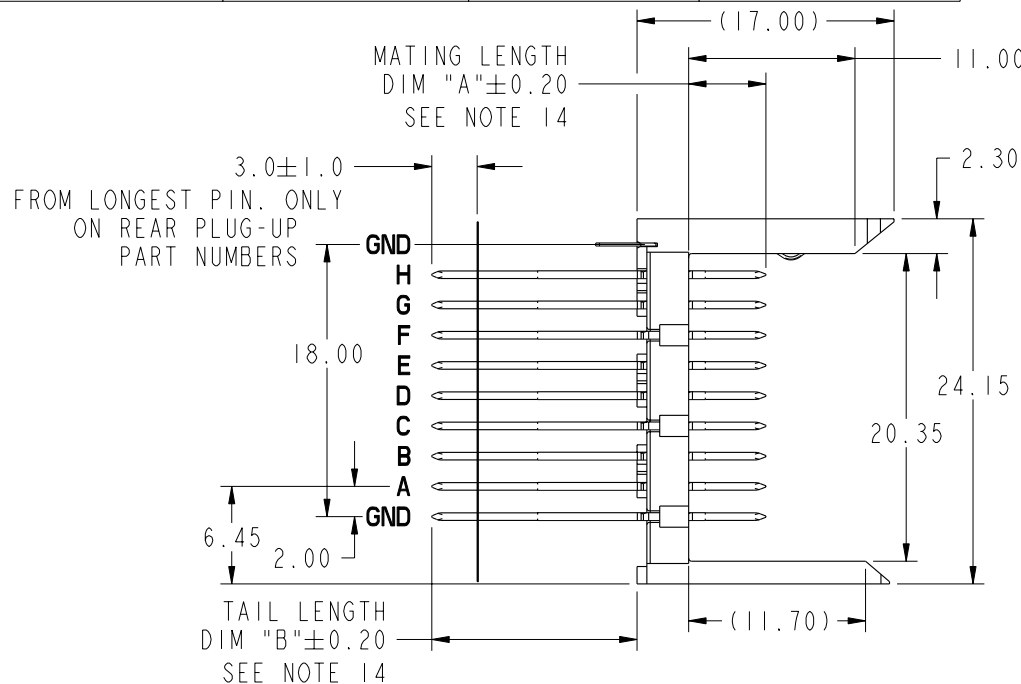
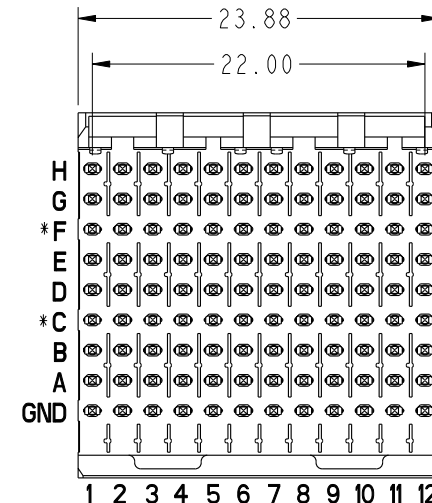
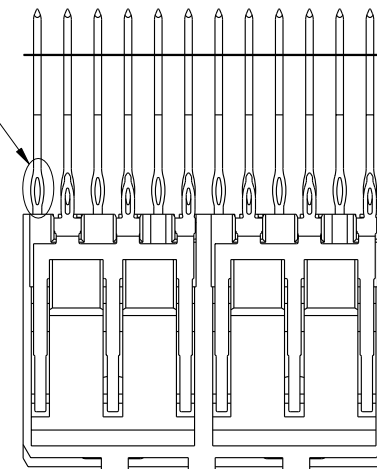




