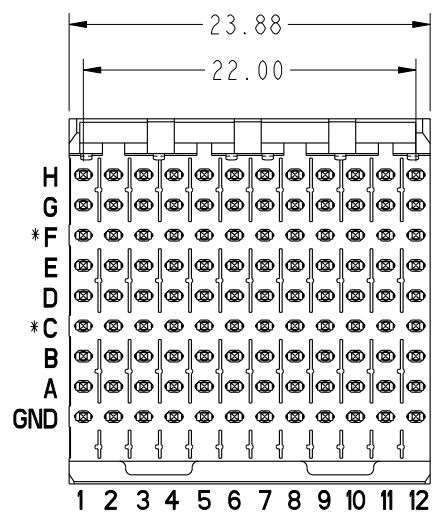
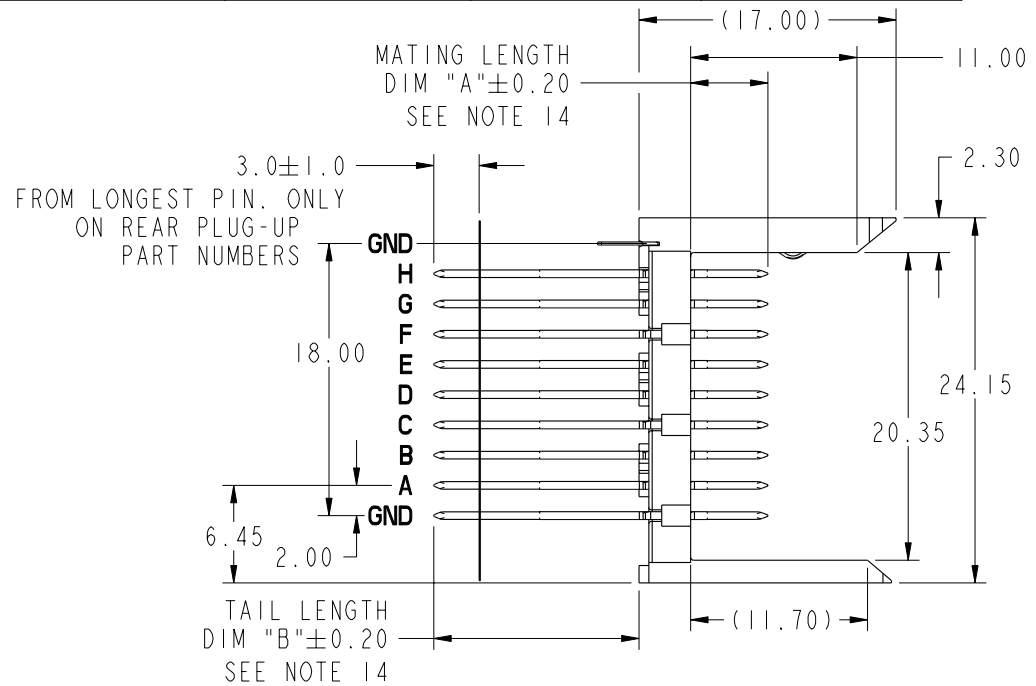
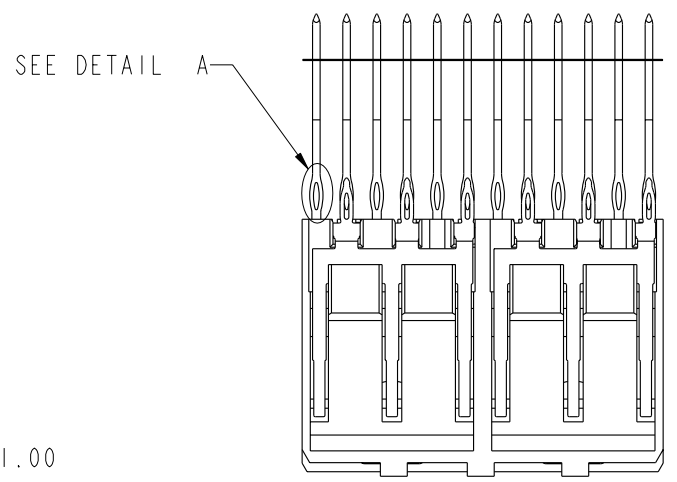


