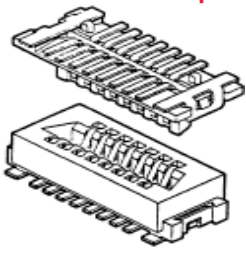


91931-31169LF - Conan® : I - Industrial Series; Mezzanine Receptacle, SMT; 1mm Pitch; 69p



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## Mating Half

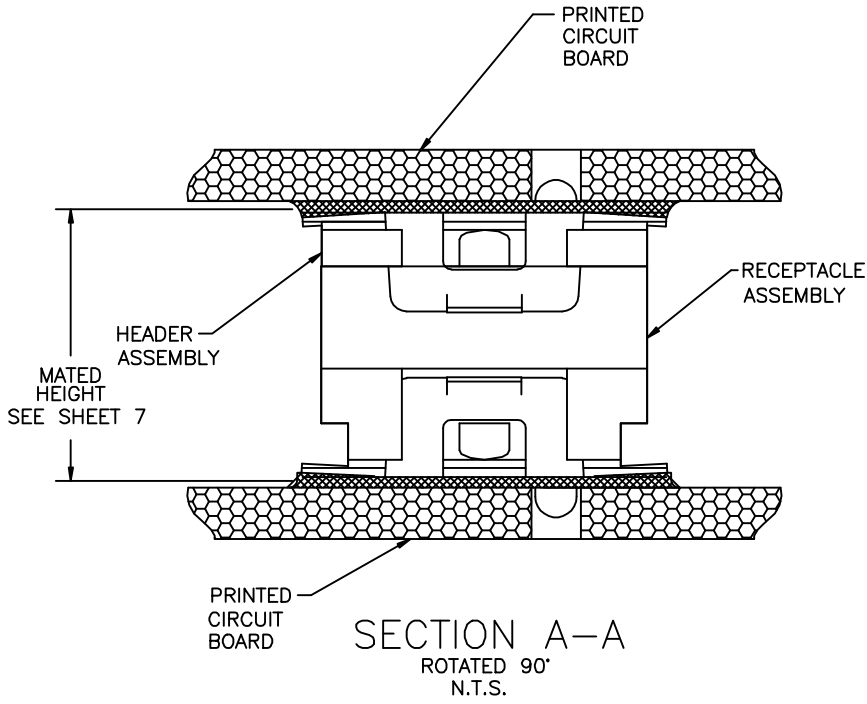
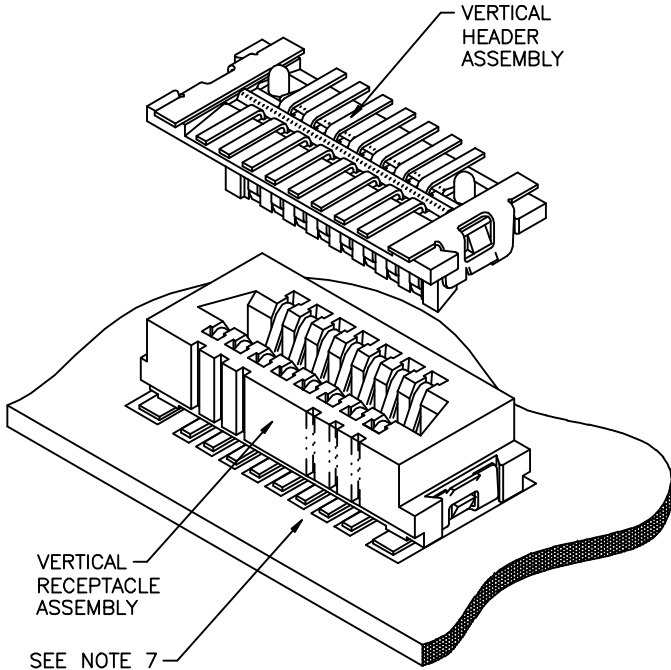
- ▶ 91911-31169
- ▶ 91911-31369
- ▶ 91911-31469
- ▶ 91911-31569

