

A

B

C

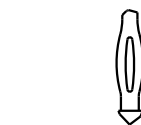
D

PRODUCT NO.	FOR REAR PLUG-UP APPLICATIONS USE SHROUD
73983-XZZZ(L)LF	84818-X01LF

X REFER PLATING PERFORMANCE SEE NOTE 7

L REFER LUBRICATED (OPTIONAL) SEE NOTE 7

X REFER PLATING PERFORMANCE SEE NOTE 7



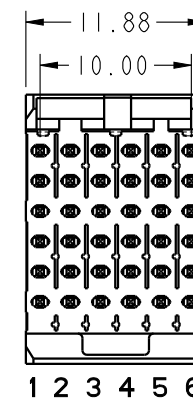
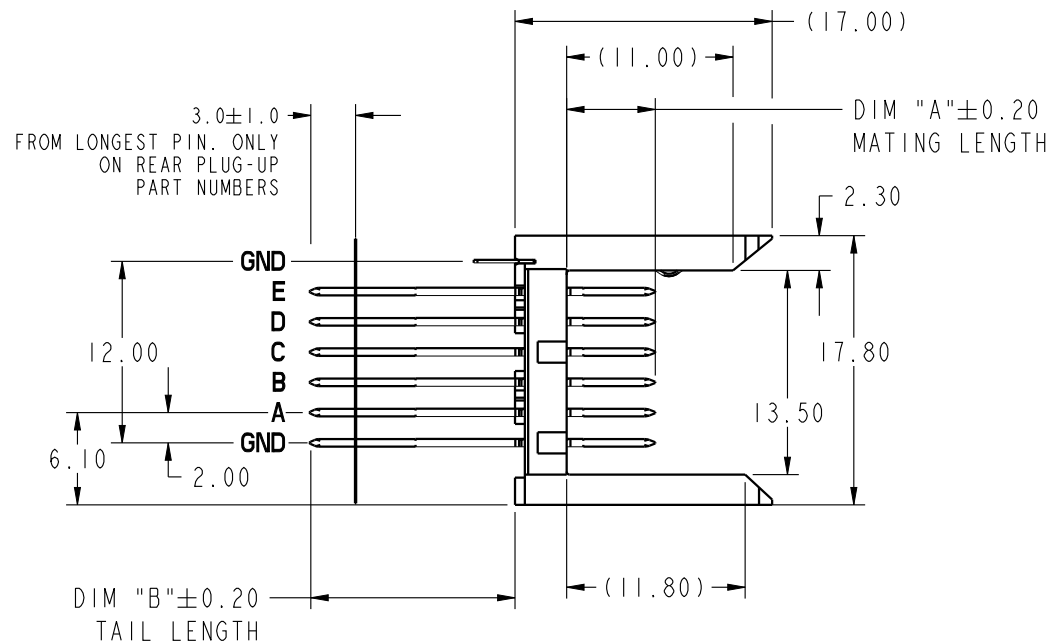
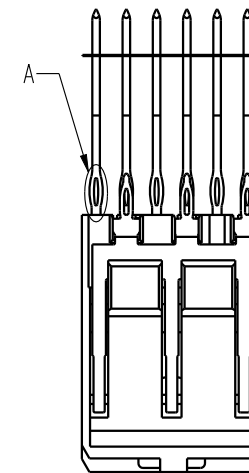
EYE OF NEEDLE
PRESS FIT SECTION



