



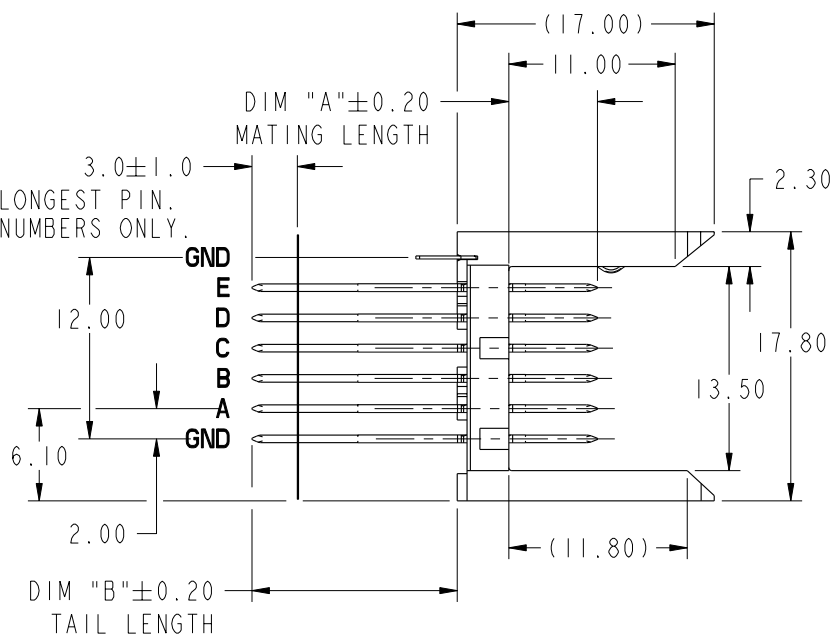
PRODUCT NUMBER
SEE BELOW AND TABLE ON SHEET 2

84817-X YY ZZZ LF
BASE NUMBER
LEAD FREE (OPTIONAL)
SPECIAL LOAD PATTERN
SEE SHEETS 7-9
SIZE, SEE SHEET 2
PLATING PERFORMANCE
LEVEL, SEE SHEET 2

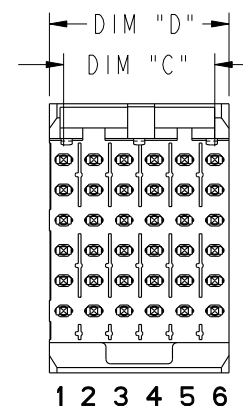
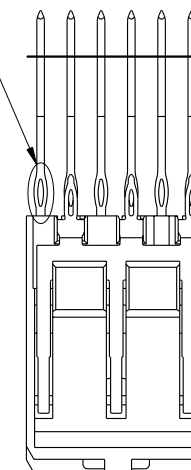
EYE OF NEEDLE
PRESS FIT SECTION
BABY-H
PRESS FIT SECTION

DETAIL A
SCALE 4:1
SEE NOTE 17

PIN ALIGNER, FROM LONGEST PIN.
ON REAR PLUG-UP PART NUMBERS ONLY.



SEE DETAIL A



mat'l code SEE NOTE 5				tolerances unless otherwise specified				CUSTOMER		FCI	
ltr	ecr no.	dr	date	linear	0.X ± .1	0.XX ± .05	0.XXX ± .020	COPY	projection	www.fciconnect.com	
AC	V06-0569	DCH	2006-06-12	linear	0.XX ± .05	0.XXX ± .020	0° ± 2°	MM	1:1	title VERTICAL SIGNAL HDR 5 ROW PRESS-FIT, SPECIAL LOAD, STD.	
AD	V07-0047	HTB	2007-01-19	linear	0.XX ± .05	0.XXX ± .020	0° ± 2°	MM	1:1	product family METRAL 1000	
AE	V07-0166	DCH	2007-03-01	linear	0.XX ± .05	0.XXX ± .020	0° ± 2°	MM	1:1	code 213	
AF	V07-0676	HTB	2007-11-08	dr	K. BELL	2000-03-29		MM	1:1	size 84817	
AG	V08-0009	LP	2008-1-23	enrg	M. HAHN	2000-03-29		MM	1:1	sheet 1 of 7	
AB	V05-0806	VS	2005-09-13	appd	M. HAHN	2000-03-29		MM	1:1	cage code 22526	
sheet index				revision sheet	AG	AG	AG	AG	AG		
				sheet	1	2	3	4	5		

