co. Ltd, rated ½ HP, 250 V, B300 Pilot Duty, 16 A General Use, 277 V, 40°C. (Engineering Note: Additionally tested for 1.5 A Pilot Duty, 277 V, 6k cycles, 40°C and ¼ HP, 277 V, 6k cycles, 40°C.

   Alternate – R/C (NLDX2/8), type AZ762-1AE-24AEF by American Zettler, rated ½ HP, 250 V, B300 Pilot Duty, 16 A General Use, 277 V, 40°C. (Engineering Note: Additionally tested for 1.5 A Pilot Duty, 277 V, 6k cycles, 40°C and ¼ HP, 277 V, 6k cycles, 40°C.

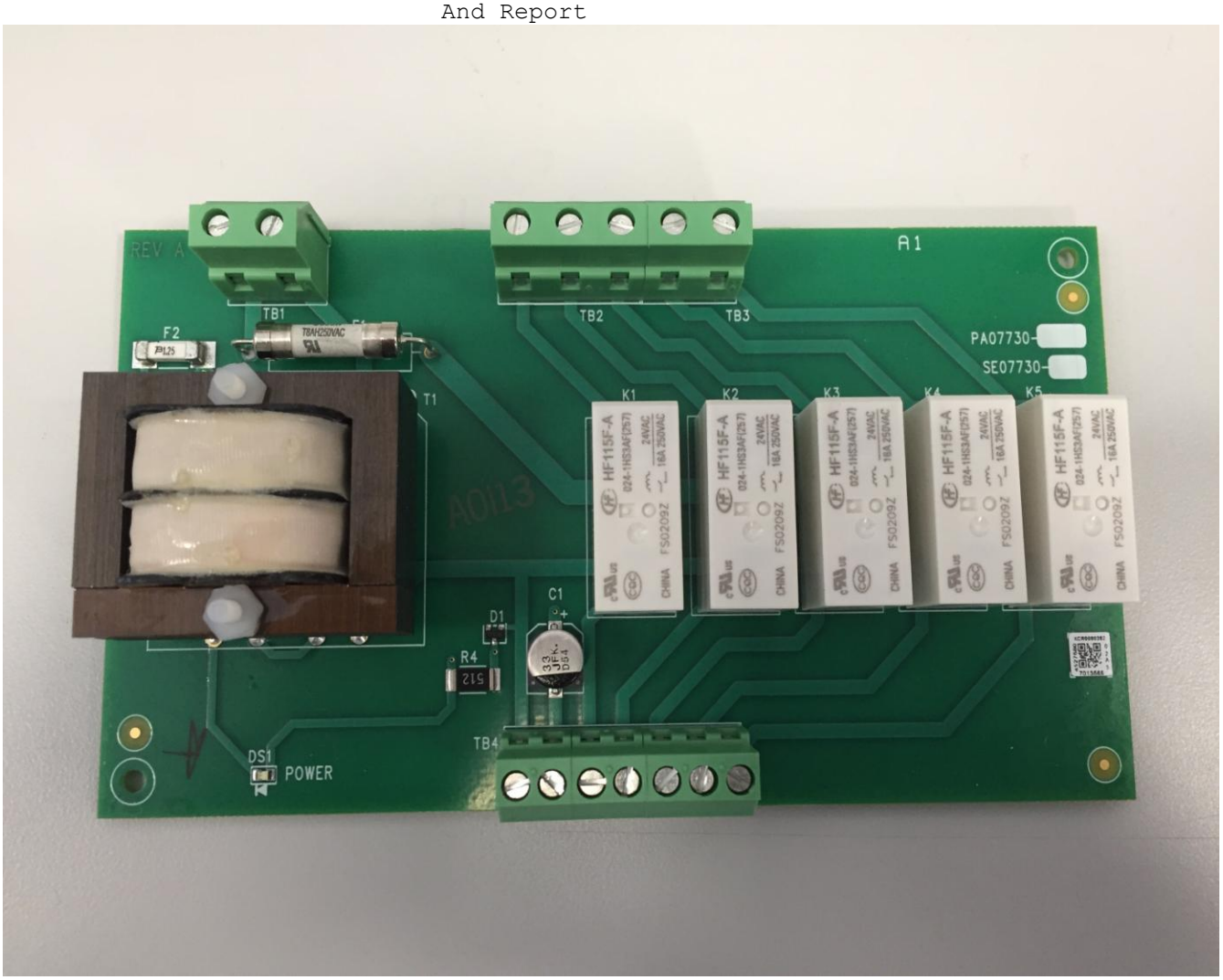
8. Class 2 Transformer - Model DIN-TSTATIM-FCU-120 – R/C (XOKV2/8), Type DST-4-24 by Signal Transformer, Rated 115/230 VAC primary, 50/60 Hz, 12/24 V, 6 VA Secondary. Class B Insulated.

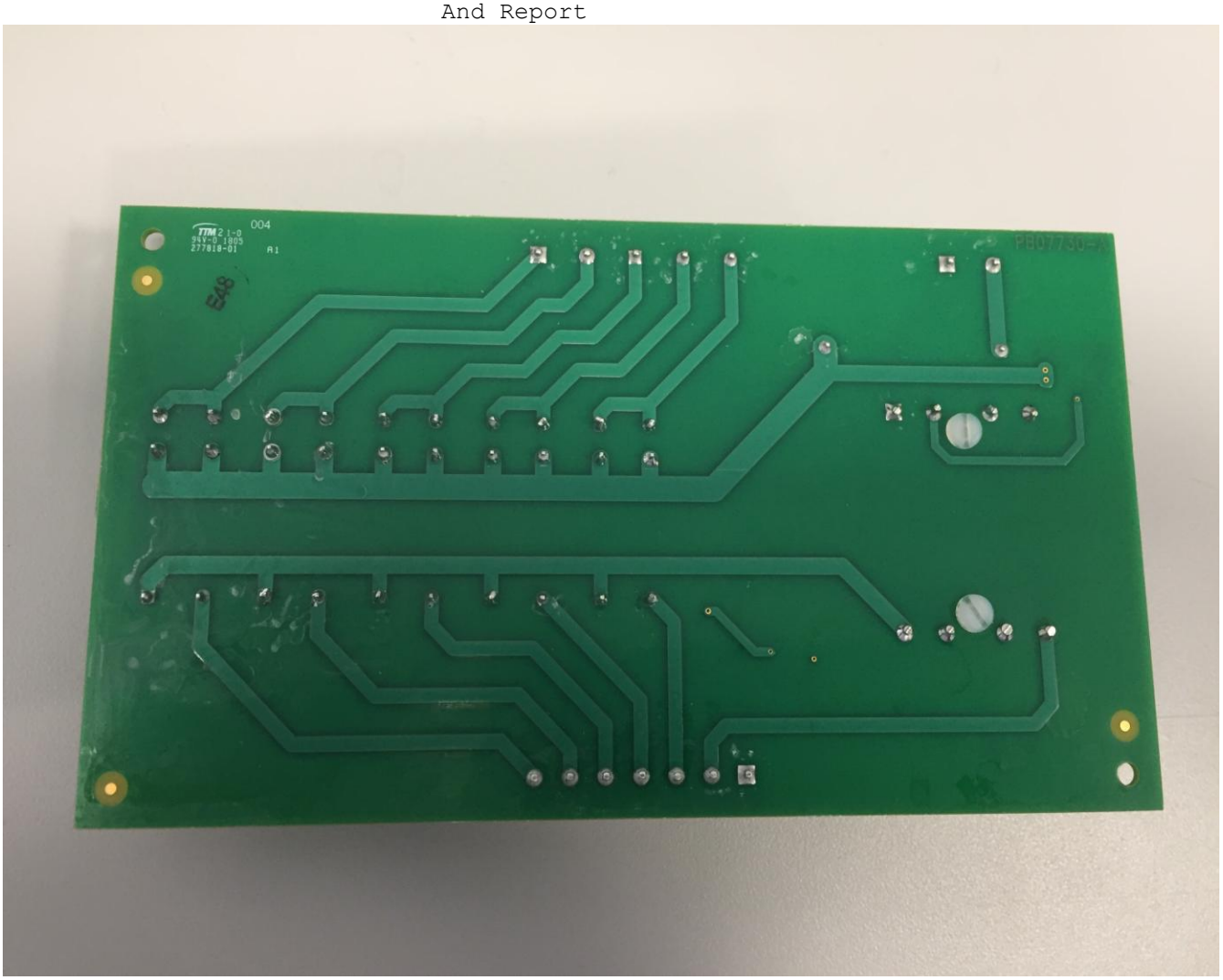
9. Class 2 Transformer - Model DIN-TSTATIM-FCU-277 – R/C (XOKV2/8), Type DST-4-24-3542 by Signal Transformer, Rated 277 VAC primary, 50/60 Hz, 12/24 V, 6 VA Secondary. Class B Insulated.


