

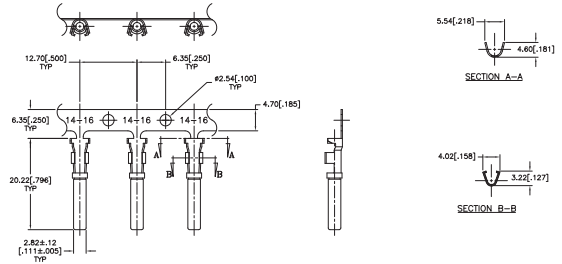
STAMPED AND FORMED CONTACTS, PG 1 of 2

Click on [blue underlined](#) part numbers to be taken to their spec sheets.

OPTIONS

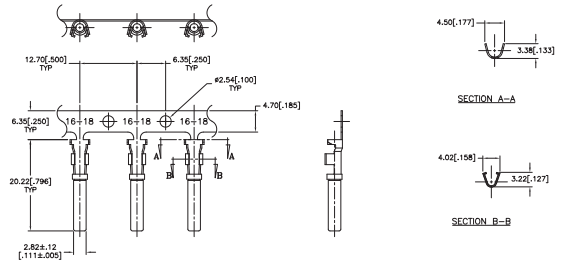
PART NUMBER: [AT62-14-01XX](#)
DESCRIPTION: CONTACT, SOCKET, STAMPED, SIZE 16

MATERIAL:
 CONTACT BODY: COPPER ALLOY
 HOOD: STAINLESS STEEL
PLATING SUFFIX CODE:
 XX=22 NICKEL PLATING
 XX=44 GOLD PLATING
CONTACT GENERAL DATA SPECIFICATION: S2-15217
AVAILABLE CRIMPERS: ATT-16-00, MFX-3950 & MFX-3953
CRIMPER SPECIFICATIONS: S2-15223 & S2-15224
CRIMP INFORMATION DRAWING: S2-15221 & S2-15222
CONTACTS PER REEL: APPROX. 4000 (PARTIAL REELS AVAILABLE)



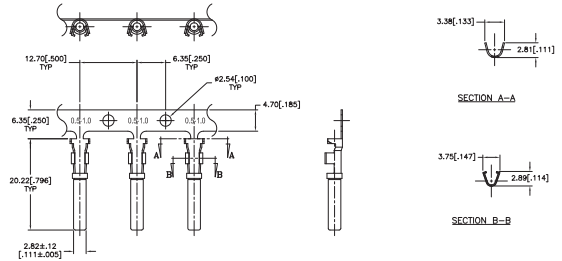
PART NUMBER: [AT62-16-01XX](#)
DESCRIPTION: CONTACT, SOCKET, STAMPED, SIZE 16

MATERIAL:
 CONTACT BODY: COPPER ALLOY
 HOOD: STAINLESS STEEL
PLATING SUFFIX CODE:
 XX=22 NICKEL PLATING
 XX=44 GOLD PLATING
CONTACT GENERAL DATA SPECIFICATION: S2-15217
AVAILABLE CRIMPERS: ATT-16-00, ATT-16-01, MFX-3950 & MFX-3953
CRIMPER SPECIFICATIONS: S2-15223 & S2-15224
CRIMP INFORMATION DRAWING: S2-15221 & S2-15222
CONTACTS PER REEL: APPROX. 4000 (PARTIAL REELS AVAILABLE)



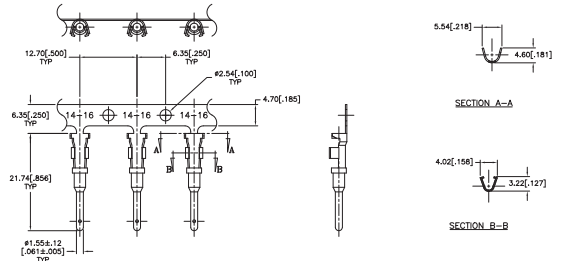
PART NUMBER: [AT62-16-06XX](#)
DESCRIPTION: CONTACT, SOCKET, STAMPED, SIZE 16

MATERIAL:
 CONTACT BODY: COPPER ALLOY
 HOOD: STAINLESS STEEL
PLATING SUFFIX CODE:
 XX=22 NICKEL PLATING
 XX=44 GOLD PLATING
CONTACT GENERAL DATA SPECIFICATION: S2-15217
AVAILABLE CRIMPERS: ATT-16-01, MFX-3950 & MFX-3953
CRIMPER SPECIFICATIONS: S2-15223 & S2-15224
CRIMP INFORMATION DRAWING: S2-15221 & S2-15222
CONTACTS PER REEL: APPROX. 4000 (PARTIAL REELS AVAILABLE)



PART NUMBER: [AT60-14-01XX](#)
DESCRIPTION: CONTACT, PIN, STAMPED, SIZE 16

MATERIAL: COPPER ALLOY
PLATING SUFFIX CODE:
 XX=22 NICKEL PLATING
 XX=44 GOLD PLATING
CONTACT GENERAL DATA SPECIFICATION: S2-15217
AVAILABLE CRIMPERS: ATT-16-00, MFX-3950 & MFX-3953
CRIMPER SPECIFICATIONS: S2-15223 & S2-15224
CRIMP INFORMATION DRAWING: S2-15221 & S2-15222
CONTACTS PER REEL: APPROX. 4000 (PARTIAL REELS AVAILABLE)



STAMPED AND FORMED CONTACTS, PG 2 of 2

Click on [blue underlined](#) part numbers to be taken to their spec sheets.

