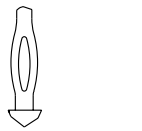
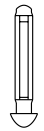
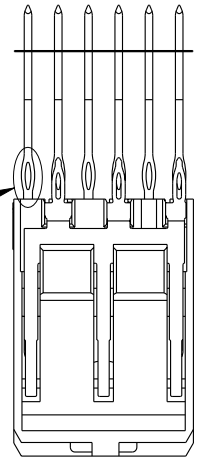
PRODUCT NUMBER	PLATING PERFORMANCE LEVEL	APPLICATION	FOR REAR PLUG-UP APPLICATIONS USE SHROUD
55499-1YYY	TELCORDIA CO	STANDARD	84621-101
55499-1YYYLF		LEAD FREE	84621-101LF
55499-5YYY	TELCORDIA UE	STANDARD	84621-501
55499-5YYYLF		LEAD FREE	84621-501LF



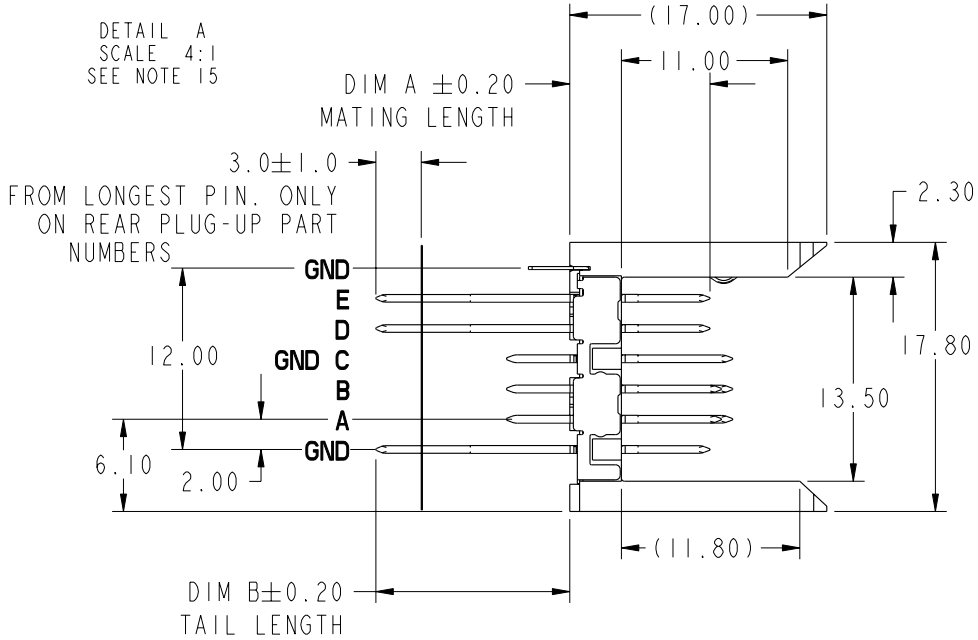
EYE OF NEEDLE
PRESS FIT SECTION

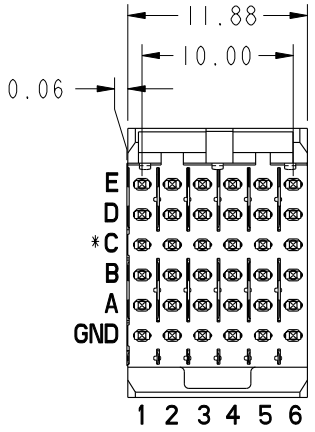


BABY-H
PRESS FIT SECTION



DETAIL A
SCALE 4:1
SEE NOTE 15





*ROW C INFORMATION

ODD NUMBER COLUMNS WITHIN ROW C ARE COMMONED TO GROUND INTERNALLY WITHIN THE HOUSING. THE EVEN NUMBER COLUMNS WITHIN ROW C ARE NOT. FOR MAXIMUM PERFORMANCE IT IS RECOMMENDED THESE EVEN COLUMNS BE GROUND COMMONED WITHIN PCB. SEE NOTE 12.

