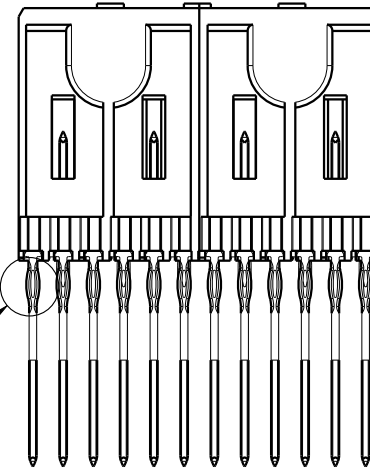
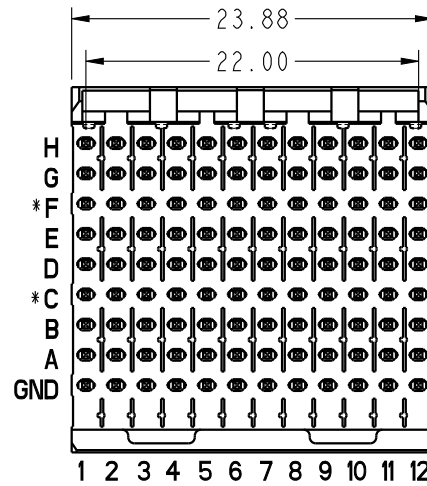
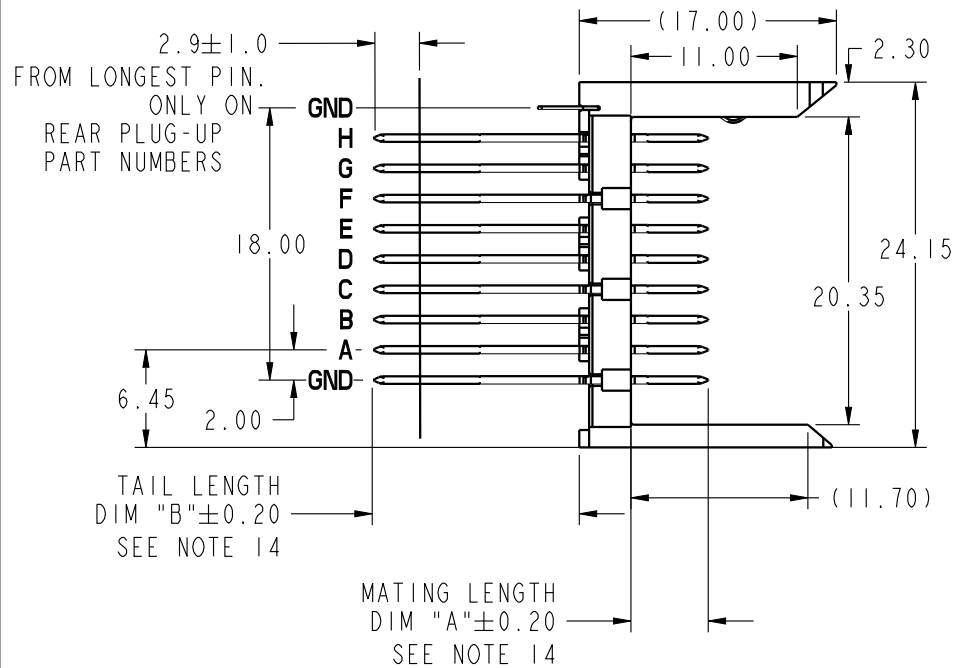


A

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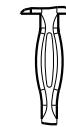
D



PRODUCT NUMBER - 74983-X02ZZZ(L)LF

X REFER PLATING PERFORMANCE
SEE NOTE 7L REFER LUBRICATED (OPTIONAL)
SEE NOTE 7FOR REAR PLUG-UP APPLICATIONS
USE SHROUD

74993-X02LF

X REFER PLATING PERFORMANCE
SEE NOTE 7EYE OF THE NEEDLE
PRESS-FIT SECTIONBABY -H
PRESS-FIT SECTION

REFER NOTE 16

DETAIL B
SCALE 4:1

spec ref	-	dr	P-Matthew Nebu	2011/05/20	projection	MM	size	A4	scale	2:1
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Nirmal Sam-MB	2023/12/14			ecn no	ELX-I-50110-1		
ISO 406		chr	-	-			rel level	Released		
ISO 1101		appr	Mathew Jacob	2024/01/02	product family	METRAL 1000				
surface 3.2	linear				title	VERTICAL SIGNAL HDR 8 ROW	dwg no	74983	rev	AD
						P.F. 96 POS. SPECIAL LOAD EXT.				
ISO 1302	angular				cat. no.	-	Product - Customer Drw	sheet 1 of 7		