OPTIONS

PART NUMBER: AT60-16-01XX

DESCRIPTION: CONTACT, PIN, STAMPED, SIZE 16

MATERIAL: COPPER ALLOY

PLATING SUFFIX CODE:

XX=22 NICKEL PLATING

XX=44 GOLD PLATING

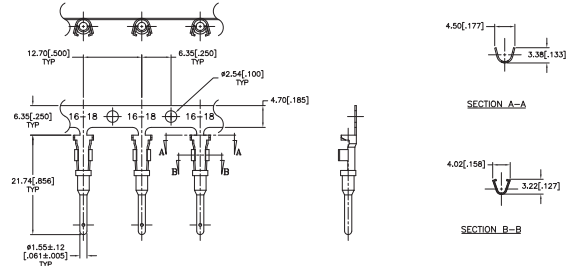
CONTACT GENERAL DATA SPECIFICATION: S2-15217

AVAILABLE CRIMPERS: ATT-16-00, ATT-16-01, MFX-3950 & MFX-3953

CRIMPER SPECIFICATIONS: S2-15223 & S2-15224

CRIMP INFORMATION DRAWING: S2-15221 & S2-15222

CONTACTS PER REEL: APPROX. 4000 (PARTIAL REELS AVAILABLE)



PART NUMBER: AT60-16-06XX

DESCRIPTION: CONTACT, PIN, STAMPED, SIZE 16

MATERIAL: COPPER ALLOY

PLATING SUFFIX CODE:

XX=22 NICKEL PLATING

XX=44 GOLD PLATING

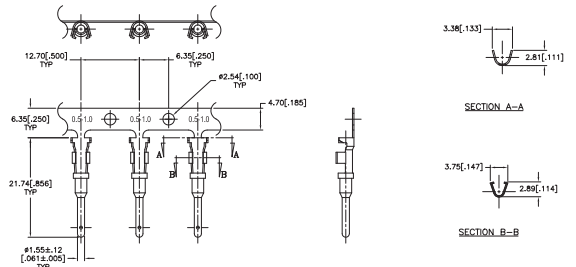
CONTACT GENERAL DATA SPECIFICATION: S2-15217

AVAILABLE CRIMPERS: ATT-16-01, MFX-3950 & MFX-3953

CRIMPER SPECIFICATIONS: S2-15223 & S2-15224

CRIMP INFORMATION DRAWING: S2-15221 & S2-15222

CONTACTS PER REEL: APPROX. 4000 (PARTIAL REELS AVAILABLE)



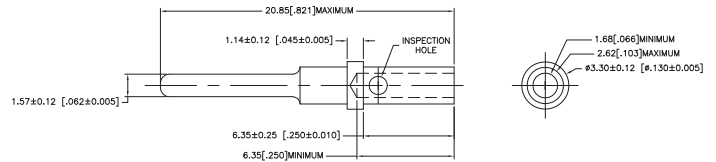
SOLID/MACHINED CONTACTS

Click on [blue underlined](#) part numbers to be taken to their spec sheets.

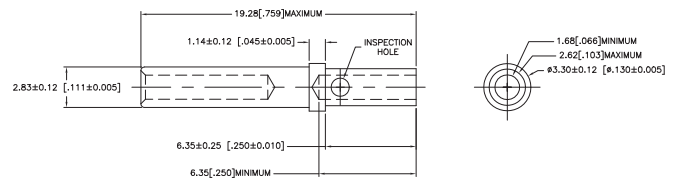
OPTIONS

MILITARY-STYLE

PART NUMBER: [AT60-202-16XX](#)
DESCRIPTION: CONTACT, PIN, SOLID MACHINED, SIZE 16
MATERIAL: COPPER ALLOY
PLATING SUFFIX CODE:
 XX=141 NICKEL PLATING
 XX=31 GOLD PLATING
CONTACT GENERAL DATA SPECIFICATION: S2-15217
AVAILABLE CRIMPERS: CA-5D12 & CA-5E12
CRIMPER SPECIFICATIONS: S2-15219 & S2-15220
CRIMP INFORMATION DRAWING: S2-15218

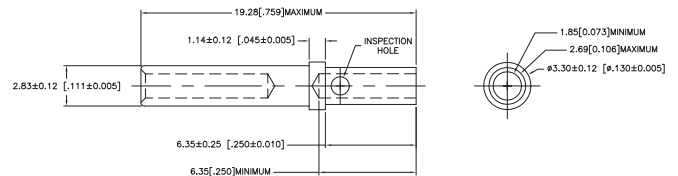


PART NUMBER: [AT62-201-16XX](#)
DESCRIPTION: CONTACT, SOCKET, SOLID MACHINED, SIZE 16
MATERIAL:
 CONTACT BODY: COPPER ALLOY
 HOOD: STAINLESS STEEL
PLATING SUFFIX CODE:
 XX=141 NICKEL PLATING
 XX=31 GOLD PLATING
CONTACT GENERAL DATA SPECIFICATION: S2-15217
AVAILABLE CRIMPERS: CA-5D12 & CA-5E12
CRIMPER SPECIFICATIONS: S2-15219 & S2-15220
CRIMP INFORMATION DRAWING: S2-15218

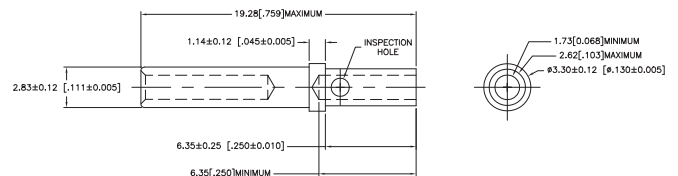


ROCKSOLID™ CONTACTS

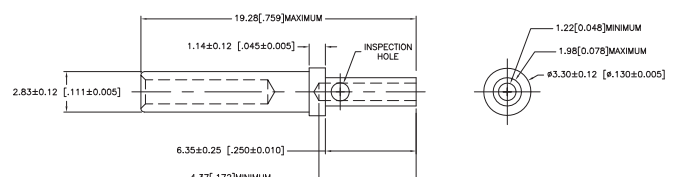
PART NUMBER: [65-54942-14](#)
DESCRIPTION: CONTACT, SOCKET, ROCKSOLID, SIZE 16
AWG RANGE: 14AWG
MATERIAL: COPPER ALLOY
PLATING: GOLD
CONTACT GENERAL DATA SPECIFICATION: S2-15217
AVAILABLE CRIMPERS: CA-5D12 & CA-5E12
CRIMPER SPECIFICATIONS: S2-15219 & S2-15220
CRIMP INFORMATION DRAWING: S2-15218



