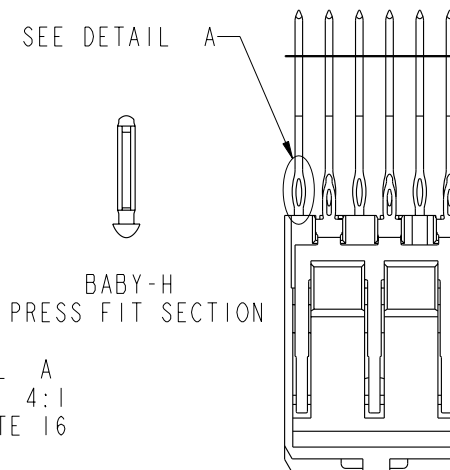


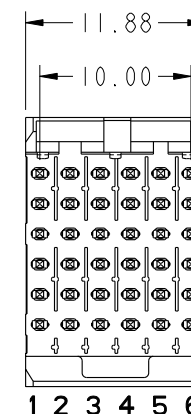
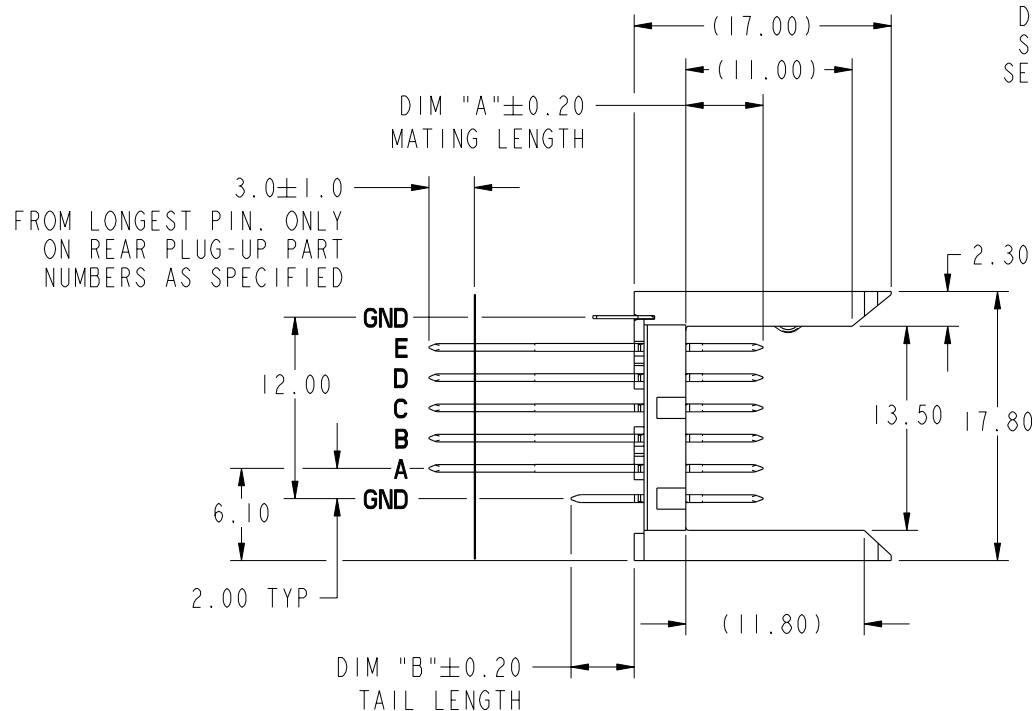


PRODUCT NUMBER	PLATING PERFORMANCE LEVEL	APPLICATION	FOR REAR PLUG-UP APPLICATIONS USE SHROUD
74817-1ZZZ	TELCORDIA CO	STANDARD	84818-104
74817-1ZZZLF		LEAD FREE	84818-104LF
74817-5ZZZ	TELCORDIA UE	STANDARD	84818-504
74817-5ZZZLF		LEAD FREE	84818-504LF
74817-9ZZZ	TELCORDIA CO	STANDARD	84818-104
74817-9ZZZLF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

