

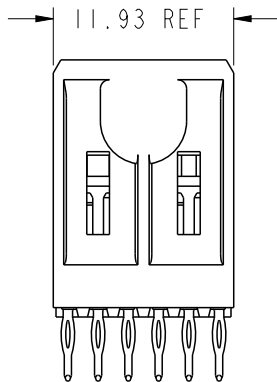
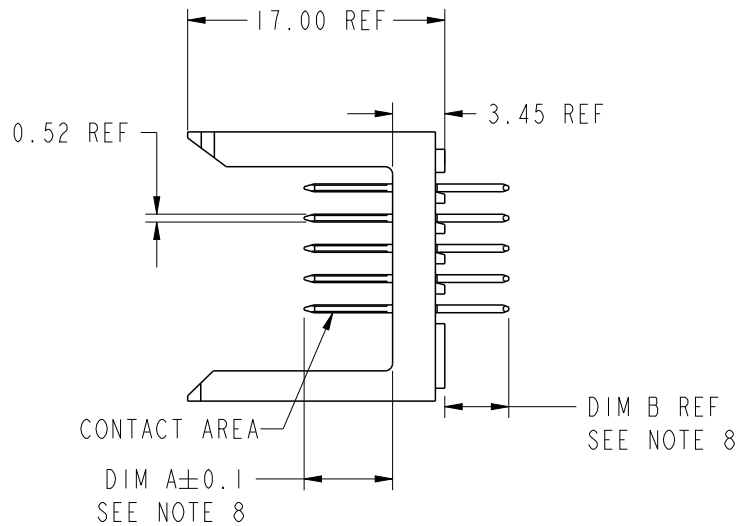
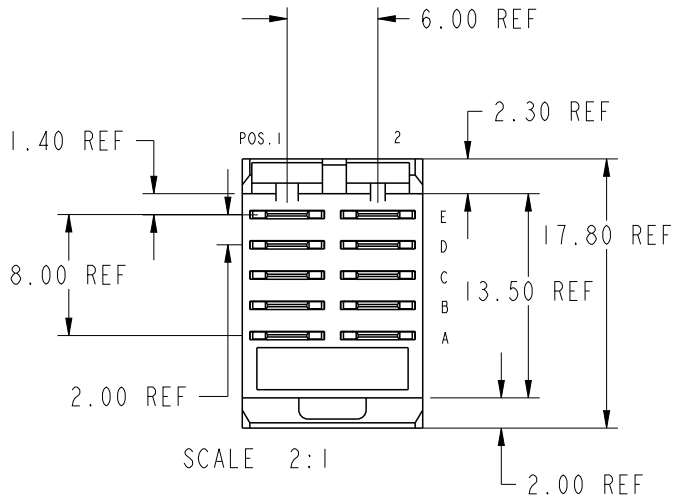
PRODUCT NUMBER
89099-XXX
89099-XXYLF

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PLATING IN CONTACT AREA		
DASH NUMBER	PERFORMANCE LEVEL	NOTES
-1YY	TELCORDIA CO	-
-2YY	TELECOM CLASS	-
-3YY	IEC CLASS I	-
-5YY	TELCORDIA UE	-
-1YYLF	TELCORDIA CO IEC CLASS I	SEE NOTE 9
-2YYLF	TELECOM CLASS	SEE NOTE 9
-5YYLF	TELCORDIA UE	SEE NOTE 9

spec ref	*	dr	Terran Huang	2010/07/08	projection	mm	size	A4	scale	2:1
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Andy Lu	2012/12/26			ecn no		ELX-DG-13761-1	
ISO 406		chr	Sun Richard	2012/12/26			rel level		Released	
ISO 1101		appr	Pei-Ming Zheng	2013/01/01	product family		METRAL			
surface	3.200 linear			title			METRAL POWER HEADER		dwg no	
	0.X ±0.3	www.fci.com		1 MOD, 5 ROW PRESS-FIT			89099		rev	
	0.XX ±0.13			cat. no.			-		Product - Customer Drw	
	0.XXX ±0.051								sheet 1 of 6	
ISO 1302	angular 0° ±2°								AV	

