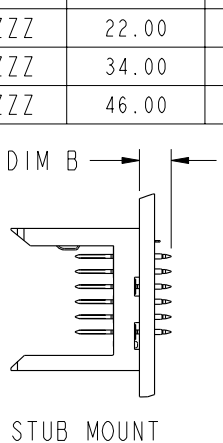
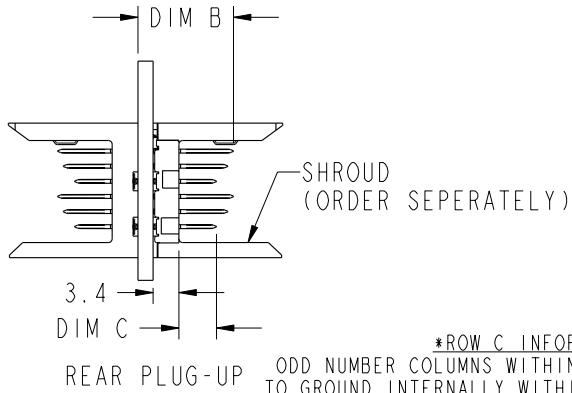


PRODUCT NUMBER	DIM C	DIM D
74977-X01ZZZ	10.00	11.88
74977-X02ZZZ	22.00	23.88
74977-X03ZZZ	34.00	35.88
74977-X04ZZZ	46.00	47.88



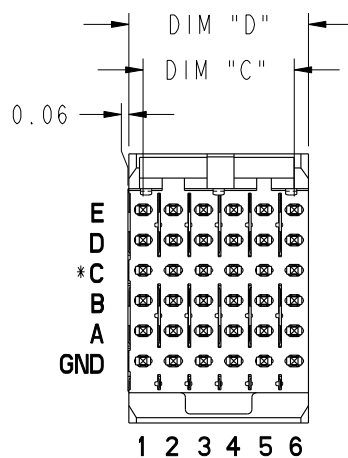
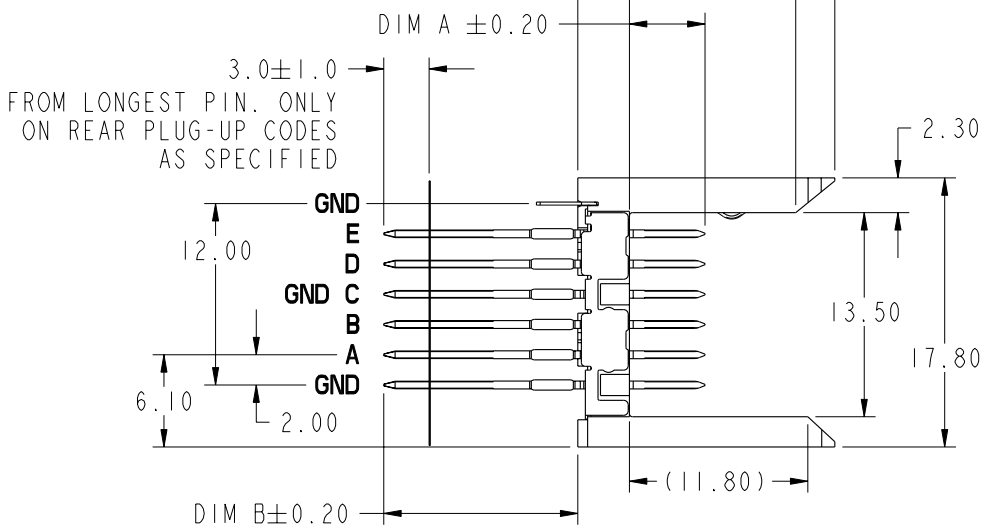
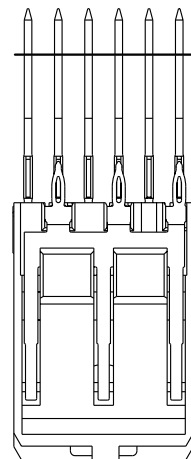
STUB MOUNT



SHROUD (ORDER SEPERATELY)