Pro/E

cage code 22526

PDM: Rev:AG

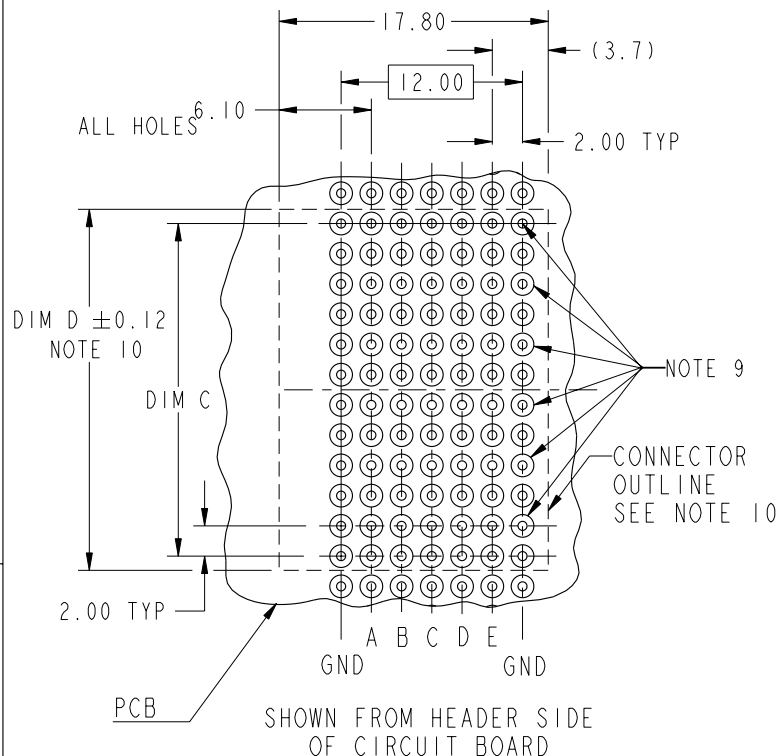
STATUS: Released Printed: May 13, 2011



1 2						3 4															
PRODUCT NO.	PLATING PERFORM- ANCE LEVEL	SHROUD TO USE FOR REAR-PLUG-UP APPLICATIONS	LENGTH DIM D	PIN FIELD DIM C	CONNECTOR SIZE	PRODUCT NO.	PLATING PERFORM- ANCE LEVEL	SHROUD TO USE FOR REAR-PLUG-UP APPLICATIONS	LENGTH DIM D	PIN FIELD DIM C	CONNECTOR SIZE										
84817-101ZZZ	TELCORDIA CO	84818-101	11.88	10.00	1 MOD	84817-901ZZZ	TELCORDIA CO	84818-101	11.88	10.00	1 MOD										
84817-101ZZZLF		84818-101LF				84817-901ZZZLF		84818-101LF													
84817-102ZZZ		84818-102	23.88	22.00	2 MOD	84817-902ZZZ		84818-102	23.88	22.00	2 MOD										
84817-102ZZZLF		84818-102LF				84817-902ZZZLF		84818-102LF													
84817-103ZZZ		84818-103	35.88	34.00	3 MOD	84817-903ZZZ		84818-103	35.88	34.00	3 MOD										
84817-103ZZZLF		84818-103LF				84817-903ZZZLF		84818-103LF													
84817-104ZZZ		84818-104	47.88	46.00	4 MOD	84817-904ZZZ		84818-104	47.88	46.00	4 MOD										
84817-104ZZZLF		84818-104LF				84817-904ZZZLF		84818-104LF													
84817-301ZZZ	CUSTOMER SPECIAL	84818-301	11.88	10.00	1 MOD																
84817-301ZZZLF		84818-301LF																			
84817-302ZZZ		84818-302	23.88	22.00	2 MOD																
84817-302ZZZLF		84818-302LF																			
84817-303ZZZ		84818-303	35.88	34.00	3 MOD																
84817-303ZZZLF		84818-303LF																			
84817-304ZZZ		84818-304	47.88	46.00	4 MOD																
84817-304ZZZLF		84818-304LF																			
84817-501ZZZ	TELCORDIA UE	84818-501	11.88	10.00	1 MOD																
84817-501ZZZLF		84818-501LF																			
84817-502ZZZ		84818-502	23.88	22.00	2 MOD																
84817-502ZZZLF		84818-502LF																			
84817-503ZZZ		84818-503	35.88	34.00	3 MOD																
84817-503ZZZLF		84818-503LF																			
84817-504ZZZ		84818-504	47.88	46.00	4 MOD																
84817-504ZZZLF		84818-504LF																			