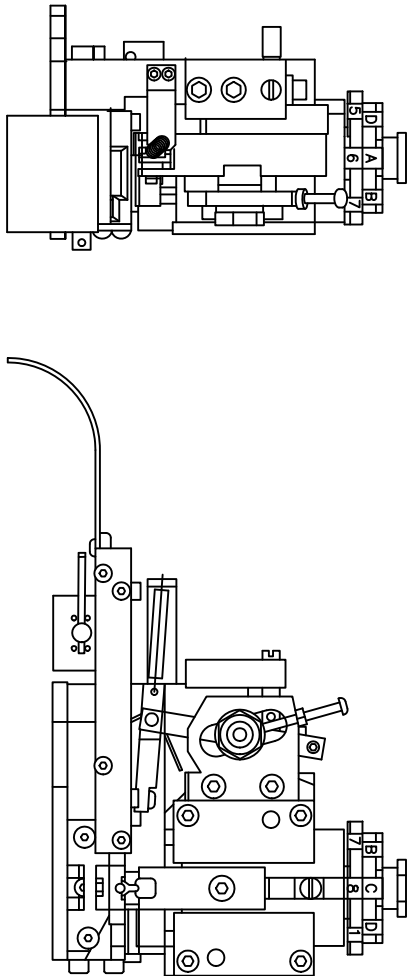
PART NUMBER: [65-54942-16](#)
DESCRIPTION: CONTACT, SOCKET, ROCKSOLID, SIZE 16
AWG RANGE: 16AWG
MATERIAL: COPPER ALLOY
PLATING: GOLD
CONTACT GENERAL DATA SPECIFICATION: S2-15217
AVAILABLE CRIMPERS: CA-5D12 & CA-5E12
CRIMPER SPECIFICATIONS: S2-15219 & S2-15220
CRIMP INFORMATION DRAWING: S2-15218



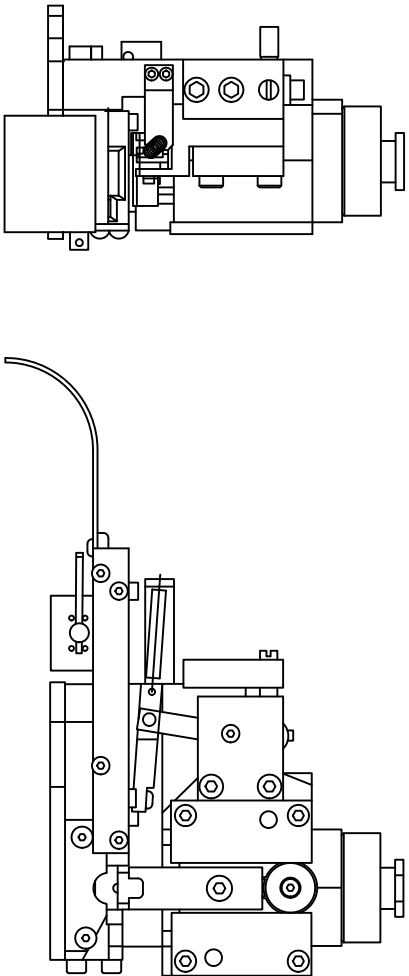
PART NUMBER: [65-54942-20](#)
DESCRIPTION: CONTACT, SOCKET, ROCKSOLID, SIZE 16
AWG RANGE: 20AWG
MATERIAL: COPPER ALLOY
PLATING: GOLD
CONTACT GENERAL DATA SPECIFICATION: S2-15217
AVAILABLE CRIMPERS: CA-5D12 & CA-5E12
CRIMPER SPECIFICATIONS: S2-15219 & S2-15220
CRIMP INFORMATION DRAWING: S2-15218



REVISIONS			
REV	ZONE	ECO	DESCRIPTION
A1	-	-	RELEASE NUMBER 016571
DATE	BY	APPR	
6/12/09	B.D.B.	M.R.F.	



SINE PART NUMBER	MFX-3950
DEUTSCH PART NUMBER	DCT16-02-00
TYCO PART NUMBER	1-3-1385344-1, 2, 3, 4, 5 & 7



SINE PART NUMBER	MFX-3953
DEUTSCH PART NUMBER	DCT1620-02-00

ALL REFERENCES TO DEUTSCH PRODUCTS OR SPECIFICATIONS ARE FOR COMPARISON PURPOSES ONLY, AND REFER TO DEUTSCH INDUSTRIAL PRODUCTS.

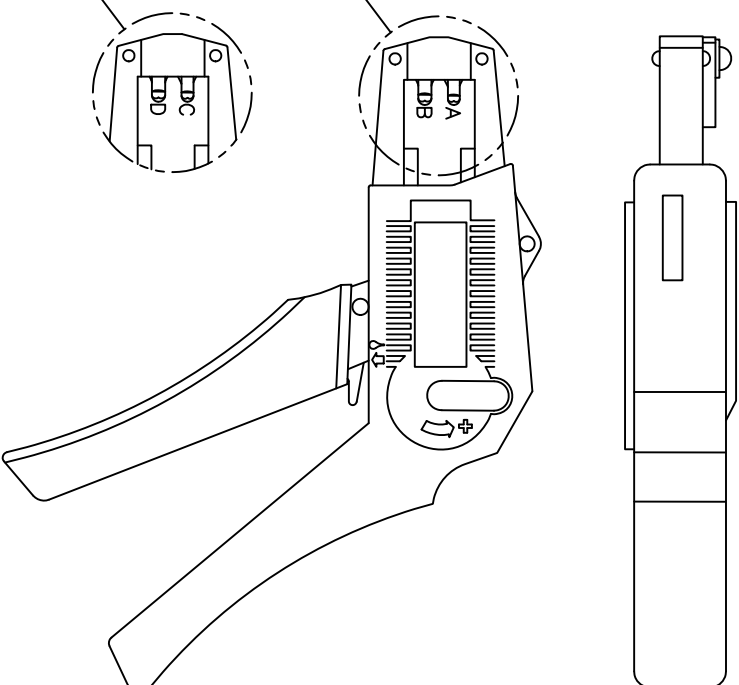
ALL REFERENCES TO TYCO PRODUCTS OR SPECIFICATIONS ARE FOR COMPARISON PURPOSES ONLY, AND REFER TO TYCO ELECTRONICS.

