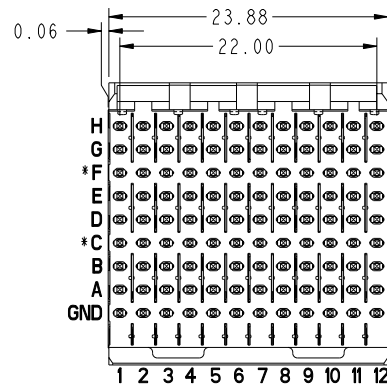
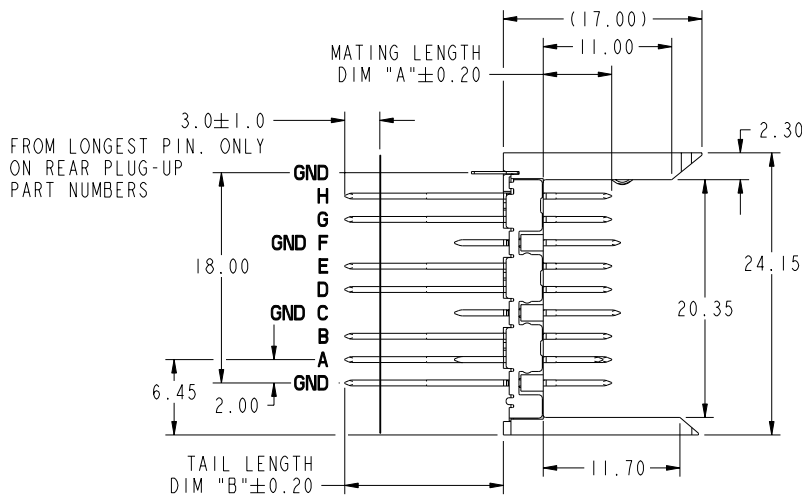
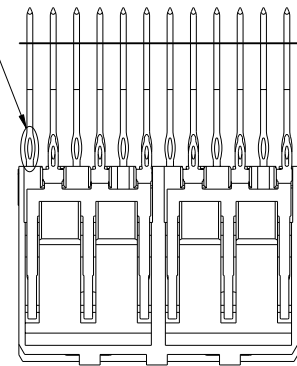


PRODUCT NUMBER	PLATING PERFORMANCE LEVEL	APPLICATION
63741-1YY	TELCORDIA CO	STANDARD
63741-1YYLF		LEAD FREE
63741-5YY	TELCORDIA UE	STANDARD
63741-5YYLF		LEAD FREE



DETAIL A
SCALE 4:1
SEE NOTE 17



***ROW C AND F INFORMATION**
ODD NUMBER COLUMNS WITHIN ROW C & F ARE COMMONED TO GROUND INTERNALLY WITHIN THE HOUSING. THE EVEN NUMBER COLUMNS WITHIN ROW C & F ARE NOT. FOR MAXIMUM PERFORMANCE IT IS RECOMMENDED THESE EVEN COLUMNS BE GROUND COMMONED WITHIN PCB. SEE NOTE 14

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	
P	V06-0498	DCH	2006-05-30	linear	0.XX ±0.13	projection	title VERTICAL SIGNAL HDR 8 ROW P.F. 96 POS. SELECT LOAD EXT.
R	V07-0181	DCH	2007-04-20	angles	.XXX ±.051	MM	
S	V08-0010	HTB	2008-01-07	angles	0° ±2°	scale	product family METRAL 2000 code size dwg no 63741 sheet 1 of 6
T	V08-0023	LP	2008-1-23	dr	E. KROPER. 2001-01-15	1:1	
-	-	-	-	engr	J. VOLSTORF 2001-01-15		
M	V03-1156	TAB	2003-10-31	chr	J. VOLSTORF 2001-01-15		
N	V05-0814	VS	2005-09-21	oppd	J. VOLSTORF 2001-01-15		
sheet index	revision sheet	T	T	T	T	T	T
		1	2	3	4	5	6