RECOMMENDED PCB LAYOUT



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

SEE PRINT 58315 FOR ADDITIONAL
PCB INFORMATION

NOTES:

- SEE APPLICATION SPECIFICATION GS-20-010 FOR INFORMATION ON AVAILABLE TOOLING, CIRCUIT BOARD DESIGN CONSIDERATIONS, REPAIR PROCEDURES AND PRODUCT OFFERINGS.
- SEE FCI PUBLICATION 950511-028 FOR "ELECTRICAL PERFORMANCE DATA FOR DIFFERENTIAL APPLICATIONS."
- SEE FCI PUBLICATION 950511-029 FOR "ELECTRICAL PERFORMANCE DATA FOR SINGLE-ENDED APPLICATIONS."
- UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS AND TOLERANCES ARE IN ACCORDANCE WITH ASME Y14.5, 1994
- HOUSING MATERIAL: LCP, 30% GLASS FILLED, FLAME RETARDANT PER UL 94-V0.
PIN MATERIAL: PHOSPHOR BRONZE
GROUND SPRING MATERIAL: PHOSPHOR BRONZE
- PLATING INFORMATION: PLATING ON CONTACT AREA MEETS THE PERFORMANCE LEVELS AS SHOWN IN TABLE ON SHEET 1. PLATING ON "LF" TAILS IS Sn. PLATING ON ALL OTHER TAILS IS SnPb.
- DIMENSIONAL RESTRICTIONS OF PINS IN HEADERS.
FOR MATING WITH METRAL 1000 RECEPTACLES
DIM A : 5.00mm MIN, 8.00mm MAX FOR ROWS A-E
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-E
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
DIM A : 5.00mm MIN, 8.00mm MAX FOR ROW C
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
DIM C : 5.00mm MIN, 8.00mm MAX FOR ROW C
DIM C : 4.60mm MIN, 6.30mm MAX FOR ROW GND NEXT TO ROW A
- THE MIN PCB THICKNESS FOR REAR PLUG-UP APPLICATIONS IS 2.9mm
SINCE THE COMPLAINT SECTIONS OF THE GROUND SPRING OF THE HEADER DIRECTLY OPPOSE THE GROUND SPRING OF THE SHROUD. THE MIN PCB THICKNESS FOR FRONT PLUG-UP ONLY APPLICATIONS IS 1.6mm.
- THESE HOLES ARE NEEDED FOR REAR PLUG-UP DESIGNS USING A SHROUD AND MAY BE OMITTED FOR FRONT PLUG-UP ONLY DESIGNS.
- 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.
- CURRENT RATING : 1 AMP PER PIN
- TEMPERATURE RANGE : -55°C TO +105°C
- P/N 84817-X01ZZZ SHOWN ON SHEET 1.
- THE PRODUCTS WHERE THE PART NUMBERS END IN "LF" MEET EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-22-008. ALL PRODUCTS WILL WITHSTAND EXPOSURE TO 260°C FOR 60 SECONDS IN A CONVECTION INFRA-RED OR VAPOR PHASE REFLOW OVEN.
- FOR LEAD FREE PART NUMBERS, ADD "LF" SUFFIX. EXAMPLE: 84817-XXXXLF.
- SEE PRODUCT SPEC GS-12-110 FOR PERFORMANCE, TEST, AND SIGNAL INTEGRITY INFORMATION.
- 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	ecr no.	dr	date	linear	0.X ±.1	COPY		projection	title VERTICAL SIGNAL HDR 5 ROW PRESS-FIT, SPECIAL LOAD, STD.		
AG					0.XX ±.05						
					.XXX ±.020						
				angles	0° ±2°			MM	product family METRAL 1000		
				dr	K. BELL	2000-03-29	scale 1:1			size A	code 213
				enrg	M. HAHN	2000-03-29					
				chr	M. HAHN	2000-03-29					
				appd	M. HAHN	2000-03-29			sheet 3		
sheet index	revision sheet										