PRODUCT NUMBER	PLATING PERFORMANCE LEVEL	PRESS FIT PIN TO PCB	FOR REAR PLUG-UP APPLICATIONS USE SHROUD
74983-102ZZZ	TELCORDIA CO	STANDARD	74993-102
74983-102ZZZLF		LEAD FREE	74993-102
74983-302ZZZ	CUSTOMER SPECIAL	STANDARD	74993-302
74983-302ZZZLF		LEAD FREE	74993-302LF
74983-502ZZZ	TELCORDIA UE	STANDARD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

SEE DETAIL A



DETAIL A
SCALE 4:1
SEE NOTE 16

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		projection	title VERTICAL SIGNAL HDR 8 ROW P.F. 96 POS. SPECIAL LOAD EXT.		
W	V06-0544	DCH	2006-06-12		0.XX ±0.13									
X	V07-0175	DCH	2007-04-16		.XXX ±.051									
Y	V08-0024	HTB	2008-01-16	angles	0° ±2°						 MM scale 1:1	product family METRAL 1000		code
AA	V08-0130	LP	2008-03-25	dr	E. KROPER.	2001-01-15			size	dwg no		213	sheet 1 of 7	
-	-	-	-	engr	J. VOLSTORF	2001-01-15								
U	V05-0192	DAI	2005-04-15	chr	J. VOLSTORF	2001-01-15								
V	V05-0735	TAB	2005-08-05	appd	J. VOLSTORF	2001-01-15								
sheet index		revision sheet		AA	AA	AA	AA	AA	AA	AA				
				1	2	3	4	5	6	7				

Pro/E

cage code 22526

PDM: Rev:AA

STATUS: Released Printed: May 13, 2011



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

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	projection	COPY	title VERTICAL SIGNAL HDR 8 ROW P.F. 96 POS. SPECIAL LOAD EXT.	product family METRAL 1000
AA					0.XX ±0.13				
					.XXX ±.051				
				angles	0° ±2°	MM scale 1:1	A	size 74983	code 213 sheet 2
				dr	E. KROPER. 2001-01-15				
				engr	J. VOLSTORF 2001-01-15				
				chr	J. VOLSTORF 2001-01-15	sheet index	revision sheet		
				appd	J. VOLSTORF 2001-01-15				

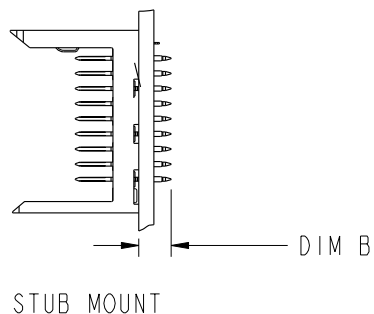
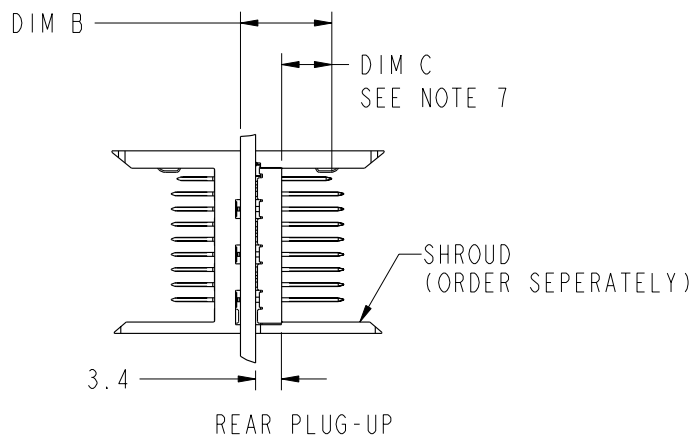


PIN NO.	DIM A MATING LENGTH	DIM B TAIL LENGTH	PCB THICKNESS RANGE ACCOMMODATED BY PIN LENGTH				
			WHEN MATING TO A 84854 SERIES METRAL 1000 RECEPTACLE		WHEN MATING TO A 52066 SERIES METRAL 4000 RECEPTACLE		
			ROWS A,B,C,D, E, F, G, & H	GROUND ROW	ROWS:A,B,D, E,G & H	ROW C & F	GROUND ROW
04*	7.25	4.30	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	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

