

PRODUCT NUMBER	PLATING PERFORMANCE LEVEL	APPLICATION	SHROUD FOR REAR PLUG UP APPLICATIONS
63743-1YYY	TELCORDIA CO	STANDARD	84818-102
63743-1YYYYLF		LEAD FREE	84818-102LF
63743-5YYY	TELCORDIA UE	STANDARD	84818-502
63743-5YYYYLF		LEAD FREE	84818-502LF
63743-9YYY	TELCORDIA CO	STANDARD	84818-102
63743-9YYYYLF		LEAD FREE	84818-102LF

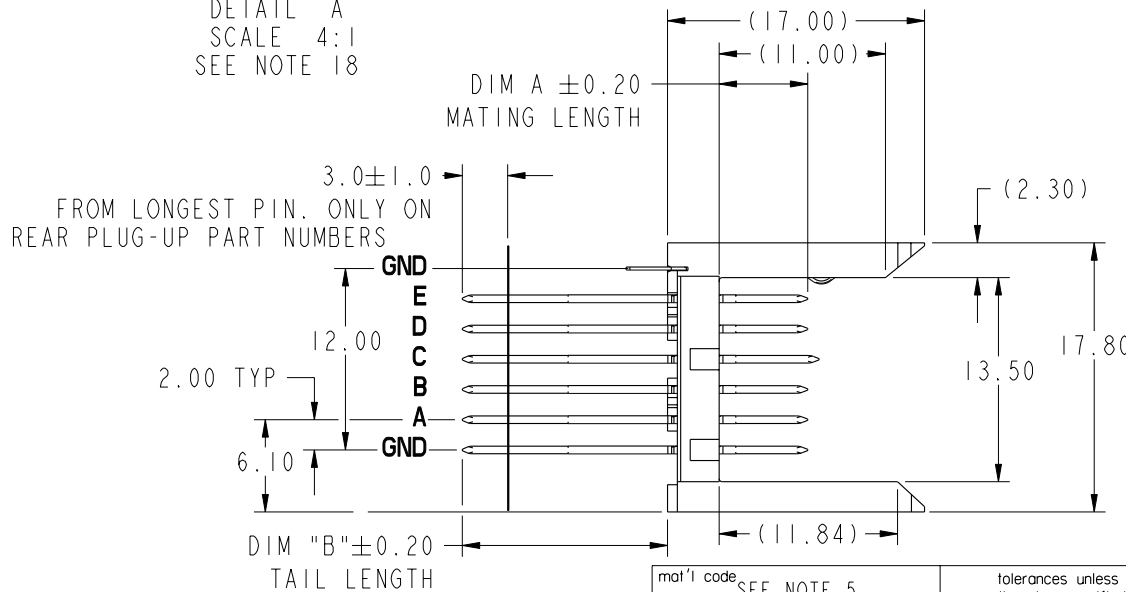


EYE OF NEEDLE  
PRESS FIT SECTION

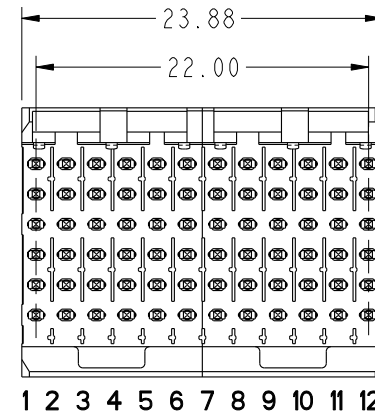
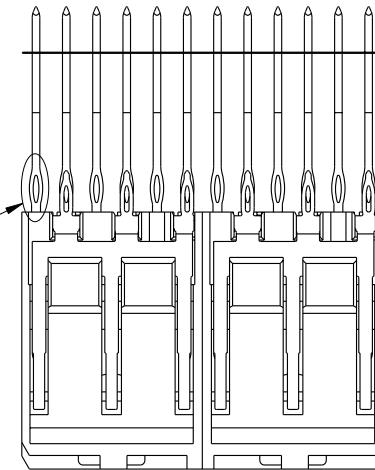


