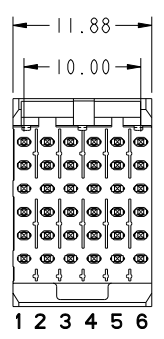
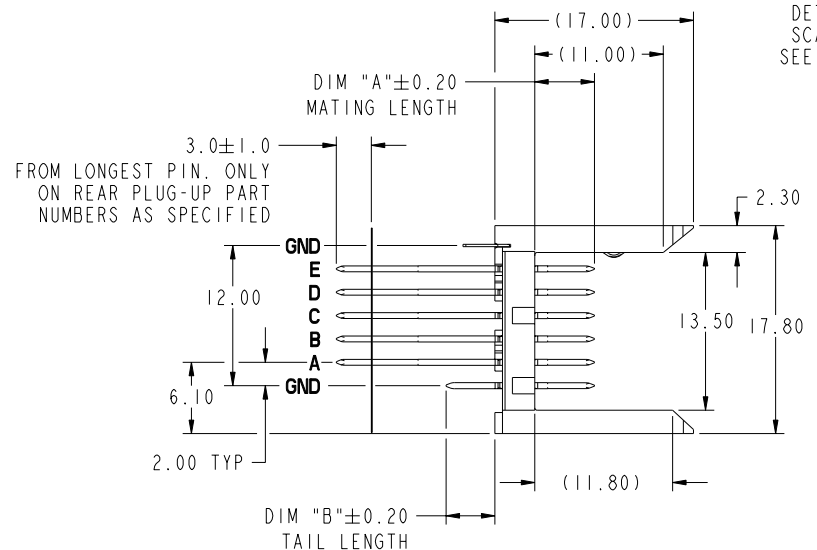
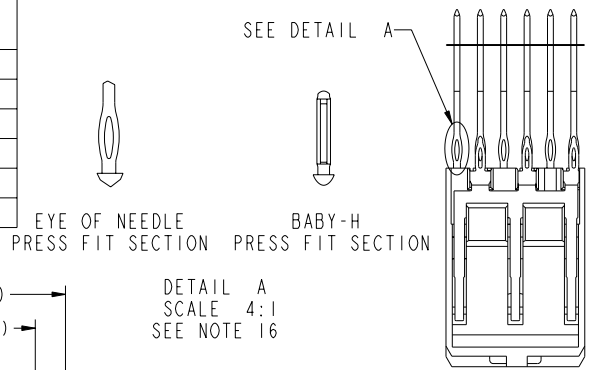




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| PRODUCT NUMBER | PLATING PERFORMANCE LEVEL | APPLICATION | FOR REAR PLUG-UP APPLICATIONS USE SHROUD |
|----------------|---------------------------|-------------|------------------------------------------|
| 74817-1ZZZ     | TELCORDIA CO              | STANDARD    | 84818-104                                |
| 74817-1ZZZLF   |                           | LEAD FREE   | 84818-104LF                              |
| 74817-5ZZZ     | TELCORDIA UE              | STANDARD    | 84818-504                                |
| 74817-5ZZZLF   |                           | LEAD FREE   | 84818-504LF                              |
| 74817-9ZZZ     | TELCORDIA CO              | STANDARD    | 84818-104                                |
| 74817-9ZZZLF   |                           | LEAD FREE   | 84818-104LF                              |