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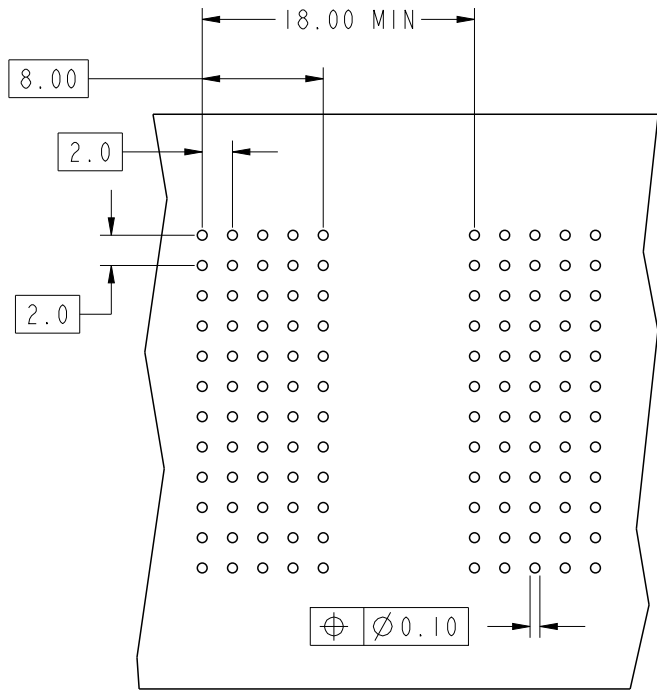
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SCALE 2:1

REQUIRED PC BOARD LAYOUT
COMPONENT SIDE

SEE PRINT 58351 FOR ADDITIONAL
PCB INFORMATION.

KEY		
CODE	DIMENSIONS	
	DIM "A" MATE	DIM "B" TAIL
P01	6.50	4.30
P02	7.25	4.30
P03	8.00	4.30
P04	6.50	13.60
P05	7.25	13.60
P06	8.00	13.60
P07	6.50	17.00
P08	7.25	17.00
P09	8.00	17.00
PI6	5.00	4.30
PI7	5.75	4.30



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spec ref *		dr Terran Huang		2010/07/08		projection		size A4		scale 2:1			
tolerance std		eng Andy Lu		2012/12/26				mm		ecn no ELX-DG-13761-1			
ISO 406 ISO 1101		chr Sun Richard		2012/12/26									
TOLERANCES UNLESS OTHERWISE SPECIFIED		appr Pei-Ming Zheng		2013/01/01		product family METRAL		rel level Released					
surface 3.2		linear		0.X ±0.3				title METRAL POWER HEADER		dwg no 89099		rev AV	
				0.XX ±0.13									
				0.XXX ±0.051									
ISO 1302		angular		0° ±2°		www.fci.com		cat. no. -		Product - Customer Drw		sheet 2 of 6	