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			
AA					0.XX ±0.13		projection			
					.XXX ±.051					
				angles	0° ±2°				title VERTICAL SIGNAL HDR 8 ROW P.F. 96 POS. SPECIAL LOAD EXT.	
				dr	E. KROPER.	2001-01-15	MM		product family METRAL 1000	
				enrg	J. VOLSTORF	2001-01-15			code 213	
				chr	J. VOLSTORF	2001-01-15	1:1		sheet 3	
				appd	J. VOLSTORF	2001-01-15				
sheet index	revision sheet									

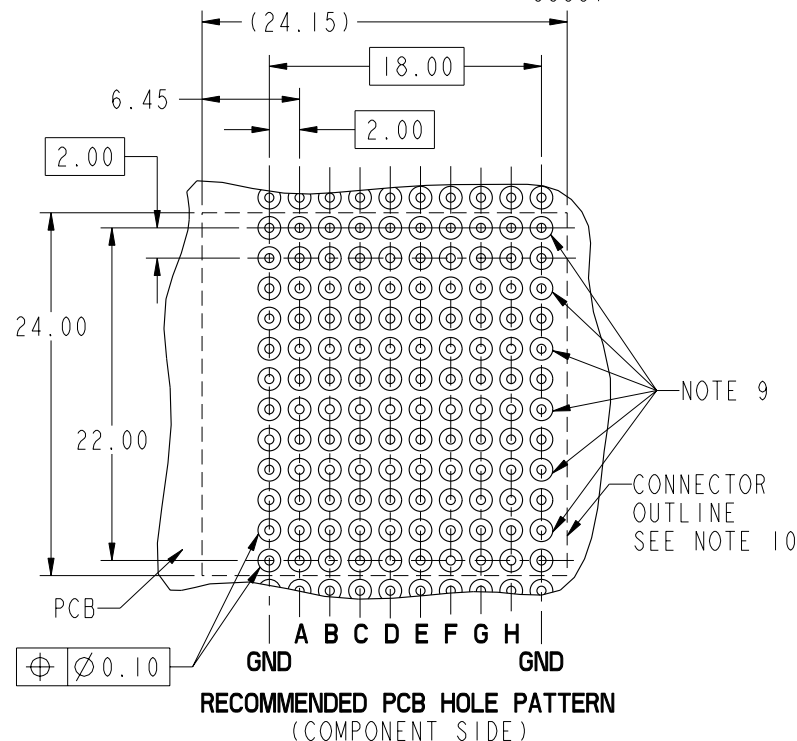


PRODUCT NUMBER
SEE SHEET 1



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		FCI www.fciconnect.com	
ltr	ecr no.	dr	date	linear	0.X ± 0.3	projection	COPY	title	VERTICAL SIGNAL HDR 8 ROW P.F. 96 POS. SPECIAL LOAD EXT.
AA					0.XX ± 0.13				
					.XXX ± .051				
				angles	0° ± 2°	MM scale 1:1	A	product family METRAL 1000 size dwg no 74983	code 213 sheet 4
				dr	E. KROPER. 2001-01-15				
				engr	J. VOLSTORF 2001-01-15				
				chr	J. VOLSTORF 2001-01-15				
				appd	J. VOLSTORF 2001-01-15				
sheet index	revision sheet							cage code 22526	4