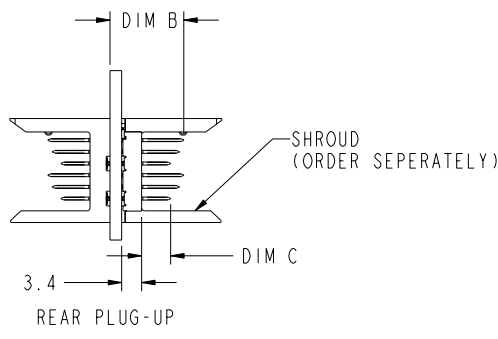
|                        |          |     |            |                                       |         |            |     |            |             |                               |       |                    |    |
|------------------------|----------|-----|------------|---------------------------------------|---------|------------|-----|------------|-------------|-------------------------------|-------|--------------------|----|
| mat'l code: SEE NOTE 5 |          |     |            | tolerances unless otherwise specified |         |            |     | CUSTOMER   |             | FCI                           |       | www.fciconnect.com |    |
| ltr                    | ecm no.  | dr  | date       | 0.X $\pm 0.3$                         |         |            |     | COPY       |             | title                         |       | code               |    |
| AW                     | V08-0141 | LP  | 2008-03-28 | 0.XX $\pm 0.13$                       |         |            |     | projection |             | VERTICAL SIGNAL HDR 5 ROW     |       | 213                |    |
| -                      | -        | -   | -          | .XXX $\pm 0.051$                      |         |            |     | MM         |             | P.F. 30 POS. SELECT LOAD STD. |       | sheet              |    |
| AR                     | V07-0187 | DCH | 2007-04-24 | 0° $\pm 2^\circ$                      |         |            |     | scale      |             | product family                |       | 1 of 9             |    |
| AS                     | V07-0676 | HTB | 2007-11-07 | dr                                    | K. BELL | 2000-03-29 | 2:1 |            | METRAL 1000 |                               | 9     |                    |    |
| AT                     | V07-0697 | LP  | 2007-11-29 | enr                                   | M. HAHN | 2000-03-29 | A   |            | size        |                               | 74817 |                    |    |
| AU                     | V08-0002 | HTB | 2008-01-09 | chr                                   | M. HAHN | 2000-03-29 | A   |            | dwg no      |                               | 74817 |                    |    |
| AV                     | V08-0048 | LP  | 2008-2-1   | oppd                                  | M. HAHN | 2000-03-29 | A   |            | code        |                               | 213   |                    |    |
| sheet index            | revision | AW  | AW         | AW                                    | AW      | AW         | AW  | AW         | AW          | AW                            | AW    | AW                 | AW |
|                        | sheet    | 1   | 2          | 3                                     | 4       | 5          | 6   | 7          | 8           | 9                             |       |                    |    |

Pro/E 3 cage code 22526 4

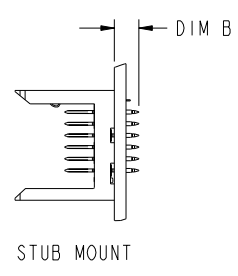
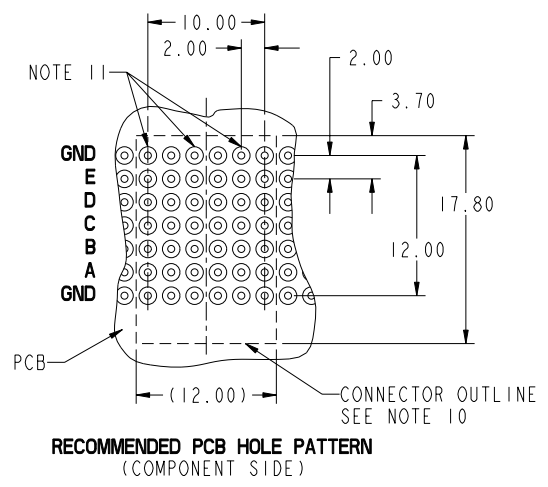
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PRODUCT NUMBER  
SEE SHEET 1

|                             |                           |
|-----------------------------|---------------------------|
| PRESS-FIT HOLES             | OPTION 1                  |
| HOLE DIAMETER AFTER PLATING | 0.65-0.80                 |
| DRILLED HOLE                | 0.81-0.86<br>(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   |                                 | FCJ<br>www.fcjconnect.com |  |
| lfr                    | ecm no.        | dr | date | linear                                | 0.X ±0.3           | projection | COPY                            |                           |  |
| AW                     |                |    |      |                                       | 0.XX ±0.13         |            | title VERTICAL SIGNAL HDR 5 ROW |                           |  |
|                        |                |    |      | angles                                | .XXX ±.051         |            | P.F. 30 POS. SELECT LOAD STD.   |                           |  |
|                        |                |    |      | dr                                    | 0° ±2°             |            | product family METRAL 1000      |                           |  |
|                        |                |    |      | enr                                   | K. BELL 2000-03-29 |            | code 213                        |                           |  |
|                        |                |    |      | chr                                   | M. HAHN 2000-03-29 |            | size dwg no 74817               |                           |  |
|                        |                |    |      | oppd                                  | M. HAHN 2000-03-29 |            | sheet 2                         |                           |  |
| sheet index            | revision sheet |    |      |                                       |                    | scale 2:1  | cage code 22526                 |                           |  |