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PRODUCT NUMBER	PLATING PERFORMANCE LEVEL	PRESS FIT PIN TO PCB	FOR REAR PLUG-UP APPLICATIONS USE SHROUD
74983-102ZZZ	TELCORDIA CO	STANDARD	74993-102
74983-102ZZZLF		LEAD FREE	74993-102
74983-302ZZZ	CUSTOMER SPECIAL	STANDARD	74993-302
74983-302ZZZLF		LEAD FREE	74993-302LF
74983-502ZZZ	TELCORDIA UE	STANDARD	74993-502
74983-502ZZZLF		LEAD FREE	74993-502LF
74983-A02ZZZ	CUSTOMER SPECIAL	STANDARD	74993-102
74983-A02ZZZLF		LEAD FREE	74993-102LF



DETAIL A  
 SCALE 4:1  
 SEE NOTE 16

mat'l code SEE NOTE 5				tolerances unless otherwise specified			CUSTOMER		FCI www.fciconnect.com	
ltr	ecr no.	dr	date	linear	0.X ± 0.3	COPY		title		
W	V06-0544	DCH	2006-06-12		0.XX ± 0.13	projection		VERTICAL SIGNAL HDR 8 ROW		
X	V07-0175	DCH	2007-04-16		.XXX ± .051	MM		P.F. 96 POS. SPECIAL LOAD EXT.		
Y	V08-0024	HTB	2008-01-16	angles	0° ± 2°	scale		product family METRAL 1000 code		
AA	V08-0130	LP	2008-03-25	dr	E. KROPER. 2001-01-15	1:1		size		
-	-	-	-	enrg	J. VOLSTORF 2001-01-15			dwg no		
U	V05-0192	DAI	2005-04-15	chr	J. VOLSTORF 2001-01-15			74983		
V	V05-0735	TAB	2005-08-05	appd	J. VOLSTORF 2001-01-15			213		
sheet index		revision sheet	AA 1	AA 2	AA 3	AA 4	AA 5	AA 6	AA 7	sheet 1 of 7