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METRAL P/N	ROW	CONTACT CODE MOD. I		METRAL P/N	ROW	CONTACT CODE MOD. I		METRAL P/N	ROW	CONTACT CODE MOD. I		METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2			1	2			1	2			1	2
89099-X01 SEE NOTE 10 LEAD FREE OPTION	E	P16	P16	89099-X05 SEE NOTE 10 LEAD FREE OPTION	E	P01	P01	89099-X11 SEE NOTE 10 LEAD FREE OPTION	E	P01	P01	89099-X15 SEE NOTE 10 LEAD FREE OPTION	E	P02	P02
	D	P16	P16		D	P01	P01		D	P01	P01		D	P02	P02
	C	P16	P16		C	P02	P02		C	P01	P01		C	P02	P02
	B	P16	P16		B	P03	P03		B	P01	P01		B	P02	P02
	A	P16	P16		A	P03	P03		A	P01	P01		A	P02	P02
89099-X02 SEE NOTE 10 LEAD FREE OPTION	E	P16	P16	89099-X06 SEE NOTE 10 LEAD FREE OPTION	E	P17	P17	89099-X12 SEE NOTE 10 LEAD FREE OPTION	E	P01	P01	89099-X16 SEE NOTE 10 LEAD FREE OPTION	E	P01	P01
	D	P16	P16		D	P17	P17		D	P01	P01		D	P01	P01
	C	P16	P16		C	P17	P17		C	P01	P01		C	P02	P02
	B	P16	P16		B	P17	P17		B	P03	P03		B	P02	P02
	A	P01	P01		A	P17	P17		A	P01	P01		A	P03	P03
89099-X03 SEE NOTE 10 LEAD FREE OPTION	E	P17	P17	89099-X07 SEE NOTE 10 LEAD FREE OPTION	E	P02	P02	89099-X13 SEE NOTE 10 LEAD FREE OPTION	E	P01	P01	89099-X17 SEE NOTE 10 LEAD FREE OPTION	E	P01	P01
	D	P01	P01		D	P02	P02		D	P01	P01		D	P01	P01
	C	P17	P17		C	P02	P02		C	P02	P02		C	P01	P01
	B	P17	P17		B	P02	P02		B	P03	P03		B	P01	P01
	A	P01	P01		A	P02	P02		A	P03	P03		A	P03	P03
89099-X04 SEE NOTE 10 LEAD FREE OPTION	E	P17	P17	89099-X10 SEE NOTE 10 LEAD FREE OPTION	E	P01	P01	89099-X14 SEE NOTE 10 LEAD FREE OPTION	E	P03	P03	89099-X18 SEE NOTE 10 LEAD FREE OPTION	E	P01	P01
	D	P17	P17		D	P01	P01		D	P03	P03		D	P01	P01
	C	P17	P17		C	P02	P02		C	P03	P03		C	P03	P03
	B	P02	P02		B	P03	P03		B	P03	P03		B	P03	P03
	A	P17	P17		A	P02	P02		A	P03	P03		A	P03	P03
89099-X20 SEE NOTE 10 LEAD FREE OPTION	E	P04	P04	89099-X21 SEE NOTE 10 LEAD FREE OPTION	E	P04	P04	89099-X22 SEE NOTE 10 LEAD FREE OPTION	E	P04	P04	89099-X23 SEE NOTE 10 LEAD FREE OPTION	E	P04	P04
	D	P04	P04		D	P04	P04		D	P04	P04		D	P04	P04
	C	P05	P05		C	P04	P04		C	P04	P04		C	P05	P05
	B	P06	P06		B	P04	P04		B	P06	P06		B	P06	P06
	A	P05	P05		A	P04	P04		A	P04	P04		A	P06	P06

spec ref	*	dr	Terran Huang	2010/07/08	projection	mm	size	A4	scale	1:1				
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Andy Lu	2012/12/26			ecn no	ELX-DG-13761-1						
ISO 406		chr	Sun Richard	2012/12/26				rel level	Released					
ISO 1101		appr	Pei-Ming Zheng	2013/01/01	product family	METRAL								
surface	3.2	near	0.X	±0.3		title	METRAL POWER HEADER			dwg no	89099	rev	AV	
			0.XX	±0.13			cat. no.	-	Product - Customer Drw					sheet 3 of 6
			0.XXX	±0.051										
ISO 1302	angular	0°	±2°	www.fci.com										

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METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X24 SEE NOTE 10 LEAD FREE OPTION	E	P06	P06
	D	P06	P06
	C	P06	P06
	B	P06	P06
	A	P06	P06

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X28 SEE NOTE 10 LEAD FREE OPTION	E	P04	P04
	D	P04	P04
	C	P06	P06
	B	P06	P06
	A	P06	P06