EYE OF NEEDLE PRESS FIT SECTION
BABY-H PRESS FIT SECTION



DETAIL A
SCALE 4:1
SEE NOTE 16



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				title VERTICAL SIGNAL HDR 5 ROW P.F. 30 POS. SELECT LOAD STD.			
AW	V08-0141	LP	2008-03-28		0.XX ±0.13				projection							
-	-	-	-		.XXX ±.051											
AR	V07-0187	DCH	2007-04-24	angles	0° ±2°				scale 				product family METRAL 1000			
AS	V07-0676	HTB	2007-11-07	dr	K. BELL	2000-03-29			size A				dwg no 74817			
AT	V07-0697	LP	2007-11-29	engr	M. HAHN	2000-03-29							code 213			
AU	V08-0002	HTB	2008-01-09	chr	M. HAHN	2000-03-29							sheet 1 of 9			
AV	V08-0048	LP	2008-2-1	appd	M. HAHN	2000-03-29										
sheet index		revision sheet		AW	AW	AW	AW	AW	AW	AW	AW	AW	AW	AW	AW	
				1	2	3	4	5	6	7	8	9				

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cage code 22526

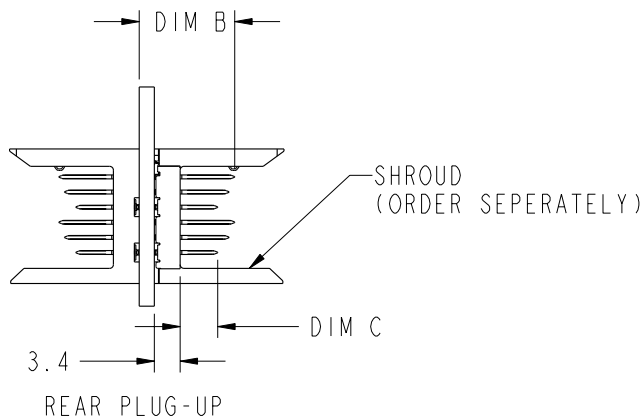
PDM: Rev:AW

STATUS: Released Printed: May 13, 2011

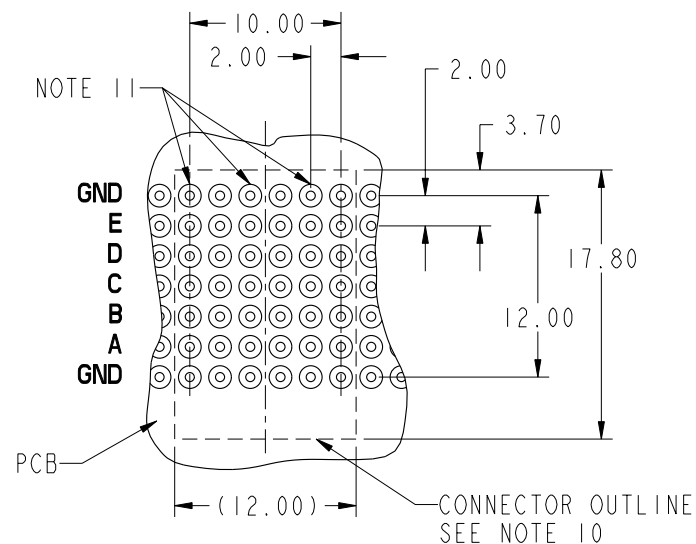


PRODUCT NUMBER
SEE SHEET 1

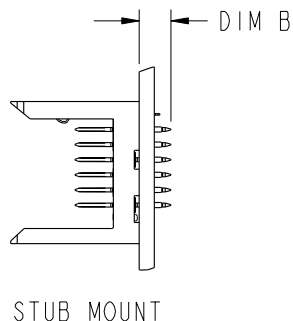
PRESS-FIT HOLES	OPTION 1
HOLE DIAMETER AFTER PLATING	0.65-0.80
DRILLED HOLE	0.81-0.86 (0.85 DRILL)
COPPER PLATING	0.025 MIN
SnPb PLATING	0.005-0.015