QUANTITY	PART NUMBER	DESCRIPTION	ITEM
MATERIALS LIST			
UNLESS OTHERWISE SPECIFIED			
1) All dimensions are in inches.			
2) Tolerances are as follows:			
1. HOLE .0015			
2. HOLE .0015			
3. HOLE .0015			
4) Finish: Standard Per: SD-20020			
5) Material: BERNUM			
6) Finish: BERNUM			
7) Finish: BERNUM			
8) Finish: BERNUM			
9) Finish: BERNUM			
10) Finish: BERNUM			
11) Finish: BERNUM			
12) Finish: BERNUM			
13) Finish: BERNUM			
14) Finish: BERNUM			
15) Finish: BERNUM			
16) Finish: BERNUM			
17) Finish: BERNUM			
18) Finish: BERNUM			
19) Finish: BERNUM			
20) Finish: BERNUM			
21) Finish: BERNUM			
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93) Finish: BERNUM			
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95) Finish: BERNUM			
96) Finish: BERNUM			
97) Finish: BERNUM			
98) Finish: BERNUM			
99) Finish: BERNUM			
100) Finish: BERNUM			

ATT-16-00 WITH CAVITY A & B

CONTACT P/N:	INSULATION ϕ	CAVITY	WIRE SIZE
AT60-16-01**	PIN .075 - .140	B	1.5mm ²
AT62-16-01**	SOC [1.91 - 3.56]	A	16AWG
		A	1.0mm ²
AT60-14-01**	PIN .095 - .150	B	14AWG
AT62-14-01**	SOC [2.41 - 3.81]	B	2.0mm ²
		B	1.5mm ²
		A	1.5mm ²
		A	16AWG
		A	1.0mm ²
AT60-16-06**	PIN .055 - .100	A	16AWG
AT62-16-06**	SOC [1.40 - 2.54]	A	1.0mm ²

CAVITY VIEW OF
CRIMPER NUMBER
ATT-16-00



CAVITY VIEW OF
CRIMPER NUMBER
ATT-16-01

USE CRIMPER NUMBER:
ATT-16-01 WITH CAVITY C & D

CONTACT P/N:	INSULATION ϕ	CAVITY	WIRE SIZE
AT60-16-01**	.075 - .140	D	18AWG
AT62-16-01**	[.1.91 - 3.56]	D	.75mm ²
AT60-16-06**	.055 - .100	D	18AWG
AT62-16-06**	[1.40 - 2.54]	D	.75mm ²
		C	.50mm ²

NOTES (UNLESS OTHERWISE SPECIFIED):

1. ALL DIMENSIONS IN INCHES [MILLIMETERS]
2. FOR PLATING CODES ** SEE CONTACT DATA DRAWINGS.
3. THIS TOOL IS FOR CRIMPING SIZE 16 CONTACTS ONLY TO WIRES LISTED IN THE CHARTS.
4. DEUTSCH IPD CROSS REFERENCE PART NUMBERS ARE DTT-16-00 AND DTT-16-01.

REVISIONS					
REV	ECO	DESCRIPTION	DATE	BY	APPR
A1	-	RELEASE NUMBER 016571	6/12/09	B.D.B.	M.R.F.

QUANTITY		PART NUMBER	DESCRIPTION	UNIT
MATERIALS LIST				
UNLESS OTHERWISE SPECIFIED				
1) All dimensions are in inches. 2) Tolerances are as follows: 1/2 in. DEC. ±0.005 finished ±1/64 3/4 in. DEC. ±0.005 finished ±1/32 4) Finish: S-20020 5) Note: See -20020				
MATERIAL SPECIFICATIONS:		CUSTOMER: SINE Systems Corporation A Subsidiary of Amphenol Corporation 47474 Midway Drive Chilton Township, MI 48036		
N/A		INSTRUCTIONS, ATT-16-00 & 01 CRIMPER, HAND, STAMPED CONTACTS		
PROCESS SPECIFICATIONS:				
THE USE OF THIS DOCUMENT IS UNLIMITED. DESIGN FEATURES SHOWN ARE NOT TO BE DATA SHOWN HEREON ARE THE PROPERTY OF AMPHENOL CORP. ALL RIGHTS ARE RESERVED. NO OTHER REPRODUCTION OR TRANSMISSION OF ANY INFORMATION CONTAINED HEREIN WITHOUT THE WRITTEN PERMISSION OF AMPHENOL CORP. DOCUMENTS REFERRED TO HEREIN MAY BE OBTAINED BY REQUESTING THE APPROPRIATE DOCUMENT NUMBER				
NEXT ASST:		SIZE (FROM NO. 100): B 10644 S2-15223 SCALE: NONE S2-15223 SHEET 1 OF 1 REASON: A-7		

ALL REFERENCES TO DEUTSCH PRODUCTS OR SPECIFICATIONS ARE FOR COMPARISON PURPOSES ONLY, AND REFER TO DEUTSCH INDUSTRIAL PRODUCTS.

REVISIONS				
REV	ZONE	ECO	DESCRIPTION	DATE
A1	-	-	RELEASE NUMBER 016571	6/12/09
BY	APP			
B.D.B.	M.F.F.			