L N
GH GM GL Y W
120V
CRESTRON
DIN-TSTATIM-FCU-120
24V TO 120V THERMOSTAT INTERFACE
24V
C R GH GM GL Y W
DS1
POWER
TB


L N
GH GM GL Y W
120V
CRESTRON
DIN-TSTATIM-FCU-120
24V TO 120V THERMOSTAT INTERFACE
24V
C R GH GM GL Y W
K1
K2
K3
K4
K5
DS1
POWER


L N
GH GM GL Y W
120V
CRESTRON
DIN-TSTATIM-FCU-120
24V TO 120V THERMOSTAT INTERFACE
24V
C R GH GM GL Y W
TB1
TB2
TB3
TB4
K1
K2
K3
K4
K5
POWER

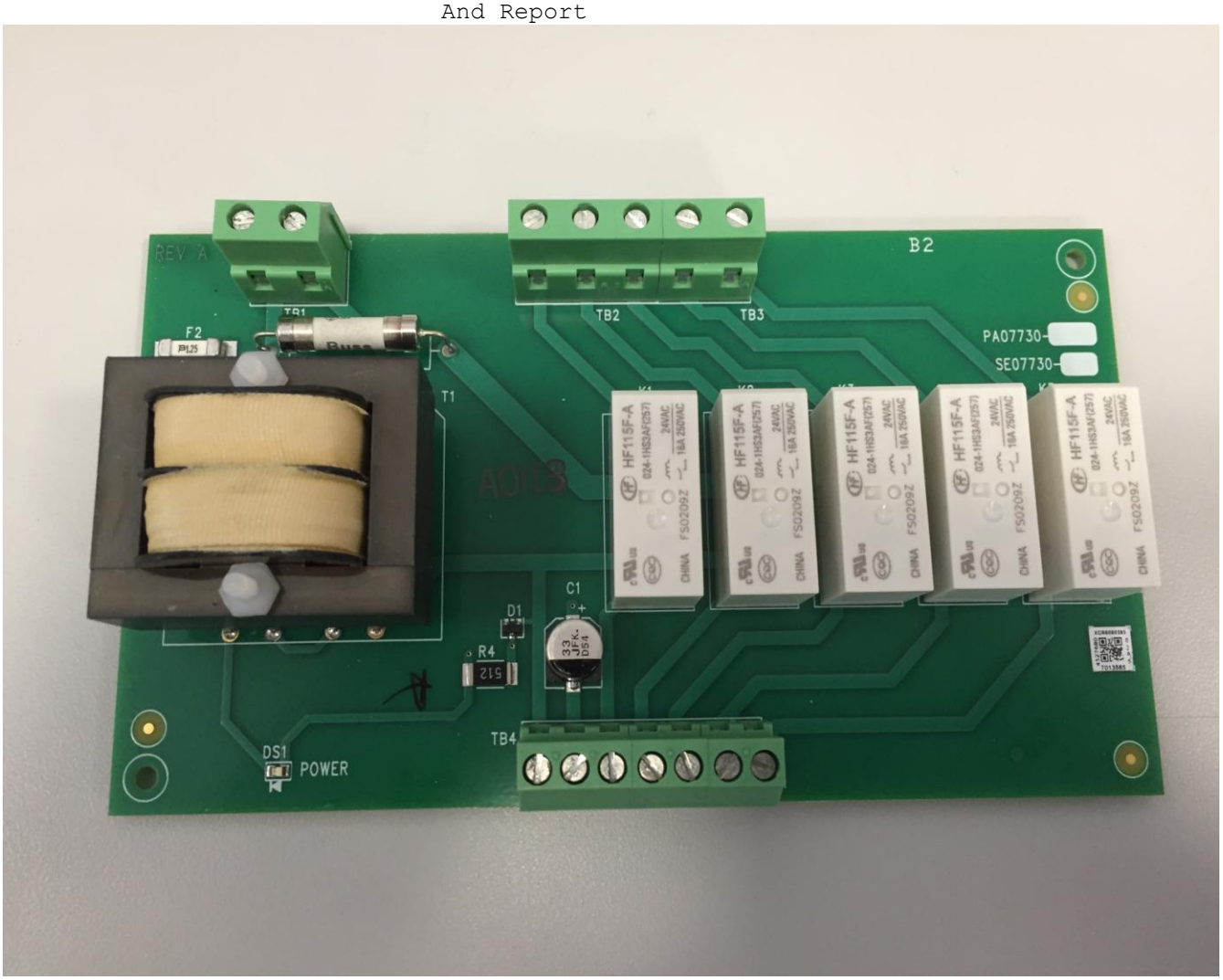

REV A
A1
TB1
TB2
TB3
F2
T1
K1
K2
K3
K4
K5
HF115F-A
PA07730-
SE07730-
C1
D1
R4
TB4
DS1
POWER

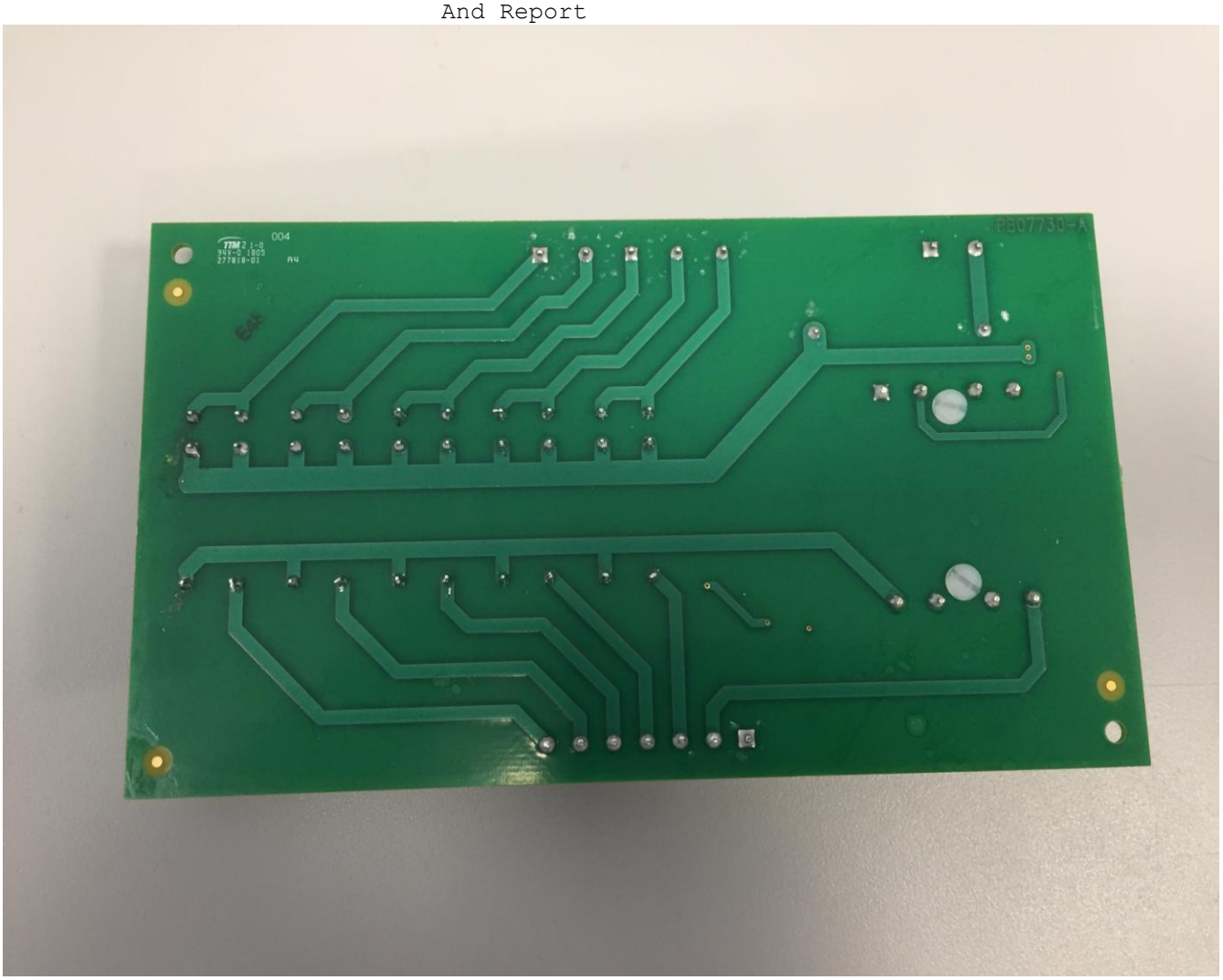

004
R1

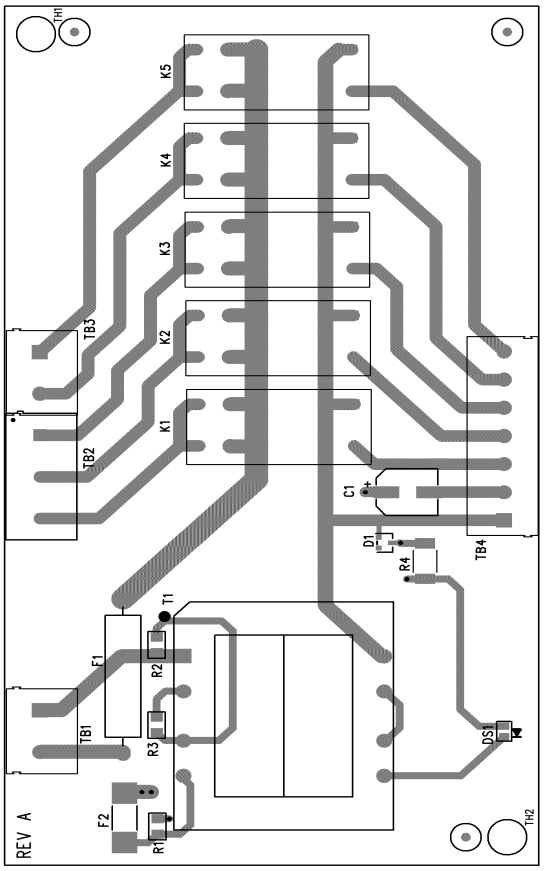

L N
GH GM GL Y W
277V
CRESTRON
DIN-TSTATIM-FCU-277
24V TO 277V THERMOSTAT INTERFACE
24V
C R GH GM GL Y W


L N
GH GM GL Y W
277V
CRESTRON