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		title VERTICAL SIGNAL HDR 5 ROW P.F. 30 POS. SELECT LOAD STD
AW					0.XX ±0.13		projection 		
					.XXX ±.051				
				angles	0° ±2°				
		dr			K. BELL	2000-03-29	product family METRAL 1000		code
		engr			M. HAHN	2000-03-29	size		213
		chr			M. HAHN	2000-03-29	dwg no		sheet
		appd			M. HAHN	2000-03-29	scale 2:1		2
sheet index	revision sheet								

Pro/E

cage code 22526

PDM: Rev:AW

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 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	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

* 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		FCI www.fciconnect.com	
ltr	ecn no.	dr	date	linear	0.X ±0.3	projection	COPY	title	VERTICAL SIGNAL HDR 5 ROW P.F. 30 POS. SELECT LOAD STD.
AW					0.XX ±0.13				
					.XXX ±.051				
				angles	0° ±2°		MM	product family	METRAL 1000
				dr	K. BELL 2000-03-29				
				engr	M. HAHN 2000-03-29				
					chr	M. HAHN 2000-03-29	scale	A	size
					appd	M. HAHN 2000-03-29			
sheet	revision								
index	sheet								

cage code 22526

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PDM: Rev:AW

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*	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.

mat'l code SEE NOTE 5				tolerances unless otherwise specified		CUSTOMER		www.fciconnect.com				
ltr	ecn no.	dr	date	linear	0.X ±0.3	projection		title VERTICAL SIGNAL HDR 5 ROW P.F. 30 POS. SELECT LOAD STD.				
AW					0.XX ±0.13							
					.XXX ±.051							
				angles	0° ±2°	 MM scale 1:1		product family	METRAL 1000	code	213	
			dr	K. BELL	2000-03-29			size	dwg no	74817	sheet	4
			enrg	M. HAHN	2000-03-29							
			chr	M. HAHN	2000-03-29							
			appd	M. HAHN	2000-03-29							
sheet	revision											
index	sheet											

cage code 22526

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PDM: Rev:AW

STATUS: Released Printed: May 13, 2011



METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X001 ** SEE NOTE 15 LEAD FREE OPTION	E	04	03	03	01	01	01
	D	04	03	03	01	01	01
	C	04	03	03	01	01	01
	B	04	03	03	01	01	01
	A	04	03	03	01	01	01
	GND	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X002 ** SEE NOTE 15 LEAD FREE OPTION	E	01	01	01	01	03	04
	D	01	01	01	01	03	04
	C	01	01	01	01	03	04
	B	01	01	01	01	03	04
	A	01	01	01	01	03	04
	GND	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X003 ** SEE NOTE 15 LEAD FREE OPTION	E	02	03	02	02	04	19
	D	02	03	02	02	04	19
	C	02	03	02	02	04	19
	B	02	03	02	02	04	19
	A	02	03	02	02	04	19
	GND	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X004 ** SEE NOTE 15 LEAD FREE OPTION	E	03	02	02	04	19	02
	D	03	02	02	04	19	02
	C	03	02	02	04	19	02
	B	03	02	02	04	19	02
	A	03	02	02	04	19	02
	GND	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X005 *RPU SEE NOTE 15 LEAD FREE OPTION	E	06	06	06	06	06	06
	D	06	06	06	06	06	06
	C	30	06	06	06	06	06
	B	06	06	06	06	06	06
	A	06	06	06	06	06	06
	GND	30	30	30	30	30	30

PCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS:
3.25 - 4.55

- * 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-X006 ** SEE NOTE 15 LEAD FREE OPTION	E	19	03	03	03	02	01
	D	19	03	03	03	02	01
	C	19	03	03	03	02	01
	B	19	03	03	03	02	01
	A	19	03	03	03	02	01
	GND	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X007 *RPU ** SEE NOTE 15 LEAD FREE OPTION	E	20	07	07	07	06	05
	D	20	07	07	07	06	05
	C	20	07	07	07	06	05
	B	20	07	07	07	06	05
	A	20	07	07	07	06	05
	GND	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X008 ** SEE NOTE 15 LEAD FREE OPTION	E	19	03	03	03	03	03
	D	19	03	03	03	03	03
	C	19	03	03	03	03	03
	B	19	03	03	03	03	03
	A	19	03	03	03	03	03
	GND	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X009 *RPU ** SEE NOTE 15 LEAD FREE OPTION	E	20	07	07	07	07	07
	D	20	07	07	07	07	07
	C	20	07	07	07	07	07
	B	20	07	07	07	07	07
	A	20	07	07	07	07	07
	GND	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X010 SEE NOTE 15 LEAD FREE OPTION	E	03	03	03	03	03	03
	D	02	03	03	03	03	03
	C	03	03	03	03	03	03
	B	03	03	03	03	03	03
	A	03	03	03	03	03	03
	GND	01	01	01	01	01	01

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

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

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X011 *RPU SEE NOTE 15 LEAD FREE 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-X012 *RPU SEE NOTE 15 LEAD FREE OPTION	E	02	02	06	06	06	06
	D	02	02	06	06	06	06
	C	02	02	06	06	06	06
	B	02	02	06	06	06	06
	A	02	02	06	06	06	06
	GND	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X013 *RPU SEE NOTE 15 LEAD FREE OPTION	E	06	06	06	06	02	02
	D	06	06	06	06	02	02
	C	06	06	06	06	02	02
	B	06	06	06	06	02	02
	A	06	06	06	06	02	02
	GND	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X014 *RPU SEE NOTE 15 LEAD FREE OPTION	E	10	10	10	10	10	10
	D	10	10	10	10	10	10
	C	10	10	10	10	10	10
	B	10	10	10	10	10	10
	A	10	10	10	10	10	10
	GND	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X015 SEE NOTE 15 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	02	02	02	02	02	02
	A	02	02	02	02	02	02
	GND	02	02	02	02	02	02

PCB THICKNESS
RANGE FOR REAR
PLUG UP APPL.:
2.30 (2.95) - 5.30
FOR METAL 1000
RECEPTACLE (NOT
A STANDARD METRAL
1000 APPL.) AND
2.30 (3.30) - 5.30 FOR
METRAL 4000 APPL.

PCB THICKNESS
RANGE FOR REAR
PLUG UP APPL.:
2.30 (2.95) - 5.30
FOR METAL 1000
RECEPTACLE (NOT
A STANDARD METRAL
1000 APPL.) AND
2.30 (3.30) - 5.30 FOR
METRAL 4000 APPL.

PCB THICKNESS
RANGE FOR REAR
PLUG UP APPL.:
2.30 (2.95) - 5.30
FOR METAL 1000
RECEPTACLE (NOT
A STANDARD METRAL
1000 APPL.) AND
2.30 (3.30) - 5.30 FOR
METRAL 4000 APPL.

PCB THICKNESS
RANGE FOR REAR
PLUG UP APPL.:
5.70 - 8.70 FOR METAL
1000 APPL. (NOT A
STANDARD METRAL
1000 APPL.) AND
6.70 - 8.70 FOR A
METRAL 4000
APPLICATION.

mat'l code SEE NOTE 5				tolerances unless otherwise specified				CUSTOMER		FCi www.fciconnect.com	
ltr	ecr no.	dr	date	linear	0.X ±0.3			projection		title	
AW					0.XX ±0.13					VERTICAL SIGNAL HDR 5 ROW	
					.XXX ±.051					P.F. 30 POS. SELECT LOAD STD.	
				angles	0° ±2°					product family	
				dr	K. BELL	2000-03-29	METRAL 1000				
				enrg	M. HAHN	2000-03-29	code				
				chr	M. HAHN	2000-03-29	213				
				appd	M. HAHN	2000-03-29	size			sheet	
sheet		revision					A			5	
index		sheet					2:1				



METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X016 SEE NOTE 15 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	01	02	02	02	02	01
	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-X017 SEE NOTE 15 LEAD FREE OPTION	E	01	01	01	01	01	01
	D	01	01	01	01	01	01
	C	03	03	03	03	03	03
	B	01	01	01	01	01	01
	A	01	01	01	01	01	01
	GND	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X018 SEE NOTE 15 LEAD FREE OPTION	E	03	02	02	01	01	01
	D	03	02	02	01	01	01
	C	03	02	02	03	03	03
	B	03	02	02	01	01	01
	A	03	02	02	01	01	01
	GND	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X019 SEE NOTE 15 LEAD FREE OPTION	E	01	01	01	02	02	03
	D	01	01	01	02	02	03
	C	03	03	03	02	02	03
	B	01	01	01	02	02	03
	A	01	01	01	02	02	03
	GND	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X023 ** SEE NOTE 15 LEAD FREE OPTION	E	01	03	03	03	01	01
	D	01	03	03	03	01	19
	C	01	01	01	01	01	19
	B	01	01	01	01	01	19
	A	01	01	01	19	19	19
	GND	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X024 *RPU SEE NOTE 15 LEAD FREE 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-X025 ** SEE NOTE 15 LEAD FREE OPTION	E	01	19	01	01	01	01
	D	01	19	01	01	01	01
	C	01	19	01	01	01	01
	B	01	19	01	01	01	01
	A	01	19	01	01	01	01
	GND	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X026 *RPU SEE NOTE 15 LEAD FREE OPTION	E	02	02	49	49	49	49
	D	02	02	49	49	49	49
	C	02	02	49	49	49	49
	B	02	02	49	49	49	49
	A	02	02	49	49	49	49
	GND	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X027 *RPU SEE NOTE 15 LEAD FREE OPTION	E	49	49	49	49	02	02
	D	49	49	49	49	02	02
	C	49	49	49	49	02	02
	B	49	49	49	49	02	02
	A	49	49	49	49	02	02
	GND	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X028 *RPU SEE NOTE 15 LEAD FREE OPTION	E	49	49	49	49	49	49
	D	49	49	49	49	49	49
	C	49	49	49	49	49	49
	B	49	49	49	49	49	49
	A	49	49	49	49	49	49
	GND	01	01	01	01	01	01

PCB THICKNESS
RANGE FOR REAR
PLUG UP APPL.:
2.30 (2.95) - 5.30 FOR
METRAL 1000 APPL.
(NOT A STANDARD
METRAL 1000 APPL.)
AND 2.30 (3.30) -
5.30 FOR METRAL
4000 RECEPTACLE
APPLICATION

PCB THICKNESS
RANGE FOR REAR
PLUG UP APPL.:
3.80 - 6.80 FOR
METRAL 1000
RECEPTACLE APPL.
(NOT A STANDARD
METRAL 1000 APPL.)
AND 2.30 (4.80) -
6.80 FOR METRAL
4000 APPLICATIONS

PCB THICKNESS
RANGE FOR REAR
PLUG UP APPL.:
3.80 - 6.80 FOR
METRAL 1000
RECEPTACLE APPL.
(NOT A STANDARD
METRAL 1000 APPL.)
AND 2.30 (4.80) -
6.80 FOR METRAL
4000 APPLICATIONS

PCB THICKNESS
RANGE FOR REAR
PLUG UP APPL.:
3.80 - 6.80 FOR
METRAL 1000
APPLICATIONS,
AND 4.80 - 6.80
FOR METRAL 4000
APPLICATIONS