BABY-H
PRESS FIT SECTION

DETAIL A
SCALE 4:1
SEE NOTE 15

SEE DETAIL



spec ref -				dr	Shibin Soman	2020/10/16	projection MM	size	A4	scale	2:1				
tolerance std				eng	Rahul Mohan-M	2021/08/13		ecn no				ELX-I-41325-1			
ISO 406 ISO 1101				chr	-	-		rel level				Released			
TOLERANCES UNLESS OTHERWISE SPECIFIED				appr	Kuriakose, San	2021/08/13		product family				METRAL 1000			
surface		linear	0.X	±0.3	Amphenol FCI	VERTICAL SIGNAL HDR 5 ROW				dwg no	73983	rev	A		
			0.XX	±0.15		P.F. 30 POS. SPECIAL LOAD STD.									
			0.XXX	±0.05											
ISO 1302		angular	0°	±2°	amphenol-icc.com	cat. no.				Product - Customer Drw				sheet 1 of 6	

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

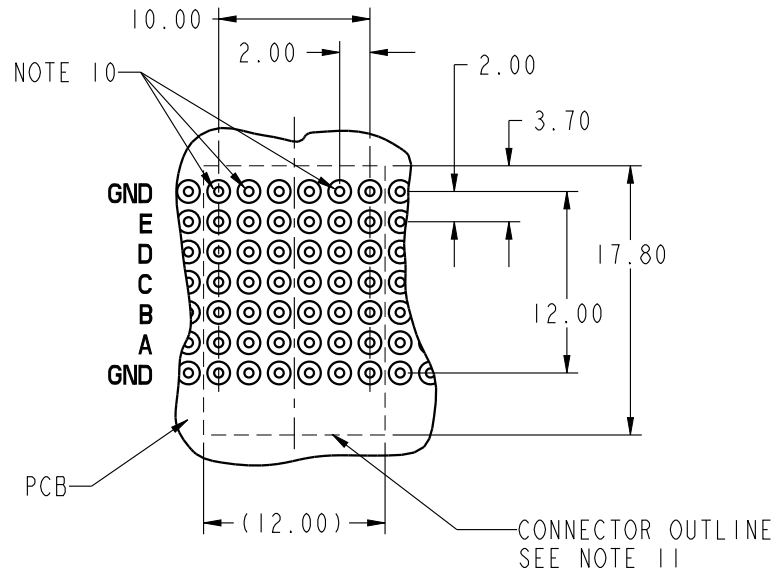
2

3

PDS: Rev :AA

STATUS:Released

Printed: Aug 13, 2021



RECOMMENDED PCB HOLE PATTERN
(COMPONENT SIDE)
REFER 58351 FOR PTH DETAILS

NOTES:

- SEE APPLICATION SPECIFICATION GS-20-010 FOR INFORMATION ON AVAILABLE TOOLING, CIRCUIT BOARD DESIGN CONSIDERATIONS, REPAIR PROCEDURES AND PRODUCT OFFERINGS.
- PRODUCT SPECIFICATION : GS-12-110
- 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: LCP -UL94-V0.
PIN MATERIAL: COPPER ALLOY
GROUND SPRING MATERIAL: COPPER ALLOY
- PLATING INFORMATION: DWG # 10159408.
- 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
- 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.
- 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
- THE PRODUCTS MEET EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-47-0004
ALL PRODUCTS WILL WITHSTAND EXPOSURE TO 260°C FOR 60 SECONDS IN A CONVECTION, INFRA-RED OR VAPOR PHASE REFLOW OVEN.
- PIN TYPE IS AT THE MANUFACTURERS OPTION AND CAN BE EITHER BABY-H OR EYE OF THE NEEDLE STYLE
- A $\triangle$ SYMBOL WILL BE NEXT TO ANY DIMENSION, VIEW, OR NOTE WHICH HAS BEEN MODIFIED WITH THE CURRENT DRAWING REVISION.

spec ref		-		dr	Shibin Soman	2020/10/16	projection	MM	size	A4	scale	2:1			
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED			eng	Rahul Mohan-M	2021/08/13			ecn no	ELX-I-41325-1					
				chr	-	-									
				appr	Kuriakose, San	2021/08/13			product family			rel level	Released		
surface	linear	0.X	±0.3	Amphenol FCI	title				VERTICAL SIGNAL HDR 5 ROW		dwg no	73983		rev	AA
		0.XX	±0.15												
		0.XXX	±0.05		P.F. 30 POS. SPECIAL LOAD STD.										
	ISO 1302	angular	0°	±2°	amphenol-icc.com	cat. no.			Product - Customer Drw			sheet 2 of 6			

