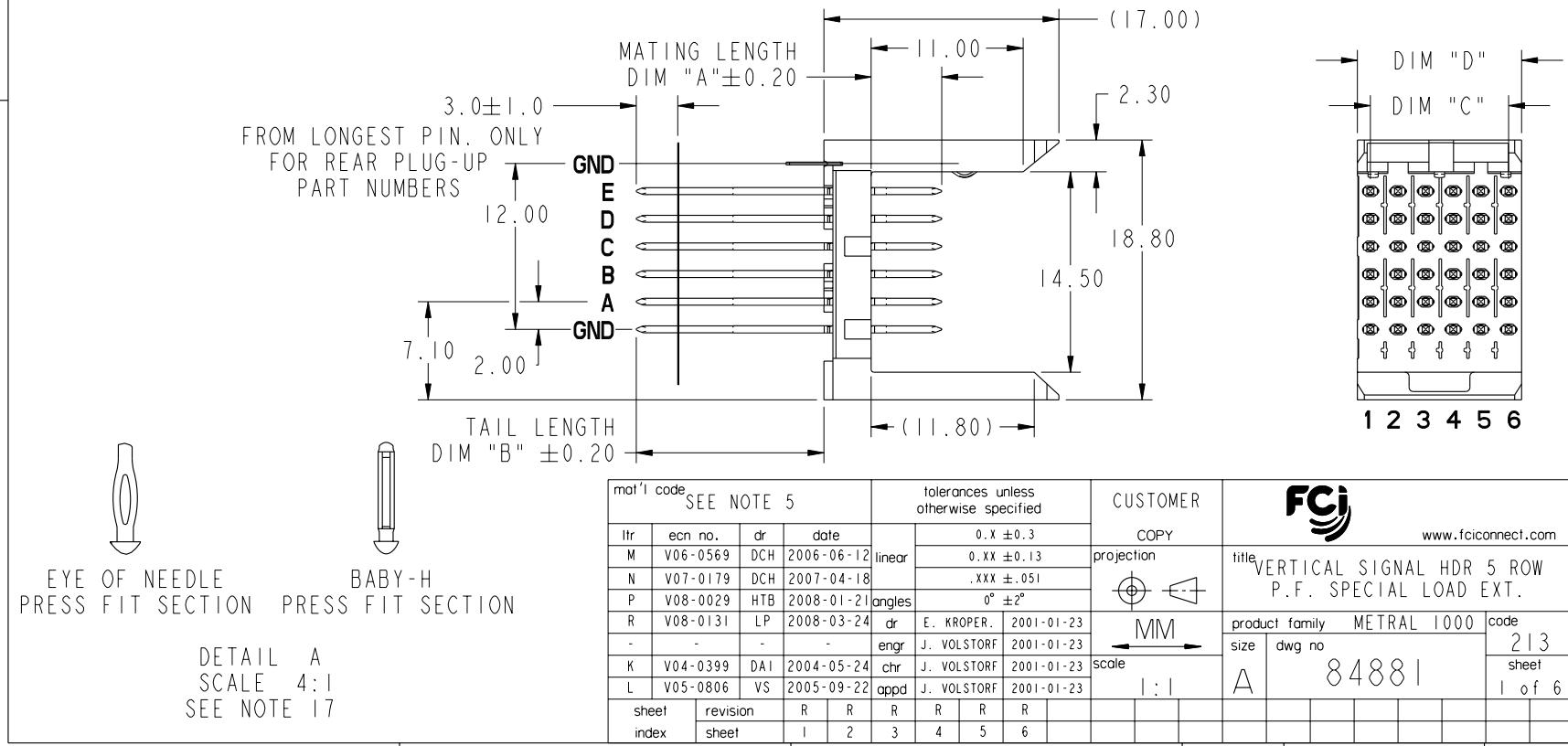
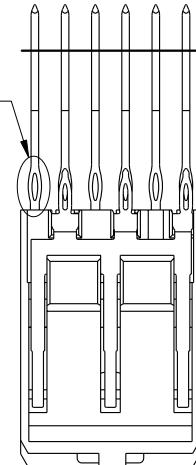