DIN-TSTATIM-FCU-277
24V TO 277V THERMOSTAT INTERFACE
24V
C R GH GM GL Y W

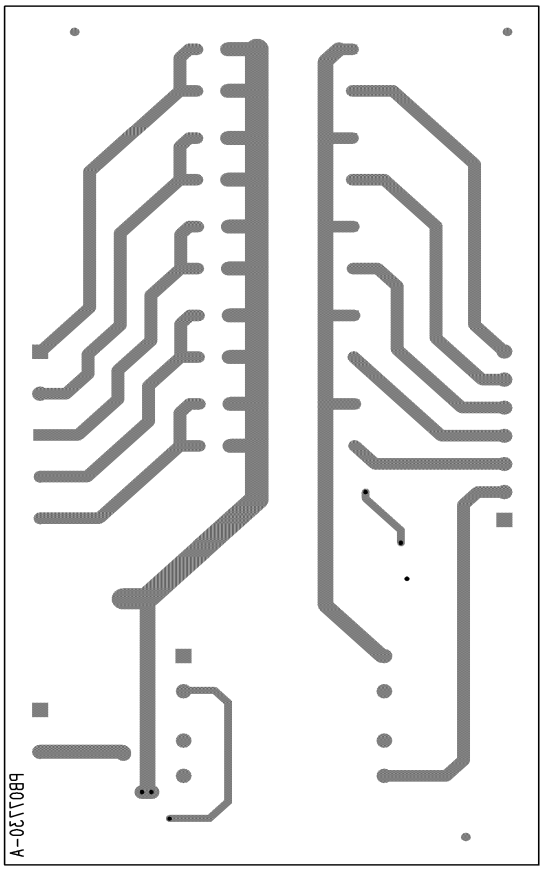

L N
GH GM GL Y W
277V
CRESTRON
DIN-TSTATIM-FCU-277
24V TO 277V THERMOSTAT INTERFACE
24V
C R GH GM GL Y W


REV A
B2
TB1
TB2
TB3
F2
T1
PA07730-
SE07730-
HF115F-A
C1
D1
R4
TB4
DS1
POWER

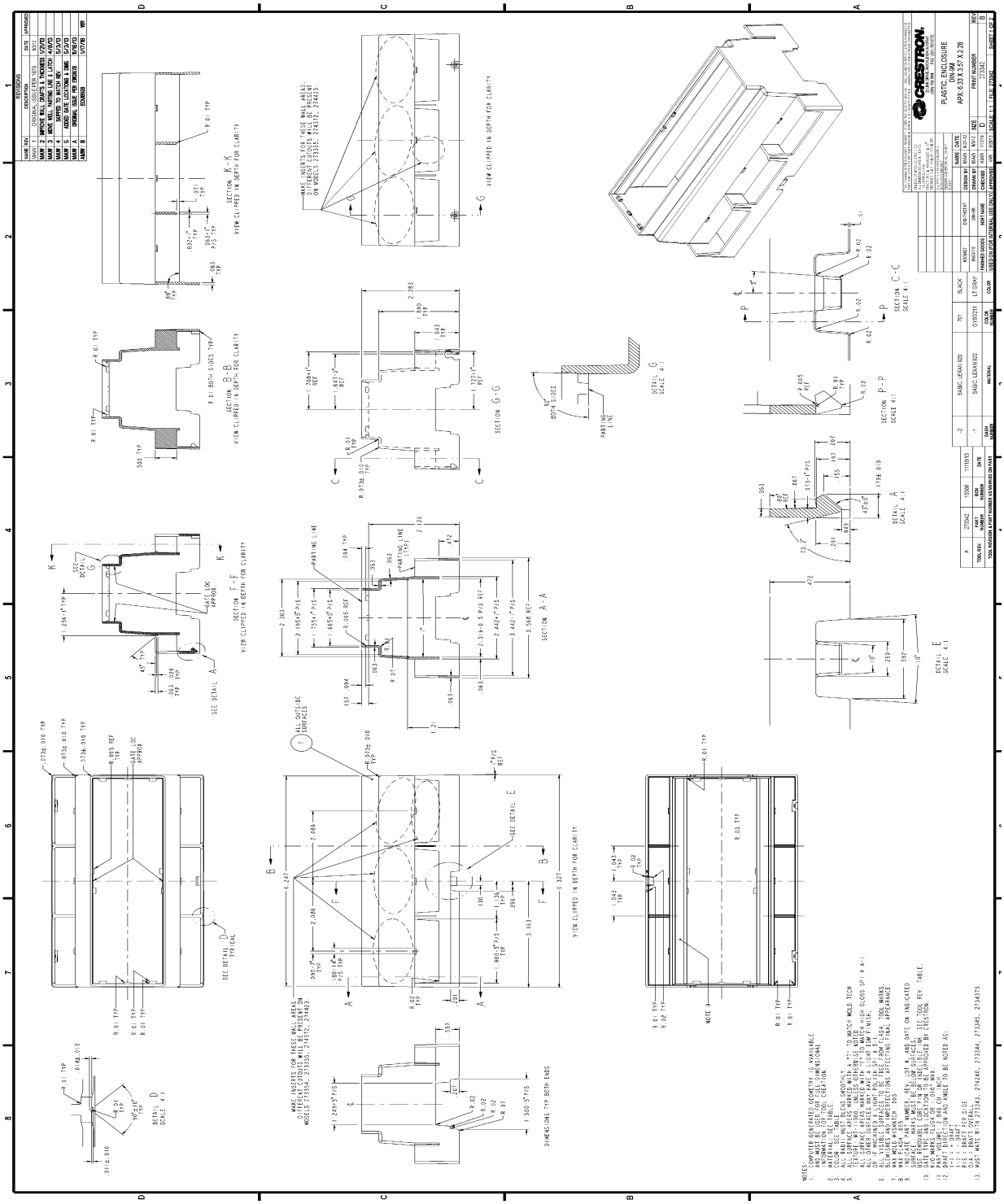

004
PB07730-A

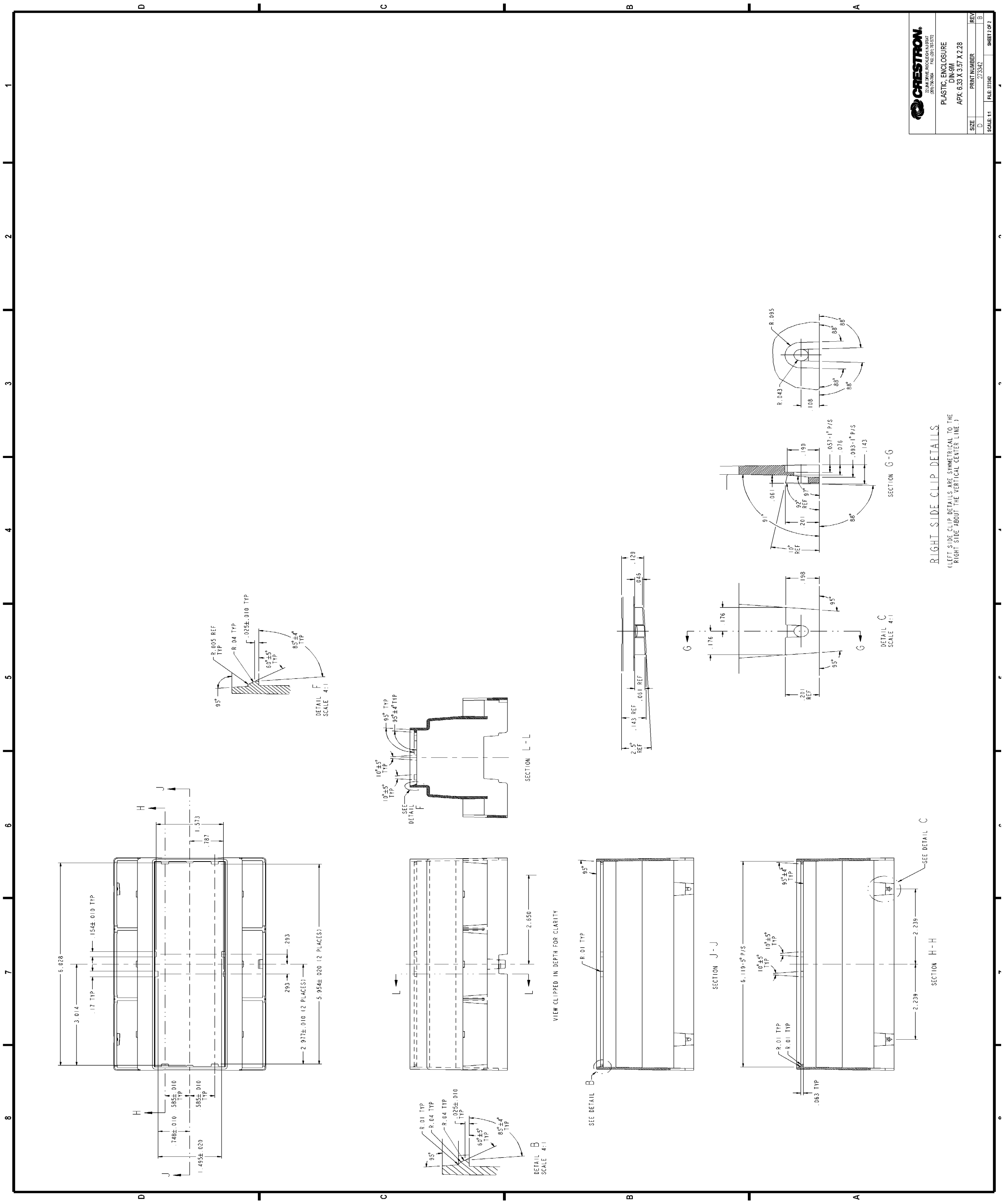


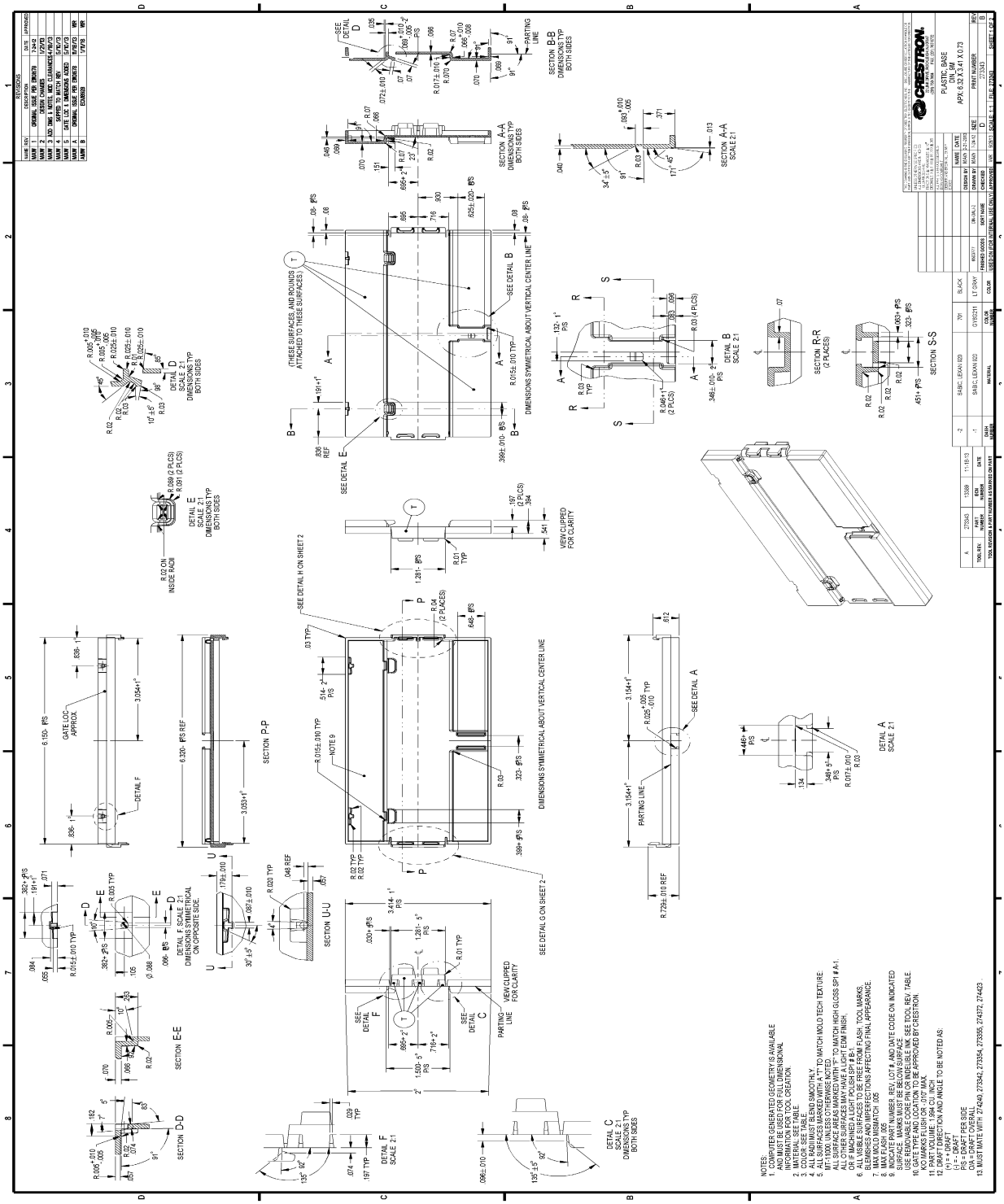
CRESTRON ELECTRONICS-PB07730-A
COMPONENT SIDE VIEW
TOP SIDE

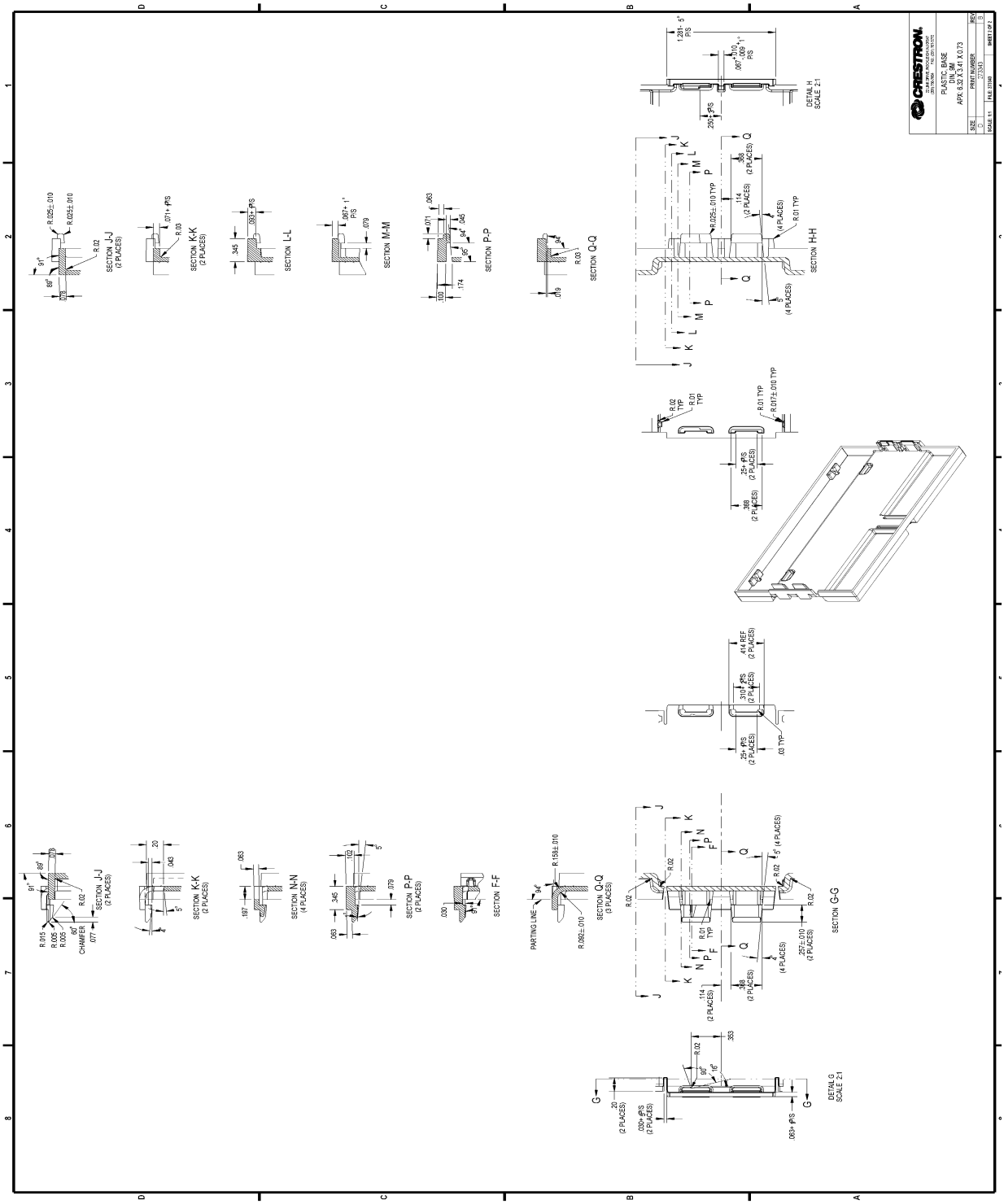


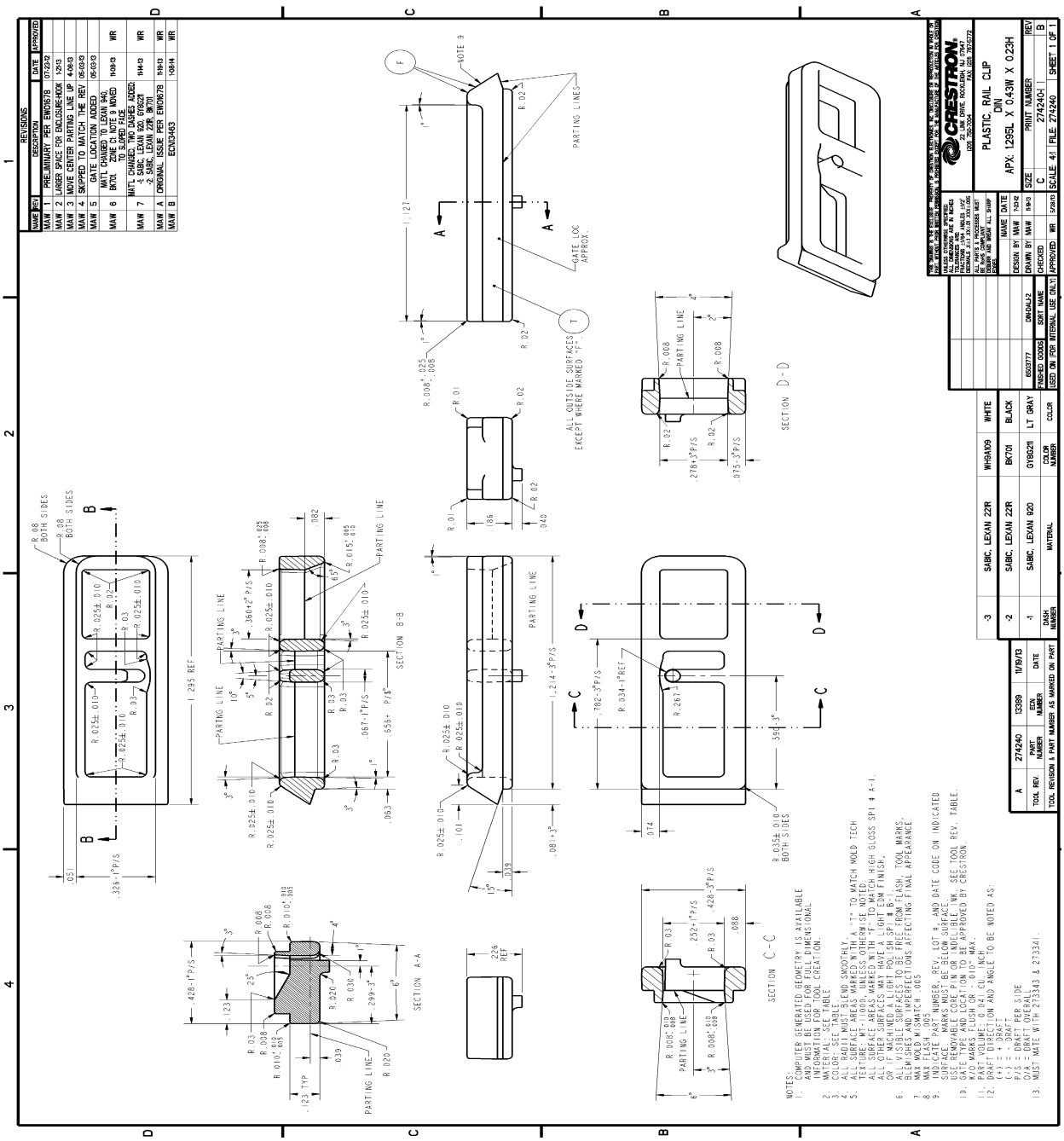
CRESTRON ELECTRONICS-PB07730-A
COMPONENT SIDE VIEW
BOTTOM SIDE

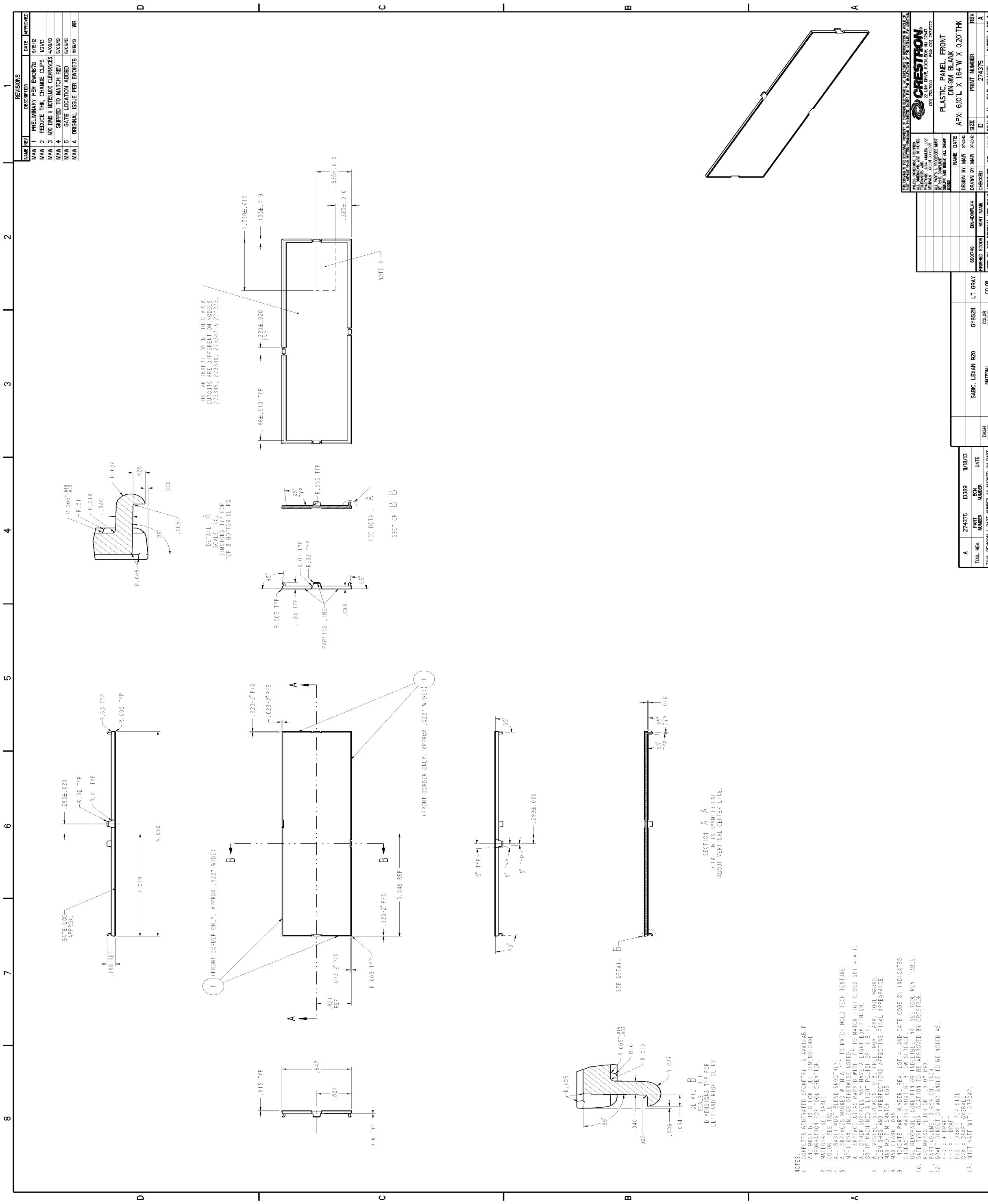

CRESTRON
PLASTIC ENCLOSURE
APX 6.33 X 3.57 X 2.28
273342
SHEET 1 OF 2