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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 73981 OR 84688 SERIES METRAL 1000 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    |
| 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 THEN THE OTHER PINS.

|                        |                |                                       |      |            |                                                                                                                                   |
|------------------------|----------------|---------------------------------------|------|------------|-----------------------------------------------------------------------------------------------------------------------------------|
| mat'l code: SEE NOTE 5 |                | tolerances unless otherwise specified |      | CUSTOMER   | www.fcjconnect.com                                                                                                                |
| lfr                    | ecm no.        | dr                                    | date | COPY       |                                                                                                                                   |
| AW                     |                |                                       |      | projection | title VERTICAL SIGNAL HDR 5 ROW P.F. 30 POS. SELECT LOAD STD.<br>product family METRAL 1000 code 213<br>size dwg no 74817 sheet 3 |
|                        |                |                                       |      |            |                                                                                                                                   |
|                        |                |                                       |      |            |                                                                                                                                   |
|                        |                |                                       |      |            |                                                                                                                                   |
| sheet index            | revision sheet |                                       |      |            |                                                                                                                                   |



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| 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    |
| 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         | ecr no.        | dr         | date | linear                                | 0.X ± 0.3          | projection | COPY |     | title                         |                    |       |
| AW          |                |            |      |                                       | .XXX ± 0.13        |            |      |     | VERTICAL SIGNAL HDR 5 ROW     |                    |       |
|             |                |            |      | angles                                | 0° ± 2°            |            |      |     | P.F. 30 POS. SELECT LOAD STD. |                    |       |
|             |                |            |      | dr                                    | K. BELL 2000-03-29 | MM         |      |     | product family                |                    | code  |
|             |                |            |      | enr                                   | M. HAHN 2000-03-29 | MM         |      |     | METRAL 1000                   |                    | 213   |
|             |                |            |      | chr                                   | M. HAHN 2000-03-29 | MM         |      |     | size                          |                    | sheet |
|             |                |            |      | oppd                                  | M. HAHN 2000-03-29 | MM         |      |     | 74817                         |                    | 4     |
| sheet index | revision sheet |            |      |                                       |                    | scale      | 1:1  |     |                               |                    |       |

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cage code 22526







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| METRAL P/N                                                     | ROW | CONTACT CODE |    |    |    |    |    |
|----------------------------------------------------------------|-----|--------------|----|----|----|----|----|
|                                                                |     | 1            | 2  | 3  | 4  | 5  | 6  |
| 74817-X034<br>*RPU<br>**<br>SEE NOTE 15<br>LEAD FREE<br>OPTION | E   | 05           | 20 | 05 | 05 | 05 | 05 |
|                                                                | D   | 05           | 20 | 05 | 05 | 05 | 05 |
|                                                                | C   | 05           | 20 | 05 | 05 | 05 | 05 |
|                                                                | B   | 05           | 20 | 05 | 05 | 05 | 05 |
|                                                                | A   | 05           | 20 | 05 | 05 | 05 | 05 |
| GND                                                            | 01  | 01           | 01 | 01 | 01 | 01 |    |

PCB THICKNESS RANGE FOR REAR PLUG UP APPL.: 2.30 (2.95) - 5.30 (NOT A STANDARD METRAL 1000 APPLICATION). CANNOT BE MATED TO A METRAL 4000 RECEPTACLE.