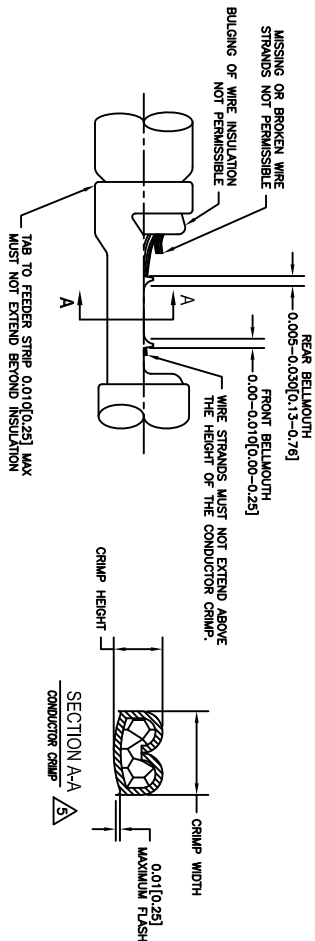
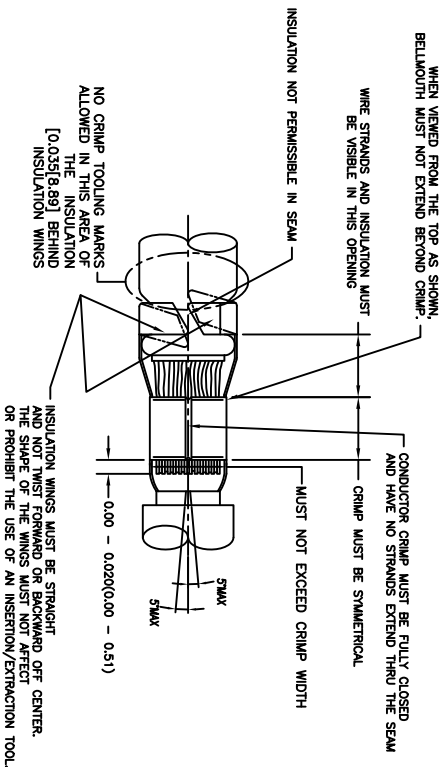
STAMPED CONTACT PART NUMBER 1005=PIN 1006=SOCKET	SIZE	CONDUCTOR WIRE SIZE	CRIMP HEIGHT	CRIMP WIDTH	CONDUCTOR PUNCH NUMBER	CONDUCTOR ANVIL NUMBER	CRIMP TENSILE REFERENCE
A780-14-011x A782-14-011x INSULATION RANGE 0.095-0.150(2.11-3.81)	16	14 AWG	0.055(1.40)	0.094(2.39)	A177-002-0200	A177-101-0200	28(111)
		2.00mm ²	0.055(1.40)	0.094(2.39)			
		1.50mm ²	0.055(1.35)	0.094(2.39)			
		16 AWG	0.050(1.27)	0.094(2.39)			
		1.00mm ²	0.050(1.27)	0.094(2.39)			
A780-16-011x A782-16-011x INSULATION RANGE 0.075-0.140(1.91-3.56)	16	18 AWG	0.048(1.22)	0.094(2.39)	A177-002-0200	A177-101-0200	28(111)
		0.75mm ²	0.048(1.22)	0.094(2.39)			
		14 AWG	0.055(1.40)	0.094(2.39)			
		2.00mm ²	0.055(1.40)	0.094(2.39)			
		1.50mm ²	0.053(1.35)	0.094(2.39)			
A780-16-060x A782-16-060x INSULATION RANGE 0.055-0.100(1.40-2.54)	16	18 AWG	0.048(1.24)	0.094(2.39)	A177-003-0200	A177-103-0200	28(111)
		1.00mm ²	0.050(1.27)	0.094(2.39)			
		16 AWG	0.050(1.27)	0.094(2.39)			
		18 AWG	0.048(1.24)	0.094(2.39)			
		0.75mm ²	0.048(1.22)	0.094(2.39)			

CROSS REFERENCE

INSULATION DIAMETER RANGE	INSULATION PUNCH NUMBER	INSULATION ANVIL NUMBER
0.120-0.150	A177-210-0200	A177-316-0200
0.105-0.125	A177-211-0200	A177-317-0200
0.085-0.111	A177-213-0200	A177-318-0200
0.075-0.105	A177-214-0200	A177-319-0200
0.065-0.094	A177-215-0200	A177-320-0200
0.050-0.075	A177-216-0200	A177-321-0200

NOTES: UNLESS OTHERWISE SPECIFIED

1. ALL DIMENSIONS ARE IN INCHES(mm).
2. FORCES ARE IN POUNDS(LBS) AND NEWTONS(N).
3. "X"= PLATING SUFFX. SEE INDIVIDUAL CONTACT DRAWING.
4. WIRE STRIP LENGTH: 0.175±0.029(4.43±0.64). BROKEN OR MISSING CONDUCTOR STRANDS ARE NOT ACCEPTABLE.
5. USE A BLADE MICROMETER (0.0002-54) MIN SPINDLE AND 0.060(0.010)(1.50(0.040) ANVIL) TO MEASURE THE CONDUCTOR CRIMP. SEE SECTION AA.
6. CRIMP TENSILE STRENGTH IS DETERMINED AT A PULL RATE SPEED OF 1.00 INCH(25.4) PER MINUTE. INSULATION WINGS ARE REMOVED FOR TEST. ACTUAL CRIMP TENSILE STRENGTH DEPENDS ON WIRE/CONDUCTOR SIZE. VALUES ON THIS SPECIFICATION ARE FOR REFERENCE ONLY.
7. INSULATION DIAMETER RANGE IS DETERMINED BY CONNECTOR AND ITS WIRE SEAL SIZE. SEE CONNECTOR DRAWING FOR INSULATION RANGE.
8. INSULATION CRIMP DIAMETER SHOULD BE THE EQUAL OR LESS THAN THE DIAMETER OF THE WIRE INSULATION (HARD OR TEFLON INSULATION MAY BE AN EXCEPTION). INSULATION CRIMP SHALL NOT AFFECT REMOVAL TOOL PERFORMANCE AND SHALL NOT DAMAGE CONNECTOR CROMMET SEAL.
9. CONDUCTOR TYPE ARE PER SAE J128(AWG) AND ISO 6722(METRIC)
10. FOR CONTACT MATERIAL AND PERFORMANCE DATA, SEE DRAWING S2-15217.
11. REFER TO S2-15223 AND S2-15224 AND CROSS REFERENCE CHARTS FOR CRIMP TOOL DATA.