BABY-H  
PRESS FIT SECTION

DETAIL A  
SCALE 4:1  
SEE NOTE 18



SEE DETAIL A



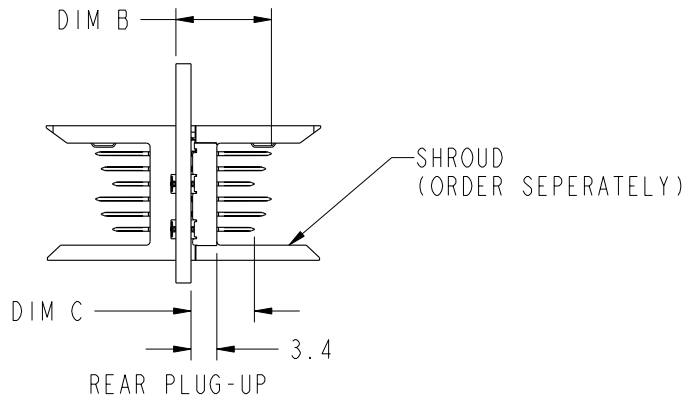
mat'l code SEE NOTE 5				tolerances unless otherwise specified			CUSTOMER	FCJ www.fciconnect.com	
ltr	ecr no.	dr	date	linear	0.X ±0.3		COPY	projection	title VERTICAL SIGNAL HDR 5 ROW P.F. 60 POS. SELECT LOAD STD.
P	V06-0498	DCH	2006-06-05		0.XX ±0.13				
R	V06-0779	DAI	2006-08-11	angles	.XXX ±.051		MM	product family METRAL 1000	code 213
S	V07-0182	DCH	2007-04-20		0° ±2°				
T	V07-0733	HTB	2008-01-02	dr	K. BELL	2000-03-15	scale 1:1	size A	sheet 1 of 6
U	V08-0049	LP	2008-2-4	enrg	M. HAHN	2000-03-15			
-	-	-	-	chr	M. HAHN	2000-03-15			
N	V05-0533	TAB	2005-06-01	appd	M. HAHN	2000-03-15			
sheet index	revision sheet	U	U	U	U	U			
		1	2	3	4	5			



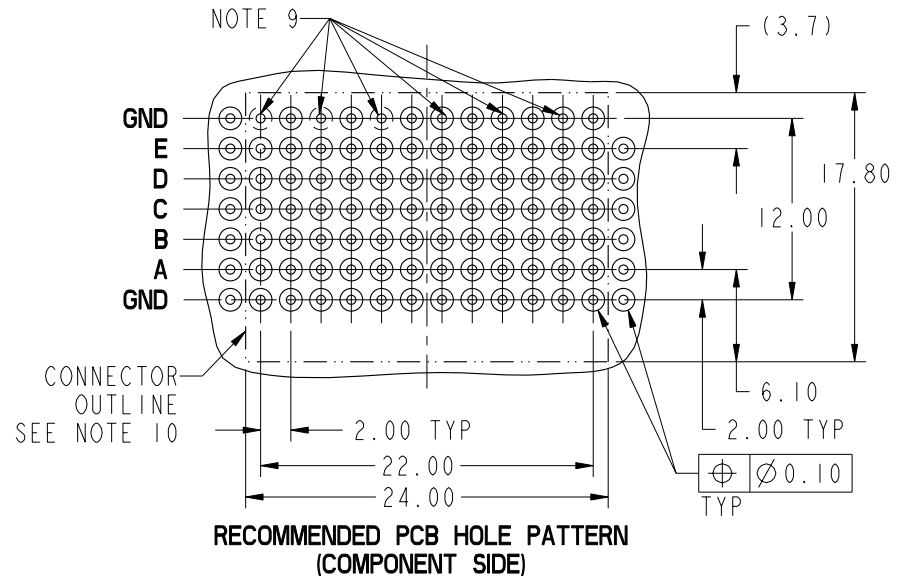
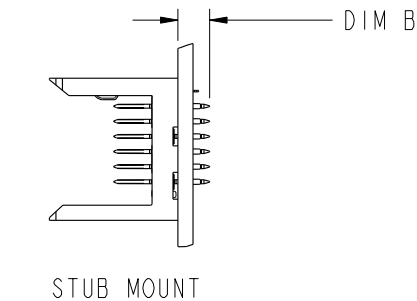
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PRODUCT NUMBER  
SEE SHEET 1

PRESS-FIT HOLES	OPTION 1	OPTION 2
HOLE DIAMETER AFTER PLATING	0.65-0.77	0.65-0.80
DRILLED HOLE	0.78-0.83	0.81-0.86 (0.85 DRILL)
COPPER PLATING	0.025-0.050	0.025 MIN
SnPb PLATING	0.005-0.015	0.005-0.015



SEE PRINT 58351 FOR  
ADDITIONAL PCB INFO.