## Specifications

<b>General</b>	
Application	Industrial
Gender	Receptacle
Number of contacts (Total)	69
Packaging	Tape and Reel
Mating half	Mates with all Conan® 69 Position Headers
Operating Environment	Industrial, Harsh Environment
<b>Dimensional</b>	
Height (Mated)	7 mm 6 mm 5 mm 4.15 mm 4.5 mm
Stack Height	determined by header
Height (Conductor)	3.28 mm (0.129 in.)
<b>Electrical</b>	
Current rating	1 amp/Contact
Resistance (Contact)	30 m ohms
Resistance (Insulation)	1000 M ohms
Voltage rating	500 volts
<b>Mechanical</b>	
Durability (Mating cycles)	30 Mating cycles
Insertion force	125 grams per Contact max.
Withdrawal Force	25 grams per Contact min.
Retention force	44N min.
Wipe (Contact)	0.64 mm (0.025 in.)
<b>Mounting</b>	
Polarization pegs (Board)	Yes

<b>Retention feature (Board)</b>	Surface Mount Solder Tab
<b>Solder process</b>	Infrared and Vapor - Phase Reflow
<b>Physical</b>	
<b>Color (Housing)</b>	Natural
<b>Material (Contact)</b>	Copper Alloy
<b>Material (Housing)</b>	LCP