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| PRODUCT NUMBER | MATING CONTACT AREA PLATING PERFORMANCE | SHROUD TO USE FOR REAR-PLUG-UP APPLICATIONS | CONNECTOR SIZE | PIN FIELD DIM C | LENGTH DIM D | PRESS FIT TAIL PLATING |
|----------------|---|---|----------------|-----------------|--------------|------------------------|
| 84881-101ZZZ | TELCORDIA CO | 84818-101 | 1 MOD | 10.00 | 11.88 | STANDARD |
| 84881-101ZZZLF | | 84818-101LF | | | | LEAD FREE |
| 84881-102ZZZ | | 84818-102 | 2 MOD | 22.00 | 23.88 | STANDARD |
| 84881-102ZZZLF | | 84818-102LF | | | | LEAD FREE |
| 84881-103ZZZ | | 84818-103 | 3 MOD | 34.00 | 35.88 | STANDARD |
| 84881-103ZZZLF | | 84818-103LF | | | | LEAD FREE |
| 84881-104ZZZ | | 84818-104 | 4 MOD | 46.00 | 47.88 | STANDARD |
| 84881-104ZZZLF | | 84818-104LF | | | | LEAD FREE |
| 84881-501ZZZ | TELCORDIA UE | 84818-101 | 1 MOD | 10.00 | 11.88 | STANDARD |
| 84881-501ZZZLF | | 84818-101LF | | | | LEAD FREE |
| 84881-502ZZZ | | 84818-102 | 2 MOD | 22.00 | 23.88 | STANDARD |
| 84881-502ZZZLF | | 84818-102LF | | | | LEAD FREE |
| 84881-503ZZZ | | 84818-103 | 3 MOD | 34.00 | 35.88 | STANDARD |
| 84881-503ZZZLF | | 84818-103LF | | | | LEAD FREE |
| 84881-504ZZZ | | 84818-104 | 4 MOD | 46.00 | 47.88 | STANDARD |
| 84881-504ZZZLF | | 84818-104LF | | | | LEAD FREE |

SEE DETAIL A



| PIN NO. | DIM A MATING LENGTH | DIM B TAIL LENGTH | PCB THICKNESS RANGE ACCOMMODATED BY PIN'S TAIL LENGTH | | | | |
|---------|---------------------------|-------------------------|--|-------------|---|-------------|-------------|
| | | | WHEN MATING TO A 84854 METRAL 1000 SERIES RECEPTACLE | | WHEN MATING TO A 52062 METRAL 4000 SERIES 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 | ecn no. | dr | date | linear | 0. X \pm 0.3 | | COPY | | title VERTICAL SIGNAL HDR 5 ROW P. F. SPECIAL LOAD EXT. | | | |
| R | | | | | 0. XX \pm 0.13 | | projection | | | | | |
| | | | | | . XXX \pm .051 | |  | | | | | |
| | | | | angles | 0° \pm 2° | | | | | | | |
| | | | | dr | E. KROPER. | 2001-01-23 | MM | product family | | METRAL 1000 | code | |
| | | | | engr | J. VOLSTORF | 2001-01-23 | | size | | dwg no | | 213 |
| | | | | chr | J. VOLSTORF | 2001-01-23 | | scale | | | | sheet |
| | | | | oppd | J. VOLSTORF | 2001-01-23 | | : | | A 8488 | | 2 |
| sheet index | | revision sheet | | | | | | | | | | |
| spec. code | | | | | | | | | | | | |

| PIN NO. | DIM A MATING LENGTH | DIM B TAIL LENGTH | PCB THICKNESS RANGE ACCOMMODATED BY PIN LENGTH | | | | |
|---------|---------------------------|-------------------------|---|-------------|---|-------------|-------------|
| | | | WHEN MATING TO A 84854 METRAL 1000 SERIES RECEPTACLE | | WHEN MATING TO A 52062 METRAL 4000 SERIES 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 |

* 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.

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| mat'l code | | | | tolerances unless otherwise specified | | | CUSTOMER COPY | projection | title |
|------------|---------|----|------|--|------------------------|--|------------------|------------|---------------------------------|
| ltr | ecn no. | dr | date | linear | 0.0 ± 0.3 | | | | |
| R | | | | | 0.00 ± 0.13 | | | | |
| | | | | | .XXX ± .051 | | | | |
| | | | | angles | 0° ± 2° | | | | |
| | | | | dr | E. KROPER. 2001-01-23 | | MM | | product family METRAL 1000 code |
| | | | | engr | J. VOLSTORF 2001-01-23 | | | | 213 |
| | | | | chr | J. VOLSTORF 2001-01-23 | | scale | | dwg no |
| | | | | appd | J. VOLSTORF 2001-01-23 | | | | 84881 |
| | | | | | | | | | sheet |
| | | | | | | | | | 3 |
| | | | | sheet | revision | | | | |
| | | | | index | sheet | | | | |