ltr	ecn no.	dr	date
M	V06-0492	DCH	2006-05-23
N	V07-0184	DCH	2007-04-23
P	V07-0688	HTB	2007-11-20
R	V08-0008	LP	2008/1/21
-	-	-	-
K	V03-1156	TAB	2003-10-29
L	V05-0814	VS	2005-09-20

sheet index	revision							
	sheet	1	2	3	4	5	6	

mat'l code SEE NOTE 5

tolerances unless otherwise specified		
linear	0.X ±0.3	
	0.XX ±0.13	
	0.XXX ±.051	
angles	0° ±2°	
dr	E. KROPER	2001-06-20
engr	J.VOLSTORF	2001-06-20
chr	J. VOLSTORF	2001-06-20
appd	J. VOLSTORF	2001-06-20

CUSTOMER COPY

projection

MM

scale 1:1

FCI www.fciconnect.com

title VERTICAL SIGNAL HDR 5 ROW P.F. 30 POS. SELECT LOAD STD.

product family METRAL 2000 code 213

size A dwg no 55499 sheet 1 of 6

cage code 22526

REV E - 2006-04-18

Pro/E

PDM: Rev:R STATUS: Released Printed: May 13, 2011

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
3*	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

* 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		
ltr	ecn no.	dr	date
R			

tolerances unless otherwise specified		
linear	0.X ±0.3	
	0.XX ±0.13	
	0.XXX ±.051	
angles	0° ±2°	
dr	E. KROPER	2001-06-20
engr	J.VOLSTORF	2001-06-20
chr	J. VOLSTORF	2001-06-20
appd	J. VOLSTORF	2001-06-20

CUSTOMER COPY

projection

MM

scale 1:1

FCI www.fciconnect.com

title VERTICAL SIGNAL HDR 5 ROW P.F. 30 POS. SELECT LOAD STD.

product family METRAL 2000 | code 213

size A | dwg no 55499 | sheet 2

cage code 22526

sheet index	revision sheet

REV E - 2006-04-18

Pro/E

PDM: Rev:R STATUS: Released Printed: May 13, 2011

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*		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	7.25	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*		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	8.00	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 THAN 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 ±0.3		COPY	
R					0.XX ±0.13		projection	title VERTICAL SIGNAL HDR 5 ROW P.F. 30 POS. SELECT LOAD STD.
					0.XXX ±.051			
				angles	0° ±2°			
				dr	E. KROPER	2001-06-20	MM	product family METRAL 2000 code 213
				engr	J.VOLSTORF	2001-06-20		
				chr	J. VOLSTORF	2001-06-20	scale 1:1	size A dwg no 55499 sheet 3
				appd	J. VOLSTORF	2001-06-20		
sheet index	revision sheet							cage code 22526

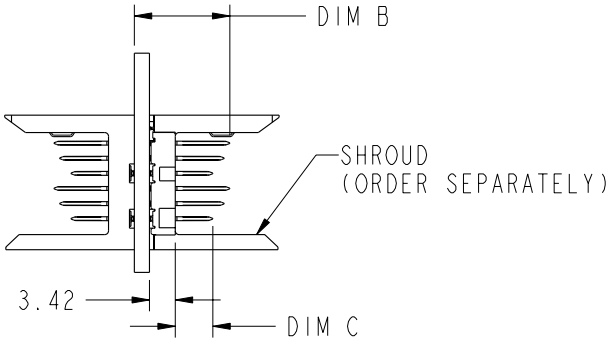
REV E - 2006-04-18

Pro/E

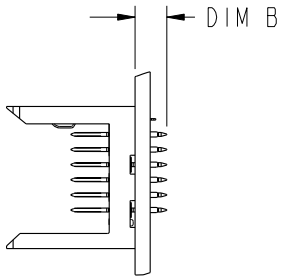
PDM: Rev:R STATUS: Released Printed: May 13, 2011

