

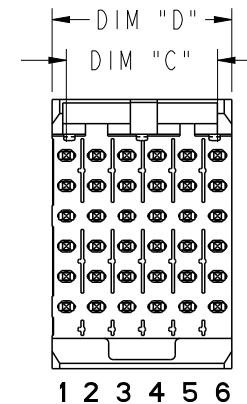
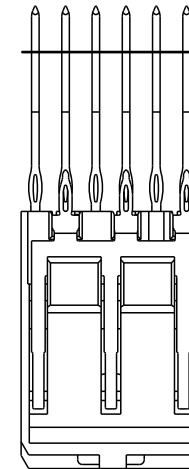
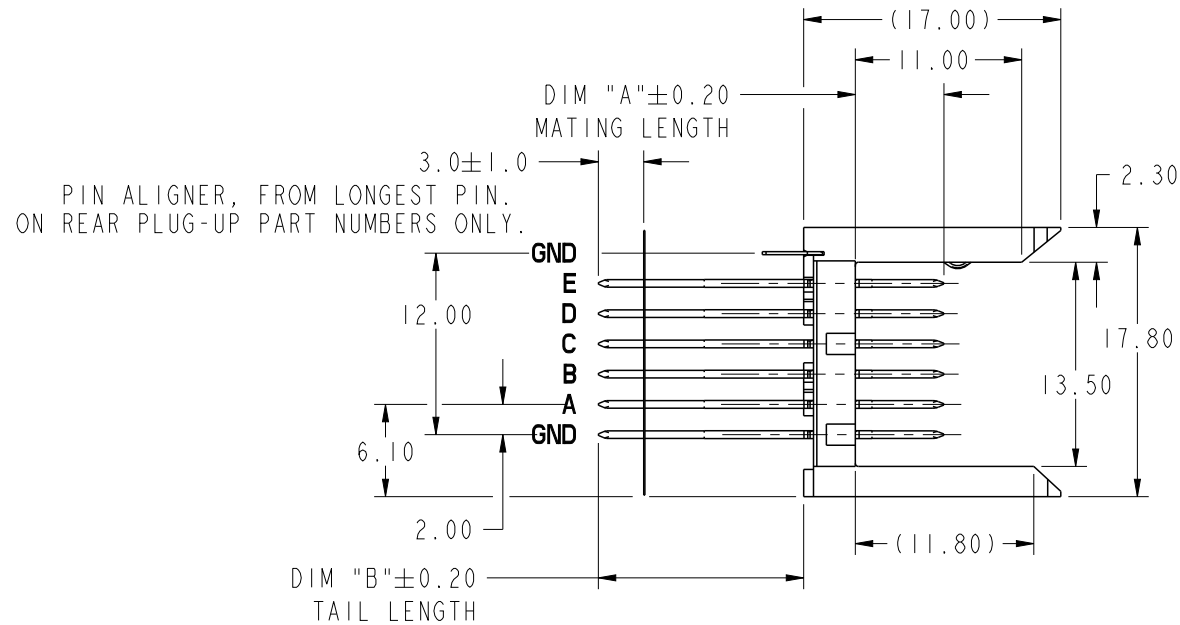
PRODUCT NUMBER