SABIC LEXAN 920
SABIC LEXAN 920
GY6031
LT GRAY
BLACK
701
NOTES:
1. COMPUTER GENERATED GEOMETRY IS AVAILABLE
2. ALL DIMENSIONS ARE IN MILLIMETERS AND NOMINAL UNLESS OTHERWISE NOTED.
3. COLOR: SEE TABLE.
4. ALL SURFACES MUST BE SMOOTH WITH A "1" TO MATCH MOLD TECH
5. ALL SURFACES MUST BE FREE FROM FLASH, TOOL MARKS, TEXTURE MT-11000 UNLESS OTHERWISE NOTED.
6. ALL VISIBLE SURFACES TO BE SPI #1 MOLD FINISH HIGH GLOSS SPI # A-1.
ALL OTHER SURFACE MAY HAVE A LIGHT EDM F FINISH.
ALL VISIBLE SURFACES TO BE FREE FROM FLASH, TOOL MARKS, SINK AND MOLD IMPERFECTIONS AFFECTING FINAL APPEARANCE
7. MAXIMUM FLASH: .005
8. MAX FLASH: .005
9. MOLD TO INCLUDE NUMBER, REV, LOT #, AND DATE ON INDICATED SURFACE. MARK MUST BE BELOW SURFACE.
10. GATE TYPE AND LOCATION TO BE APPROVED BY CRESTRON.