PRODUCT NUMBER
SEE SHEET 1

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

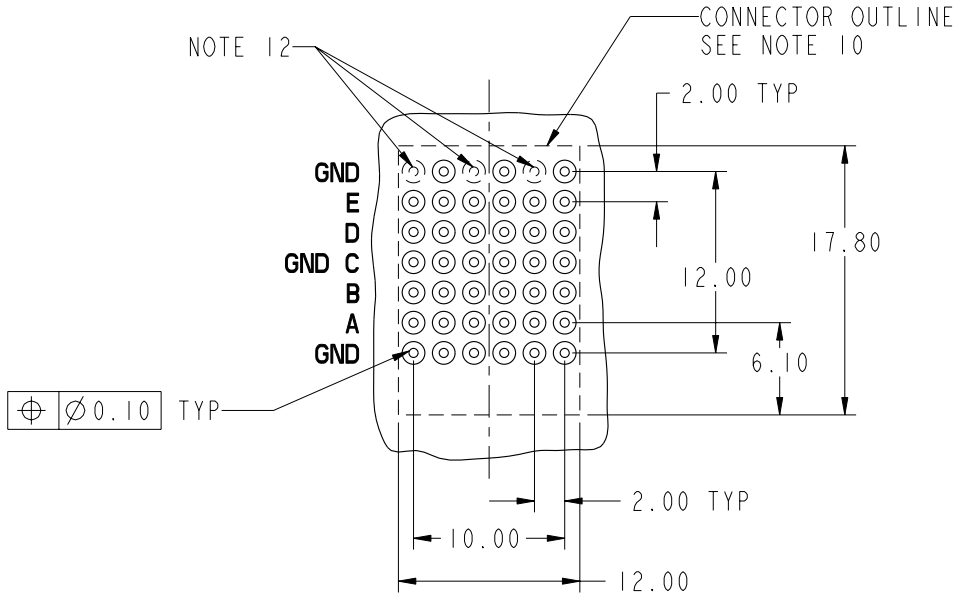


REAR PLUG-UP



STUB MOUNT

SEE PRINT 58351 FOR ADDITIONAL PCB INFORMATION



RECOMMENDED PCB HOLE PATTERN
(COMPONENT SIDE)

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	
R					0.XX ±0.13		projection	title VERTICAL SIGNAL HDR 5 ROW P.F. 30 POS. SELECT LOAD STD.
					0.XXX ±.051			
				angles	0° ±2°			
				dr	E. KROPER	2001-06-20	MM	product family METRAL 2000 code 213
				engr	J.VOLSTORF	2001-06-20		
				chr	J. VOLSTORF	2001-06-20	scale 1:1	size A dwg no 55499 sheet 4
				appd	J. VOLSTORF	2001-06-20		
sheet index	revision sheet							

cage code 22526

REV E - 2006-04-18

Pro/E

PDM: Rev:R STATUS: Released Printed: May 13, 2011

SELECT LOAD PATTERNS

PRODUCT #	ROW	COLUMN					
		1	2	3	4	5	6
55499-X001 ** SEE NOTE 14 LEAD FREE OPTION	E	02	02	02	02	02	02
	D	02	02	02	02	02	02
	C	04	04	04	04	04	04
	B	03	03	04	03	03	04
	A	03	03	04	03	03	04
	GND	02	02	02	02	02	02

PRODUCT #	ROW	COLUMN					
		1	2	3	4	5	6
55499-X002 SEE NOTE 14 LEAD FREE OPTION	E	03	03	03	03	03	03
	D	02	03	03	03	03	02
	C	04	04	04	04	04	04
	B	03	03	03	03	03	03
	A	03	03	03	03	03	03
	GND	02	02	02	02	02	02

PRODUCT #	ROW	COLUMN					
		1	2	3	4	5	6
55499-X003 SEE NOTE 14 LEAD FREE OPTION	E	02	02	02	02	02	02
	D	02	02	02	02	02	02
	C	02	02	02	02	02	02
	B	02	02	02	02	02	02
	A	02	02	02	02	02	02
	GND	-	01	01	01	01	-