REAR PLUG-UP

***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 18



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PRODUCT NUMBER	DIM C	DIM D
74977-X01ZZZLF	10.00	11.88
74977-X02ZZZLF	22.00	23.88
74977-X03ZZZLF	34.00	35.88
74977-X04ZZZLF	46.00	47.88

mat'l code				tolerances unless otherwise specified			CUSTOMER		FCI	
ltr	ecn no.	dr	date	linear	0.X ±0.1		COPY		www.fciconnect.com	
Y	V06-0544	DCH	2006-06-09		0.XX ±.05		projection		title	
-	-	-	-		.XXX ±.020		MM		STR. P.F. STD. 5-ROW	
T	V04-0243	LP	3/18/04	angles	0° ±2°		MM		product family METRAL 2000 code	
U	V04-0195	LP	4/12/04	dr	K.BELL	3/29/00	MM		size	
V	V04-0716	TAB	07/13/04	enrg	M.HAHN	3/29/00	MM		dwg no	
W	V05-0814	VS	09/19/05	chr	M.HAHN	3/29/00	MM		A 74977	
X	V06-0048	DAI	02/08/06	appd	M.HAHN	3/29/00	MM		sheet	
sheet index		revision	Y	Y	Y	Y	Y	Y	1 of 6	
		sheet	1	2	3	4	5	6		

PIN CODES										
		DIM B								
		4.30	12.20	12.95	13.70	14.45	15.20	15.70	16.40	17.10
DIM A	5.00	1*	22	30	5	35	48	40	65	9
	5.75	2*	44	31	6	36	49	25	66	10
	6.50	3*	45	32	7	37	50	41	24	11
	7.25	4*	46	33	8	38	51	42	67	12
	8.00	19*	47	34	20	39	52	43	68	21

SEE NOTE 20 LEAD FREE OPTION	CIRCUIT BOARD THICKNESS RANGE FOR REAR PLUG-UP CODES	
PRODUCT NUMBER	MIN	MAX
74977-XY002	2.95mm	3.80mm
74977-XY003	3.25mm	4.55mm
74977-XY012	2.95mm	3.80mm
74977-XY013	3.25mm	4.95mm
74977-XY051	5.50mm	7.20mm
74977-XY054	* 4.30mm	7.30mm
74977-XY056	2.95mm	3.80mm
74977-XY055	* 2.95mm	5.30mm

* NOT A STANDARD METRAL 2000
REAR PLUG-UP APPLICATION.

RESTRICTION ON CURCUIT BOARD THICKNESS RANGE FOR PIN POSITIONS A, B, C, D & E										
		DIM B								
		4.30	12.20	12.95	13.70	14.45	15.20	15.70	16.40	17.10
MIN THICKNESS	1.60	2.95	2.95	2.95	3.05	3.80	4.30	5.00	5.70	
	MAX THICKNESS	NONE	3.80	4.55	5.30	6.05	6.80	7.30	8.00	8.70

RESTRICTION ON CURCUIT BOARD THICKNESS RANGE FOR PIN POSITION 'GND' **										
		DIM B								
		4.30	12.20	12.95	13.70	14.45	15.20	15.70	16.40	17.10
MIN THICKNESS	1.60	2.95	3.25	4.00	4.75	5.50	6.00	6.70	7.40	
	MAX THICKNESS	NONE	4.20	4.95	5.70	6.45	7.20	7.70	8.40	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.