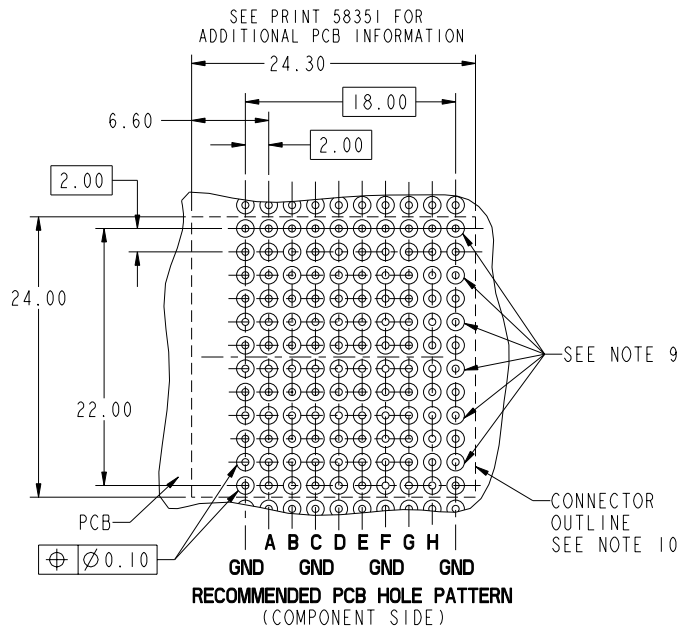
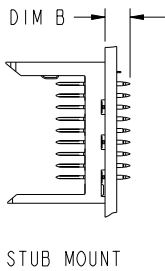
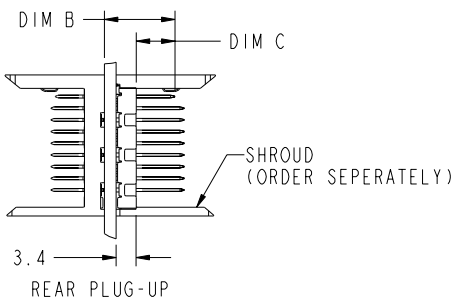
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PRODUCT NUMBER
SEE SHEET 1

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



mat'l code: SEE NOTE 5				tolerances unless otherwise specified		CUSTOMER		FCJ	
lfr	ecm no.	dr	date	linear	0.X ± 0.3	projection	www.fcjconnect.com		
T				angles	0.XX ± 0.13		title		
					.XXX ± .051		VERTICAL SIGNAL HDR 8 ROW		
				dr	0° ± 2°		P.F. 96 POS. SELECT LOAD EXT.		
				engr	E. KROPER. 2001-01-15		product family		code
				chr	J. VOLSTORF 2001-01-15		METRAL 2000		213
				appd	J. VOLSTORF 2001-01-15		size		sheet
sheet index	revision sheet					scale	dwg no		2
						1:1	63741		

REV E - 2004-04-18

1 | 2

Pro/E

3 |

cage code 22526

4

PDM: Rev:T STATUS: Released Printed: Dec 17, 2009



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PIN CODE NO.	DIM A MATING LENGTH	DIM B TAIL LENGTH	PCB THICKNESS RANGE ACCOMMODATED BY PIN'S TAIL LENGTH				
			WHEN MATING TO A 74981 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
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
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
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

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

mat'l code: SEE NOTE 5		tolerances unless otherwise specified		CUSTOMER		FCJ www.fcjconnect.com	
lfr	ecm no.	dr	date	linear	0.X ± 0.3	projection	title
T				angles	0.XX ± 0.13		VERTICAL SIGNAL HDR 8 ROW
					.XXX ± .051		P.F. 96 POS. SELECT LOAD EXT.
					0° ± 2°		product family
				dr	E. KROPER. 2001-01-15	MM	METRAL 2000
				engr	J. VOLSTORF 2001-01-15	scale	code
				ctr	J. VOLSTORF 2001-01-15	1:1	213
				appd	J. VOLSTORF 2001-01-15	A	sheet
sheet index	revision sheet						3
							size
							63741
							dwg no
							22526
							4



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PIN NO.	DIM A MATING LENGTH	DIM B TAIL LENGTH	PCB THICKNESS RANGE ACCOMMODATED BY PIN LENGTH				
			WHEN MATING TO A 74981 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

