

Excellent Integrated System Limited

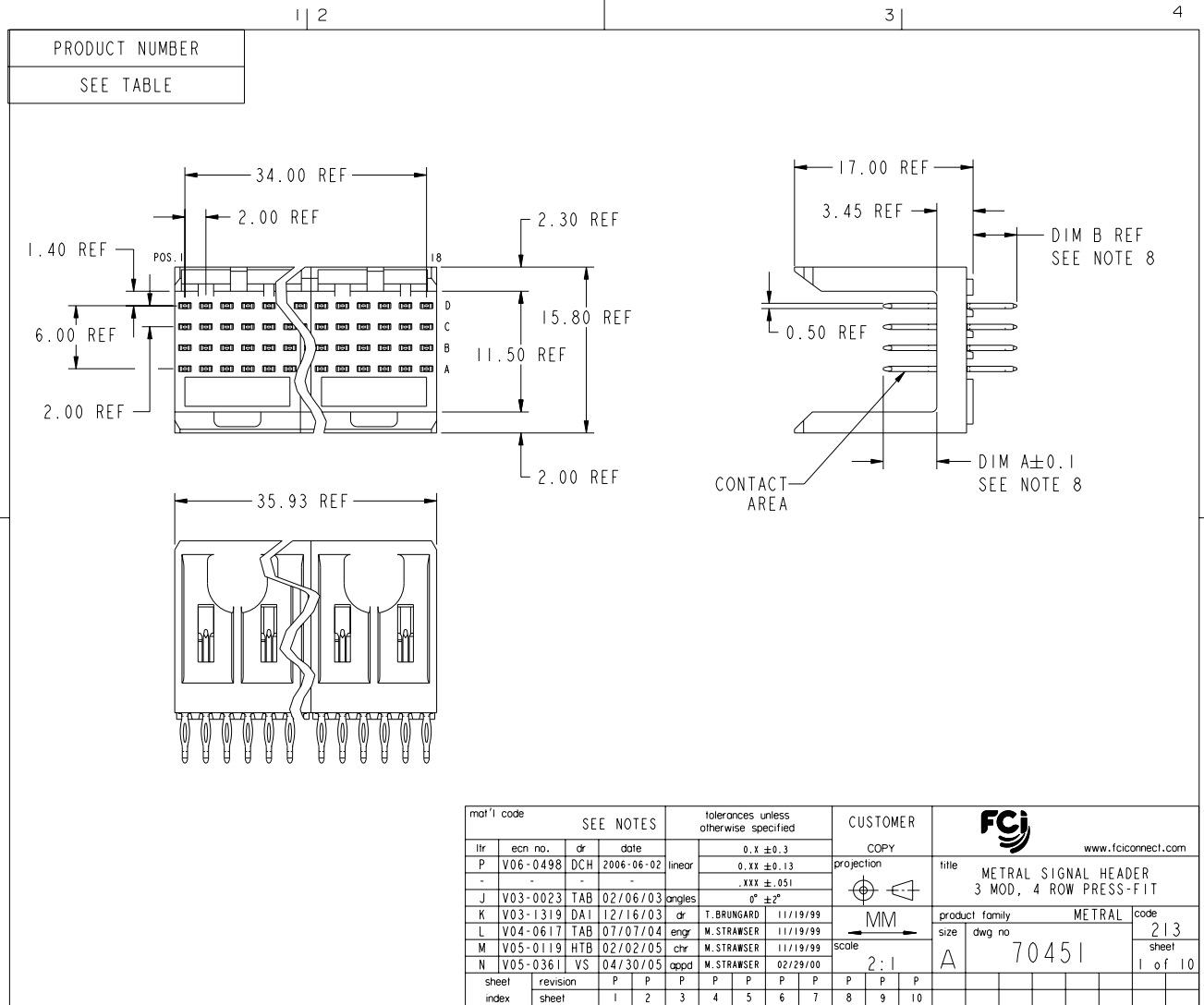
Stocking Distributor

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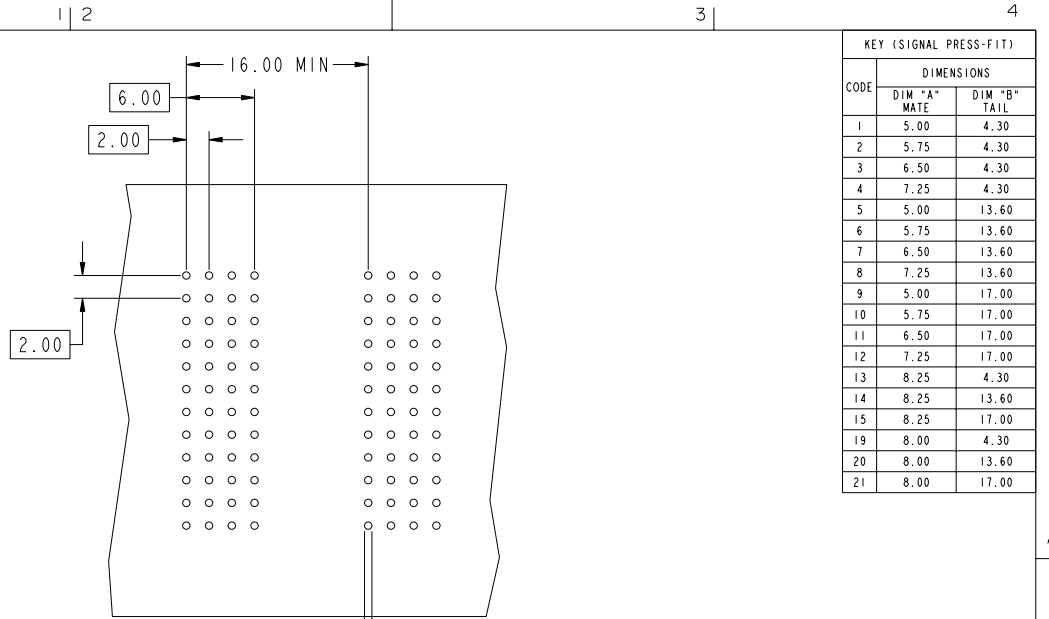
[FCI](#)
[70451-1011LF](#)

For any questions, you can email us directly:

sales@integrated-circuit.com



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REQUIRED PC BOARD LAYOUT
COMPONENT SIDE

SEE PRINT 58351 FOR
ADDITIONAL PCB INFORMATION

mat'l code				--		tolerances unless otherwise specified		CUSTOMER				www.fciconnect.com	
litr	ecn no.	dr	date	linear	0.X ± 0.3		projection		title	METRAL SIGNAL HEADER 3 MOD, 4 ROW PRESS-FIT			
P					0.XX ± 0.13								
					.XXX ± .051								
				angles	0° ± 2°			scale	product family	METRAL		code	
			dr	T. BRUNGARD	11/19/99								
			engr	M. STRAWSER	11/19/99								
			chr	M. STRAWSER	11/19/99								
			appd	M. STRAWSER	02/29/00								
sheet index	revision sheet						1:1		A	70451		213	
												sheet 2	

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PRODUCT NUMBER	DESCRIPTION	PLATING IN PRESS FIT TAIL AREA	PERFORMANCE LEVEL OF PLATING IN CONTACT AREA
70451-N1YYY	STANDARD	TIN-LEAD	TELCORDIA CO (NXT)
70451-N5YYY	STANDARD	TIN-LEAD	TECORDIA UE (NXT)
70451-1YYY	STANDARD	TIN-LEAD	TELCORDIA CO
70451-2YYY	STANDARD	TIN-LEAD	TELECOM CLASS
70451-3YYY	STANDARD	TIN-LEAD	IEC CLASS I
70451-5YYY	STANDARD	TIN-LEAD	TELCORDIA UE