<b>Plating (Contact area)</b>	0.38 µm (15 µin.) GXT™
<b>Plating (Tail)</b>	2.54 µm (100 µin.) Pure Tin
<b>Underplating (Contact)</b>	1.27 µm (50 µin.) Nickel
<b>Plating and Performance (Classification)</b>	IMFG per Battelle, Class 2a, 20 days mated
<b>Resistance to Solder Heat</b>	240°C for 30 sec
<b>Temperature (Operating - continuous)</b>	+85°C max.
<b>Temperature (Range)</b>	-55°C to +130°C
<b>Environmental</b>	
<b>Environment</b>	Demanding
<b>Approvals / Certifications</b>	
<b>UL File Number</b>	E66906
<b>CSA File Number</b>	LR46923
<b>Approvals / Certifications</b>	UL and CSA Approved
<b>Other Features</b>	
<b>Popular Configuration (Customer Prototyping)</b>	Not Applicable
<b>Popular Configuration (Customer Production)</b>	Yes
<b>Most Popular Configuration</b>	Yes
<b>Packaging (Type)</b>	Tape and Reel with pickup caps
<b>Vacuum Pick-up Cap</b>	Yes
<b>Literature</b>	ELXCONANIND1211EA4

PRODUCT NUMBER  
SEE TABLE

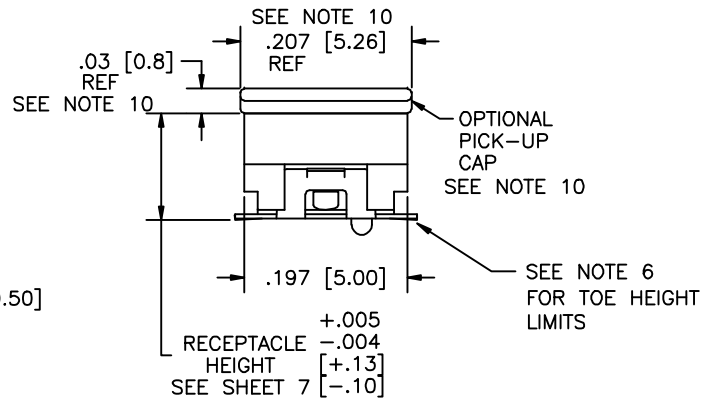
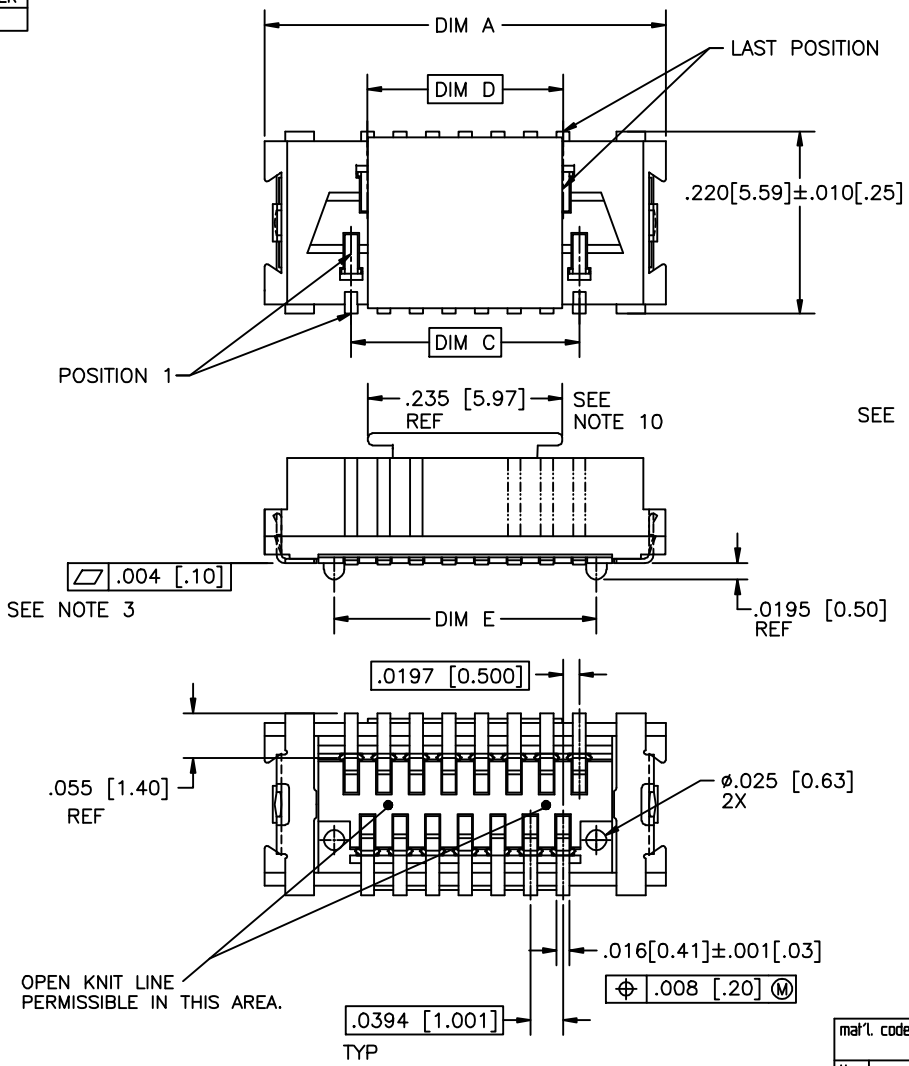