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cage code
22526

PDM: Rev:AA

STATUS: Released

Printed: May 13, 2011



A

B

SPECIAL LOAD PATTERNS		
PRODUCT #	ROW	PIN CODES
74983-X02001 74983-X02001LF SEE NOTE 15	H	01
	G	
	F	
	E	
	D	
	C	
	B	
	A	
74983-X02004 *RPU 74983-X02004LF *RPU SEE NOTE 15	GND	05
	H	
	G	
	F	
	E	
	D	
	C	
	B	
74983-X02011 74983-X02011LF SEE NOTE 15	A	02
	GND	
	H	
	G	
	F	
	E	
	D	
	C	
74983-X02013 *RPU 74983-X02013LF *RPU SEE NOTE 15	B	06
	A	
	GND	
	H	
	G	
	F	
	E	
	D	
74983-X02050 74983-X02050LF SEE NOTE 15	C	03
	B	
	A	
	GND	
	H	
	G	
	F	
	E	
74983-X02052 *RPU 74983-X02052LF *RPU SEE NOTE 15	D	02
	C	
	B	
	A	
	GND	
	H	
	G	
	F	
74983-X02053 *RPU 74983-X02053LF *RPU SEE NOTE 15	E	04
	D	
	C	
	B	
	A	
	GND	
	H	
	G	
74983-X02054 74983-X02054LF SEE NOTE 15	F	02
	E	
	D	
	C	
	B	
	A	
	GND	
	H	

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

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

* REAR PLUG-UP PART NUMBERS

1 | 2

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	projection	COPY	title VERTICAL SIGNAL HDR 8 ROW P.F. 96 POS. SPECIAL LOAD EXT.	product family METRAL 1000
AA					0.XX ±0.13				
					.XXX ±.051				
				angles	0° ±2°	MM ←→	scale 1:1	size A	dwg no 74983
				dr	E. KROPER. 2001-01-15				
				enrg	J. VOLSTORF 2001-01-15				
				chr	J. VOLSTORF 2001-01-15	code 213	sheet 5	cage code 22526	4
				appd	J. VOLSTORF 2001-01-15				
sheet index	revision sheet								

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3 |

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SPECIAL LOAD PATTERNS		
PRODUCT #	ROW	PIN CODES
74983-X02056 *RPU 74983-X02056LF *RPU SEE NOTE 15	H	22
	G	
	F	
	E	
	D	
	C	
	B	
	A	
	GND	
74983-X02057 74983-X02057LF SEE NOTE 15	H	02
	G	
	F	
	E	
	D	
	C	
	B	
	A	
	GND	
74983-X02058 *RPU 74983-X02058LF *RPU SEE NOTE 15	H	06
	G	
	F	
	E	
	D	
	C	
	B	
	A	
	GND	
74983-X02059 ** 74983-X02059LF ** SEE NOTE 15	H	03
	G	
	F	19
	E	
	D	04
	C	19
	B	
	A	04
	GND	02
74983-X02060 74983-X02060LF SEE NOTE 15	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

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

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

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

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cage code 22526

PDM: Rev:AA

STATUS: Released

Printed: May 13, 2011

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



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.

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

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 P.F. 96 POS. SPECIAL LOAD EXT.			
AA					0. XX ±0.13		projection					
					. XXX ±.051							
				angles	0° ±2°							
		dr	E. KROPER.	2001-01-15			product family		METRAL 1000		code	
		engr	J. VOLSTORF	2001-01-15			size		dwg no		213	
		chr	J. VOLSTORF	2001-01-15	scale 1:1		A		74983		sheet	
		appd	J. VOLSTORF	2001-01-15							7	
sheet index	revision sheet											

Mouser Electronics

Authorized Distributor

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FCI / Amphenol:

[74983-102011](#) [74983-102001LF](#) [74983-102004](#) [74983-102050](#) [74983-102051](#) [74983-102054](#) [74983-502001](#)
[74983-502011](#) [74983-102052LF](#) [74983-102058LF](#) [74983-502004LF](#) [74983-502061LF](#) [74983-102004LF](#) [74983-](#)
[102011LF](#) [74983-102050LF](#) [74983-102051LF](#) [74983-102054LF](#) [74983-302001LF](#) [74983-302004LF](#) [74983-](#)
[302011LF](#) [74983-502001LF](#) [74983-502011LF](#) [74983-102001](#) [74983-102013LF](#) [74983-102052](#) [74983-102058](#)
[74983-502004](#) [74983-502061](#)