11. PART VOLUME: 2.846 CU INCH.
12. DRAFT DIRECTION AND ANGLE TO BE NOTED AS:
DRAFT 1 DIRECTION
F/3 : DRAFT
F/2 : DRAFT 0.1DG
DIA : DRAFT OVERALL
13. MOST MATE WITH 2713414, 2712410, 2713344, 2713345, 2734375
DIMENSIONS TYP BOTH ENDS
MAKE INSERTS FOR THESE WALL AREAS DIFFERENT CUTOUTS WILL BE PRESENT ON MODELS 273354, 2714312, 2714423
VIEW CLIPPED IN DEPTH FOR CLARITY
SECTION A - A
SECTION B - B
SECTION C - C
SECTION F - F
SECTION G - G
SECTION K - K
SECTION P - P
DETAIL A
DETAIL D
DETAIL E
DETAIL G
GATE LOC APPROX
PARTING LINE
ALL SIDES
BOTH SIDES
SEE DETAIL


CRESTRON
RIGHT SIDE CLIP DETAILS
SECTION G-G
DETAIL C SCALE 4:1
DETAIL F SCALE 4:1
SECTION L-L
SECTION J-J
SECTION H-H
VIEW CLIPPED IN DEPTH FOR CLARITY
DETAIL B SCALE 4:1