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mat'l. code				surface	tolerance	projection	product family	
				ISO 1902	ISO 406 ISO 1101	 INCH/MM	CONAN	
tolerances unless otherwise specified Y V03-1347 AA 12/20/01 AA M04-0190 MHT 9/24/04 AB M05-0110 MHT 5/26/05 0'±2' AC M06-0232 AGS 06/12/08 dr AD M06-0373 MHT 9/26/06 eng AE M08-0012 AGS 1/11/08 chr AF M08-0287 MHT 10/02/08 appd				linear	XXXL01/XXXL03 XXXL06/XXXL13 XXXXL0020/XXXL0051		title <b>CONAN™ CONNECTOR ASSEMBLY</b>	
sheet index revision AF AF AF AF AF AF AF AF				scale 5:1			dwg no <b>91900</b>	sheet 1 of 7 size <b>A3</b>
sheet index 1 2 3 4 5 6 7				type Product Customer Drawing				

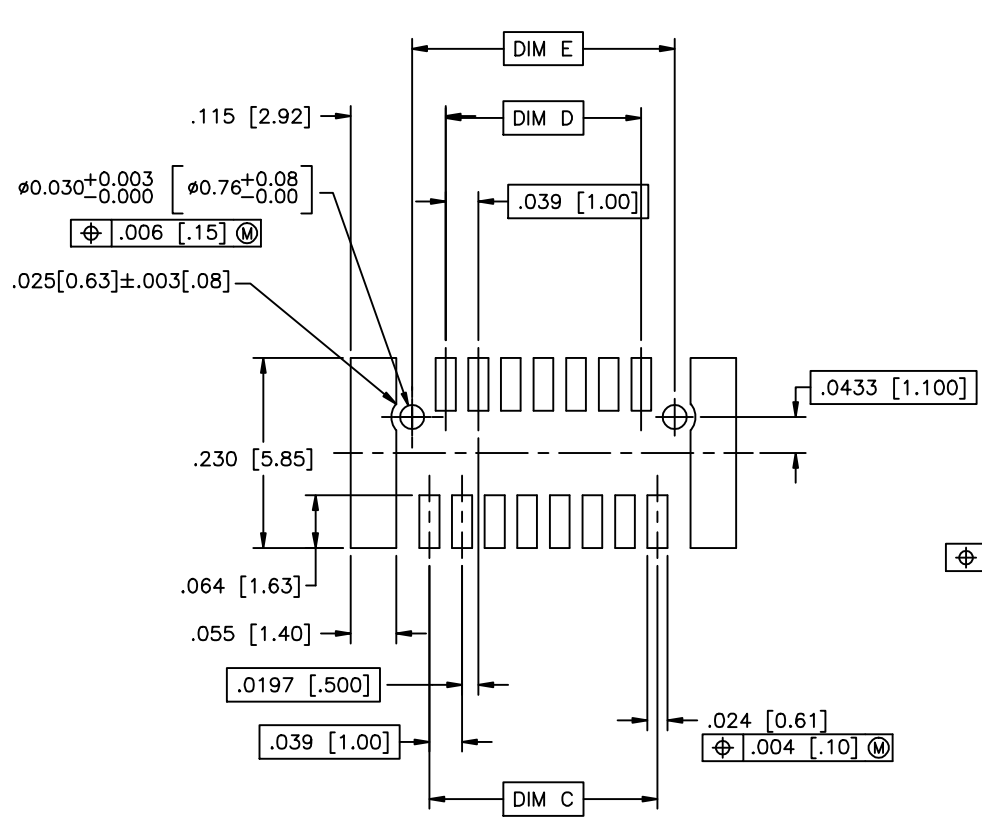
PRODUCT NUMBER  
SEE TABLE



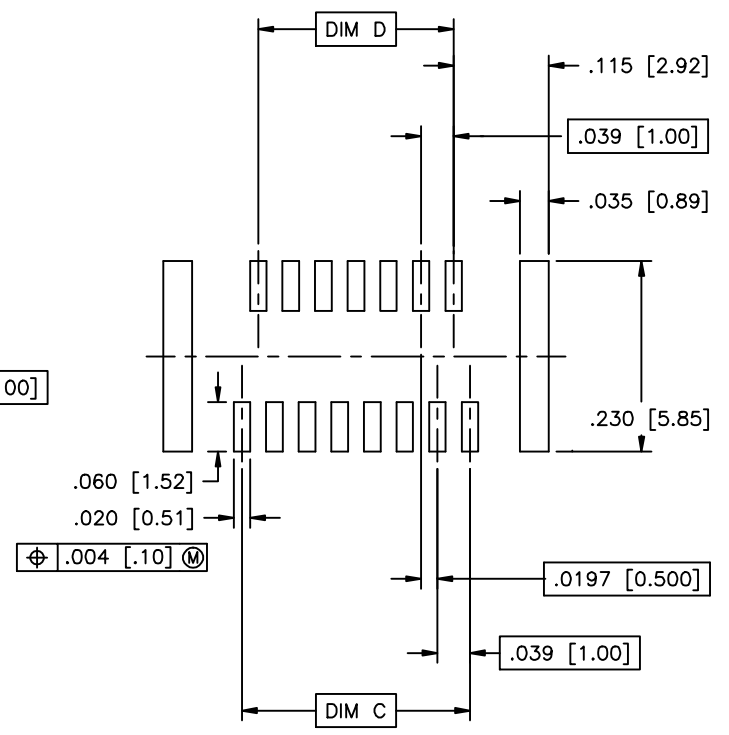
Copyright FCJ

mat'l. code		surface	ISO 1902	tolerance	ISO 406	projection	ISO 1101	product family	CONAN		
ltr	ecn no	dr	date	tolerances unless otherwise specified		INCH/MM	scale 5:1	title	CONAN™ CONNECTOR ASSEMBLY		
AF				angles	XXX.01/XX0.3				linear	XXX±.006/XX0.13	dwg no
				0°±2'	XXX±.0020/XX0.05			sheet 2 of 7	size A3		
				dr	R.SEIPLE	11/13/91	FCJ	type	Product Customer Drawing		
				engr	D.HORCHLER	01/10/92					
				chr	D.HORCHLER	01/10/92					
				appd	D.HORCHLER	01/10/92					
sheet index	revision sheet										