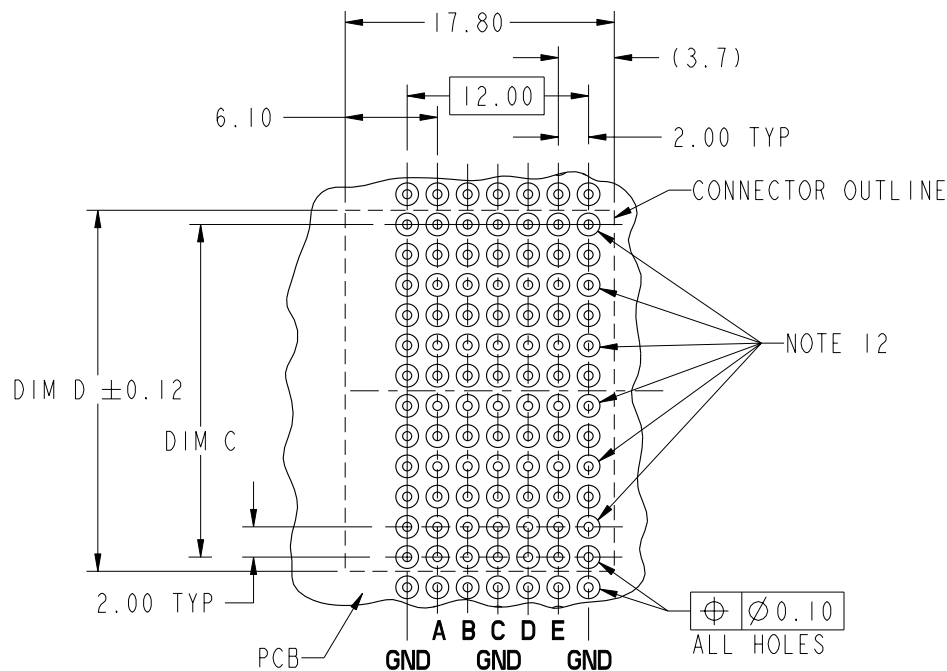
mat'l code				tolerances unless otherwise specified		CUSTOMER		FCJ www.fciconnect.com	
ltr	ecn no.	dr	date	linear	0.X ±0.1		COPY		title HEADER ASS'Y STR. P.F. STD. 5-ROW
Y	-	-	-		0.XX ±0.05		projection		
					.XXX ±.020				
				angles	0° ±2°				product family METRAL 2000 code 213 sheet 2
				dr	K.BELL	3/29/00	MM		
				engr	M.HAHN	3/29/00			
				chr	M.HAHN	3/29/00	scale 1:1		size A dwg no 74977
				appd	M.HAHN	3/29/00			
sheet index	revision sheet								



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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)
SEE NOTE 13

mat'l code		--		tolerances unless otherwise specified		CUSTOMER		FCj		www.fciconnect.com	
ltr	ecr no.	dr	date	linear	0.X ±0.1		COPY		title HEADER ASS'Y STR. P.F. STD. 5-ROW		
Y	-	-	-		0.XX ±0.05		projection				
					.XXX ±.020						
				angles	0° ±2°				product family METRAL 2000 code		
				dr	K. BELL	3/29/00	MM		size		213
				engr	M. HAHN	3/29/00	← MM →		dwg no		3
				chr	M. HAHN	3/29/00	scale		A		74977
				appd	M. HAHN	3/29/00	1:1		sheet		
sheet index	revision sheet								cage code		22526
											4


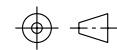

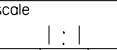
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SIGNAL PIN TABLES		
PRODUCT #	ROW	PIN CODES
74977-XY001 SEE NOTE 20 LEAD FREE OPTION	E	1
	D	
	C	
	B	
	A	
	GND	
74977-XY002 *RPU SEE NOTE 20 LEAD FREE OPTION	E	22
	D	
	C	
	B	
	A	
	GND	
74977-XY003 *RPU SEE NOTE 20 LEAD FREE OPTION	E	30
	D	
	C	
	B	
	A	
	GND	
74977-XY011 SEE NOTE 20 LEAD FREE OPTION	E	2
	D	
	C	
	B	
	A	
	GND	
74977-XY012 *RPU SEE NOTE 20 LEAD FREE OPTION	E	44
	D	
	C	
	B	
	A	
	GND	

SIGNAL PIN TABLES		
PRODUCT #	ROW	PIN CODES
74977-XY013 *RPU SEE NOTE 20 LEAD FREE OPTION	E	6
	D	
	C	
	B	
	A	
	GND	
74977-XY021 SEE NOTE 20 LEAD FREE OPTION	E	3
	D	
	C	
	B	
	A	
	GND	
74977-XY050 SEE NOTE 20 LEAD FREE OPTION	E	2
	D	4
	C	2
	B	
	A	
	GND	49