PRODUCT #	ROW	COLUMN					
		1	2	3	4	5	6
55499-X004 SEE NOTE 14 LEAD FREE OPTION	E	02	02	02	02	02	02
	D	02	02	02	02	02	02
	C	02	02	02	02	02	04
	B	02	02	02	02	02	02
	A	02	02	02	02	02	02
	GND	02	02	02	02	02	02

SELECT LOAD PATTERNS

PRODUCT #	ROW	COLUMN					
		1	2	3	4	5	6
55499-X005 SEE NOTE 14 LEAD FREE OPTION	E	02	02	02	02	02	02
	D	02	02	02	02	02	02
	C	04	02	02	02	02	02
	B	02	02	02	02	02	02
	A	02	02	02	02	02	02
	GND	02	02	02	02	02	02

PRODUCT #	ROW	COLUMN					
		1	2	3	4	5	6
55499-X006 ** SEE NOTE 14 LEAD FREE OPTION	E	02	02	02	02	02	04
	D	02	02	02	02	02	04
	C	02	02	02	02	02	04
	B	02	02	02	02	02	04
	A	02	02	02	02	02	04
	GND	02	02	02	02	02	02

PRODUCT #	ROW	COLUMN					
		1	2	3	4	5	6
55499-X007 ** SEE NOTE 14 LEAD FREE OPTION	E	04	02	02	02	02	02
	D	04	02	02	02	02	02
	C	04	02	02	02	02	02
	B	04	02	02	02	02	02
	A	04	02	02	02	02	02
	GND	02	02	02	02	02	02

** CANNOT BE MATED WITH METRAL 4000 RECEPTACLE.

ltr	ecn no.	dr	date
R			

sheet index	revision sheet

mat'l code SEE NOTE 5

tolerances unless otherwise specified

linear	0.X ±0.3	
	0.XX ±0.13	
	0.XXX ±.051	
angles	0° ±2°	
dr	E. KROPER	2001-06-20
engr	J.VOLSTORF	2001-06-20
chr	J. VOLSTORF	2001-06-20
appd	J. VOLSTORF	2001-06-20

CUSTOMER COPY

projection

MM

scale 1:1

www.fciconnect.com

title VERTICAL SIGNAL HDR 5 ROW P.F. 30 POS. SELECT LOAD STD.

product family METRAL 2000 | code 213

size A | dwg no 55499 | sheet 5

cage code 22526

REV E - 2006-04-18

Pro/E

PDM: Rev:R 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 95011-028 FOR "ELECTRICAL PERFORMANCE DATA FOR DIFFERENTIAL APPLICATIONS."

3. SEE FCI PUBLICATION 95011-029 FOR "ELECTRICAL PERFORMANCE DATA FOR SINGLE-ENDED APPLICATION."

4. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS AND TOLERANCES ARE INACCORDANCE 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
STRIPLINE SHIELD MATERIAL: PHOSPHER BRONZE

6. 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.

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 COMPLAINT SECTIONS OF THE GROUNG SPRING OF THE HEADER DIRECTLY OPOSE 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. P/N 55499-X YYY LF
   - X — PLATING CODE
   - YYY — SELECT LOAD PATTERN
   - LF — LEAD FREE (OPTIONAL)

(12.) FOR FRONT PLUG-UP APPLICATIONS, THE EVEN NUMBERED PINS IN ROW 'C' 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' 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' ROW PINS ARE COMMON TO GROUND.

13. 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.

(14) FOR LEAD FREE PART NUMBERS ADD 'LF' SUFFIX.
EXAMPLE: 55499-XYYYLF

(15) 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				COPY	
R				linear	0.X ±0.3		projection	title VERTICAL SIGNAL HDR 5 ROW P.F. 30 POS. SELECT LOAD STD.
					0.XX ±0.13			
					0.XXX ±.051			
				angles	0° ±2°			
				dr	E. KROPER	2001-06-20	MM	product family METRAL 2000 code 213
				engr	J.VOLSTORF	2001-06-20		
				chr	J. VOLSTORF	2001-06-20	scale	size A dwg no 55499 sheet 6
				appd	J. VOLSTORF	2001-06-20	1:1	
sheet index	revision sheet							cage code 22526