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X33 SEE NOTE 10 LEAD FREE OPTION	E	P07	P07
	D	P07	P07
	C	P08	P08
	B	P09	P09
	A	P09	P09

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X37 SEE NOTE 10 LEAD FREE OPTION	E	P07	P07
	D	P07	P07
	C	P07	P07
	B	P07	P07
	A	P09	P09

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X41 SEE NOTE 10 LEAD FREE OPTION	E	P01	P01
	D	P03	P03
	C	P03	P03
	B	P03	P03
	A	P02	P02

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X25 SEE NOTE 10 LEAD FREE OPTION	E	P05	P05
	D	P05	P05
	C	P05	P05
	B	P05	P05
	A	P05	P05

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X30 SEE NOTE 10 LEAD FREE OPTION	E	P07	P07
	D	P07	P07
	C	P08	P08
	B	P09	P09
	A	P08	P08

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X34 SEE NOTE 10 LEAD FREE OPTION	E	P09	P09
	D	P09	P09
	C	P09	P09
	B	P09	P09
	A	P09	P09

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X38 SEE NOTE 10 LEAD FREE OPTION	E	P07	P07
	D	P07	P07
	C	P09	P09
	B	P09	P09
	A	P09	P09

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X42 SEE NOTE 10 LEAD FREE OPTION	E	P01	P01
	D	P02	P02
	C	P02	P02
	B	P02	P02
	A	P01	P01

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X26 SEE NOTE 10 LEAD FREE OPTION	E	P04	P04
	D	P04	P04
	C	P05	P05
	B	P05	P05
	A	P06	P06

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X31 SEE NOTE 10 LEAD FREE OPTION	E	P07	P07
	D	P07	P07
	C	P07	P07
	B	P07	P07
	A	P07	P07

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X35 SEE NOTE 10 LEAD FREE OPTION	E	P08	P08
	D	P08	P08
	C	P08	P08
	B	P08	P08
	A	P08	P08

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X39 SEE NOTE 10 LEAD FREE OPTION	E	P03	P03
	D	P01	P01
	C	P01	P01
	B	P01	P01
	A	P01	P01

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X43 SEE NOTE 10 LEAD FREE OPTION	E	P03	P03
	D	P03	P03
	C	P03	P03
	B	P02	P02
	A	P02	P02

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X27 SEE NOTE 10 LEAD FREE OPTION	E	P04	P04
	D	P04	P04
	C	P04	P04
	B	P04	P04
	A	P06	P06

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X32 SEE NOTE 10 LEAD FREE OPTION	E	P07	P07
	D	P07	P07
	C	P07	P07
	B	P09	P09
	A	P07	P07

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X36 SEE NOTE 10 LEAD FREE OPTION	E	P07	P07
	D	P07	P07
	C	P08	P08
	B	P08	P08
	A	P09	P09

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X40 SEE NOTE 10 LEAD FREE OPTION	E	P02	P02
	D	P01	P01
	C	P02	P02
	B	P01	P01
	A	P02	P02

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X44 SEE NOTE 10 LEAD FREE OPTION	E	P03	P03
	D	P03	P03
	C	P03	P03
	B	P16	P16
	A	P03	P03



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spec ref	*	dr	Terran Huang	2010/07/08	projection 	mm 	size	A4	scale	1:1		
tolerance std ISO 406 ISO 1101	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Andy Lu	2012/12/26			ecn no	ELX-DG-13761-1				
		chr	Sun Richard	2012/12/26				rel level	Released			
surface $3.2 \sqrt{R}$ ISO 1302	near	appr	Pei-Ming Zheng	2013/01/01	product family		METRAL		dwg no	89099	rev	AV
		0.X	±0.3	 www.fci.com	title		METRAL POWER HEADER					
		0.XX	±0.13		1 MOD, 5 ROW PRESS-FIT							
0.XXX	±0.051	cat. no.	-		Product - Customer Drw		sheet 4 of 6					
angular	0°	±2°										

