





SEE PRINT 58351 FOR ADDITIONAL  
PCB INFORMATION.

spec ref		*		dr		Terran Huang		2010/07/08		projection				size		A4		scale		2:1			
tolerance std		TOLERANCES UNLESS OTHERWISE SPECIFIED		eng		Andy Lu		2013/10/22						ecn no		ELX-DG-16119-1							
ISO 406				chr		Sun Richard		2013/10/24						rel level		Released							
ISO 1101				appr		Pei-Ming Zheng		2013/10/24						product family		METRAL							
surface		3.200 linear		0.X		±0.3				title		METRAL POWER HEADER		dwg no		89099		rev		AW			
		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							



Copyright FCI.

D

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		2013/10/22						ecn no		ELX-DG-16119-1					
								chr		Sun Richard		2013/10/24													
								appr		Pei-Ming Zheng		2013/10/24													
										product family										METRAL		rel level		Released	
surface 3.200 linear  ISO 1302								title METRAL POWER HEADER 1 MOD, 5 ROW PRESS-FIT										dwg no		89099		rev		AW	

PrintE File - REV C - 2009-06-09



Copyright FCI.

A

B

C

D

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-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-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-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-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-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-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-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-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-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-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-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-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-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-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-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-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-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-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-X44  SEE NOTE 10 LEAD FREE OPTION	E	P03	P03
	D	P03	P03
	C	P03	P03
	B	P16	P16
	A	P03	P03

spec ref	*	dr	Terran Huang	2010/07/08	projection	mm	size	A4	scale	1:1			
tolerance std	ISO 406 ISO 1101	eng	Andy Lu	2013/10/22			ecn no	ELX-DG-16119-1	rel level	Released			
		chr	Sun Richard	2013/10/24									
		appr	Pei-Ming Zheng	2013/10/24	product family		METRAL						
surface	3.200 linear	0.X	±0.3		title		METRAL POWER HEADER		dwg no		89099	rev	AW
		0.XX	±0.13										
		0.XXX	±0.051										
ISO 1302	angular	0°	±2°	www.fci.com	cat. no.		-		Product - Customer Drw		sheet 4 of 6		

Print File - REV C - 2009-06-09

A

B

C

D

A

B

C

D

METRAL P/N	ROW	CONTACT CODE MOD. I	
		I	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	
		I	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	
		I	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	
		I	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	
		I	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	
		I	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	
		I	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	
		I	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	
		I	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	
		I	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	
		I	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	
		I	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	
		I	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	
		I	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	
		I	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	
		I	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	
		I	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	
		I	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	
		I	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	
		I	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		TOLERANCES UNLESS OTHERWISE SPECIFIED		eng	Andy Lu	2013/10/22			ecn no	ELX-DG-16119-1			
ISO 406 ISO 1101				chr	Sun Richard	2013/10/24				rel level	Released		
				appr	Pei-Ming Zheng	2013/10/24	product family		METRAL				
surface	3.2	linear	0.X	±0.3		title	METRAL POWER HEADER		dwg no	89099		rev	AW
			0.XX	±0.13									
			0.XXX	±0.051									
ISO 1302	angular	0°	±2°	www.fci.com	cat. no.	-	Product - Customer Drw			sheet 5 of 6			

Print File - REV C - 2009-06-09



Copyright FCI.

A

B

C

D

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-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-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-X68  ----- 89099-X68LF	E	P01	P01
	D	P02	P02
	C	P02	P02
	B	P02	P02
	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

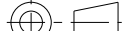


METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-X70  ----- 89099-X70LF	E	P01	P01
	D	P03	P01
	C	P03	P03
	B	P03	P03
	A	P03	P02

METRAL P/N	ROW	CONTACT CODE MOD. I	
		1	2
89099-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-X72  ----- 89099-X72LF	E	P01	P01
	D	P02	P02
	C	P16	P16
	B	-	-
	A	P02	P02

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 ISO 406 ISO 1101	TOLERANCES UNLESS OTHERWISE SPECIFIED			eng Andy Lu 2013/10/22				ecn no ELX-DG-16119-1	
				chr Sun Richard 2013/10/24				rel level Released	
				appr Pei-Ming Zheng 2013/10/24					
product family METRAL									
surface 3.200 linear ISO 1302		0.X ±0.3				title METRAL POWER HEADER 1 MOD, 5 ROW PRESS-FIT	dwg no 89099	rev AV	
		0.XX ±0.13							
		0.XXX ±0.051							
	angular 0° ±2°	www.fci.com		cat. no. -					Product - Customer Drw

PrintE File - REV C - 2009-06-09