70451-9YYY	STANDARD	TIN-LEAD	TELCORDIA CO
70451-N1YYLFF	LEAD FREE	TIN	TELCORDIA CO (NXT), IEC CLASS I, SEE NOTES 9 AND 10
70451-N5YYLFF	LEAD FREE	TIN	TECORDIA UE (NXT) SEE NOTES 9 AND 10
70451-1YYLFF	LEAD FREE	TIN	TELCORDIA CO, IEC CLASS I, SEE NOTES 9 AND 10
70451-2YYLFF	LEAD FREE	TIN	TELECOM CLASS, SEE NOTES 9 AND 10
70451-5YYLFF	LEAD FREE	TIN	TELCORDIA UE, SEE NOTES 9 AND 10

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 AREA SEE PRODUCT NUMBER
TABLE. PLATING ON CONTACT AREA CONFORMS TO
PERFORMANCE LEVEL SHOWN IN TABLE ON SHEET3.
- 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, SUFFIX "P" WILL BE ADDED TO THE END OF
THE PART NUMBER. EXAMPLE: XXXXX-XXXXP OR XXXXX-XXXXPLF
- PRODCUT SPECIFICATION:
GS-12-180
APPLICATION SPECIFICATION:
BUS-20-073
- AFTER INSERTION INTO CIRCUIT BOARD WITH QUALIFIED TOOL.
- THE PRODUCTS WHERE THE PART NUMBERS ENDS IN
LF MEET THE EUROPEAN UNION DIRECTIVE AND OTHER
COUNTRY REGULATIONS AS DESCRIBED IN GS-12-008.
- ALL PRODUCTS EXCEPT THOSE WITH PART NUMBERS
CONTAINING 70451-N1--- OR 70451-N5--- WILL WITHSTAND
EXPOSURE TO 260 DEGREES C FOR 60 SECONDS IN A
CONVECTION, INFRA-RED OR VAPOR PHASE REFLOW OVEN.
PART NUMBERS 70451-N1--- AND 70451-N5--- WILL NOT
WITHSTAND REFLOW AND THE Au CONTACT SURFACE OF
THE CONTACTS SHALL BE EXPOSED TO A MAXIMUM 140
DEGREES C FOR NO LONGER THAN 15 SECONDS IN A WAVE
SOLDER APPLICATION.