ALL REFERENCES TO DEUTSCH PRODUCTS OR SPECIFICATIONS ARE FOR COMPARISON PURPOSES ONLY, AND REFER TO DEUTSCH INDUSTRIAL PRODUCTS.

QUANTITY		PART NUMBER		DESCRIPTION		ITEM
MATERIALS LIST						
UNLESS OTHERWISE SPECIFIED						
1) All dimensions are in inches.						
2) Pl. DEC 20.00 to Provisions 31/14						
3) Pl. DEC 20.00 to Provisions 31/14						
4) Reduction Standards Per:						
SS--00020						
5) Non Reference = 						
TYPICAL SPECIFICATIONS:						
						
CUSTOMER:						
SIGNATURES				DATE		
DRAWN:				4/7/09		
CHECKED:				6/8/09		
ENGINEER:				BENJAMIN		
APPROVAL:				6/8/09		
CUSTOMER:						
THE USE OF THIS DOCUMENT IS SPECIFICATIONS AND PERFORMANCE DATA SHOWN HEREON ARE THE FULL DIMENSIONS ARE SUBJECT TO NORMAL MANUFACTURING VARIATIONS. ANY UNUSUAL DIMENSIONS MUST BE APPROVED BY THE CUSTOMER. UNLESS OTHERWISE SPECIFIED						
CRIMP DATA, STAMPED CONTACTS FOR CRIMPER MFX-3950						
SIZE FROM DRAWING NO:						
C 16K44						
S2-15222						
S2-15222						
SHEET 1 of 1						
REVISION				A1		

REVISIONS				
REV	ZONE	ECO	DESCRIPTION	DATE
A1	-	-	RELEASE NUMBER 016571	6/12/09
BY	APP			
B.D.B.	M.F.F.			

STAMPED CONTACT PART NUMBER 1000=PIN 1000=SOCKET	SIZE	CRIMP HEIGHT	CRIMP WIDTH	CONDUCTOR PUNCH NUMBER	CONDUCTOR ANVIL NUMBER	CRIMP TENSILE REFERENCE
A160-14-011x A162-14-011x INSULATION RANGE 0.095-0.150(2.41-3.81)	14 AWG	0.055(1.40)	0.094(2.39)			
	2.00mm ²	0.055(1.40)	0.094(2.39)			
	1.50mm ²	0.053(1.35)	0.094(2.39)			
	16 AWG	0.050(1.27)	0.094(2.39)	A117-083-0200	A117-183-0200	25(111)
A160-16-011x A162-16-011x INSULATION RANGE 0.075-0.140(1.91-3.56)	16 AWG	0.050(1.27)	0.094(2.39)			
	1.00mm ²	0.050(1.27)	0.094(2.39)			
	18 AWG	0.049(1.24)	0.094(2.39)			
	0.75mm ²	0.049(1.24)	0.094(2.39)			
A160-16-065x A162-16-065x INSULATION RANGE 0.055-0.100(1.40-2.54)	16 AWG	0.050(1.27)	0.079(2.01)			
	1.00mm ²	0.050(1.27)	0.079(2.01)			
	18 AWG	0.049(1.24)	0.079(2.01)			
	20 AWG	0.048(1.22)	0.079(2.01)			

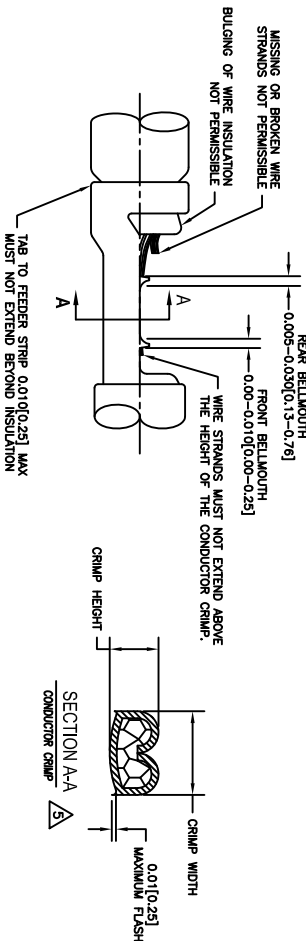
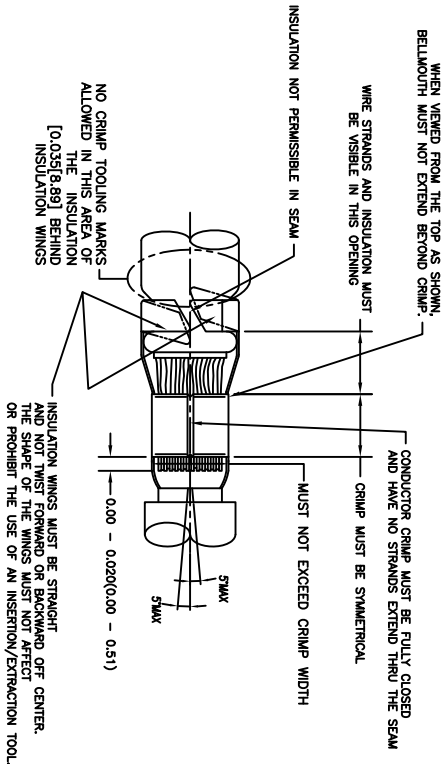
CROSS REFERENCE

INSULATION DIAMETER RANGE	INSULATION PUNCH NUMBER	INSULATION ANVIL NUMBER
0.120-0.150	[3.05-3.81]	A117-225-0200
0.105-0.125	[2.67-3.18]	A117-226-0200
0.085-0.111	[2.16-2.82]	A117-227-0200
0.075-0.105	[1.91-2.67]	A117-228-0200
0.063-0.094	[1.62-2.39]	A117-229-0200
0.050-0.075	[1.27-1.91]	A117-230-0200