A

B

C

D

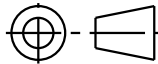
A

B

C

D

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,D&E	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		Shibin Soman	2020/10/16			size	A4	scale	2:1	
tolerance std ISO 406 ISO 1101	TOLERANCES UNLESS OTHERWISE SPECIFIED			eng	Rahul Mohan-M			2021/08/13	ecn no ELX-I-41325-1			
				chr	-			-				
				appr				Kuriakose, San	2021/08/13	product family		
surface ISO 1302	linear	0.X	±0.3	Amphenol FCI	title VERTICAL SIGNAL HDR 5 ROW P.F. 30 POS. SPECIAL LOAD STD.				dwg no	73983		rev AA
		0.XX	±0.15									
		0.XXX	±0.05									
	angular	0°	±2°	amphenol-icc.com	cat. no.			Product - Customer Drw			sheet 3 of 6	

A

B

C

D

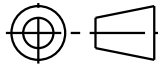
A

B

C

D

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,D&E	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

spec ref -		dr Shibin Soman 2020/10/16		projection 	MM 	size A4	scale 2:1		
tolerance std ISO 406 ISO 1101	TOLERANCES UNLESS OTHERWISE SPECIFIED		eng Rahul Mohan-M 2021/08/13			ecn no ELX-I-41325-1			
			chr - -			rel level Released			
		appr Kuriakose, San 2021/08/13		product family					
surface ISO 1302	linear	0.X	±0.3	Amphenol FCI	title VERTICAL SIGNAL HDR 5 ROW P.F. 30 POS. SPECIAL LOAD STD.		dwg no 73983	rev AA	
		0.XX	±0.15						
		0.XXX	±0.05						
		angular	0°	±2°	amphenol-icc.com	cat. no.		Product - Customer Drw	

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

SPECIAL LOAD PATTERNS

PRODUCT #	ROW	PIN CODES
73983-X001LF	E	01
	D	
	C	
	B	
	A	
	GND	
73983-X002LF *RPU	E	22
	D	
	C	
	B	
	A	
	GND	
73983-X003LF *RPU	E	30
	D	
	C	
	B	
	A	
	GND	
73983-X004LF *RPU	E	05
	E	
	C	
	B	
	A	
	GND	

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

PCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS
3.25 TO 4.55mm

PCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS
4.00 TO 5.30mm

SPECIAL LOAD PATTERNS

PRODUCT #	ROW	PIN CODES
73983-X005LF *RPU	E	35
	D	
	C	
	B	
	A	
	GND	
73983-X008LF *RPU	E	09
	D	
	C	
	B	
	A	
	GND	
73983-X011LF	E	02
	D	
	C	
	B	
	A	
	GND	01
73983-X012LF *RPU	E	44
	D	
	C	
	B	
	A	
	GND	22

PCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS
4.75 TO 6.05mm

PCB THICKNESS
RANGE FOR REAR
PLUG UP
APPLICATIONS
7.40 TO 8.70mm

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

* REAR PLUG UP PART NUMBER

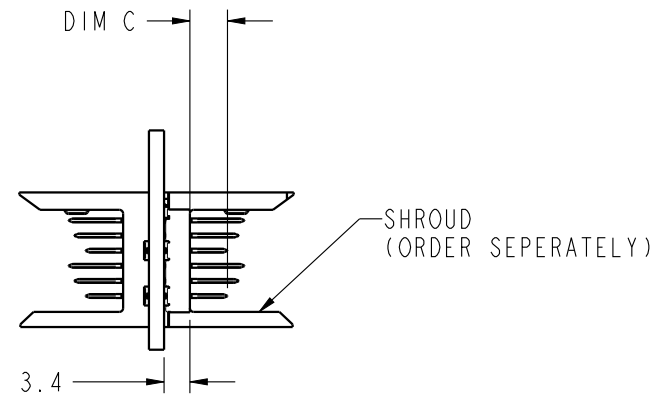
spec ref		-		dr	Shibin Soman	2020/10/16	projection MM	size	A4	scale	2:1							
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED			eng	Rahul Mohan-M	2021/08/13		ecn no	ELX-I-41325-1									
				chr	-	-			rel level	Released								
				appr	Kuriakose, San	2021/08/13				product family								
surface	linear	0.X	±0.3	Amphenol FCI	title			VERTICAL SIGNAL HDR 5 ROW			dwg no	73983		rev	AA			
		0.XX	±0.15													P.F. 30 POS. SPECIAL LOAD STD.		
		0.XXX	±0.05															
	ISO 1302	angular	0°	±2°	amphenol-icc.com	cat. no.			Product - Customer Drw			sheet 5 of 6						

SPECIAL LOAD PATTERNS

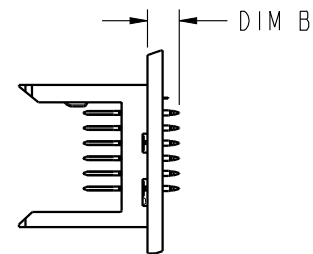
PRODUCT #	ROW	PIN CODES
73983-X02ILF	E	01
	D	
	C	03
	B	01
	A	
	GND	
73983-X03ILF	E	03
	D	
	C	
	B	
	A	
	GND	01
73983-X032LF **	E	19
	D	
	C	
	B	
	A	
	GND	01

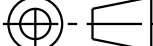
** CANNOT BE MATED TO A METRAL 4000 RECEPTACLE

PRODUCT #	ROW	COLUMN					
		1	2	3	4	5	6
73983-X033LF	E	02	02	02	02	02	02
	D	02	02	02	02	02	02
	C	02	02	02	02	01	02
	B	02	02	02	02	02	02
	A	02	02	02	02	02	02
	GND	02	02	02	02	02	02



REAR PLUG-UP



spec ref		-		dr	Shibin Soman	2020/10/16	projection  MM 	size	A4	scale	2:1												
tolerance std	TOLERANCES UNLESS OTHERWISE SPECIFIED			eng	Rahul Mohan-M	2021/08/13		ecn no	ELX-I-41325-1														
				chr	-	-																	
				appr	Kuriakose, San	2021/08/13						product family			rel level	Released							
surface	linear	0.X	±0.3	Amphenol FCI	title				VERTICAL SIGNAL HDR 5 ROW				dwg no	73983				rev	AA				
		0.XX	±0.15																				
		0.XXX	±0.05																				
	ISO 1302	angular	0°	±2°	amphenol-icc.com	cat. no.				Product - Customer Drw				sheet 6 of 6									

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

FCI / Amphenol:

[73983-1011LF](#) [73983-5031LF](#) [73983-1002LF](#) [73983-1003LF](#) [73983-1005LF](#) [73983-1012LF](#) [73983-1021LF](#) [73983-1031LF](#) [73983-2001LF](#) [73983-3001LF](#) [73983-5011LF](#) [73983-1004LF](#) [73983-3004LF](#) [73983-1008LF](#) [73983-5001LF](#) [73983-3011LF](#) [73983-1033LF](#) [73983-1032LF](#) [73983-2002LF](#) [73983-2003LF](#) [73983-2004LF](#) [73983-2005LF](#) [73983-2008LF](#) [73983-2011LF](#) [73983-2012LF](#) [73983-2021LF](#) [73983-2031LF](#) [73983-2032LF](#) [73983-2033LF](#) [73983-1001LLF](#) [73983-1011LLF](#)