mat'l code				tolerances unless otherwise specified		CUSTOMER		FCI	
litr	ecn no.	dr	date		0.X ±0.3	COPY		www.fciconnect.com	
P				linear	0.XX ±0.13	projection		title METRAL SIGNAL HEADER	
				angles	.XXX ±.051			3 MOD, 4 ROW PRESS-FIT	
					0° ±2°				
				dr	T. BRUNGARD 11/19/99	MM		product family METRAL	
				engr	M. STRAWSER 11/19/99			code 213	
				chr	M. STRAWSER 11/19/99	scale		size dwg no 70451	
				appd	M. STRAWSER 02/29/00	1:1		sheet 3	
sheet index	revision sheet								

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METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X010 AND 70451-X010LF	D	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	C	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	B	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	A	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X015 AND 70451-X015LF	D	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	C	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	B	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	A	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X020 AND 70451-X020LF	D	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	C	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	B	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	A	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X011 AND 70451-X011LF	D	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	C	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	B	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X016 AND 70451-X016LF	D	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	C	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	B	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	A	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X021 AND 70451-X021LF	D	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	C	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	B	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	A	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X012 AND 70451-X012LF	D	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	C	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	B	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	A	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X017 AND 70451-X017LF	D	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	C	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	B	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X022 AND 70451-X022LF	D	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	C	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	B	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	A	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X013 AND 70451-X013LF	D	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	C	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	B	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	A	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X018 AND 70451-X018LF	D	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	C	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	B	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X023 AND 70451-X023LF	D	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	C	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	B	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	A	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X014 AND 70451-X014LF	D	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	C	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	B	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	A	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	1				

mat'l code				tolerances unless otherwise specified				CUSTOMER		FCI	
litr	ecn no.	dr	date	0.X ±0.3				COPY		www.fciconnect.com	
P				linear 0.XX ±0.13				projection		title	
				.XXX ±.051						METRAL SIGNAL HEADER	
				angles 0° ±2°						3 MOD. 4 ROW PRESS-FIT	
				dr T. BRUNGARD 11/19/99				product family		METRAL	
				engr M. STRAWSER 11/19/99				size		code	
				chr M. STRAWSER 11/19/99				dwg no		213	
				appd M. STRAWSER 02/29/00				A		70451	
sheet	revision							scale		sheet	
index	sheet							1:1		4	

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mat'l code				tolerances unless otherwise specified		CUSTOMER		 www.fciconnect.com	
itr	ecn no.	dr	date	linear	$0, X \pm 0,3$	projection		title	METRAL SIGNAL HEADER 3 MOD, 4 ROW PRESS-FIT
P					$0, XX \pm 0,13$				
					$, XXX \pm ,051$				
					angles $0^\circ \pm 2^\circ$				
					dr T. BRUNGARD 11/11/9/99				
				engr M. STRAWER 11/11/9/99			product family	METRAL	code
				chr M. STRAWER 11/11/9/99	size		dwg no		213
				appd M. STRAWER 02/29/00	scale		1:1	A	70451
sheet index	revision sheet								sheet 5

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METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X040 AND 70451-X040LF	D	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	C	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	B	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	A	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X045 AND 70451-X045LF	D	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	C	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	B	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	A	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X050 AND 70451-X050LF	D	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	C	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	B	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
	A	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X041 AND 70451-X041LF	D	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	C	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	B	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	A	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X046 AND 70451-X046LF	D	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
	C	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	B	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	A	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X051 AND 70451-X051LF	D	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	C	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	B	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	A	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X042 AND 70451-X042LF	D	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	C	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	B	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	A	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X047 AND 70451-X047LF	D	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	C	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	B	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
	A	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X052 AND 70451-X052LF	D	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	C	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	B	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	A	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X043 AND 70451-X043LF	D	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
	C	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	B	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	A	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X048 AND 70451-X048LF	D	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
	C	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
	B	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
	A	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X053 AND 70451-X053LF	D	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
	C	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	B	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	A	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
70451-X044 AND 70451-X044LF	D	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	C	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	B	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	A	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2		
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mat'l code				tolerances unless otherwise specified				CUSTOMER		FCI	
litr	ecn no.	dr	date	0.X ±0.3				COPY		www.fciconnect.com	
P				linear 0.XX ±0.13				projection		title	
				.XXX ±.051						METRAL SIGNAL HEADER	
				angles 0° ±2°						3 MOD. 4 ROW PRESS-FIT	
				dr	T. BRUNARD	11/19/99			product family	METRAL	code
				engr	M. STRAWSER	11/19/99			size		213
				chr	M. STRAWSER	11/19/99			dwg no	70451	sheet
				appd	M. STRAWSER	02/29/00					6
sheet	revision										
index	sheet										