Crew File:ELX-MC-AAC,REV F,2020-12-21

2

3

PDS: Rev :AD

STATUS:Released

Printed: Jan 03, 2024

A

B

C

D

PIN NO.	DIM A MATING LENGTH	DIM B TAIL LENGTH	PCB THICKNESS RANGE ACCOMMODATED BY PIN'S TAIL LENGTH	
			WHEN MATING TO A 84854 SERIES METRAL 1000 RECEPTACLES	
			ROWS A,B,C, D,E,F,G & H	GROUND ROW
01*	5.00	4.30	1.60 MIN	1.60 MIN
22		12.20	2.95 - 3.80	2.95 - 4.20
30		12.95	2.95 - 4.55	3.25 - 4.95
05		13.70	2.95 - 5.30	4.00 - 5.70
35		14.45	3.05 - 6.05	4.75 - 6.45
48		15.20	3.80 - 6.80	5.50 - 7.20
40		15.70	4.30 - 7.30	6.00 - 7.70
65		16.40	5.00 - 8.00	6.70 - 8.40
09		17.10	5.70 - 8.70	7.40 - 9.10
02*	5.75	4.30	1.60 MIN	1.60 MIN
44		12.20	2.95 - 3.80	2.95 - 4.20
31		12.95	2.95 - 4.55	3.25 - 4.95
06		13.70	2.95 - 5.30	4.00 - 5.70
36		14.45	3.05 - 6.05	4.75 - 6.45
49		15.20	3.80 - 6.80	5.50 - 7.20
25		15.70	4.30 - 7.30	6.00 - 7.70
66		16.40	5.00 - 8.00	6.70 - 8.40
10		17.10	5.70 - 8.70	7.40 - 9.10
03*	6.50	4.30	1.60 MIN	1.60 MIN
45		12.20	2.95 - 3.80	2.95 - 4.20
32		12.95	2.95 - 4.55	3.25 - 4.95
07		13.70	2.95 - 5.30	4.00 - 5.70
37		14.45	3.05 - 6.05	4.75 - 6.45
50		15.20	3.80 - 6.80	5.50 - 7.20
41		15.70	4.30 - 7.30	6.00 - 7.70
24		16.40	5.00 - 8.00	6.70 - 8.40
11		17.10	5.70 - 8.70	7.40 - 9.10

2

PIN NO.	DIM A MATING LENGTH	DIM B TAIL LENGTH	PCB THICKNESS RANGE ACCOMMODATED BY PIN LENGTH	
			WHEN MATING TO A 84854 SERIES METRAL 1000 RECEPTACLE	
			ROWS A,B,C,D, E, F, G, & H	GROUND ROW
04*	7.25	4.30	1.60 MIN	1.60 MIN
46		12.20	2.95 - 3.80	2.95 - 4.20
33		12.95	2.95 - 4.55	3.25 - 4.95
08		13.70	2.95 - 5.30	4.00 - 5.70
38		14.45	3.05 - 6.05	4.75 - 6.45
51		15.20	3.80 - 6.80	5.50 - 7.20
42		15.70	4.30 - 7.30	6.00 - 7.70
67		16.40	5.00 - 8.00	6.70 - 8.40
12		17.10	5.70 - 8.70	7.40 - 9.10
19*	8.00	4.30	1.60 MIN	1.60 MIN
47		12.20	2.95 - 3.80	2.95 - 4.20
34		12.95	2.95 - 4.55	3.25 - 4.95
20		13.70	2.95 - 5.30	4.00 - 5.70
39		14.45	3.05 - 6.05	4.75 - 6.45
52		15.20	3.80 - 6.80	5.50 - 7.20
43		15.70	4.30 - 7.30	6.00 - 7.70
68		16.40	5.00 - 8.00	6.70 - 8.40
21		17.10	5.70 - 8.70	7.40 - 9.10

3

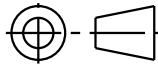
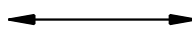
4