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		WHEN MATING TO A 52066 SERIES METRAL 4000 RECEPTACLE		
			ROWS A,B,C, D,E,F,G & H	GROUND ROW	ROWS:A,B,D,E,G & H	ROW C & F	GROUND ROW
01*	5.00	4.30	1.60 MIN	1.60 MIN	1.60 MIN	1.60 MIN	1.60 MIN
22		12.20	2.95 - 3.80	2.95 - 4.20	2.95 - 3.80	2.95 - 3.80	2.95 - 4.20
30		12.95	2.95 - 4.55	3.25 - 4.95	2.95 - 4.55	2.95 - 4.55	3.25 - 4.95
05		13.70	2.95 - 5.30	4.00 - 5.70	3.30 - 5.30	2.95 - 5.30	4.00 - 5.70
35		14.45	3.05 - 6.05	4.75 - 6.45	4.05 - 6.05	3.05 - 6.05	4.75 - 6.45
48		15.20	3.80 - 6.80	5.50 - 7.20	4.80 - 6.80	3.80 - 6.80	5.50 - 7.20
40		15.70	4.30 - 7.30	6.00 - 7.70	5.30 - 7.30	4.30 - 7.30	6.00 - 7.70
65		16.40	5.00 - 8.00	6.70 - 8.40	6.00 - 8.00	5.00 - 8.00	6.70 - 8.40
09		17.10	5.70 - 8.70	7.40 - 9.10	6.70 - 8.70	5.70 - 8.70	7.40 - 9.10
02*	5.75	4.30	1.60 MIN	1.60 MIN	1.60 MIN	1.60 MIN	1.60 MIN
44		12.20	2.95 - 3.80	2.95 - 4.20	2.95 - 3.80	2.95 - 3.80	2.95 - 4.20
31		12.95	2.95 - 4.55	3.25 - 4.95	2.95 - 4.55	2.95 - 4.55	3.25 - 4.95
06		13.70	2.95 - 5.30	4.00 - 5.70	3.30 - 5.30	2.95 - 5.30	4.00 - 5.70
36		14.45	3.05 - 6.05	4.75 - 6.45	4.05 - 6.05	3.05 - 6.05	4.75 - 6.45
49		15.20	3.80 - 6.80	5.50 - 7.20	4.80 - 6.80	3.80 - 6.80	5.50 - 7.20
25		15.70	4.30 - 7.30	6.00 - 7.70	5.30 - 7.30	4.30 - 7.30	6.00 - 7.70
66		16.40	5.00 - 8.00	6.70 - 8.40	6.00 - 8.00	5.00 - 8.00	6.70 - 8.40
10		17.10	5.70 - 8.70	7.40 - 9.10	6.70 - 8.70	5.70 - 8.70	7.40 - 9.10
03*	6.50	4.30	1.60 MIN	1.60 MIN	1.60 MIN	1.60 MIN	1.60 MIN
45		12.20	2.95 - 3.80	2.95 - 4.20	2.95 - 3.80	2.95 - 3.80	2.95 - 4.20
32		12.95	2.95 - 4.55	3.25 - 4.95	2.95 - 4.55	2.95 - 4.55	3.25 - 4.95
07		13.70	2.95 - 5.30	4.00 - 5.70	3.30 - 5.30	2.95 - 5.30	4.00 - 5.70
37		14.45	3.05 - 6.05	4.75 - 6.45	4.05 - 6.05	3.05 - 6.05	4.75 - 6.45
50		15.20	3.80 - 6.80	5.50 - 7.20	4.80 - 6.80	3.80 - 6.80	5.50 - 7.20
41		15.70	4.30 - 7.30	6.00 - 7.70	5.30 - 7.30	4.30 - 7.30	6.00 - 7.70
24		16.40	5.00 - 8.00	6.70 - 8.40	6.00 - 8.00	5.00 - 8.00	6.70 - 8.40
11		17.10	5.70 - 8.70	7.40 - 9.10	6.70 - 8.70	5.70 - 8.70	7.40 - 9.10



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mat'l code SEE NOTE 5				tolerances unless otherwise specified		CUSTOMER		FCI www.fciconnect.com	
ltr	ecr no.	dr	date	linear	0.X ±0.3		COPY		title VERTICAL SIGNAL HDR 8 ROW P.F. 96 POS. SPECIAL LOAD EXT.
AA					0.XX ±0.13		projection		
					.XXX ±.051				
				angles	0° ±2°				product family METRAL 1000 code 213 size dwg no 74983 sheet 2
				dr	E. KROPER.	2001-01-15	MM		
				engr	J. VOLSTORF	2001-01-15	← MM →		
				chr	J. VOLSTORF	2001-01-15	scale 1:1		
				appd	J. VOLSTORF	2001-01-15	A		
sheet index	revision sheet								