| METRAL P/N                                             | ROW | CONTACT CODE |    |    |    |    |    |
|--------------------------------------------------------|-----|--------------|----|----|----|----|----|
|                                                        |     | 1            | 2  | 3  | 4  | 5  | 6  |
| 74817-X039<br>**<br>SEE NOTE 15<br>LEAD FREE<br>OPTION | E   | 01           | 01 | 01 | 01 | 01 | 01 |
|                                                        | D   | 01           | 01 | 01 | 01 | 01 | 01 |
|                                                        | C   | 01           | 01 | 01 | 01 | 01 | 01 |
|                                                        | B   | 01           | 01 | 01 | 01 | 01 | 01 |
|                                                        | A   | 01           | 04 | 01 | 01 | 01 | 01 |
| GND                                                    | 01  | 01           | 01 | 01 | 01 | 01 |    |

PCB THICKNESS RANGE FOR REAR PLUG UP APPLICATIONS: 4.00 - 5.30. CANNOT BE MATED TO A METRAL 4000 RECEPTACLE.

| METRAL P/N                                                     | ROW | CONTACT CODE |    |    |    |    |    |
|----------------------------------------------------------------|-----|--------------|----|----|----|----|----|
|                                                                |     | 1            | 2  | 3  | 4  | 5  | 6  |
| 74817-X044<br>*RPU<br>**<br>SEE NOTE 15<br>LEAD FREE<br>OPTION | E   | 45           | 45 | 45 | 45 | 45 | 45 |
|                                                                | D   | 45           | 45 | 45 | 45 | 22 | 45 |
|                                                                | C   | 45           | 45 | 45 | 45 | 45 | 45 |
|                                                                | B   | 45           | 45 | 45 | 45 | 45 | 45 |
|                                                                | A   | 47           | 47 | 47 | 47 | 47 | 47 |
| GND                                                            | 22  | 22           | 22 | 22 | 22 | 22 |    |

PCB THICKNESS RANGE FOR REAR PLUG UP APPL.: 2.95 - 3.80 FOR MATING TO METRAL 1000 RECEPTACLE. CANNOT BE MATED TO METRAL 4000 RECEPTACLES.

\* REAR PLUG-UP PART NUMBER WITH PIN ALIGNER  
 \*\* CANNOT BE MATED TO A METRAL 4000 RECEPTACLE  
 \*\*\* REAR PLUG-UP PART NUMBER WITHOUT PIN ALIGNER

|             |          |            |      |                                       |                    |            |                |                                                         |  |
|-------------|----------|------------|------|---------------------------------------|--------------------|------------|----------------|---------------------------------------------------------|--|
| mat'l code  |          | SEE NOTE 5 |      | tolerances unless otherwise specified |                    | CUSTOMER   |                | FCI                                                     |  |
| lfr         | ecr no.  | dr         | date | linear                                | 0.X ± 0.3          | projection | COPY           | www.fciconnect.com                                      |  |
| AW          |          |            |      | angles                                | .xxx ± .051        |            | title          | VERTICAL SIGNAL HDR 5 ROW P.F. 30 POS. SELECT LOAD STD. |  |
|             |          |            |      | dr                                    | 0° ± 2°            |            | product family | METRAL 1000                                             |  |
|             |          |            |      | enr                                   | K. BELL 2000-03-29 | scale      | size           | dwg no                                                  |  |
|             |          |            |      | ctr                                   | M. HAHN 2000-03-29 | 2:1        | A              | 74817                                                   |  |
|             |          |            |      | oppd                                  | M. HAHN 2000-03-29 |            |                | code                                                    |  |
| sheet index | revision | sheet      |      |                                       |                    |            |                | 213                                                     |  |
|             |          |            |      |                                       |                    |            |                | 7                                                       |  |

REV E - 2006-04-18

PDM: Rev:AW STATUS:Released Printed: Feb 20, 2010



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| METRAL P/N                                       | ROW | CONTACT CODE |    |    |    |    |    |
|--------------------------------------------------|-----|--------------|----|----|----|----|----|
|                                                  |     | 1            | 2  | 3  | 4  | 5  | 6  |
| 74817-X049<br>SEE NOTE 15<br>LEAD FREE<br>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 |    |

| METRAL P/N                                             | ROW | CONTACT CODE |    |    |    |    |    |
|--------------------------------------------------------|-----|--------------|----|----|----|----|----|
|                                                        |     | 1            | 2  | 3  | 4  | 5  | 6  |
| 74817-X050<br>**<br>SEE NOTE 15<br>LEAD FREE<br>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           | 01 | 02 | 02 | 02 | 04 |
| GND                                                    | 02  | 02           | 02 | 02 | 02 | 02 |    |