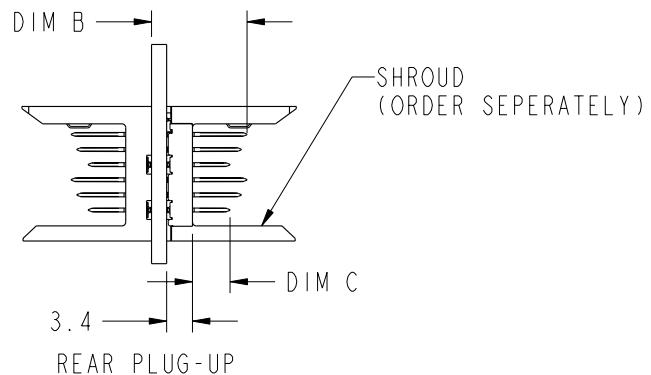
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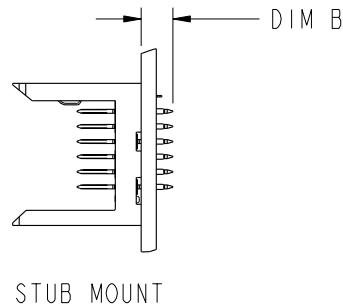


1 | 2

| |
|----------------|
| PRODUCT NUMBER |
| SEE SHEET 1 |



A



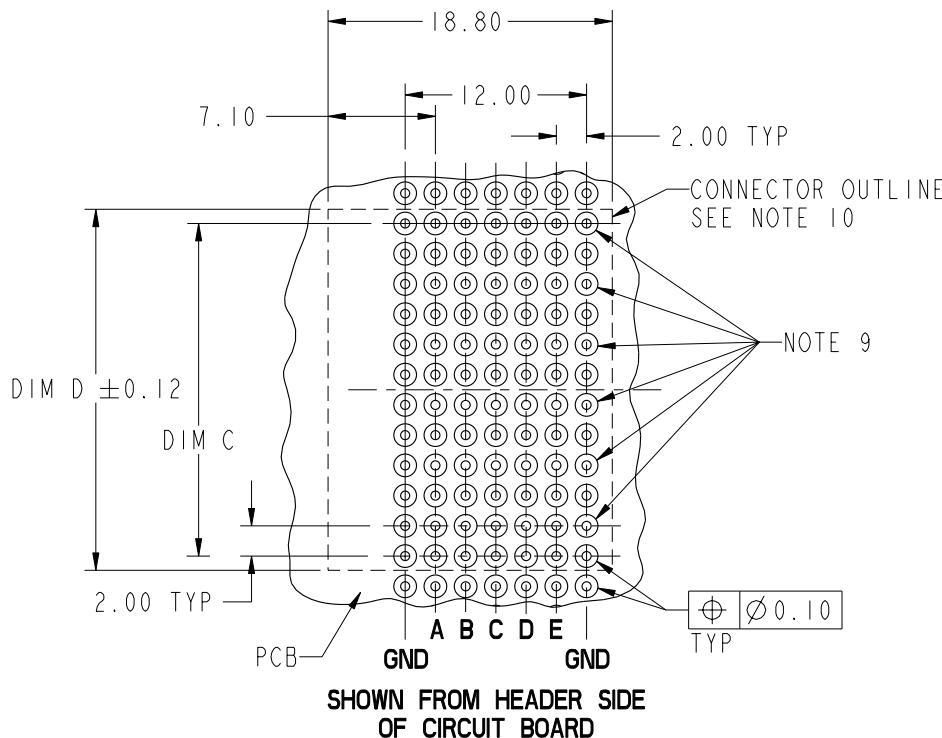
B

3 |

4

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

SEE PRINT 58351 FOR ADDITIONAL
PCB INFORMATION.



| | | | | | | | | | | |
|------------|------------|----|------|--|---------------------------------------|-------------------------|------------------|---|----------------|------|
| mat'l code | SEE NOTE 5 | | | | tolerances unless otherwise specified | | CUSTOMER COPY | title | product family | code |
| ltr | ecn no. | dr | date | | 0. X ± 0.3 | | | | | |
| R | | | | | 0. XX ± 0.13 | | projection | VERTICAL SIGNAL HDR 5 ROW P.F. SPECIAL LOAD EXT. | METRAL 1000 | 213 |
| | | | | | .XXX $\pm .051$ | | | | | |
| | | | | | 0° $\pm 2°$ | | MM | | | |
| | | | | | dr | E. KROPER, 2001-01-23 | | | | |
| | | | | | engr | J. VOLSTORF, 2001-01-23 | | | | |
| | | | | | chr | J. VOLSTORF, 2001-01-23 | | | | |
| | | | | | appd | J. VOLSTORF, 2001-01-23 | | | | |
| | | | | | sheet | | scale | | | |
| | | | | | index | | 1 : 1 | | | |
| | | | | | revision | | | | | |
| | | | | | sheet | | | | | |