A

B

C

D

spec ref -		dr P-Mathew Nebu		2011/05/20		projection 	MM 	size A4	scale 2:1
tolerance std ISO 406 ISO 1101	TOLERANCES UNLESS OTHERWISE SPECIFIED		eng Nirmal Sam-MB	2023/12/14				ecn no ELX-I-50110-1	
			chr -	-				rel level Released	
		appr Mathew Jacob	2024/01/02		product family METRAL 1000				
surface 3.2  ISO 1302	linear	0.X	±0.3	Amphenol FCI	title VERTICAL SIGNAL HDR 8 ROW P.F. 96 POS. SPECIAL LOAD EXT.	dwg no 74983	rev AD		
		0.XX	±0.13						
		0.XXX	±0.05						
	angular	0°	±2°	cat. no. -	Product - Customer Drw		sheet 2 of 7		

Creo File:ELX-MC-AAC,REV F,2020-12-21

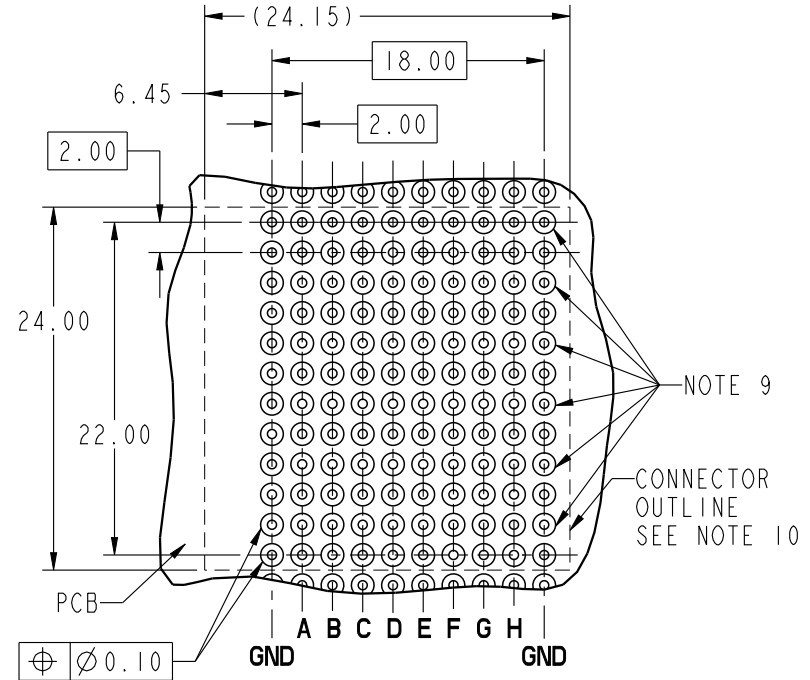
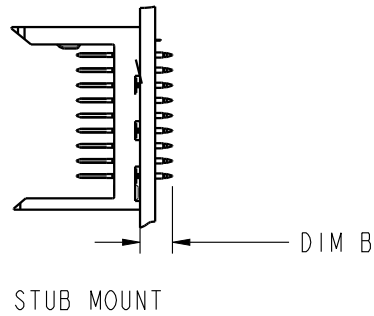
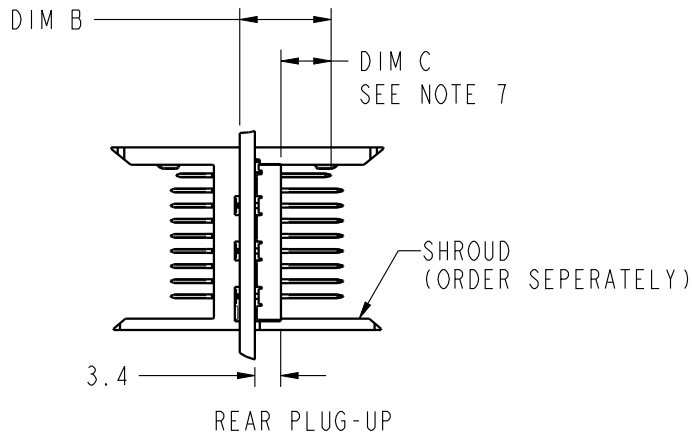
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3