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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 5 ROW P.F. 60 POS. SELECT LOAD STD.
U				linear	0.XX ± 0.13	projection	
				angles	.XXX ± .051 0° ± 2°		
		dr	K. BELL	2000-03-15		MM	product family METRAL 1000 code
		enrg	M. HAHN	2000-03-15		← MM →	size
		chr	M. HAHN	2000-03-15		scale	dwg no
		appd	M. HAHN	2000-03-15		1:1	A 63743
sheet index	revision sheet						sheet 2

PIN CODE 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,D,E	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



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\* 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		www.fciconnect.com	
ltr	ecr no.	dr	date	linear	0.X ±0.3		COPY		title VERTICAL SIGNAL HDR 5 ROW P.F. 60 POS. SELECT LOAD STD.
U					0.XX ±0.13		projection		
				angles	.XXX ±.051				product family METRAL 1000 code 213 size dwg no 63743 sheet 3
					0° ±2°		MM 		
				dr	K. BELL	2000-03-15	scale 1:1		A
				engr	M. HAHN	2000-03-15			
				chr	M. HAHN	2000-03-15			
				appd	M. HAHN	2000-03-15			
sheet index	revision sheet								

PIN CODE 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,D,E	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



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 \*\* 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		www.fciconnect.com	
ltr	ecr no.	dr	date	linear	0.X ±0.3		COPY		title VERTICAL SIGNAL HDR 5 ROW P.F. 60 POS. SELECT LOAD STD.
U					0.XX ±0.13		projection		
					.XXX ±.051				
				angles	0° ±2°				product family METRAL 1000 code 213 size dwg no 63743 sheet 4
				dr	K. BELL	2000-03-15	MM		
				engr	M. HAHN	2000-03-15			
				chr	M. HAHN	2000-03-15	scale 1:1		
				appd	M. HAHN	2000-03-15	A		
sheet index	revision sheet								



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SELECT LOAD PATTERNS												
METRAL P/N	ROW	CONTACT CODE										
63743-X001 FOR LEAD FREE SEE NOTE 16	E	02	02	02	02	02	02	02	02	02	02	02
	D	02	02	02	02	02	02	02	02	02	02	02
	C	04	04	04	04	04	04	04	04	04	04	04
	B	02	02	02	02	02	02	02	02	02	02	02
	A	02	02	02	02	02	02	02	02	02	02	02
	GND	02	02	02	02	02	02	02	02	02	02	02
63743-X002 FOR LEAD FREE SEE NOTE 16	E	01	01	01	01	01	01	01	01	01	01	01
	D	01	01	01	01	01	01	01	01	01	01	01
	C	03	03	03	03	03	03	03	03	03	03	03
	B	01	01	01	01	01	01	01	01	01	01	01
	A	01	01	01	01	01	01	01	01	01	01	01
	GND	01	01	01	01	01	01	01	01	01	01	01
63743-X003 *RPU FOR LEAD FREE SEE NOTE 16	E	48	48	48	48	48	48	48	48	48	48	48
	D	48	48	48	48	48	48	48	48	48	48	48
	C	50	50	50	50	50	50	50	50	50	50	50
	B	48	48	48	48	48	48	48	48	48	48	48
	A	48	48	48	48	48	48	48	48	48	48	48
	GND	48	48	48	48	48	48	48	48	48	48	48
63743-X004 FOR LEAD FREE SEE NOTE 16	E	19	02	02	02	02	02	02	02	02	02	02
	D	19	02	02	02	02	02	02	02	02	02	02
	C	19	02	02	02	02	02	02	02	02	02	02
	B	19	02	02	02	02	02	02	02	02	02	02
	A	19	02	02	02	02	02	02	02	02	02	02
	GND	02	02	02	02	02	02	02	02	02	02	02
63743-X005 FOR LEAD FREE SEE NOTE 16	E	01	01	01	01	01	01	01	01	01	01	01
	D	01	01	01	01	01	01	01	01	01	01	01
	C	01	01	01	01	01	01	01	01	01	01	01
	B	01	01	01	01	01	01	01	01	01	01	01
	A	01	01	03	01	01	03	01	01	03	01	01
	GND	01	01	01	01	01	01	01	01	01	01	01