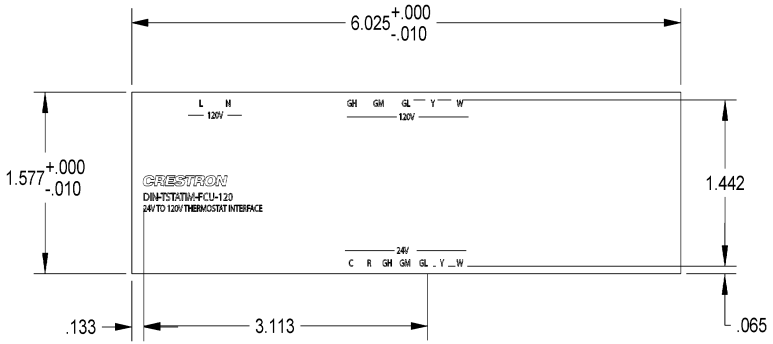

NOTES:
1. COMPUTER-GENERATED GEOMETRY IS AVAILABLE AND MUST BE USED FOR FULL DIMENSIONAL INFORMATION FOR TOOL CREATION.
2. MATERIAL: SEE TABLE.
3. COLOR: SEE TABLE.
4. ALL RADII MUST BLEND SMOOTHLY.
5. ALL SURFACES MARKED WITH A "T" TO MATCH MOLD TECH TEXTURE:
ALL SURFACES MARKED WITH "S" TO MATCH SPI # A-2.
ALL SURFACE AREAS MARKED WITH "P" TO MATCH HIGH GLOSS SPI # A-1.
ALL OTHER SURFACES MAY HAVE A LIGHT EDM FINISH.
6. ALL VISIBLE SURFACES TO BE FREE FROM FLASH, TOOL MARKS, BLEMISHES AND IMPERFECTIONS AFFECTING FINAL APPEARANCE.
7. MAX RADII NOT NOTED: .005
8. MAX DRAFT: 1°
9. INDICATE PART NUMBER, REV, LOT #, AND DATE CODE ON INDICATED SURFACE. MARKS MUST BE BELOW SURFACE.
10. GATE TYPE AND LOCATION TO BE APPROVED BY CRESTRON.