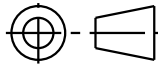
PDS: Rev :AD

STATUS:Released

Printed: Jan 03, 2024



RECOMMENDED PCB HOLE PATTERN
(COMPONENT SIDE)
FOR OTHER OPTIONS SEE DRAWING
58351

spec ref		-		dr	P-Mathew Nebu	2011/05/20	projection 	MM 	size	A4	scale	2:1	
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED			eng	Nirmal Sam-MB	2023/12/14			ecn no				ELX-I-50110-1
				chr	-	-			rel level				Released
ISO 406				appr	Mathew Jacob	2024/01/02	product family						
ISO 1101													
surface	linear	0.X	±0.3	Amphenol FCi	title	VERTICAL SIGNAL HDR 8 ROW P.F. 96 POS. SPECIAL LOAD EXT.			dwg no	74983		rev	
		0.XX	±0.13										
		0.XXX	±0.05										
ISO 1302	angular	0°	±2°		cat. no.	Product - Customer Drw			sheet 3 of 7				

Creo File: ELX-MC-ARC_REV F_2020-12-21

A

B

C

D

SPECIAL LOAD PATTERNS		
PRODUCT #	ROW	PIN CODES
74983-X02001LF	H	01
	G	
	F	
	E	
	D	
	C	
	B	
	A	
	GND	
74983-X02004LF *RPU	H	05
	G	
	F	
	E	
	D	
	C	
	B	
	A	
	GND	
74983-X02011LF	H	02
	G	
	F	
	E	
	D	
	C	
	B	
	A	
	GND	01
74983-X02013LF *RPU	H	06
	G	
	F	
	E	
	D	
	C	
	B	
	A	
	GND	30
74983-X02050LF	H	02
	G	04
	F	03
	E	04
	D	03
	C	04
	B	03
	A	03
	GND	02

PCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS:
4.00 - 5.30PCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS:
3.25 - 5.30

2

2

3

3

4

4

SPECIAL LOAD PATTERNS		
PRODUCT #	ROW	PIN CODES
74983-X02051LF	H	03
	G	
	F	
	E	
	D	
	C	
	B	
	A	
	GND	02
74983-X02052LF	H	02
	G	02
	F	04
	E	02
	D	04
	C	04
	B	02
	A	
	GND	02
74983-X02053LF *RPU	H	06
	G	08
	F	08
	E	06
	D	06
	C	08
	B	06
	A	
	GND	06
74983-X02054LF	H	02
	G	
	F	
	E	
	D	
	C	
	B	
	A	
	GND	

PCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS:
4.00 - 5.30

A

B

C

D

dr	P-Mathew Nebu	2011/05/20	projection	MM	size	A4	scale	2:1
eng	Nirmal Sam-MB	2023/12/14			ecn no	ELX-I-50110-1		
chr	-	-			rel level	Released		
appr	Mathew Jacob	2024/01/02	product family					
Amphenol FCI		title			VERTICAL SIGNAL HDR 8 ROW			rev
					P.F. 96 POS. SPECIAL LOAD EXT.			
		cat. no.			Product - Customer Drw			sheet 4 of 7

A

B

C

D

2

2

3

3

4

4

A

B

C

D

SPECIAL LOAD PATTERNS

PRODUCT #	ROW	PIN CODES
74983-X02056LF *RPU	H	22
	G	
	F	
	E	
	D	
	C	
	B	
	A	
	GND	
74983-X02057LF	H	02
	G	
	F	
	E	
	D	
	C	
	B	
	A	
	GND	
74983-X02058LF *RPU	H	06
	G	
	F	
	E	
	D	
	C	
	B	
	A	
	GND	
74983-X02059LF **	H	03
	G	19
	F	04
	E	
	D	19
	C	
	B	04
	A	
	GND	02
74983-X02060LF	H	03
	G	
	F	
	E	11
	D	41
	C	24
	B	41
	A	24
	GND	49

PCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS:
2.95 - 3.80

PCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS:
4.00 - 5.30

PCB THK
RANGE FOR
REAR PLUG UP
APPLICATIONS:
*2.30 - 6.70



SPECIAL LOAD PATTERNS

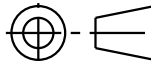
PRODUCT #	ROW	PIN CODES
74983-X02061 *RPU 74983-X02061LF *RPU SEE NOTE 15	H	35
	G	
	F	
	E	
	D	
	C	
	B	
	A	
	GND	
		05

PCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS:
4.05 - 5.70

* REAR PLUG-UP PART NUMBERS
** CANNOT BE MATED TO A
METRAL 4000 RECEPTACLE

METRAL P/N	ROW	COLUMN											
		1	2	3	4	5	6	7	8	9	10	11	12
74983-X02062LF	H	02	02	02	02	02	02	02	02	02	02	02	02
	G	02	02	02	02	02	02	02	02	02	02	02	02
	F	02	02	02	02	02	02	02	02	02	02	01	02
	E	02	02	02	02	02	02	02	02	02	02	02	02
	D	02	02	02	02	02	02	02	02	02	02	02	02
	C	02	02	02	02	02	02	02	02	02	02	02	02
	B	02	02	02	02	02	02	02	02	02	02	02	02
	A	02	02	02	02	02	02	02	02	02	02	02	03
	GND	01	01	01	01	01	01	01	01	01	01	01	01