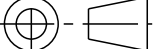
SEE BELOW AND TABLE ON SHEET 2

84817-X YY ZZZ (L) LF

BASE NUMBER

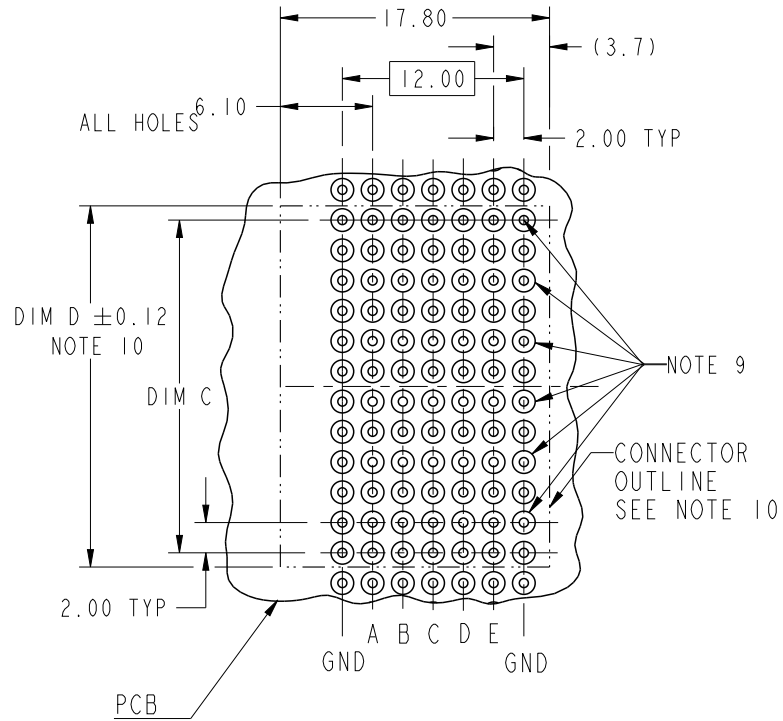
LEAD FREE
LUBRICATED (OPTIONAL) SEE NOTE 6
SPECIAL LOAD PATTERN
SEE SHEETS 6-7
SIZE, SEE SHEET 2
PLATING PERFORMANCE



spec ref		-		dr	P-Mathew Nebu	2011/05/20	projection  MM 	size	A4	scale	2:1				
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED			eng	Rahul Mohan-M	2021/08/25		ecn no	ELX-I-41559-1						
				chr	-	-									
				appr	Kuriakose, San	2021/08/25						product family	METRAL 1000		rel level
surface	linear	0.X	±0.1	Amphenol FCI	title			VERTICAL SIGNAL HDR 5 ROW			dwg no	84817		rev	AK
		0.XX	±0.05												
		0.XXX	±0.020												
	ISO 1302	angular	0°	±2°	cat. no.	Product - Customer Drw				sheet 1 of 7					

Creo File: ELX-MC-AAC, REV F, 2020-12-21

RECOMMENDED PCB LAYOUT



SHOWN FROM HEADER SIDE
OF CIRCUIT BOARD
SEE PRINT 58351 FOR ADDITIONAL
PCB INFORMATION

PRODUCT NO.	SHROUD TO USE FOR REAR-PLUG-UP APPLICATIONS	LENGTH DIM D	PIN FIELD DIM C	CONNECTOR SIZE
84817-X01ZZZ(L)LF	84818-X01LF	11.88	10.00	1 MOD
84817-X02ZZZ(L)LF	84818-X02LF	23.88	22.00	2 MOD
84817-X03ZZZ(L)LF	84818-X03LF	35.88	34.00	3 MOD
84817-X04ZZZ(L)LF	84818-X04LF	47.88	46.00	4 MOD

spec ref	-	dr	P-Mathew Nebu	2011/05/20	projection	MM	size	A4	scale	2:1
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Rahul Mohan-M	2021/08/25			ecn no	ELX-I-41559-1		
ISO 406		chr	-	-			rel level	Released		
ISO 1101		appr	Kuriakose, San	2021/08/25	product family	METRAL 1000				
surface	linear				title	VERTICAL SIGNAL HDR 5 ROW	dwg no	84817	rev	AK
						PRESS-FIT, SPECIAL LOAD, STD.				
ISO 1302	angular				cat. no.	Product - Customer Drw			sheet 2 of 7	

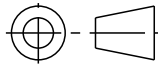
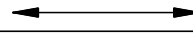
NOTES:

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. MATERIAL : BODY : THERMOPLASTIC UL94-V0.
: CONTACT : COPPER ALLOY.
6. FOR PLATING PERFORMANCE REFER DRAWING # 10159408.
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.
14. THE PRODUCTS MEET EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-47-0004.
15. ALL PRODUCTS WILL WITHSTAND EXPOSURE TO 260°C FOR 60 SECONDS IN A CONVECTION INFRA-RED OR VAPOR PHASE REFLOW OVEN.
16. SEE PRODUCT SPEC GS-12-110 FOR PERFORMANCE, TEST, AND SIGNAL INTEGRITY INFORMATION.
17. A  SYMBOL WILL BE NEXT TO ANY DIMENSION, VIEW, OR NOTE WHICH HAS BEEN MODIFIED WITH THE DRAWING CURRENT REVISION