PRODUCT NUMBER  
SEE TABLE



RECOMMENDED  
PAD LAYOUT



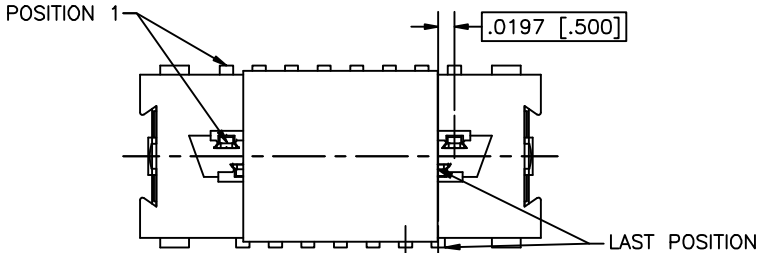
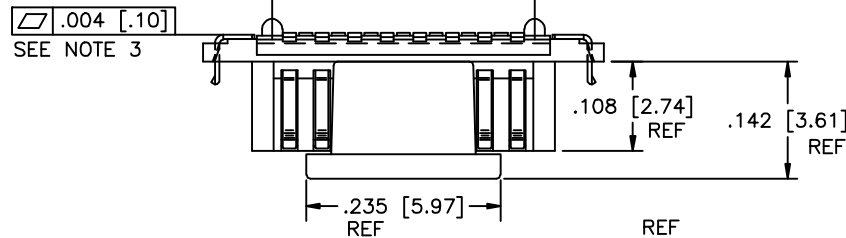
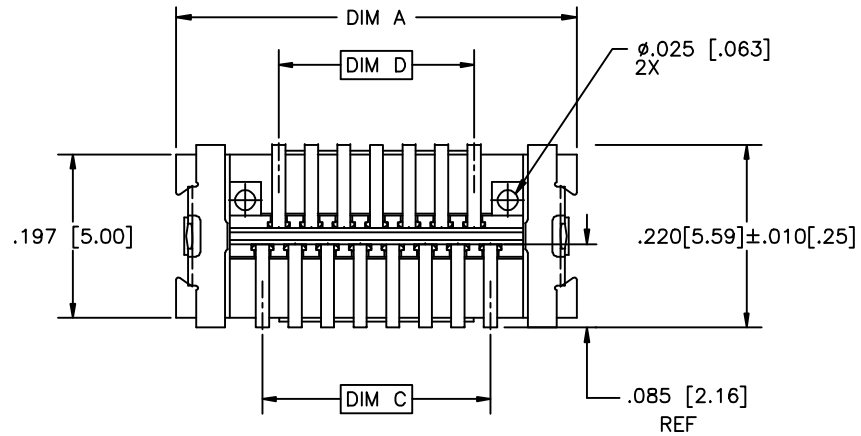
RECOMMENDED  
STENCIL LAYOUT  
FOR RECEPTACLE



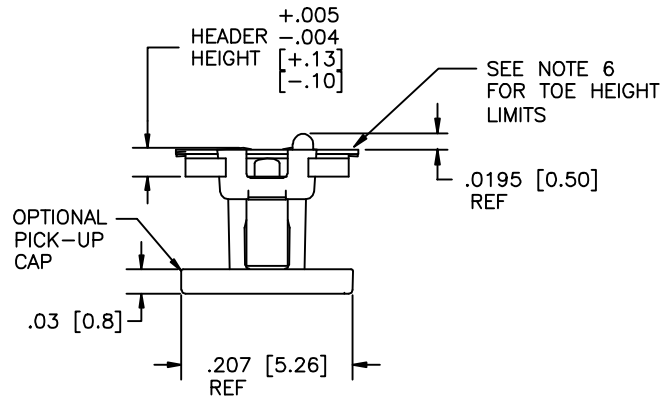
Copyright FCJ

mat'l. code		surface ISO 902		tolerance ISO 406 ISO 7001		projection INCH/MM		product family CONAN	
ltr	ecn no	dr	date	tolerances unless otherwise specified				title CONAN™ CONNECTOR ASSEMBLY	
AF				angles	linear	XXX±.01/XXX±.03	INCH/MM		dwg no
				0'±2'		XXX±.006/XXX±.013	scale 5:1		sheet 3 of 7 size
						XXX±.0020/XXX±0.051	FCJ		91900 A3
				dr	R.SEIPLE	11/13/91			type
				engr	D.HORCHLER	01/10/92			Product Customer Drawing
				chr	D.HORCHLER	01/10/92			
				appd	D.HORCHLER	01/10/92			
sheet index	revision sheet								

PRODUCT NUMBER  
SEE TABLE



⊕ .008 [0.20] (M)  
 .0394 [1.001]