1 | 2

Pro/E

3 |

4

cage code
22526

PDM: Rev:R

STATUS: Released Printed: May 13, 2011



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| SPECIAL LOAD PATTERNS | | |
|--|-----|-----------|
| PRODUCT # | ROW | PIN CODES |
| 84881-XYY001 SEE NOTE 16 LEAD FREE OPTION | E | 01 |
| | D | |
| | C | |
| | B | |
| | A | |
| | GND | |
| 84881-XYY011 SEE NOTE 16 LEAD FREE OPTION | E | 02 |
| | D | |
| | C | |
| | B | |
| | A | |
| | GND | |
| 84881-XYY021 SEE NOTE 16 LEAD FREE OPTION | E | 03 |
| | D | |
| | C | |
| | B | |
| | A | |
| | GND | |
| 84881-XYY050 *RPU ** SEE NOTE 16 LEAD FREE OPTION | E | 19 |
| | D | |
| | C | |
| | B | |
| | A | |
| | GND | |

* REAR PLUG-UP PART NUMBERS

** CANNOT BE MATED WITH
METRAL 4000 RECEPTACLE.

| | | | | | | | | | | | |
|--------------------------|---------|----------|-------------|--|--------------|------------|---|--|------|--------|-----|
| mat'l code SEE NOTE 5 | | | | tolerances unless otherwise specified | | CUSTOMER |  | www.fciconnect.com | | | |
| Itr | ecn no. | dr | date | linear | 0. X ± 0.3 | | | | COPY | | |
| R | | | | | 0. XX ± 0.13 | projection | title | VERTICAL SIGNAL HDR 5 ROW P. F. SPECIAL LOAD EXT. | | | |
| | | | | | .XXX ± .051 | | | | | | |
| | | | | angles | 0° ± 2° | | | | | | |
| | | dr | E. KROPER | | 2001-01-23 | MM | product family | METRAL 1000 | code | | |
| | | engr | J. VOLSTORF | | 2001-01-23 | | | | size | dwg no | 213 |
| | | chr | J. VOLSTORF | | 2001-01-23 | | | | | | |
| | | appd | J. VOLSTORF | | 2001-01-23 | | | | | | |
| sheet | | revision | | | | | | | | | |
| index | | sheet | | | | | | | | | |
| | | | | | | | | code | code | | |

| | |
|----------------|--|
| 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 Y14.5M, 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 AS SHOWN IN TABLE ON SHEET 1.
PLATING ON "LF" TAILS IS Sn, PLATING ON ALL OTHER TAILS IS SnPb.

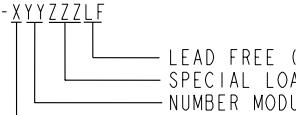
7. DIMENSIONAL RESTRICTIONS OF PINS IN HEADERS.
FOR MATING WITH METRAL 1000 RECEPTACLES
DIM A : 5.00mm MIN, 8.00mm MAX FOR ROWS A-E
DIM A : 5.00mm MIN, 5.75mm MAX FOR ROW GND NEXT TO ROW A
DIM C : 5.00mm MIN, 8.00mm MAX FOR ROWS A-E
DIM C : 4.60mm MIN, 6.30mm MAX FOR ROW GND NEXT TO ROW A
FOR MATING 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 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 84881-XYYYYZZLF



LEAD FREE (OPTIONAL)
SPECIAL LOAD PATTERN
NUMBER MODULES
PLATING CODE

14. P/N 84881-X01ZZZ SHOWN.
15. 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.

16. FOR LEAD FREE PART NUMBERS ADD 'LF' SUFFIX.
EXAMPLE: 84881-XXXXLF
17. 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 | | | | | 0.0 ± 0.3 | | copy | | | | | |
| R | | | | linear | | | | 0.00 ± 0.13 | | projection | | | | | |
| | | | | | | | | .XXX ± .051 | | | | | | | |
| | | | | angles | | | | 0° ± 2° | | | | | | | |
| | | | | | dr | E. KROPER. | 2001-01-23 | | | MM | | product family | METRAL 1000 | code | |
| | | | | | engr | J. VOLSTORF | 2001-01-23 | | | | | size | dwg no | 213 | |
| | | | | | chr | J. VOLSTORF | 2001-01-23 | | | | | sheet | | | |
| | | | | | appd | J. VOLSTORF | 2001-01-23 | | | | | | | | |
| | | | | sheet | revision | | | | | | | | | | |
| | | | | index | sheet | | | | | | | | | | |



A

A

B

B

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