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METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X45	E	P03	P03
SEE NOTE 10 LEAD FREE OPTION	D	P02	P02
	C	P17	P17
	B	P17	P17
	A	P17	P17

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X49	E	P02	P02
SEE NOTE 10 LEAD FREE OPTION	D	P03	P03
	C	P03	P03
	B	P03	P03
	A	P02	P02

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X53	E	P05	P05
SEE NOTE 10 LEAD FREE OPTION	D	P05	P05
	C	P06	P06
	B	P04	P04
	A	P04	P04

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X57	E	P03	P03
SEE NOTE 10 LEAD FREE OPTION	D	P01	P01
	C	P01	P01
	B	P01	P01
	A	P03	P03

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X61	E	P03	P03
SEE NOTE 10 LEAD FREE OPTION	D	P03	P03
	C	P02	P02
	B	P01	P01
	A	P01	P01

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X46	E	P03	P03
SEE NOTE 10 LEAD FREE OPTION	D	P03	P03
	C	P01	P01
	B	P03	P03
	A	P01	P01

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X50	E	P01	P01
SEE NOTE 10 LEAD FREE OPTION	D	P01	P01
	C	P03	P03
	B	P01	P01
	A	P01	P01

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X54	E	P02	P02
SEE NOTE 10 LEAD FREE OPTION	D	P02	P02
	C	P03	P03
	B	P01	P01
	A	P01	P01

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X58	E	P01	P01
SEE NOTE 10 LEAD FREE OPTION	D	P03	P03
	C	P01	P01
	B	P03	P03
	A	P01	P01

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X62	E	P06	P06
SEE NOTE 10 LEAD FREE OPTION	D	P05	P05
	C	P05	P05
	B	P06	P06
	A	P05	P05

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X47	E	P01	P01
SEE NOTE 10 LEAD FREE OPTION	D	P01	P01
	C	P02	P02
	B	P03	P03
	A	P02	P02

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X51	E	P01	P01
SEE NOTE 10 LEAD FREE OPTION	D	P01	P01
	C	P16	P16
	B	P01	P01
	A	P01	P01

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X55	E	P02	P02
SEE NOTE 10 LEAD FREE OPTION	D	P02	P02
	C	P02	P02
	B	P03	P03
	A	P03	P03

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X59	E	P16	P16
SEE NOTE 10 LEAD FREE OPTION	D	P03	P03
	C	P03	P03
	B	P03	P03
	A	P03	P03

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X63	E	P01	P01
SEE NOTE 10 LEAD FREE OPTION	D	P02	P02
	C	P01	P01
	B	P02	P02
	A	P03	P03

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X48	E	P04	P04
SEE NOTE 10 LEAD FREE OPTION	D	P04	P04
	C	P06	P06
	B	P04	P04
	A	P04	P04

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X52	E	P03	P03
SEE NOTE 10 LEAD FREE OPTION	D	P02	P02
	C	P03	P03
	B	P03	P03
	A	P03	P03

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X56	E	P05	P05
SEE NOTE 10 LEAD FREE OPTION	D	P05	P05
	C	P05	P05
	B	P05	P05
	A	P04	P04

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X60	E	P01	P01
SEE NOTE 10 LEAD FREE OPTION	D	P01	P01
	C	P03	P03
	B	P03	P03
	A	P01	P01

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X64	E	P02	P02
SEE NOTE 10 LEAD FREE OPTION	D	P02	P02
	C	P01	P01
	B	P03	P03
	A	P01	P01

spec ref	*	dr	Terran Huang	2010/07/08	projection	mm	size	A4	scale	1:1
tolerance std	ISO 406 ISO 1101	eng	Andy Lu	2012/12/26			ecn no	ELX-DG-13761-1		
TOLERANCES UNLESS OTHERWISE SPECIFIED		chr	Sun Richard	2012/12/26				rel level	Released	
surface	3.200 inear	appr	Pei-Ming Zheng	2013/01/01	product family		METRAL		rev	AV
	ISO 1302				title		METRAL POWER HEADER		dwg no	89099
					1 MOD, 5 ROW PRESS-FIT		Product - Customer Drw		sheet	5 of 6
					cat. no.					