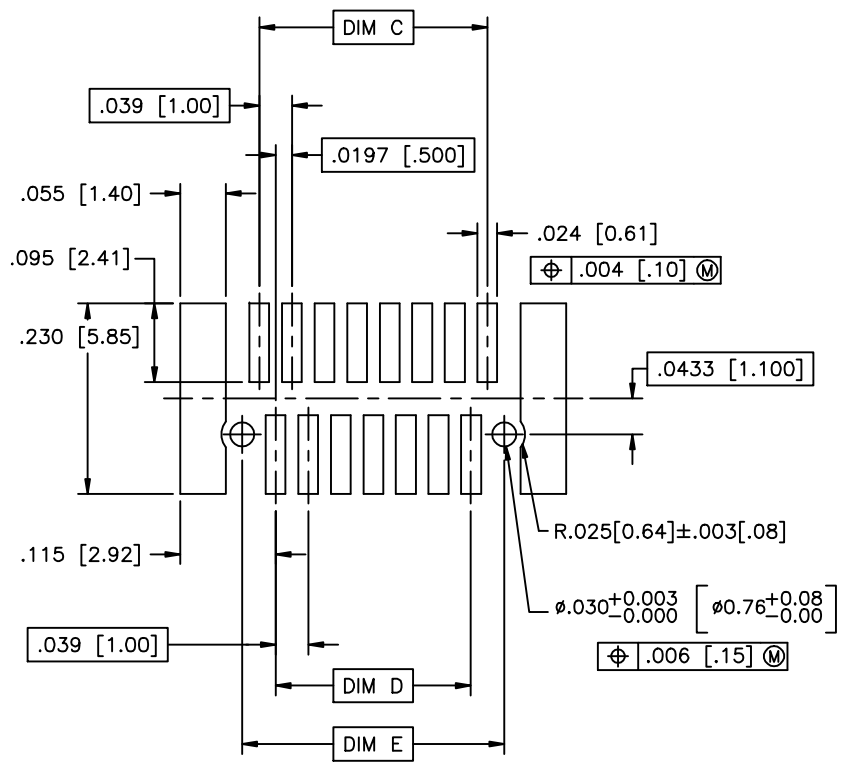


mat'l. code		surface ISO 1902		tolerance ISO 406 ISO 7001		projection INCH/MM		product family CONAN	
ltr	ecp no	dr	date	tolerances unless otherwise specified		scale 5:1		title CONAN™ CONNECTOR ASSEMBLY	
AF				angles	linear	X.X±.01/X±0.3 XXX±.006/XX±0.13 XXX±.0020/XX±0.051		dwg no 91900	
				0° ± 2'		FCJ		sheet 4 of 7 size A3	
				dr	R. SEIPLE	11/13/91		type Product Customer Drawing	
				engr	D. HORCHLER	01/10/92			
				chr	D. HORCHLER	01/10/92			
				appd	D. HORCHLER	01/10/92			
sheet index	revision sheet								