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		WHEN MATING TO A 52066 SERIES METRAL 4000 RECEPTACLE		
			ROWS A,B,C,D, E, F, G, & H	GROUND ROW	ROWS:A,B,D, E,G & H	ROW C & F	GROUND ROW
04*	7.25	4.30	1.60 MIN	1.60 MIN	1.60 MIN	1.60 MIN	1.60 MIN
46		12.20	2.95 - 3.80	2.95 - 4.20	2.95 - 3.80	2.95 - 3.80	2.95 - 4.20
33		12.95	2.95 - 4.55	3.25 - 4.95	2.95 - 4.55	2.95 - 4.55	3.25 - 4.95
08		13.70	2.95 - 5.30	4.00 - 5.70	3.30 - 5.30	2.95 - 5.30	4.00 - 5.70
38		14.45	3.05 - 6.05	4.75 - 6.45	4.05 - 6.05	3.05 - 6.05	4.75 - 6.45
51		15.20	3.80 - 6.80	5.50 - 7.20	4.80 - 6.80	3.80 - 6.80	5.50 - 7.20
42		15.70	4.30 - 7.30	6.00 - 7.70	5.30 - 7.30	4.30 - 7.30	6.00 - 7.70
67		16.40	5.00 - 8.00	6.70 - 8.40	6.00 - 8.00	5.00 - 8.00	6.70 - 8.40
12		17.10	5.70 - 8.70	7.40 - 9.10	6.70 - 8.70	5.70 - 8.70	7.40 - 9.10
19*		8.00	4.30	1.60 MIN	1.60 MIN	1.60 MIN	1.60 MIN
47	12.20		2.95 - 3.80	2.95 - 4.20	2.95 - 3.80	2.95 - 3.80	2.95 - 4.20
34	12.95		2.95 - 4.55	3.25 - 4.95	2.95 - 4.55	2.95 - 4.55	3.25 - 4.95
20	13.70		2.95 - 5.30	4.00 - 5.70	3.30 - 5.30	2.95 - 5.30	4.00 - 5.70
39	14.45		3.05 - 6.05	4.75 - 6.45	4.05 - 6.05	3.05 - 6.05	4.75 - 6.45
52	15.20		3.80 - 6.80	5.50 - 7.20	4.80 - 6.80	3.80 - 6.80	5.50 - 7.20
43	15.70		4.30 - 7.30	6.00 - 7.70	5.30 - 7.30	4.30 - 7.30	6.00 - 7.70
68	16.40		5.00 - 8.00	6.70 - 8.40	6.00 - 8.00	5.00 - 8.00	6.70 - 8.40
21	17.10		5.70 - 8.70	7.40 - 9.10	6.70 - 8.70	5.70 - 8.70	7.40 - 9.10

A

A



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B

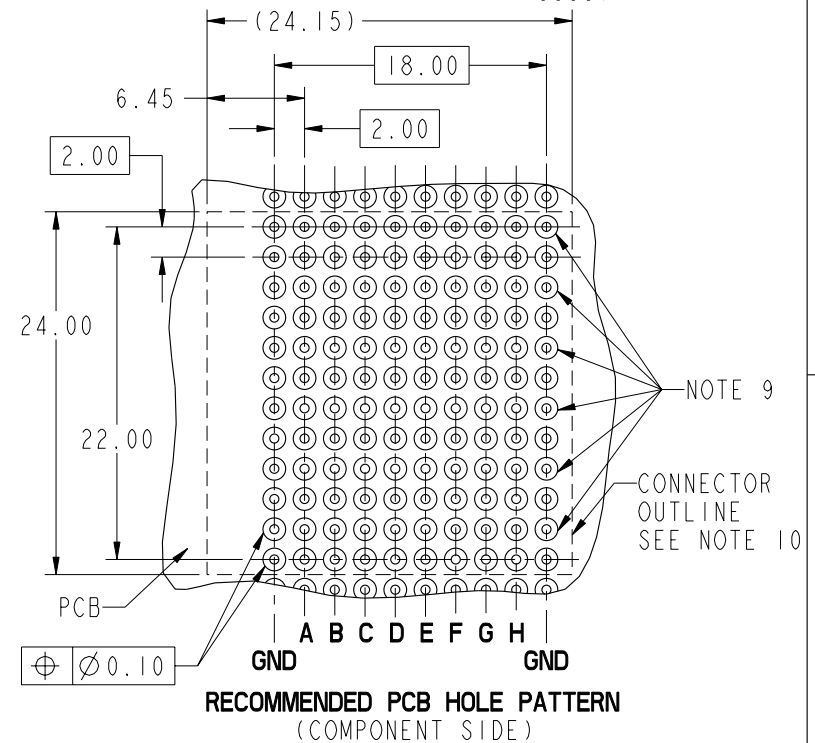
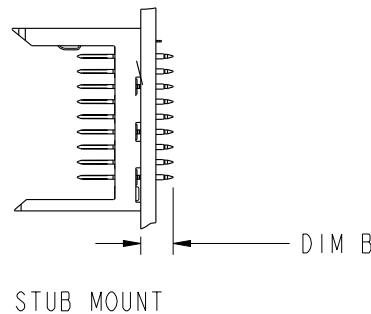
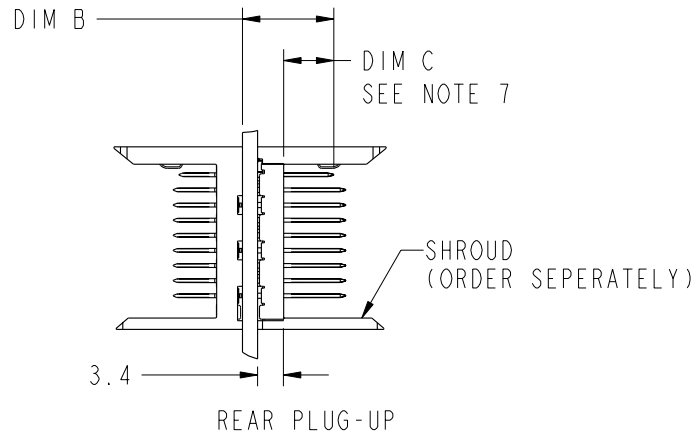
B