spec ref -		dr P-Mathew Nebu		2011/05/20		projection	MM	size A4	scale 2:1	
tolerance std ISO 406 ISO 1101	TOLERANCES UNLESS OTHERWISE SPECIFIED		eng Rahul Mohan-M		2021/08/25			ecn no ELX-I-41559-1		
			chr -		-			rel level Released		
		appr Kuriakose, San		2021/08/25		product family METRAL 1000				
surface ISO 1302	linear	0.X	±0.1	Amphenol FCI	title VERTICAL SIGNAL HDR 5 ROW PRESS-FIT, SPECIAL LOAD, STD.		dwg no 84817	rev AK		
		0.XX	±0.05							
		0.XXX	±0.020							
	angular	0°	±2°		cat. no.	Product - Customer Drw		sheet 3 of 7		

Creo File:ELX-MC-AAC_REV F_2020-12-21

PIN NO.	DIM A MATING LENGTH	DIM B TAIL LENGTH	PCB THICKNESS RANGE ACCOMMODATED BY PIN'S TAIL LENGTH				
			WHEN MATING TO A 73981 OR 84688 SERIES RECEPTACLE		WHEN MATING TO A 52057 SERIES METRAL 4000 RECEPTACLE		
			ROWS A,B,C,D,E	GROUND ROW	ROWS:A,B,DE	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

spec ref		-		dr	P-Mathew Nebu	2011/05/20			size	A4	scale	2:1		
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED			eng	Rahul Mohan-M	2021/08/25			ecn no	ELX-I-41559-1				
				chr	-	-								
ISO 406				appr	Kuriakose, San	2021/08/25	product family		METRAL 1000		rel level	Released		
ISO 1101														
surface		linear	0.X	±0.1		title	VERTICAL SIGNAL HDR 5 ROW PRESS-FIT, SPECIAL LOAD, STD.			dwg no	84817		rev	
			0.XX	±0.05										AK
			0.XXX	±0.020										
ISO 1302	angular	0°	±2°			cat. no.	Product - Customer Drw		sheet 4 of 7					

PIN 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,DE	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.

spec ref		-		dr	P-Mathew Nebu	2011/05/20	projection 	MM 	size	A4	scale	2:1		
tolerance std ISO 406 ISO 1101	TOLERANCES UNLESS OTHERWISE SPECIFIED			eng	Rahul Mohan-M	2021/08/25			ecn no	ELX-I-41559-1				
				chr	-	-			rel level			Released		
				appr	Kuriakose, San	2021/08/25	product family		METRAL 1000					
surface ISO 1302	linear	0.X	±0.1	Amphenol FCi	title	VERTICAL SIGNAL HDR 5 ROW PRESS-FIT, SPECIAL LOAD, STD.				dwg no	84817		rev	AK
		0.XX	±0.05											
		0.XXX	±0.020											
	angular	0°	±2°		cat. no.	Product - Customer Drw				sheet 5 of 7				

A

B

C

D

SPECIAL LOAD PATTERNS		
PRODUCT #	ROW	PIN CODES
84817-XY001LF	E	01
	D	
	C	
	B	
	A	
84817-XY002LF *RPU	GND	22
	E	
	D	
	C	
	B	
84817-XY011LF	A	02
	GND	
	E	
	D	
	C	
84817-XY021LF	B	02
	A	
	GND	
	E	
	D	

PCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS:
2.95 TO 3.80mm

SPECIAL LOAD PATTERNS		
PRODUCT #	ROW	PIN CODES
84817-XY022LF	E	02
	D	
	C	
	B	
	A	
84817-XY023LF	GND	02
	E	
	D	
	C	
	B	
84817-XY024LF *RPU	A	06
	GND	
	E	
	D	
	C	
84817-XY025LF *RPU	B	06
	A	
	GND	
	E	
	D	

PCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS:
4.00 TO 5.30mmPCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS:
*2.30-3.30 TO 5.30mm