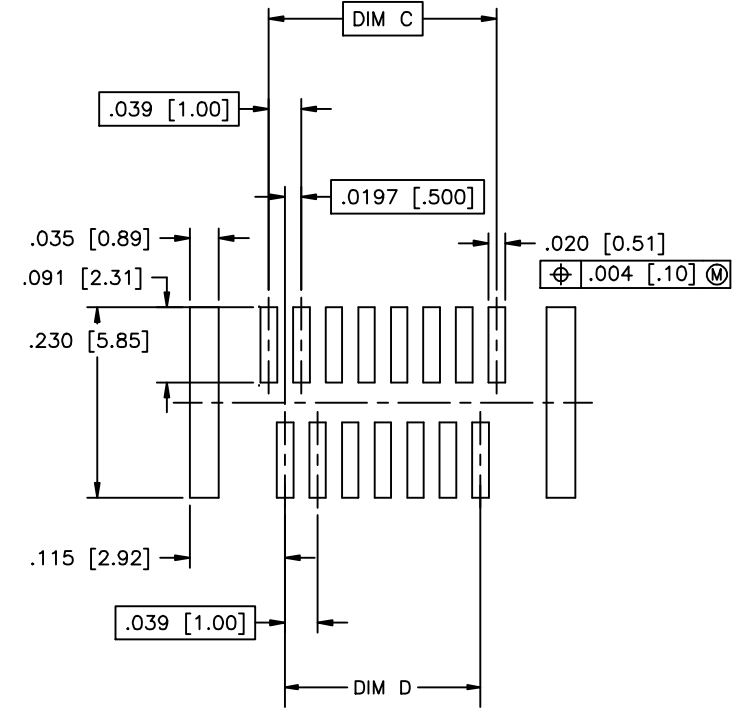


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PRODUCT NUMBER  
SEE TABLE



RECOMMENDED  
PAD LAYOUT



RECOMMENDED  
STENCIL LAYOUT  
FOR HEADER



Copyright FCJ

mat'l. code		surface ISO 1902		tolerance ISO 406 ISO 7001		projection FIRST ANGLE		product family CONAN		
ltr	ecp no	dr	date	tolerances unless otherwise specified						
AF				angles	linear	XXX±.01/XXX±.03	INCH/MM	title CONAN™ CONNECTOR ASSEMBLY		
				0'±2'		XXX±.006/XXX±.013		dwg no 91900		
						XXX±.0020/XXX±0.051	scale 5:1	sheet 5 of 7 size A3		
				dr	R.SEIPLE	11/13/91			type Product Customer Drawing	
				engr	D.HORCHLER	01/10/92				
				chr	D.HORCHLER	01/10/92				
				appd	D.HORCHLER	01/10/92				
sheet index	revision sheet									

PRODUCT NUMBER	POS	DIM "A"	DIM "C"	DIM "D"	DIM "E"
919TC-WXY09	9	.366 [9.30]	.157 [4.00]	.118 [3.00]	.1990 [5.055]
-WXY09LF					
-WXY11	11	.406 [10.30]	.197 [5.00]	.157 [4.00]	.2380 [6.045]
-WXY11LF					
-WXY15	15	.484 [12.30]	.276 [7.00]	.236 [6.00]	.3170 [8.052]
-WXY15LF					
-WXY21	21	.602 [15.30]	.394 [10.00]	.354 [9.00]	.4350 [11.049]
-WXY21LF					
-WXY25	25	.681 [17.30]	.472 [12.00]	.433 [11.00]	.5140 [13.056]
-WXY25LF					
-WXY31	31	.800 [20.30]	.591 [15.00]	.551 [14.00]	.6320 [16.053]
-WXY31LF					
-WXY41	41	.996 [25.30]	.787 [20.00]	.748 [19.00]	.8290 [21.057]
-WXY41LF					
-WXY51	51	1.193 [30.30]	.984 [25.00]	.945 [24.00]	1.0260 [26.060]
-WXY51LF					
-WXY69	69	1.547 [39.30]	1.339 [34.00]	1.299 [33.00]	1.3800 [35.052]
-WXY69LF					

NOTES:

1. MATERIALS:

RECEPTACLE HOUSING - LCP, UL-94V-0. COLOR: NATURAL.

RECEPTACLE TERMINALS - COPPER ALLOY, PLATED WITH 15u"/.38u GXT™ IN CONTACT AREA AND 100u"/2.54u Sn ON SOLDER LEGS WITH AN OVERALL 50u"/1.27u Ni UNDERPLATE.

HEADER HOUSING - LCP, UL-94V-0. COLOR: NATURAL.

HEADER TERMINALS - COPPER ALLOY, PLATED WITH 15u"/.38u GXT™ IN CONTACT AREA AND 100u"/2.54u Sn ON SOLDER LEGS WITH AN OVERALL 50u"/1.27u Ni UNDERPLATE.

RETENTION DEVICE - BRASS, PLATED WITH 100u"/2.54u Sn OVER NICKEL.