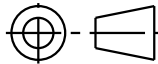
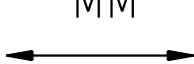


dr	P-Mathew Nebu	2011/05/20	projection 	MM 	size	A4	scale	2:1
eng	Nirmal Sam-MB	2023/12/14			ecn no	ELX-I-50110-1		
chr	-	-			rel level	Released		
appr	Mathew Jacob	2024/01/02	product family					
Amphenol FCI		title			VERTICAL SIGNAL HDR 8 ROW			rev
		P.F. 96 POS. SPECIAL LOAD EXT.			74983			
		cat. no.		Product - Customer Drw			sheet 5 of 7	
					dwg no			AD

METRAL P/N	ROW	COLUMN											
		1	2	3	4	5	6	7	8	9	10	11	12
74983-X02063LF	H	02	02	02	02	02	02	02	02	02	02	02	02
	G	02	02	02	02	02	02	02	02	02	02	02	02
	F	02	02	02	02	02	02	02	02	02	02	02	02
	E	02	02	02	02	02	02	02	02	02	02	02	02
	D	02	02	02	02	02	02	02	02	01	02	02	02
	C	02	02	02	02	02	02	02	01	02	02	01	02
	B	02	02	02	02	02	02	02	02	02	02	02	02
	A	02	02	02	02	02	02	02	02	02	02	02	02
	GND	01	01	01	01	01	01	01	01	01	01	01	01

METRAL P/N	ROW	COLUMN											
		1	2	3	4	5	6	7	8	9	10	11	12
74983-X02065LF	H	02	02	02	02	02	02	02	02	02	02	02	02
	G	02	02	02	02	02	02	02	02	02	02	02	02
	F	02	02	02	02	02	02	02	02	02	02	02	02
	E	02	02	02	02	02	02	02	02	02	02	02	02
	D	02	02	02	02	02	02	02	02	02	02	02	02
	C	02	02	02	02	02	02	02	02	02	01	02	02
	B	01	02	01	02	02	02	02	02	02	02	02	02
	A	02	02	02	02	02	02	02	02	02	01	02	02
	GND	01	01	01	01	01	01	01	01	01	01	01	01

METRAL P/N	ROW	COLUMN											
		1	2	3	4	5	6	7	8	9	10	11	12
74983-X02064LF	H	02	02	02	02	02	02	02	03	03	03	03	03
	G	02	02	02	02	02	02	02	03	03	03	03	03
	F	02	02	02	02	02	02	02	03	03	03	03	03
	E	02	02	02	02	02	02	02	03	03	03	03	03
	D	02	02	02	02	02	02	02	02	02	02	02	02
	C	02	02	02	02	02	02	02	02	02	02	02	02
	B	02	02	02	02	02	02	02	02	02	02	02	02
	A	02	02	02	02	02	02	02	02	02	02	02	02
	GND	01	01	01	01	01	01	01	01	01	01	01	01

spec ref -		dr P-Mathew Nebu		2011/05/20				size	A4	scale	1:1			
tolerance std ISO 406 ISO 1101	TOLERANCES UNLESS OTHERWISE SPECIFIED			eng Nirmal Sam-MB	2023/12/14			ecn no ELX-I-50110-1						
				chr -	-			rel level Released						
		appr Mathew Jacob		2024/01/02		product family								
surface ISO 1302	linear	0.X	±0.3	Amphenol FCI	title	VERTICAL SIGNAL HDR 8 ROW P.F. 96 POS. SPECIAL LOAD EXT.			dwg no	74983		rev	AD	
		0.XX	±0.13											
		0.XXX	±0.05											
		angular	0°	±2°	amphenol-icc.com		cat. no.		Product - Customer Drw			sheet 6 of 7		

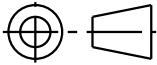
NOTES:

1. SEE APPLICATION SPECIFICATION GS-20-010 FOR INFORMATION ON AVAILABLE TOOLING, CURCUIT BOARD DESIGN CONSIDERATIONS, REPAIR PROCEDURES AND PRODUCT OFFERINGS.
2. SEE PRODUCT SPECIFICATION: GS-12-110
3. SEE FCI PUBLICATION 950511-028 FOR "ELECTRICAL PERFORMANCE DATA FOR DIFFERENTIAL APPLICATIONS."
4. SEE FCI PUBLICATION 950511-028 FOR "ELECTRICAL PERFORMANCE DATA FOR SINGLE-ENDED APPLICATION."
5. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS AND TOLERANCES ARE IN ACCORDANCE WITH ASME Y14.5M, 1994
6. HOUSING MATERIAL: LCP, UL 94-V0.
PIN MATERIAL: COPPER ALLOY
GROUND SPRING MATERIAL: COPPER ALLOY
7. PLATING INFORMATION: DRAWING # 10159408
8. DIMENSIONAL RESTRICTIONS OF PINS IN HEADERS.
FOR MATING WITH METRAL 1000 RECEPTACLES
DIM A : 5.00mm MIN, 8.00mm MAX FOR ROWS A-H
DIM A : 5.00mm MIN, 5.75mm MAX FOR ROW GND NEXT TO ROW A
DIM C : 5.00mm MIN, 8.00mm MAX FOR ROWS A-H
DIM C : 4.60mm MIN, 6.30mm MAX FOR ROW GND NEXT TO ROW A
FOR MATING WITH METRAL 4000 RECEPTACLES
DIM A : 5.00mm MIN, 6.50mm MAX FOR ROWS A, B, D, E, G & H
DIM A : 5.00mm MIN, 8.00mm MAX FOR ROW C & F
DIM A : 5.00mm MIN, 5.75mm MAX FOR ROW GND NEXT TO ROW A
DIM C : 5.00mm MIN, 7.00mm MAX FOR ROWS A, B, D, E, G & H
DIM C : 5.00mm MIN, 8.00mm MAX FOR ROW C & F
DIM C : 4.60mm MIN, 6.30mm MAX FOR ROW GND NEXT TO ROW A
9. THE MIN PCB THICKNESS FOR REAR PLUG-UP APPLICATIONS IS 2.9mm SINCE THE COMPLIANT SECTIONS OF THE GROUND SPRING IN THE HEADER DIRECTLY OPPOSE THE GROUND SPRING OF THE SHROUD. THE MIN PCB THICKNESS FROM FRONT PLUG-UP ONLY APPLICATIONS IS 1.6mm.

10. THESE HOLES ARE NEEDED FOR REAR PLUG-UP DESIGNS USING A SHROUD AND MAY BE OMITTED FOR FRONT PLUG-UP ONLY DESIGNS.
11. THE 'CONNECTOR OUTLINE' IS THE MIN OUTLINE REQUIRED. TO DETERMINE THE OUTLINE NECESSARY TO PERMIT THE VARIOUS TYPES OF REPAIR OPERATIONS, SEE APPLICATION SPECIFICATION GS-20-010.
12. CURRENT RATING : 1 AMP PER PIN
13. TEMPERATURE RANGE : -55°C TO +105°C
14. AFTER INSERTION INTO CIRCUIT BOARD WITH QUALIFIED TOOL.
15. THE PRODUCTS MEET EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-47-0004.

ALL PRODUCTS WILL WITHSTAND EXPOSURE TO 240°C FOR 60 SECONDS IN A CONVECTION, INFRA-RED OR VAPOR PHASE REFLOW OVEN.

16. PIN TYPE IS AT THE MANUFACTURERS OPTION AND CAN BE EITHER BABY-H OR EYE OF THE NEEDLE STYLE
17. A  SYMBOL WILL BE NEXT TO ANY DIMENSIONS, VIEW OR NOTE WHICH HAS BEEN MODIFIED WITH THE CURRENT DRAWING REVISION

spec ref	-	dr	P-Mathew Nebu	2011/05/20	projection	MM	size	A4	scale	2:1
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Nirmal Sam-MB	2023/12/14			ecn no	ELX-I-50110-1		
ISO 406		chr	-	-			rel level	Released		
ISO 1101		appr	Mathew Jacob	2024/01/02	product family					
surface	linear				title	VERTICAL SIGNAL HDR 8 ROW	dwg no	74983	rev	AD
						P.F. 96 POS. SPECIAL LOAD EXT.				
ISO 1302	angular				cat. no.	Product - Customer Drw			sheet 7 of 7	

Crea File:ELX-MC-AAC,REV F,2020-12-21