* 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		FCJ		www.fcjconnect.com	
lfr	ecm no.	dr	date	linear	0.X ±0.3	projection	COPY				
T				angles	0.XX ±0.13			title			
					.XXX ±.051			VERTICAL SIGNAL HDR 8 ROW			
				dr	0° ±2°	MM	product family	METRAL 2000		code	213
				engr	E. KROPER. 2001-01-15	scale	size	dwg no	63741	sheet	4
				chr	J. VOLSTORF 2001-01-15	1:1					
				oppd	J. VOLSTORF 2001-01-15						
sheet index	revision sheet										

REV E - 2004-04-18

PDM: Rev:T STATUS:Released Printed: Dec 17, 2009



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SELECT LOAD PATTERNS												
METRAL P/N	CONTACT CODE											
ROW	1	2	3	4	5	6	7	8	9	10	11	12
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	03	03	03	03	03	03	03	03	03	03	03	03
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	03	03	03	03	03	03	03	03	03	03	03	03
B	02	02	02	02	02	02	02	02	02	02	02	02
A	01	02	02	02	02	02	02	02	02	02	02	02
GND	02	02	02	02	02	02	02	02	02	02	02	02

METRAL P/N	CONTACT CODE											
ROW	1	2	3	4	5	6	7	8	9	10	11	12
H	49	49	49	49	49	49	49	49	49	49	49	49
G	49	49	49	49	49	49	49	49	49	49	49	49
F	41	41	41	41	41	41	41	41	41	41	41	41
E	49	49	49	49	49	49	49	49	49	49	49	49
D	49	49	49	49	49	49	49	49	49	49	49	49
C	41	41	41	41	41	41	41	41	41	41	41	41
B	49	49	49	49	49	49	49	49	49	49	49	49
A	48	49	49	49	49	49	49	49	49	49	49	49
GND	49	49	49	49	49	49	49	49	49	49	49	49

METRAL P/N	CONTACT CODE											
ROW	1	2	3	4	5	6	7	8	9	10	11	12
H	02	02	02	02	02	02	02	02	02	02	02	01
G	03	03	03	03	03	03	03	03	03	03	03	03
F	04	04	04	04	04	04	04	04	04	04	04	04
E	02	02	02	02	02	02	02	02	02	02	02	02
D	03	03	03	03	03	03	03	03	03	03	03	03
C	04	04	04	04	04	04	04	04	04	04	04	04
B	02	02	02	02	02	02	02	02	02	02	02	02
A	03	03	03	03	03	03	03	03	03	03	03	03
GND	02	02	02	02	02	02	02	02	02	02	02	02

METRAL P/N	CONTACT CODE											
ROW	1	2	3	4	5	6	7	8	9	10	11	12
H	02	02	02	02	02	02	02	02	02	02	02	02
G	03	03	03	03	03	03	03	03	03	03	03	03
F	04	04	04	04	04	04	04	04	04	04	04	04
E	02	02	02	02	02	02	02	02	02	02	02	02
D	03	03	03	03	03	03	03	03	03	03	03	03
C	04	04	04	04	04	04	04	04	04	04	04	04
B	02	02	02	02	02	02	02	02	02	02	02	02
A	01	03	03	03	03	03	03	03	03	03	03	03
GND	02	02	02	02	02	02	02	02	02	02	02	02

PCB THICKNESS RANGE FOR REAR PLUG UP APPLICATIONS: 5.50 - 6.80

3 |

METRAL P/N	CONTACT CODE											
ROW	1	2	3	4	5	6	7	8	9	10	11	12
H	25	25	25	25	25	25	25	25	25	25	25	25
G	24	24	24	24	24	24	24	24	24	24	24	24
F	12	12	12	12	12	12	12	12	12	12	12	12
E	25	25	25	25	25	25	25	25	25	25	25	25
D	24	24	24	24	24	24	24	24	24	24	24	24
C	12	12	12	12	12	12	12	12	12	12	12	12
B	49	25	25	25	25	25	25	25	25	25	25	25
A	48	24	24	24	24	24	24	24	24	24	24	24
GND	49	49	49	49	49	49	49	49	49	49	49	49

PCB THICKNESS RANGE FOR REAR PLUG UP APPLICATIONS: 5.70 - 7.20 FOR METRAL 1000 APPLICATIONS (RECEPTACLE) ADD 6.00 - 7.20 FOR METRAL 4000 APPLICATIONS.