mat'l code		SEE NOTE 5		tolerances unless otherwise specified		CUSTOMER		www.fciconnect.com	
ltr	ecn no.	dr	date	linear	0.X ±0.3		COPY		title VERTICAL SIGNAL HDR 8 ROW P.F. 96 POS. SPECIAL LOAD EXT.
AA					0.XX ±0.13		projection		
					.XXX ±.051				
				angles	0° ±2°				product family METRAL 1000 code size dwg no 213 A 74983 sheet 3
				dr	E. KROPER.	2001-01-15	MM		
				engr	J. VOLSTORF	2001-01-15			
				chr	J. VOLSTORF	2001-01-15	scale		1:1
				appd	J. VOLSTORF	2001-01-15	cage code 22526		
sheet index	revision sheet								

PRODUCT NUMBER  
SEE SHEET 1

PRESS-FIT HOLES	OPTION 1
HOLE DIAMETER AFTER PLATING	Ø 0.65-0.80
PRESS-FIT HOLES	Ø 0.81-0.86 (Ø 0.85 DRILL)
COPPER PLATING	0.025 MIN
SnPb PLATING	0.005-0.015

FOR OTHER OPTIONS SEE DRAWING  
58351



mat'l code SEE NOTE 5				tolerances unless otherwise specified		CUSTOMER	FCj www.fciconnect.com	
ltr	ecm no.	dr	date	linear	0.X ±0.3	COPY	title	
AA				linear	0.XX ±0.13	projection	VERTICAL SIGNAL HDR 8 ROW	
				angles	.XXX ±.051		P.F. 96 POS. SPECIAL LOAD EXT.	
				angles	0° ±2°		product family	METRAL 1000
				dr	E. KROPER. 2001-01-15	MM	code	213
				engr	J. VOLSTORF 2001-01-15	← MM →	size	dwg no
				chr	J. VOLSTORF 2001-01-15	scale	A	74983
				appd	J. VOLSTORF 2001-01-15	1:1	sheet	4
sheet index	revision sheet							

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1 | 2

3 |

4

SPECIAL LOAD PATTERNS

PRODUCT #	ROW	PIN CODES
74983-X02056 *RPU	H	22
	G	
	F	
	E	
	D	
	C	
	B	
	A	
74983-X02056LF *RPU SEE NOTE 15	GND	22
	H	
	G	
	F	
	E	
	D	
	C	
	B	
74983-X02057	A	02
	GND	
	H	
	G	
	F	
	E	
	D	
	C	
74983-X02057LF SEE NOTE 15	B	02
	A	
	GND	
	H	
	G	
	F	
	E	
	D	
74983-X02058 *RPU	C	06
	B	
	A	
	GND	
	H	
	G	
	F	
	E	
74983-X02058LF *RPU SEE NOTE 15	D	06
	C	
	B	
	A	
	GND	
	H	
	G	
	F	
74983-X02059 **	E	03
	F	19
	D	04
	C	19
	B	04
	A	04
	GND	02
	H	03
74983-X02059LF ** SEE NOTE 15	G	03
	F	11
	E	41
	D	24
	C	41
	B	24
	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