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X029 SEE NOTE 15 LEAD FREE OPTION	E	01	01	01	01	01	01
	D	01	01	01	01	01	02
	C	01	01	01	01	01	01
	B	01	01	01	01	01	01
	A	01	01	03	01	01	03
	GND	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X030 SEE NOTE 15 LEAD FREE OPTION	E	02	02	02	02	02	02
	D	02	02	02	02	02	02
	C	19	19	19	19	19	19
	B	02	02	02	02	02	02
	A	03	02	03	02	02	01
	GND	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X031 SEE NOTE 15 LEAD FREE OPTION	E	02	02	02	02	02	02
	D	02	02	02	02	02	02
	C	19	19	19	19	19	19
	B	02	02	02	02	02	02
	A	01	03	02	03	02	02
	GND	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X032 SEE NOTE 15 LEAD FREE OPTION	E	02	02	02	02	02	02
	D	02	02	02	02	02	02
	C	19	19	19	19	19	19
	B	02	02	02	02	02	02
	A	02	02	02	02	02	01
	GND	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X033 SEE NOTE 15 LEAD FREE OPTION	E	02	02	02	02	02	02
	D	02	02	02	02	02	02
	C	19	19	19	19	19	19
	B	02	02	02	02	02	02
	A	01	02	02	02	02	03
	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

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			projection			
AW					0.XX ±0.13						
					.XXX ±.051						
				angles	0° ±2°				title VERTICAL SIGNAL HDR 5 ROW P.F. 30 POS. SELECT LOAD STD.		
				dr	K. BELL	2000-03-29					
				enrg	M. HAHN	2000-03-29					
				chr	M. HAHN	2000-03-29					
				appd	M. HAHN	2000-03-29	scale 2:1		product family METRAL 1000 size A 74817 code 213 sheet 6		
sheet index	revision sheet										



A

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X034 *RPU ** SEE NOTE 15 LEAD FREE 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	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-X035 SEE NOTE 15 LEAD FREE OPTION	E	02	02	02	02	02	02
	D	02	02	02	02	02	02
	C	03	03	03	03	03	03
	B	01	02	02	02	02	02
	A	01	02	02	02	02	02
GND	01	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X036 SEE NOTE 15 LEAD FREE OPTION	E	02	02	02	02	02	02
	D	02	02	02	02	02	02
	C	01	01	01	01	03	02
	B	01	01	02	02	02	02
	A	02	02	02	02	02	02
GND	01	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X037 SEE NOTE 15 LEAD FREE OPTION	E	02	02	02	02	02	02
	D	02	02	02	02	02	02
	C	01	02	02	02	02	02
	B	01	01	01	01	01	01
	A	02	02	02	02	02	02
GND	01	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X038 SEE NOTE 15 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	03	02	02
GND	-	-	-	-	-	-	-

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X039 ** SEE NOTE 15 LEAD FREE 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	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X040 *RPU ** SEE NOTE 15 LEAD FREE OPTION	E	08	06	06	06	06	06
	D	08	06	06	06	06	06
	C	06	06	06	06	06	06
	B	08	06	06	06	06	06
	A	08	06	06	06	06	06
GND	06	06	06	06	06	06	06

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-X041 ** SEE NOTE 15 LEAD FREE OPTION	E	02	02	02	02	04	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	04
GND	01	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X042 *RPU ** SEE NOTE 15 LEAD FREE OPTION	E	08	06	06	06	06	06
	D	08	06	06	06	06	06
	C	08	06	06	06	06	06
	B	08	06	06	06	06	06
	A	08	06	06	06	06	06
GND	30	30	30	30	30	30	30

PCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS:
3.25 - 4.95 FOR
METRAL 1000
APPLICATIONS.
CANNOT BE MATED
TO A METRAL 4000
RECEPTACLE.

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X043 ** SEE NOTE 15 LEAD FREE OPTION	E	03	03	03	03	03	03
	D	03	03	03	03	01	03
	C	03	03	03	03	03	03
	B	03	03	03	03	03	03
	A	19	19	19	19	19	19
GND	01	01	01	01	01	01	01

3

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X044 *RPU ** SEE NOTE 15 LEAD FREE 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	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.