SIGNAL PIN TABLES		
PRODUCT #	ROW	PIN CODES
74977-XY052 SEE NOTE 20 LEAD FREE OPTION	E	1
	D	3
	C	1
	B	
	A	
	GND	
74977-XY053 SEE NOTE 20 LEAD FREE OPTION	E	2
	D	
	C	
	B	
	A	
	GND	
74977-XY054 *RPU SEE NOTE 20 LEAD FREE OPTION	E	25
	D	
	C	
	B	
	A	
	GND	
74977-XY055 *RPU SEE NOTE 20 LEAD FREE OPTION	E	6
	D	
	C	
	B	
	A	
	GND	

* REAR PLUG-UP CODE

mat'l code				--		tolerances unless otherwise specified		CUSTOMER		 www.fciconnect.com	
ltr	ecn no.	dr	date	linear	0.X ±0.1		COPY		title		
Y	-	-	-		0.XX ±0.05		projection		HEADER ASS'Y		
					.XXX ±.020				STR. P.F. STD. 5-ROW		
				angles	0° ±2°				product family		code
				dr	K. BELL	3/29/00	MM		METRAL 2000		213
				engr	M. HAHN	3/29/00			size		sheet
				chr	M. HAHN	3/29/00	1:1		A		4
				appd	M. HAHN	3/29/00			74977		
sheet index		revision sheet									

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SIGNAL PIN TABLES

PRODUCT #	ROW	PIN CODES
74977-XY056 *RPU SEE NOTE 20 LEAD FREE OPTION	E	22
	D	
	C	45
	B	22
	A	
	GND	
74977-XY057 SEE NOTE 20 LEAD FREE OPTION	E	2
	D	
	C	
	B	1
	A	
	GND	
74977-XY058 ***RPU SEE NOTE 20 LEAD FREE OPTION	E	22
	D	
	C	45
	B	22
	A	
	GND	
74977-XY059 SEE NOTE 20 LEAD FREE OPTION	E	3
	D	
	C	19
	B	3
	A	
	GND	

*REAR PLUG-UP CODE WITH PIN ALIGNER
 ***REAR PLUG-UP CODE WITHOUT PIN ALIGNER

NOTES:

- SEE APPLICATION SPECIFICATION GS-20-010 FOR INFORMATION ON AVAILABLE TOOLING, CIRCUIT BOARD DESIGN CONSIDERATIONS, REPAIR PROCEDURES AND PRODUCT OFFERINGS.
- SEE FCI PUBLICATION 950511-028 FOR "ELECTRICAL PERFORMANCE DATA FOR DIFFERENTIAL APPLICATIONS."
- SEE FCI PUBLICATION 950511-029 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: PHOSPHER BRONZE
- GROUND SPRING MATERIAL: PHOSPHER BRONZE
- STRIPLINE SHIELD MATERIAL: PHOSPHER BRONZE
- PLATING INFORMATION: SEE TABLE
- DIMENSIONAL RESTRICTIONS OF PINS IN HEADERS.
 DIM A : 5.0mm MIN, 8.0mm MAX FOR ROWS A-E
 DIM A : 5.0mm MIN, 6.3mm MAX FOR ROW GND NEXT TO ROW A
 DIM C : 5.0mm MIN, 8.0mm MAX FOR ROWS A-E
 DIM C : 4.6mm MIN, 6.3mm 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 OPOSE 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 74977-X YY ZZZ



17. P/N 74977-X01ZZZ SHOWN.

- 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.

mat'l code				tolerances unless otherwise specified		CUSTOMER		FCI		www.fciconnect.com	
ltr	ecn no.	dr	date	linear	0.X ±0.1		COPY		projection	title	
Y	-	-	-		0.XX ±0.05		MM			HEADER ASS'Y	
					.XXX ±.020		1:1			STR. P.F. STD. 5-ROW	
				angles	0° ±2°		scale		product family		
				dr	K.BELL	3/29/00	A		METRAL 2000		
				enrg	M.HAHN	3/29/00	size		code		
				chr	M.HAHN	3/29/00	dwg no		213		
				appd	M.HAHN	3/29/00	74977		sheet		
sheet index		revision sheet								5	

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