| METRAL P/N                                             | ROW | CONTACT CODE |    |    |    |    |    |
|--------------------------------------------------------|-----|--------------|----|----|----|----|----|
|                                                        |     | 1            | 2  | 3  | 4  | 5  | 6  |
| 74817-X051<br>**<br>SEE NOTE 15<br>LEAD FREE<br>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           | 01 | 02 | 02 | 02 | 02 |
| GND                                                    | 02  | 02           | 02 | 02 | 02 | 02 |    |

| METRAL P/N                                                 | ROW | CONTACT CODE |    |    |    |    |    |
|------------------------------------------------------------|-----|--------------|----|----|----|----|----|
|                                                            |     | 1            | 2  | 3  | 4  | 5  | 6  |
| 74817-X052<br>***RPU<br>SEE NOTE 15<br>LEAD FREE<br>OPTION | E   | 05           | 05 | 05 | 05 | 05 | 05 |
|                                                            | D   | 05           | 05 | 05 | 05 | 05 | 05 |
|                                                            | C   | 05           | 05 | 05 | 05 | 05 | 05 |
|                                                            | B   | 05           | 05 | 05 | 05 | 05 | 05 |
|                                                            | A   | 05           | 05 | 05 | 05 | 05 | 05 |
| GND                                                        | 01  | 01           | 01 | 01 | 01 | 01 |    |

| METRAL P/N                                                 | ROW | CONTACT CODE |    |    |    |    |    |
|------------------------------------------------------------|-----|--------------|----|----|----|----|----|
|                                                            |     | 1            | 2  | 3  | 4  | 5  | 6  |
| 74817-X053<br>***RPU<br>SEE NOTE 15<br>LEAD FREE<br>OPTION | E   | 05           | 20 | 05 | 05 | 05 | 05 |
|                                                            | D   | 05           | 20 | 05 | 05 | 05 | 05 |
|                                                            | C   | 05           | 20 | 05 | 05 | 05 | 05 |
|                                                            | B   | 05           | 20 | 05 | 05 | 05 | 05 |
|                                                            | A   | 05           | 20 | 05 | 05 | 05 | 05 |
| GND                                                        | 01  | 01           | 01 | 01 | 01 | 01 |    |

- \* REAR PLUG-UP PART NUMBER WITH PIN ALIGNER
- \*\* CANNOT BE MATED TO A METRAL 4000 RECEPTACLE
- \*\*\* REAR PLUG-UP PART NUMBER WITHOUT PIN ALIGNER

| METRAL P/N                                                 | ROW | CONTACT CODE |    |    |    |    |    |
|------------------------------------------------------------|-----|--------------|----|----|----|----|----|
|                                                            |     | 1            | 2  | 3  | 4  | 5  | 6  |
| 74817-X054<br>***RPU<br>SEE NOTE 15<br>LEAD FREE<br>OPTION | E   | 22           | 22 | 22 | 22 | 22 | 22 |
|                                                            | D   | 22           | 22 | 22 | 22 | 22 | 22 |
|                                                            | C   | 45           | 45 | 45 | 45 | 45 | 45 |
|                                                            | B   | 22           | 22 | 22 | 22 | 22 | 22 |
|                                                            | A   | 22           | 22 | 22 | 22 | 22 | 22 |
| GND                                                        | 01  | 22           | 22 | 22 | 22 | 01 |    |

| METRAL P/N                                             | ROW | CONTACT CODE |    |    |    |    |    |
|--------------------------------------------------------|-----|--------------|----|----|----|----|----|
|                                                        |     | 1            | 2  | 3  | 4  | 5  | 6  |
| 74817-X055<br>**<br>SEE NOTE 15<br>LEAD FREE<br>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 | -  |    |

| METRAL P/N                                       | ROW | CONTACT CODE |    |    |    |    |    |
|--------------------------------------------------|-----|--------------|----|----|----|----|----|
|                                                  |     | 1            | 2  | 3  | 4  | 5  | 6  |
| 74817-X056<br>SEE NOTE 15<br>LEAD FREE<br>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 | -  |    |