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X045 SEE NOTE 15 LEAD FREE OPTION	E	02	02	02	02	02	02
	D	02	02	02	02	02	02
	C	02	02	02	02	02	2
	B	02	02	02	02	02	02
	A	02	01	02	02	02	02
GND	01	01	01	01	01	01	01

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X046 *RPU SEE NOTE 15 LEAD FREE 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	01

PCB THICKNESS
RANGE FOR REAR
PLUG UP APPL.:
2.95 - 3.80 FOR
BOTH METRAL
1000 AND 4000
RECEPTACLE
MATING (NOT A
STANDARD METRAL
1000 APPLICATION)

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X047 SEE NOTE 15 LEAD FREE OPTION	E	02	01	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	01	01	01

A

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X048 SEE NOTE 15 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	02

B

- * 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		FCJ www.fciconnect.com	
ltr	ecr no.	dr	date	linear	0.X ±0.3				projection	title	
AW					0.XX ±0.13					VERTICAL SIGNAL HDR 5 ROW	
					.XXX ±.051					P.F. 30 POS. SELECT LOAD STD.	
				angles	0° ±2°				MM scale 2:1	product family METRAL 1000	
				dr	K. BELL	2000-03-29		size		dwg no	code
				engr	M. HAHN	2000-03-29		A		74817	213
				chr	M. HAHN	2000-03-29				sheet	
				appd	M. HAHN	2000-03-29				7	
sheet	revision										
index	sheet										

Pro/E

3

cage code 22526

4



METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X049 SEE NOTE 15 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

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X050 ** SEE NOTE 15 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	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 ** SEE NOTE 15 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	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 ***RPU SEE NOTE 15 LEAD FREE 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 ***RPU SEE NOTE 15 LEAD FREE 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 ***RPU SEE NOTE 15 LEAD FREE 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 ** SEE NOTE 15 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	-

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X056 SEE NOTE 15 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	-

METRAL P/N	ROW	CONTACT CODE					
		1	2	3	4	5	6
74817-X057 *RPU SEE NOTE 15 LEAD FREE 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	
ltr	ecn no.	dr	date	linear	0.X ± 0.3	COPY			
AW					0.XX ± 0.13	projection			
					.XXX ± .051				
				angles	0° ± 2°			title VERTICAL SIGNAL HDR 5 ROW P.F. 30 POS. SELECT LOAD STD.	
				dr	K. BELL 2000-03-29	MM		product family METRAL 1000	
				engr	J. VOLSTORF 2001-05-23			code 213	
				chr	M. HAHN 2000-03-29	scale 2:1		sheet 8	
				appd	M. HAHN 2000-03-29				
sheet index	revision sheet								

PRODUCT NUMBER

SEE SHEET 1

NOTES:

1. SEE APPLICATION SPECIFICATION GS-20-010 FOR INFORMATION ON AVAILABLE TOOLING, CIRCUIT BOARD DESIGN CONSIDERATIONS, REPAIR PROCEDURES AND PRODUCT OFFERINGS.
2. SEE FCI PUBLICATION 950511-028 FOR "ELECTRICAL PERFORMANCE DATA FOR DIFFERENTIAL APPLICATIONS."
3. SEE FCI PUBLICATION 950511-029 FOR "ELECTRICAL PERFORMANCE DATA FOR SINGLE-ENDED APPLICATION."
4. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS AND TOLERANCES ARE IN ACCORDANCE WITH ASME Y14.5, 1994
5. HOUSING MATERIAL: LIQUID CRYSTAL POLYMER, 30% GLASS FILLED, FLAME RETARDANT PER UL 94-V0.
PIN MATERIAL: PHOSPHOR BRONZE
GROUND SPRING MATERIAL: PHOSPHOR BRONZE
6. 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.
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 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 74817-XZZZLF



14. 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.

15. FOR LEAD FREE PART NUMBERS ADD 'LF' SUFFIX.
EXAMPLE: 74817-XXXXLF

16. 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.X ±0.3	COPY					
AW				linear	0.XX ±0.13	projection		title VERTICAL SIGNAL HDR 5 ROW P.F. 30 POS. SELECT LOAD STD.			
					.XXX ±.051						
				angles	0° ±2°						
				dr	K. BELL 2000-03-29	MM		product family METRAL 1000 code			
				enrg	M. HAHN 2000-03-29			size dwg no			
				chr	M. HAHN 2000-03-29	scale		A 74817			
				appd	M. HAHN 2000-03-29			sheet 9			
sheet index	revision sheet										