Pro/E

3

cage code
22526

4



PIN NO.	DIM A MATING LENGTH	DIM B TAIL LENGTH	PCB THICKNESS RANGE ACCOMMODATED BY PIN'S TAIL LENGTH				
			WHEN MATING TO A 73981 OR 84688 SERIES RECEPTACLE		WHEN MATING TO A 52057 SERIES METRAL 4000 RECEPTACLE		
			ROWS A,B,C,D,E	GROUND ROW	ROWS:A,B,DE	ROW C	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	ecn no.	dr	date	linear	0.X ± .1		projection 	title VERTICAL SIGNAL HDR 5 ROW PRESS-FIT, SPECIAL LOAD, STD.		
AG					0.XX ± .05					
					.XXX ± .020					
				angles	0° ± 2°		MM scale 1:1	product family METRAL 1000		
				dr	K. BELL	2000-03-29		size	dwg no	code
				engr	M. HAHN	2000-03-29		A	84817	213
				chr	M. HAHN	2000-03-29				sheet
				appd	M. HAHN	2000-03-29			4	
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 73981 OR 84688 SERIES RECEPTACLE		WHEN MATING TO A 52057 SERIES METRAL 4000 RECEPTACLE		
			ROWS A,B,C,D,E	GROUND ROW	ROWS:A,B,DE	ROW C	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

* STUB PINS - NO REAR PLUG-UP
 ** THE GREATEST RANGE OCCURS
 WHEN THE B DIMENSION OF
 PIN 'GND' IS ONE SIZE SHORTER
 THEN THE OTHER PINS.

mat'l code SEE NOTE 5				tolerances unless otherwise specified		CUSTOMER		FCI www.fciconnect.com		
ltr	ecn no.	dr	date	linear	0.X ±.1		projection 	title VERTICAL SIGNAL HDR 5 ROW PRESS-FIT, SPECIAL LOAD, STD.		
AG					0.XX ±.05					
					.XXX ±.020					
				angles	0° ±2°		MM scale 1:1	product family METRAL 1000		
				dr	K. BELL	2000-03-29		size	dwg no	code
				enrg	M. HAHN	2000-03-29		A	84817	213
				chr	M. HAHN	2000-03-29				sheet
				appd	M. HAHN	2000-03-29				5
sheet index		revision sheet						cage code 22526		



A

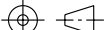
B

SPECIAL LOAD PATTERNS		
PRODUCT #	ROW	PIN CODES
84817-XY001 SEE NOTE 15 LEAD FREE OPTION	E	01
	D	
	C	
	B	
	A	
	GND	
84817-XY002 *RPU SEE NOTE 15 LEAD FREE OPTION	E	22
	D	
	C	
	B	
	A	
	GND	
84817-XY011 SEE NOTE 15 LEAD FREE OPTION	E	02
	D	
	C	
	B	
	A	
	GND	
84817-XY021 SEE NOTE 15 LEAD FREE OPTION	E	02
	D	
	C	
	B	
	A	
	GND	
84817-XY022 SEE NOTE 15 LEAD FREE OPTION	E	02
	D	
	C	
	B	
	A	
	GND	
84817-XY023 SEE NOTE 15 LEAD FREE OPTION	E	02
	D	
	C	04
	B	
	A	02
	GND	
84817-XY024 *RPU SEE NOTE 15 LEAD FREE OPTION	E	06
	D	
	C	08
	B	
	A	06
	GND	
84817-XY025 *RPU SEE NOTE 15 LEAD FREE OPTION	E	06
	D	
	C	
	B	
	A	
	GND	
	E	01
	D	
	C	
	B	
	A	
	GND	

PCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS:
2.95 TO 3.80mm

PCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS:
4.00 TO 5.30mm

PCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS:
*2.30-3.30 TO 5.30mm

mat'l code SEE NOTE 5				tolerances unless otherwise specified			CUSTOMER		 www.fciconnect.com		
ltr	ecn no.	dr	date	linear	0.X ±.1		projection 	title VERTICAL SIGNAL HDR 5 ROW PRESS-FIT, SPECIAL LOAD, STD.			
AG					0.XX ±.05						
					.XXX ±.020						
				angles	0° ±2°		 scale 1:1	product family		METRAL 1000	code
				dr	K. BELL	2000-03-29		size	dwg no	213	
				enrg	M. HAHN	2000-03-29				sheet	
				chr	M. HAHN	2000-03-29				6	
				appd	M. HAHN	2000-03-29					
sheet	revision										
index	sheet										

Pro/E

3

cage code 22526

4

PDM: Rev:AG

STATUS: Released

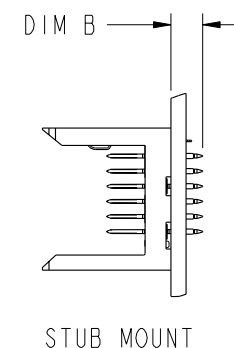
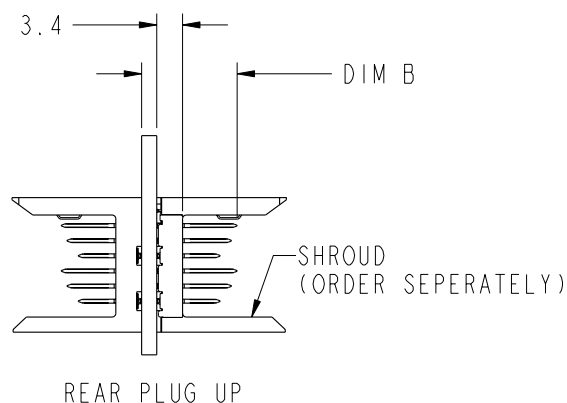
Printed: May 13, 2011



SPECIAL LOAD PATTERNS		
PRODUCT #	ROW	PIN CODES
84817-XY032 SEE NOTE 15 LEAD FREE OPTION	E	22
	D	
	C	45
	B	
	A	22
	GND	
84817-XY033 *RPU SEE NOTE 15 LEAD FREE OPTION	E	
	D	
	C	06
	B	
	A	
	GND	30
84817-XY034 SEE NOTE 15 LEAD FREE OPTION	E	
	D	
	C	03
	B	
	A	
	GND	02
84817-XY035 SEE NOTE 15 LEAD FREE OPTION	E	
	D	
	C	01
	B	
	A	-
	GND	01
84817-XY036 *RPU SEE NOTE 15 LEAD FREE OPTION	E	
	D	22
	C	
	B	01
	A	
	GND	22
84817-XY037 SEE NOTE 15 LEAD FREE OPTION	E	
	D	
	C	01
	B	
	A	
	GND	02
84817-XY038 *RPU SEE NOTE 15 LEAD FREE OPTION	E	
	D	
	C	49
	B	
	A	
	GND	
84817-XY039 *RPU SEE NOTE 15 LEAD FREE OPTION	E	
	D	
	C	36
	B	
	A	
	GND	06

PCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS:
2.95 TO 3.80mm

PCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS:
4.80 TO 6.80mm



mat'l code SEE NOTE 5				tolerances unless otherwise specified				CUSTOMER		FCi www.fciconnect.com				
ltr	ecn no.	dr	date	linear	0.X ±.1			projection	COPY 	title VERTICAL SIGNAL HDR 5 ROW PRESS-FIT, SPECIAL LOAD, STD.				
AG					0.XX ±.05									
					.XXX ±.020									
				angles	0° ±2°									
		dr			K. BELL	2000-03-29	MM scale 1:1	product family			METRAL 1000	code	213	
		enrg			M. HAHN	2000-03-29		size	dwg no				sheet 7	
		chr			M. HAHN	2000-03-29		84817						
		appd			M. HAHN	2000-03-29								
sheet index		revision sheet												