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METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X65 SEE NOTE 10 LEAD FREE OPTION	E	P17	P17
	D	P03	P03
	C	P03	P03
	B	P03	P03
	A	P03	P03

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X69 ----- 89099-X69LF	E	P03	P03
	D	P16	P16
	C	P16	P16
	B	P16	P16
	A	P03	P03

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X66 ----- 89099-X66LF	E	P17	P17
	D	P17	P17
	C	P02	P02
	B	P02	P02
	A	P17	P17

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X70 ----- 89099-X70LF	E	P01	P01
	D	P03	P01
	C	P03	P03
	B	P03	P03
	A	P03	P02

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X67 ----- 89099-X67LF	E	P01	P01
	D	P02	P02
	C	P02	P02
	B	P03	P03
	A	P03	P03

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X71 ----- 89099-X71LF	E	P03	P03
	D	P03	P03
	C	P03	P02
	B	P03	P02
	A	P03	P03

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X68 ----- 89099-X68LF	E	P01	P01
	D	P02	P02
	C	P02	P02
	B	P02	P02
	A	P03	P03

- NOTES:
- FOR DIM A AND B SEE SHEET 2 AND UP.
 - BODY MATERIAL: LIQUID CRYSTAL
POLYMER 30 % GLASS.
FLAME RETARDANT ACC. UL 94-V0.
 - PIN MATERIAL:
PHOSPHOR BRONZE.
 - PLATING ON PRESS-FIT TAIL:
89099 -XXX IS SnPb
89099-XXYLF IS SN (LEAD FREE)
PLATING ON CONTACT AREA CONFORMS TO PERFORMANCE LEVEL SHOWN IN TABLE.
 - PRODUCT MARKING:
PART NUMBER DESIGNATION & BATCH I.D.
 - ALL PRODUCTS WITH PART NUMBERS SHOWN IN SUBSEQUENT TABLES WILL BE PACKAGED IN TUBES. IF TRAY PACKAGING IS REQUIRED, A SUFFIX "P" WILL BE ADDED TO THE END OF THE PART NUMBER. EXAMPLE: XXXXX-XXXP OR XXXXX-XXXPLF
 - PRODUCT SPECIFICATION GS-12-180
APPLICATION SPECIFICATION BUS-20-075
 - AFTER INSERTION INTO CIRCUIT BOARD WITH QUALIFIED TOOL.
 - THE PRODUCTS WHERE THE PART NUMBER ENDS IN LF MEET THE EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-22-008.
 - FOR LEAD FREE PART NUMBERS, ADD AN "LF" SUFFIX. EXAMPLE: 89099-X01LF
 - ALL PRODUCTS WILL WITHSTAND EXPOSURE TO 260°C FOR 60 SECONDS IN CONVECTION, INFAR-RED OR VAPOR PHASE REFLOW OVEN.

spec ref	*	dr	Terran Huang	2010/07/08	projection	mm	size	A4	scale	1:1			
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED	eng	Andy Lu	2012/12/26			ecn no		ELX-DG-13761-1				
ISO 406		chr	Sun Richard	2012/12/26			rel level		Released				
ISO 1101		appr	Pei-Ming Zheng	2013/01/01	product family		METRAL		rev	AV			
surface	3.2 linear				title		METRAL POWER HEADER		dwg no		89099		
	0.X												±0.3
	0.XX												±0.13
	0.XXX	±0.051	www.fci.com		cat. no.		Product - Customer Drw		sheet 6 of 6				
ISO 1302	angular	0°	±2°										

Prod File - REV C - 2009-06-09