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METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3						METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3						
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
70451-X055 AND 70451-X055LF	D	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	70451-X060 AND 70451-X060LF	D	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10				
	C	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6		C	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10				
	B	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		B	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12			
	A	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8		A	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10			
METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3						METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3						
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
		D	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20			D	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	
		C	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			C	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
70451-X056 AND 70451-X056LF	B	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	B	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
	A	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	A	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11		
	METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3						METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
D			8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	D			12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
C			8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	C			12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
70451-X057 AND 70451-X057LF	B	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	B	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15			
	A	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	A	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15			
	METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3						METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
D			20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	D			21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
C			20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	C			21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
70451-X058 AND 70451-X058LF	B	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	B	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21			
	A	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	A	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21			
	METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3						METRAL P/N	ROW	CONTACT CODE MOD. 1						MOD. 2						MOD. 3					
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
D			8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	D			12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
C			7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	C			11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
70451-X059 AND 70451-X059LF	B	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	B	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
	A	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	A	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
	mat'l code		--		tolerances unless otherwise specified		CUSTOMER		FCI		www.fciconnect.com																													
	lfr	ecn no.	dr	date	linear	0.X ±0.3	COPY		title	METRAL	code	213																												
P					0.XX ±0.13	projection	product family						size	dwg no	sheet																									
				angles	.XXX ±.051											70451	7																							
				dr	0° ±2°																																			
				enrg	T.BRUNGARD 11/19/99																																			
				chr	M.STRAWSER 11/19/99																																			
				appd	M.STRAWSER 02/29/00																																			
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ltr	ecn no.	dr	date	linear	0.X ±0.3	COPY		www.fciconnect.com			
P				angles	0.XX ±0.13	projection		title			
				dr	.XXX ±0.051			METRAL SIGNAL HEADER			
				eng	0° ±2°			3 MOD, 4 ROW PRESS-FIT			
				chr	T.BRUNGARD 11/19/99	product family		METRAL			
				appd	M.STRAWSER 11/19/99	size		code			
					M.STRAWSER 02/29/00	dwg no		213			
sheet	revision					A		70451			
index	sheet					scale		sheet			
						1:1		7			

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70451-X070 AND 70451-X070LF	D	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	D	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

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lfr	ecn no.	dr	date	linear	0.X ±0.3	COPY		www.fciconnect.com			
P				linear	0.XX ±0.13	projection		title		METRAL SIGNAL HEADER	
				angles	.XXX ±.051			3 MOD, 4 ROW PRESS-FIT			
				dr	0° ±2°			product family		METRAL	
				engr	T. BRUNGARD 11/19/99	scale		size		code	
				chr	M. STRAWSER 11/19/99	1:1		dwg no		213	
				appd	M. STRAWSER 02/29/00			70451		sheet	
sheet	revision									8	
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mat'l code				tolerances unless otherwise specified				CUSTOMER		FCI	
litr	ecn no.	dr	date	linear	0.X ±0.3	COPY		www.fciconnect.com			
P				linear	0.XX ±0.13	projection		title			
				angles	.XXX ±.051			METRAL SIGNAL HEADER			
				dr	T. BRUNGARD 11/19/99			3 MOD. 4 ROW PRESS-FIT			
				engr	M. STRAWSER 11/19/99	product family		METRAL			
				chr	M. STRAWSER 11/19/99	size		dwg no			
				appd	M. STRAWSER 02/29/00	scale		A 70451			
sheet	revision							code			
index	sheet							213			
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METRAL P/N	CONTACT CODE																	
	MOD. 1	MOD. 2									MOD. 3							
ROW	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
D	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
C	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
B	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
A	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19

mat'l code				tolerances unless otherwise specified				CUSTOMER		FCI			
litr	ecn no.	dr	date	linear	0.X ± 0.3				COPY	www.fciconnect.com			
P					0.XX ± 0.13				projection	title			
					.XXX ± .051				⌀	METRAL SIGNAL HEADER			
				angles	0° ± 2°				MM	3 MOD, 4 ROW PRESS-FIT			
				dr	T. BRUNGARD	11/19/99				product family	METRAL		
				engr	M. STRAWSER	11/19/99				size	dwg no	213	code
				chr	M. STRAWSER	11/19/99				A	70451	sheet	10
				appd	M. STRAWSER	02/29/00			scale	1:1			
sheet index	revision sheet												

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