| METRAL P/N                                               | ROW | CONTACT CODE |    |    |    |    |    |
|----------------------------------------------------------|-----|--------------|----|----|----|----|----|
|                                                          |     | 1            | 2  | 3  | 4  | 5  | 6  |
| 74817-X057<br>*RPU<br>SEE NOTE 15<br>LEAD FREE<br>OPTION | E   | 22           | 22 | 22 | 01 | 01 | 01 |
|                                                          | D   | 22           | 22 | 22 | 01 | 01 | 01 |
|                                                          | C   | 22           | 22 | 22 | 01 | 01 | 01 |
|                                                          | B   | 22           | 22 | 22 | 01 | 01 | 01 |
|                                                          | A   | 22           | 22 | 22 | 01 | 01 | 01 |
| GND                                                      | 22  | 22           | 22 | 22 | 22 | 22 |    |

|                        |                |                                       |      |          |                        |            |                                                               |                    |  |
|------------------------|----------------|---------------------------------------|------|----------|------------------------|------------|---------------------------------------------------------------|--------------------|--|
| mat'l code: SEE NOTE 5 |                | tolerances unless otherwise specified |      | CUSTOMER |                        | FCI        |                                                               | www.fciconnect.com |  |
| lfr                    | ecm no.        | dr                                    | date | linear   | 0.X ±0.13              | projection | title VERTICAL SIGNAL HDR 5 ROW P.F. 30 POS. SELECT LOAD STD. |                    |  |
| AW                     |                |                                       |      | angles   | .XXX ±.051             |            | product family METRAL 1000 code 213                           |                    |  |
|                        |                |                                       |      | dr       | 0° ±2°                 | MM         | size dwg no 74817 sheet 8                                     |                    |  |
|                        |                |                                       |      | engr     | K. BELL 2000-03-29     | scale 2:1  | cage code 22526                                               |                    |  |
|                        |                |                                       |      | chr      | J. VOLSTORF 2001-05-23 |            |                                                               |                    |  |
|                        |                |                                       |      | appr     | M. HAHN 2000-03-29     |            |                                                               |                    |  |
| sheet index            | revision sheet |                                       |      |          |                        |            |                                                               |                    |  |

PDM: Rev:AW

STATUS:Released


Printed: Feb 20, 2010



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 FC1 PUBLICATION 950511-028 FOR "ELECTRICAL PERFORMANCE DATA FOR DIFFERENTIAL APPLICATIONS."
- SEE FC1 PUBLICATION 950511-029 FOR "ELECTRICAL PERFORMANCE DATA FOR SINGLE-ENDED APPLICATION."
- UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS AND TOLERANCES ARE IN ACCORDANCE WITH ASME Y14.5, 1994
- HOUSING MATERIAL: LIQUID CRYSTAL POLYMER, 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 SHOWN IN TABLE ON SHEET 1. PLATING OF "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 74817-XZZZLF  

  - LEAD FREE (OPTIONAL)
  - SELECT LOAD PATTERN
  - PLATING CODE
- THE 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: 74817-XYYYLF
- 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   |                                                                  | FCJ<br>www.fciconnect.com |       |
| ltr                   | ecm no.        | dr | date | linear                                | 0. XX ±0.13        | projection | COPY                                                             |                           |       |
| AW                    |                |    |      | angles                                | .XXX ±.051         |            | title VERTICAL SIGNAL HDR 5 ROW<br>P.F. 30 POS. SELECT LOAD STD. |                           |       |
|                       |                |    |      | dr                                    | 0° ±2°             |            | product family                                                   | METRAL 1000               | code  |
|                       |                |    |      | engr                                  | K. BELL 2000-03-29 | MM         | size                                                             | dwg no                    | 213   |
|                       |                |    |      | chr                                   | M. HAHN 2000-03-29 | scale      | A                                                                | 74817                     | sheet |
|                       |                |    |      | oppd                                  | M. HAHN 2000-03-29 | 1:1        |                                                                  |                           | 9     |
| sheet index           | revision sheet |    |      |                                       |                    |            |                                                                  |                           |       |

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