METRAL P/N	CONTACT CODE											
ROW	1	2	3	4	5	6	7	8	9	10	11	12
H	49	49	49	49	49	49	49	49	49	49	49	49
G	49	49	49	49	49	49	49	49	49	49	49	49
F	41	41	41	41	41	41	41	41	41	41	41	41
E	49	49	49	49	49	49	49	49	49	49	49	49
D	49	49	49	49	49	49	49	49	49	49	49	49
C	41	41	41	41	41	41	41	41	41	41	41	41
B	49	49	49	49	49	49	49	49	49	49	49	49
A	35	49	49	49	49	49	49	49	49	49	49	49
GND	36	36	36	36	36	36	36	36	36	36	36	36

PCB THICKNESS RANGE FOR REAR PLUG UP APPLICATIONS: 4.75 - 6.45 FOR METRAL 1000 APPLICATIONS (RECEPTACLE) ADD 4.80 - 6.45 FOR METRAL 4000 APPLICATIONS.


*REAR PLUG-UP PART NUMBER

mat'l code	SEE NOTE 5	tolerances unless otherwise specified	CUSTOMER	FCI www.fciconnect.com
ltr	ecn no.	dr	date	
T				
		linear	0.X ±0.3	projection
		angles	.XXX ±.051	
			0° ±2°	
		dr	E. KROPER. 2001-01-15	product family
		engr	J. VOLSTORF 2001-01-15	METRAL 2000
		chr	J. VOLSTORF 2001-01-15	code
		appd	J. VOLSTORF 2001-01-15	213
sheet index	revision sheet			sheet 5
			scale	1:1
			size	A
			dwg no	63741
			code	22526

PRODUCT NUMBER
SEE SHEET 1

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 950511-028 FOR "ELECTRICAL PERFORMANCE DATA FOR SINGLE-ENDED APPLICATION."
- UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS AND TOLERANCES ARE IN ACCORDANCE WITH ASME Y14.5M, 1994
- HOUSING MATERIAL: LIQUID CRYSTAL POLYMER, 30% GLASS FILLED, FLAME RETARDANT PER UL 94-V0.
PIN MATERIAL: PHOSPHOR BRONZE
GROUND SPRING MATERIAL: PHOSPHOR BRONZE
STRIPLINE SHIELD 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-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 ROWS 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 ROWS C & F
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 63741-XYLF

- FOR FRONT PLUG-UP APPLICATIONS, THE EVEN NUMBERED PINS IN ROW 'C' & 'F' CAN BE USED FOR POWER AS WELL AS FOR GROUND. IF THE SURROUNDING PINS ARE NOT USED FOR POWER, THEN EACH PIN CAN CARRY 3 AMPS. IF THE SURROUNDING PINS ARE USED FOR POWER, THEN EACH PIN CAN CARRY 1 AMP. WHEN THE SURROUNDING PINS ARE USED ONLY FOR LOW SPEED SIGNALS, THEN THE EVEN NUMBERED 'C' AND 'F' ROW PINS CAN ALSO BE USED FOR LOW SPEED SIGNALS. THIS IS NOT TRUE FOR REAR PLUG-UP APPLICATIONS USING METRAL 2000 SHROUD AS IN THIS CASE ALL 'C' AND 'F' ROW PINS ARE COMMON TO GROUND.
- PRODUCTS WHERE THE PART NUMBERS ENDS 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: 63741-XYLF
- 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	ecm no.	dr	date	linear	0.X ± 0.3	projection	COPY		
					0.XX ± 0.13		title VERTICAL SIGNAL HDR 8 ROW		
				angles	.XXX ± .051		P.F. 96 POS. SELECT LOAD EXT.		
					0° ± 2°	MM	product family METRAL 2000		
				dr	E. KROPER. 2001-01-15	scale	size		code
				eng	J. VOLSTORF 2001-01-15	1:1	dwg no		213
				chr	J. VOLSTORF 2001-01-15		63741		sheet
				appd	J. VOLSTORF 2001-01-15				6
sheet index	revision sheet								



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