2. REFERENCE GS-12-006 FOR PRODUCT PERFORMANCE DATA.

- ③ SEE TA-774 FOR FURTHER DESCRIPTION OF HOW THIS DIMENSION IS APPLIED.
- ④ PICK AND PLACE CAP OR TAPE IS ONLY AVAILABLE WITH OPTION 3 PACKAGING. (PSA ADHESIVE SEALED). ALSO, PSA PACKAGING REQUIRES A PICK AND PLACE CAP.
- 5. RECOMMENDED SOLDER PASTE THICKNESS IS .006 TO .008 INCHES THICK.
- ⑥ THE TOE HEIGHT OF THE SOLDER TAIL SHALL BE MEASURED FROM THE LOWEST POINT OF THE .004 CO-PLANARITY GRAVITY PLANE. THIS MEASUREMENT IS NOT TO EXCEED A WINDOW OF .000 TO .007 INCHES.
- ⑦ THREE SLOTS MAY BE LOCATED AT EITHER END OF HOUSING.
- ⑧ 5.50mm MATED HEIGHT IS ONLY AVAILABLE IN 9, 15 AND 31 POS.
- ⑨ 7.50mm MATED HEIGHT IS ONLY AVAILABLE IN 9 POS.
- ⑩ APPLIES TO 91921-3XYZZ AND 91931- 3XYZZ OPTIONS ONLY.
- 11. THE HOUSING WILL WITHSTAND EXPOSURE TO 260°C PEAK TEMPERATURE FOR 30 SECONDS IN A CONVECTION INFRA RED OR VAPOR PHASE REFLOW OVEN. SEE APPLICATION/PROCEDURES IF THEY ARE AVAILABLE
- ⑫ PRODUCT WITH "LF" AT THE END MEETS EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATION AS DESCRIBED IN GS-22-008.



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mat'l. code		surface		tolerance		projection		product family	
		ISO 1902		ISO 406				CONAN	
ltr		ecn no		dr		date		title	
AF								CONAN™ CONNECTOR ASSEMBLY	
		angles		linear		INCH/MM		scale 5:1	
		0°±2'		XXX±.01/XXX.3				dwg no	
				XXX±.006/XXX±0.13				sheet 6 of 7	
				XXX±.0020/XXX±0.051				size	
		dr		R.SEIPLE		11/13/91		A3	
		engr		D.HORCHLER		01/10/92		91900	
		chr		D.HORCHLER		01/10/92		type	
		appd		D.HORCHLER		01/10/92		Product Customer Drawing	
sheet		revision							
index		sheet							

PRODUCT NUMBER  
SEE TABLE

CONAN ASSEMBLY PART NUMBER

919 T C - W X Y ZZ LF

LEAD FREE OPTION  
SEE NOTE 12

TYPE	T
HEADER WITH NO PEGS	0
HEADER WITH PEGS	1
RECEPTACLE WITH NO PEGS	2
RECEPTACLE WITH PEGS	3

PICK AND PLACE CAP OR TAPE (NOTE 4)	C
WITHOUT CAP OR TAPE	0
WITH CAP	1
WITH TAPE (RECEPTACLE ONLY)	2

PACKAGING	W
TUBE	2
PRESSURE SEALED TAPE & REEL	3

NOTE 4

Y	HEADER HEIGHT	RECEPTACLE HEIGHT	MATED HEIGHT + .010 - .008 [+ .25] [- .20]
1	.034 [.86]	.129 [3.28]	.163 [4.15]
2	.048 [1.23]	SEE Y=1 FOR ALL RECEPTACLES	.177 [4.50]
3	.068 [1.73]		.197 [5.00]
4	.107 [2.72]		.236 [6.00]
5	.1465 [3.721]		.276 [7.00]
* 6	.088 [2.23]		.216 [5.50]
** 7	.1665 [4.229]		.296 [7.52]

\* NOTE 8  
\*\* NOTE 9

X	PLATING
1	15u"/.38u GXT™
2	30u"/.76u GXT™

ZZ	NUMBER OF POSITIONS
09	9
11	11
15	15
21	21
25	25
31	31
41	41
51	51
69	69

EXAMPLE: 91921-31125LF  
IS A CONAN RECEPTACLE ASSEMBLY,  
HAVING NO PEGS AND WITH A PICK AND PLACE CAP.  
IT ALSO HAS GXT™ PLATING, IS .13 [3.2] HIGH AND 25  
POSITIONS AND IS PACKAGED IN PRESSURE SEALED TAPE,  
REEL AND LEAD FREE.

mat'l. code				surface ISO 902 ✓ ISO 1101		tolerance ISO 406 ISO 1101		projection INCH/MM		product family CONAN	
title AF				tolerances unless otherwise specified		linear XXX±.01/XXX±.03 XXX±.006/XXX±.013 XXX±.0020/XXX±.005		scale 5:1		title CONAN™ CONNECTOR ASSEMBLY	
dr				R.SEIPLE 11/13/91		engr		D.HORCHLER 01/10/92		dwg no 91900	
chr				D.HORCHLER 01/10/92		appd		D.HORCHLER 01/10/92		sheet 7 of 7 size A3	
sheet index				revision sheet		type		Product Customer Drawing			

Form A3