SPECIAL LOAD PATTERNS		
PRODUCT #	ROW	PIN CODES
84817-XY026LF *RPU	E	22
	D	
	C	
	B	
	A	
84817-XY027LF *RPU	GND	01
	E	
	D	
	C	
	B	
84817-XY028LF	A	01
	GND	
	E	
	D	
	C	
84817-XY029LF	B	02
	A	
	GND	
	E	
	D	
84817-XY030LF *RPU	C	07
	B	
	A	
	GND	
	E	
84817-XY031LF *RPU	D	25
	C	
	B	
	A	
	GND	

PCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS:
2.95 TO 3.80mmPCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS:
2.95 TO 3.80mmPCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS:
2.95 TO 3.80mmPCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS:
2.95 TO 3.80mm

spec ref		-		dr	P-Mathew Nebu	2011/05/20	projection	MM	size	A4	scale	2:1			
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED			eng	Rahul Mohan-M	2021/08/25			ecn no	ELX-I-41559-1					
				chr	-	-									
ISO 406					appr	Kuriakose, San	2021/08/25	product family		METRAL 1000		rel level	Released		
ISO 1101															
surface	linear	0.X	±0.1	Amphenol FCi	title	VERTICAL SIGNAL HDR 5 ROW PRESS-FIT, SPECIAL LOAD, STD.					dwg no	84817		rev	AK
		0.XX	±0.05												
		0.XXX	±0.020												
	ISO 1302	angular	0°	±2°		cat. no.	Product - Customer Drw					sheet 6 of 7			

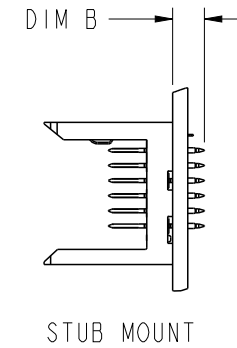
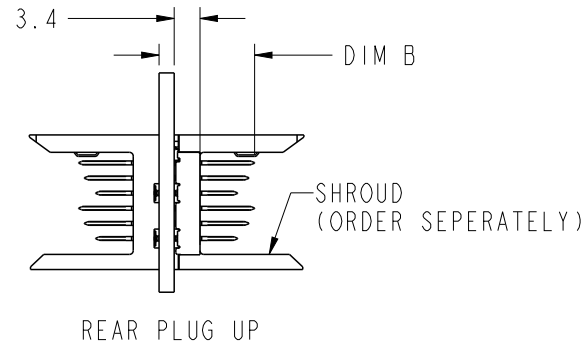
SPECIAL LOAD PATTERNS

PRODUCT #	ROW	PIN CODES
84817-XY032LF	E	22
	D	
	C	
	B	22
	A	
	GND	
84817-XY033LF *RPU	E	06
	D	
	C	
	B	
	A	30
	GND	
84817-XY034LF	E	03
	D	
	C	
	B	
	A	02
	GND	
84817-XY035LF	E	01
	D	
	C	
	B	-
	A	
	GND	
84817-XY036LF *RPU	E	22
	D	
	C	
	B	01
	A	
	GND	
84817-XY037LF	E	01
	D	
	C	
	B	
	A	02
	GND	

SPECIAL LOAD PATTERNS

PRODUCT #	ROW	PIN CODES
84817-XY038LF *RPU	E	49
	D	
	C	
	B	
	A	
	GND	
84817-XY039LF *RPU	E	36
	D	
	C	
	B	
	A	06
	GND	

PCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS:
4.80 TO 6.80mm



PCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS:
2.95 TO 3.80mm

spec ref		-		dr	P-Mathew Nebu	2011/05/20	projection	MM	size	A4	scale	2:1	
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED			eng	Rahul Mohan-M	2021/08/25			ecn no	ELX-I-41559-1			
				chr	-	-							
				appr	Kuriakose, San	2021/08/25			product family		METRAL 1000		rel level
surface	linear	0.X	±0.1	Amphenol FCI	title	VERTICAL SIGNAL HDR 5 ROW PRESS-FIT, SPECIAL LOAD, STD.			dwg no	84817		rev	AK
		0.XX	±0.05										
		0.XXX	±0.020										
	ISO 1302	angular	0°	±2°	cat. no.	Product - Customer Drw				sheet 7 of 7			

Mouser Electronics

Authorized Distributor

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