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

SPECIAL LOAD PATTERNS

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

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



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mat'l code SEE NOTE 5				tolerances unless otherwise specified		CUSTOMER	FCI www.fciconnect.com	
ltr	ecn no.	dr	date	linear	0.X ±0.3	COPY	title VERTICAL SIGNAL HDR 8 ROW	
AA				linear	0.XX ±0.13	projection	P.F. 96 POS. SPECIAL LOAD EXT.	
				angles	.XXX ±.051		product family METRAL 1000 code 213	
				dr	0° ±2°	MM	size dwg no 74983 sheet 6	
				enrg	E. KROPER. 2001-01-15	scale 1:1	cage code 22526 4	
				chr	J. VOLSTORF 2001-01-15			
				appd	J. VOLSTORF 2001-01-15			
sheet index	revision sheet							

PRODUCT NUMBER

SEE SHEET 1

NOTES:

- 1. SEE APPLICATION SPECIFICATION GS-20-010 FOR INFORMATION ON AVAILABLE TOOLING, CURCUIT BOARD DESIGN CONSIDERATIONS, REPAIR PROCEDURES AND PRODUCT OFFERINGS.
- 2. SEE FCI PUBLICATION 950511-028 FOR "ELECTRICAL PERFORMANCE DATA FOR DIFFERENTIAL APPLICATIONS."
- 3. SEE FCI PUBLICATION 950511-028 FOR "ELECTRICAL PERFORMANCE DATA FOR SINGLE-ENDED APPLICATION."
- 4. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS AND TOLERANCES ARE IN ACCORDANCE WITH ASME Y14.5M, 1994
- 5. HOUSING MATERIAL: LIQUID CRYSTAL POLYMER, 30% GLASS FILLED, FLAME RETARDANT PER UL 94-V0.  
PIN MATERIAL: PHOSPHER BRONZE  
GROUND SPRING MATERIAL: PHOSPHER BRONZE
- 6. PLATING INFORMATION: PLATING ON CONTACT AREA MEETS THE PERFORMANCE LEVELS SHOWN IN TABLE ON SHEET 1.  
PLATING ON "LF" TAILS IS Sn. PLATING ON ALL OTHERS IS SnPb.
- 7. 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
- 8. 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.


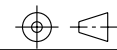

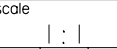
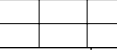
- 9. THESE HOLES ARE NEEDED FOR REAR PLUG-UP DESIGNS USING A SHROUD AND MAY BE OMITTED FOR FRONT PLUG-UP ONLY DESIGNS.
- 10. THE 'CONNECTOR OUTLINE' IS THE MIN OUTLINE REQUIRED. TO DETERMINE THE OUTLINE NECESSARY TO PERMIT THE VARIOUS TYPES OF REPAIR OPERATIONS, SEE APPLICATION SPECIFICATION GS-20-010.
- 11. CURRENT RATING : 1 AMP PER PIN
- 12. TEMPERATURE RANGE : -55°C TO +105°C
- 13. P/N 73983-X02ZZZLF  


LEAD FREE (OPTIONAL)  
SPECIAL LOAD PATTERN  
PLATING CODE
- 14. AFTER INSERTION INTO CIRCUIT BOARD WITH QUALIFIED TOOL.
- 15. THE PRODUCTS WHERE THE PART NUMBER ENDS IN LF MEET EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-22-008.
- 16. PIN TYPE IS AT THE MANUFACTURERS OPTION AND CAN BE EITHER BABY-H OR EYE OF THE NEEDLE STYLE

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



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mat'l code SEE NOTE 5				tolerances unless otherwise specified		CUSTOMER		 www.fciconnect.com			
ltr	ecn no.	dr	date	linear	0.X ±0.3	COPY		 title VERTICAL SIGNAL HDR 8 ROW P.F. 96 POS. SPECIAL LOAD EXT.			
AA					0.XX ±0.13	projection					
					.XXX ±.051	 0° ±2°					
				angles	0° ±2°	 MM		product family	METRAL 1000	code	
				dr	E. KROPER.	2001-01-15	 1:1	size	dwg no	213	
				engr	J. VOLSTORF	2001-01-15		A	74983	sheet	7
				chr	J. VOLSTORF	2001-01-15					
				appd	J. VOLSTORF	2001-01-15					
sheet index	revision sheet										