\* REAR PLUG-UP PART NUMBER

METRAL P/N	ROW	CONTACT CODE											
63743-X006 FOR LEAD FREE SEE NOTE 16	E	01	01	01	01	01	01	01	01	01	01	01	
	D	02	01	01	01	01	01	02	01	01	01	01	
	C	02	01	01	01	01	02	01	01	01	01	01	
	B	03	03	03	03	03	03	03	03	03	03	03	
	A	01	01	01	01	01	01	01	01	01	01	01	
	GND	01	01	01	01	01	01	01	01	01	01	01	
63743-X007 FOR LEAD FREE SEE NOTE 16	E	02	02	02	02	01	02	02	02	02	02	02	
	D	02	02	02	02	02	02	02	02	02	02	02	
	C	02	02	02	02	02	02	02	02	02	02	02	
	B	02	02	02	02	02	02	02	02	02	02	02	
	A	02	02	02	02	02	02	02	02	02	02	02	
	GND	02	02	02	02	02	02	02	02	02	02	02	
63743-X008 FOR LEAD FREE SEE NOTE 16	E	02	02	02	02	01	02	02	02	02	02	02	
	D	02	02	02	02	02	02	02	02	02	02	02	
	C	02	02	02	02	02	02	02	02	02	02	02	
	B	02	02	02	02	03	02	02	02	02	03	02	
	A	02	02	02	02	02	02	02	02	02	02	02	
	GND	02	02	02	02	02	02	02	02	02	02	02	
63743-X009 *RPU FOR LEAD FREE SEE NOTE 16	E	06	05	06	05	06	05	06	05	06	05	06	
	D	06	06	06	06	06	05	06	05	05	05	05	
	C	06	05	05	05	05	05	06	05	05	05	05	
	B	06	05	05	05	05	05	06	05	05	05	05	
	A	06	05	05	05	05	05	06	05	05	05	05	
	GND	31	31	31	31	31	31	31	31	31	31	31	
63743-X010 FOR LEAD FREE SEE NOTE 16	E	55	55	02	02	02	02	55	55	55	55	55	
	D	55	55	02	02	02	02	55	55	55	55	55	
	C	55	55	02	02	02	02	55	55	55	55	55	
	B	55	55	02	02	02	02	55	55	55	55	55	
	A	55	55	02	02	02	02	55	55	55	55	55	
	GND	55	55	02	02	02	02	55	55	55	55	55	

PCB THICKNESS RANGE FOR REAR PLUG UP APPLICATIONS: 3.25 - 4.99 FOR METRAL 1000 RECEPTACLE APPLICATIONS AND 3.30 - 4.95 FOR METRAL 4000 APPLICATIONS


NOT A STANDARD METRAL 1000 OR METRAL 4000 APPLICATION

mat'l code SEE NOTE 5		tolerances unless otherwise specified		CUSTOMER	www.fciconnect.com
ltr	ecr no.	dr	date	COPY	
U				projection	
				angles	
				dr	
				engr	
				chr	
				appd	
sheet index	revision sheet				product family
					METRAL 1000
					code
					213
					size
					dwg no
					63743
					sheet
					5

PRODUCT NUMBER  
SEE SHEET 1

NOTES:

- 1. SEE APPLICATION SPECIFICATION GS-20-010 FOR INFORMATION ON AVAILABLE TOOLING, CIRCUIT 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 950511-029 FOR "ELECTRICAL PERFORMANCE DATA FOR SINGLE-ENDED APPLICATION."
- 4. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS AND TOLERANCES ARE IN ACCORDANCE WITH ASME Y14.5, 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 IN CONTACT AREAS MEET PERFORMANCE LEVELS SHOWN IN TABLE ON SHEET 1.  
PLATING ON "LF" TAILS IS Sn ONLY, ALL OTHERS ARE 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-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
- 8. THE MIN PCB THICKNESS FOR REAR PLUG-UP APPLICATIONS IS 2.9mm SINCE THE COMPLIANT 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.

- 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 63743-XXXXLF  

  - LEAD FREE (OPTIONAL)
  - SELECT LOAD PATTERN
  - PLATING CODE
- 14. A PLATING HAS Au FLASH IN PRESS-FIT AREA (LEAD FREE).
- 15. THE PRODUCTS WHERE THE PART NUMBER ENDS IN LF MEET THE 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.

- 16. FOR LEAD FREE PART NUMBERS, ADD AN "LF" SUFFIX.  
EXAMPLE: 63743-X01LF
- 17. EQUIVALENT PRECIOUS METAL PLATINGS MAY BE SUBSTITUTED.
- 18. 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 ±0.3	COPY	title	
U					0.XX ±0.13	projection	VERTICAL SIGNAL HDR 5 ROW	
				angles	.XXX ±.051		P.F. 60 POS. SELECT LOAD STD.	
				dr	0° ±2°	MM	product family	METRAL 1000
				enrg	K. BELL 2000-03-15	← MM →	size	dwg no
				chr	M. HAHN 2000-03-15	scale	A	63743
				appd	M. HAHN 2000-03-15	1:1	code	213
sheet index	revision sheet						sheet	6

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