11. ALL DIMENSIONS ARE IN MILLIMETERS AND INCHES. SEE TOOL REV. TABLE FOR CURRENT REVISION LEVEL.
12. DRAFT DIRECTION AND ANGLE TO BE NOTED AS:
(+) = DRAFT
(-) = UNDERCUT
PS = DRAFT PER SIDE
DA = DRAFT OVERALL
13. MUST MATE WITH: 274240, 273842, 273854, 273855, 274372, 274423
REVISIONS
DESCRIPTION
ORIGINAL ISSUE PER 3D6078
ADDED MATERIAL
ADD DIM. 1 NOTE 5, ADD CLEARANCE
SHIFTED TO MATCH REV
ADD DIM. 2 NOTE 5, ADD CLEARANCE
ORIGINAL ISSUE PER 3D6078
ECN#6869
PLASTIC, GABE
APX. 6.32 X 3.41 X 0.73
PART NUMBER
273343
SHEET 1 OF 2
SABIC LEXAN 920
SABIC LEXAN 920
MATERIAL
BLACK
LT GRAY
COLOR
CRESTRON
CRESTRON ELECTRONICS, INC.
15 VOLVO DRIVE ROCKLEIGH, NJ 07647
TOOL NUMBER
274240
274342
274354
274355
274372
274423
TOOL SYSTEM & PART NUMBER ASSIGNED ON PART


CRESTRON
PLASTIC BASE
(NO. 3M)
APX. 6.52 X 3.41 X 0.73
PART NUMBER
273343
SIZE
C
SCALE 1:1
SHEET 1 OF 1
SECTION J-J
(2 PLACES)
SECTION K-K
(2 PLACES)
SECTION L-L
SECTION M-M
SECTION P-P
SECTION Q-Q
SECTION H-H
DETAIL H
SCALE 2:1
SECTION N-N
(4 PLACES)
SECTION F-F
SECTION G-G
DETAIL G
SCALE 2:1
PARTING LINE


REVISIONS
PLASTIC RAIL CLIP
DIN
APX: 1295L X 0.43W X 0.23H
CRESTRON
NOTES:
SECTION A-A
SECTION B-B
SECTION C-C
SECTION D-D
PARTING LINE
GATE LOC APPROX.
ALL OUTSIDE SURFACES EXCEPT WHERE MARKED "F"
SABIC, LEXAN 223R
SABIC, LEXAN 920
WHITE
BLACK
LT GRAY


CRESTRON
PLASTIC, PANEL, FRONT
DIN-9M BLANK
APX: 6.10"L X 1.64"W X 0.20"THK
PRINT NUMBER 274375
SABIC, LEXAN 920
LT GRAY
SECTION A-A
SECTION B-B
DETAIL A
DETAIL B

REVISIONS				
NAME	REV	DESCRIPTION	DATE	APPROVED
KWC	A	ORIGINAL ISSUE PER EWO2657	03/09/18	



NOTES:
1. MATERIAL: VELVET TEXTURED POLYCARBONATE, CLEAR, UL RECOGNIZED QMFZ2 PLASTIC COMPONENT, FLAMMABILITY RATING OF VTM-2 OR BETTER, 0.010" THICK. (SABIC LEXAN 8B35V OR CRESTRON APPROVED EQUIVALENT).
2. INK COLORS: TEXT AND GRAPHICS: WHITE (NAZDAR #GV-WHITE, TECHMARK # 311 OR EQUIVALENT). BACKGROUND: BLACK (NAZDAR #GV-BLACK, TECHMARK # 301 OR EQUIVALENT).
3. ADHESIVE: PERMANENT, .005" THK, TO MOUNT TO ALUMINUM EXTRUSION (3M #468MP).
4. ALL PANTONE OR OTHER COLORS SPECIFY APPEARANCE ON FINISHED PRODUCT NOT RAW MATERIAL SELECTION.
5. ALL COLORS MUST BE OPAQUE.
6. USE ARTWORK # 202462. (THE 277956 DRAWING IS A REPRESENTATION OF THE ARTWORK. SEE THE ACTUAL ARTWORK DRAWING FOR THE CORRECT INFORMATION).
7. ALL TOLERANCES ARE ± .010" UNLESS OTHERWISE NOTED.

UNLESS OTHERWISE SPECIFIED:
ALL DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS ±1/64 ANGLES ±1/2°
DECIMALS X±.1 .XX±.01 .XXX±.005

ALL PARTS & PROCESSES MUST BE RoHS COMPLIANT.
DEBURR AND BREAK ALL SHARP EDGES

CRESTRON
22 LINK DRIVE, ROCKLEIGH, NJ 07647
(201) 750-7004 FAX: (201) 767-5772

LABEL, CUSTOM
POLYCARBONATE, APX 6.1"L X 1.6"W X .01" THK

		NAME	DATE
DESIGN BY		KWC	03/09/18
DRAWN BY		KWC	03/09/18
CHECKED			
APPROVED		SW	03/09/18

6509976	DIN-TSTATIM-FCU-120
FINISHED GOODS	SORT NAME
USED ON (FOR INTERNAL USE ONLY)	

SIZE	PRINT NUMBER	REV
B	277956	A

SCALE: 1:1 | FILE: 277956 | SHEET 1 OF 1

TEST RECORD NO. 1

SAMPLES:

Samples of the Open-Type Energy Management Equipment, models DIN-TSTATIM-FCU-120 and DIN-TSTATIM-FCU-277, constructed as described herein, were submitted by the manufacturer for examination and test.

GENERAL:

Test results relate only to the items tested.

The following tests were conducted on models DIN-TSTATIM-FCU-120 and DIN-TSTATIM-FCU-277:

TEST NAME	STANDARD, CLAUSE REFERENCE
POWER INPUT TEST	UL 916, 41; CSA C22.2 No. 205, 6.2
TEMPERATURE TEST:	UL 916, 42; CSA C22.2 No. 205, 6.3
OVERVOLTAGE AND UNDERVOLTAGE TEST:	UL 916, 43
DIELECTRIC VOLTAGE-WITHSTAND TEST:	UL 916, 52; CSA C22.2 No. 205, 6.5

The following additional tests were conducted on model DIN-TSTATIM-FCU-277:

OVERLOAD TEST:	UL 916, 49; CSA C22.2 No. 205, 6.18.2
ENDURANCE TEST:	UL 916, 50; CSA C22.2 No. 205, 6.18.3
DIELECTRIC VOLTAGE-WITHSTAND TEST:	UL 916, 52; CSA C22.2 No. 205, 6.5

The test methods and results of the above tests have been reviewed and found in accordance with the requirements in UL 916 STANDARD FOR ENERGY MANAGEMENT EQUIPMENT- Edition 5 - Issue Date 2015-10-22 and CSA C22.2 NO. 205-17 SIGNAL EQUIPMENT- Edition 3 - Revision Date 2017-12-01.

Test Record Summary:

The results of this investigation indicate that the products evaluated comply with the applicable requirements and, therefore, such products are judged eligible to bear UL’s Mark as described on the Conclusion Page of this Report.

CONCLUSION

Samples of the products covered by this Report have been found to comply with the requirements covering the category and the products are found to comply with UL's applicable requirements. The description and test result in this Report are only applicable to the sample(s) investigated by UL and does not signify UL certification or that the product(s) described are covered under UL's Follow-Up Service Program. When covered under UL's Follow-Up Service Program, the manufacturer is authorized to use the UL Listing Mark on such products which comply with UL's Follow-Up Service Procedure and any other application requirements of UL LLC. The Listing Mark of UL LLC on the product, or the UL symbol on the product and the Listing Mark on the smallest unit container in which the product is packaged, is the only method to identify products investigated by UL to published requirements and manufactured under UL's Listing and Follow-Up Service.

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Report by:	Reviewed by:
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