SINE PART NUMBER	DEUTSCH PART NUMBER
MPX-3953	DCT1620-02-00
A117-083-0200	1017-083-0200
A117-082-0200	1017-082-0200
A117-183-0200	1017-183-0200
A117-182-0200	1017-182-0200
A117-225-0200	1017-225-0200
A117-226-0200	1017-226-0200
A117-227-0200	1017-227-0200
A117-228-0200	1017-228-0200
A117-229-0200	1017-229-0200
A117-230-0200	1017-230-0200
A117-325-0200	1017-325-0200
A117-326-0200	1017-326-0200
A117-327-0200	1017-327-0200
A117-328-0200	1017-328-0200
A117-329-0200	1017-329-0200
A117-330-0200	1017-330-0200

NOTES: UNLESS OTHERWISE SPECIFIED

1. ALL DIMENSIONS ARE IN INCHES(mm).
2. FORCES ARE IN POUNDS(LBS) AND NEWTONS(N).
3. "X"= PLATING SUFFX. SEE INDIVIDUAL CONTACT DRAWING.
4. WIRE STRIP LENGTH: 0.175±0.029(4.43±0.64). BROKEN OR MISSING CONDUCTOR STRANDS ARE NOT ACCEPTABLE.
5. USE A BLADE MICROMETER (0.100(2.54) MIN SPINDLE AND 0.060(0.010(1.50(0.040) ANVIL) TO MEASURE THE CONDUCTOR CRIMP. SEE SECTION AA.
6. CRIMP TENSILE STRENGTH IS DETERMINED AT A PULL RATE SPEED OF 1.00 INCH(25.4) PER MINUTE. INSULATION WINGS ARE REMOVED FOR TEST. ACTUAL CRIMP TENSILE STRENGTH DEPENDS ON WIRE/CONDUCTOR SIZE. VALUES ON THIS SPECIFICATION ARE FOR REFERENCE ONLY.
7. INSULATION DIAMETER RANGE IS DETERMINED BY CONNECTOR AND ITS WIRE SEAL SIZE. SEE CONNECTOR DRAWING FOR INSULATION RANGE.
8. INSULATION CRIMP DIAMETER SHOULD BE THE EQUAL OR LESS THAN THE DIAMETER OF THE WIRE INSULATION (HARD OR TEFLON INSULATION MAY BE AN EXCEPTION). INSULATION CRIMP SHALL NOT AFFECT REMOVAL TOOL PERFORMANCE AND SHALL NOT DAMAGE CONNECTOR CROMMET SEAL.
9. CONDUCTOR TYPE ARE PER SAEJ1128(AWG) AND ISO 6122(METRIC)
10. FOR CONTACT MATERIAL AND PERFORMANCE DATA, SEE DRAWING S2-15217.
11. REFER TO S2-15223 AND S2-15224 AND CROSS REFERENCE CHARTS FOR CRIMP TOOL DATA.

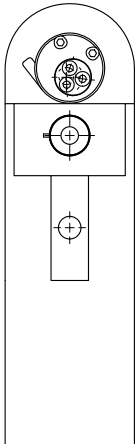


ALL REFERENCES TO DEUTSCH PRODUCTS OR SPECIFICATIONS ARE FOR COMPARISON PURPOSES ONLY, AND REFER TO DEUTSCH INDUSTRIAL PRODUCTS.

PART NUMBER		DESCRIPTION		ITEM
MATERIALS LIST				
QUANTITY				
UNLESS OTHERWISE SPECIFIED				
1) All dimensions are in inches.				
2) Pl. DEC 2000 to Provisions 31/4				
3) Pl. DEC 2000 to Provisions 31/4				
4) Pl. DEC 2000 to Provisions 31/4				
5) Reduction Standards Per:				
A) SAE J1128				
B) SAE J1128				
C) SAE J1128				
D) SAE J1128				
E) SAE J1128				
F) SAE J1128				
G) SAE J1128				
H) SAE J1128				
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W) SAE J1128				
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Z) SAE J1128				
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EW) SAE J1128				
EX) SAE J1128				
EY) SAE J1128				
EZ) SAE J1128				
FA) SAE J1128				

REVISIONS				DATE	BY	APP
REV	ZONE	ECO	DESCRIPTION	6/12/09	B.D.B.	M.F.F.
A1	-	-	RELEASE NUMBER 016571			

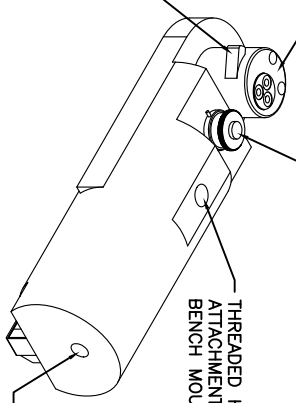
CONTACT LOCATOR "TURRET"
THREE POSITION FOR SIZE
12, 16 & 20 MALE AND
FEMALE CONTACTS



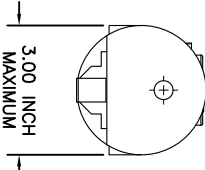
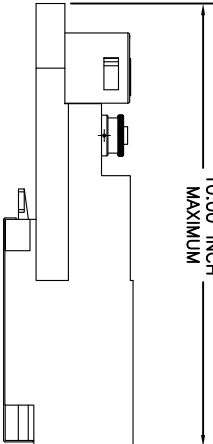
"TURRET"
RELEASE LATCH

SELECTOR FOR
CRIMP SETTING

THREADED HOLE FOR
ATTACHMENT OF
BENCH MOUNT FIXTURE



10.00 INCH
MAXIMUM



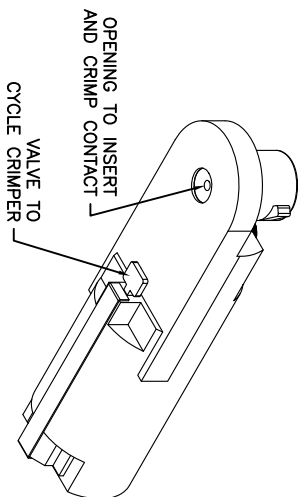
3.00 INCH
MAXIMUM

THREADED OPENING
FOR COMPRESSED
AIR FITTING

NOTES:

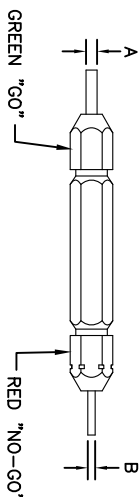
1. THE CA-5E12 IS A COMPRESSED AIR OPERATED HAND CRIMPER FOR ELECTRICAL CONTACTS. IT IS ADJUSTABLE TO 3 CONTACT SIZES (12, 16 & 20) AND 8 INDENTER CRIMP POSITIONS FOR DIFFERENT WIRE SIZES (12AWG THRU 26 AWG).
2. 80-120 PSI COMPRESSED AIR.
3. WEIGHT: 3.1 LBS
4. SELECTING CONTACT SIZE: PRESS THE RELEASE LATCH ON SIDE OF THE CONTACT LOCATOR "TURRET". ROTATE TO THE DESIRED CONTACT SIZE. THE TOP OF THE "TURRET" IS EMBOSSED WITH THE CONTACT SIZES.
5. SELECTING WIRE SIZE: GRASP THE SELECTOR AND ROTATE TO THE DESIRED NUMBER.

GAGE PART NO.	A GO DIA.	B NO-GO DIA.	SELECTOR NUMBER
G125	.0390	.0440	4



GAGING INSTRUCTIONS

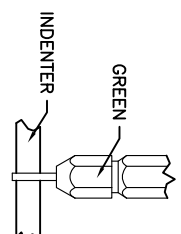
CAUTION!
DO NOT CRIMP GAGE!



GREEN "GO"
RED "NO-GO"

"GO" GAGING: OPERATE TOOL TO FULLY CLOSED POSITION. INSERT "GO" GAGE END AS SHOWN. GAGE MUST PASS FREELY BETWEEN INDENTER TIPS.

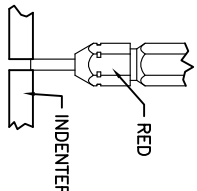
"NO-GO" GAGING: OPERATE TOOL TO FULLY CLOSED POSITION. INSERT "NO-GO" GAGE END AS SHOWN. THE "NO-GO" MAY PARTIALLY ENTER THE INDENTER OPENING, BUT MUST NOT PASS COMPLETELY THROUGH THE OPENING.



GREEN

INDENTER

SELECTOR NUMBER	A GO DIA.	B NO-GO DIA.
1	.0280	.0330
2	.0320	.0370
3	.0360	.0410
4	.0390	.0440
5	.0450	.0500
6	.0520	.0570
7	.0590	.0640
8	.0680	.0730



RED

INDENTER

CONTACT SIZE		SELECTOR NUMBER							
LOCATOR POSITION	26 WIRE	24 WIRE	22 WIRE	20 WIRE	18 WIRE	16 WIRE	14 WIRE	12 WIRE	
20-20	RED	1	2	3	4				
16-22	BLUE	4	5	6					
16-20	BLUE	1	2	3	4				
16-16	BLUE				4	5	6		
12-16	YELLOW				4	5	6		
12-12	YELLOW						7	8	

QUANTITY		PART NUMBER		DESCRIPTION		ITEM
MATERIALS LIST						
UNLESS OTHERWISE SPECIFIED		SIGNATURES		DATE		
1) All dimensions are in inches.		DESIGNER	REVIEW	6/2/09		
2) All dimensions are to be held to .0005 inch tolerance unless otherwise specified.		ENGINEER	REVIEW	6/3/09		
3) All dimensions are to be held to .0005 inch tolerance unless otherwise specified.		ENGINEER	REVIEW	6/3/09		
4) Production Standards Per: SS-20020		APPROVAL	REVIEW	6/3/09		
5) Non-Reference: A						
MATERIAL SPECIFICATIONS:						
N/A						
PROCESS SPECIFICATIONS:						
N/A						
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SINE Systems Corporation

A Subsidiary of Amphenol Corporation
44724 Moley Drive
Canton Township, MI 48036

INSTRUCTIONS FOR CA-5E12
CRIMPER, PNEUMATIC

S2-15220

A1

REVISIONS			
REV	ZONE	ECO	DESCRIPTION
1	-	-	RELEASE NUMBER 016571
DATE	6/12/09	BY	M.S.F.

CONTACT LOCATOR
"TURRET"
THREE POSITIONS FOR
SIZE 12, 16 & 20 MALE
AND FEMALE CONTACTS

"TURRET" RELEASE LATCH

6.25 INCH
MAXIMUM
OPEN

2.30 INCH
MAXIMUM
CLOSED

SELECTOR FOR CRIMP
SETTING

1.125 INCH MAX.

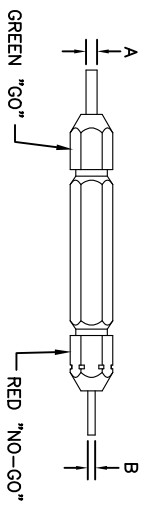
9.75 INCH MAXIMUM

1.00 INCH MAX.

GAGE PART NO.	A GO DIA.	B NO-GO DIA.	SELECTOR NUMBER
G125	.0390	.0440	4

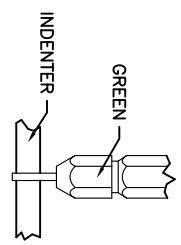
GAGING INSTRUCTIONS

CAUTION!
DO NOT CRIMP GAGE!

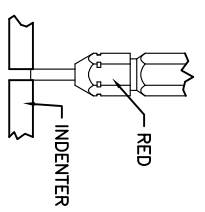


"GO" GAGING: OPERATE TOOL TO FULLY CLOSED POSITION. INSERT "GO" GAGE END AS SHOWN. GAGE MUST PASS FREELY BETWEEN INDENTER TIPS.

"NO-GO" GAGING: OPERATE TOOL TO FULLY CLOSED POSITION. INSERT "NO-GO" GAGE END AS SHOWN. THE "NO-GO" MAY PARTIALLY ENTER THE INDENTER OPENING, BUT MUST NOT PASS COMPLETELY THROUGH THE OPENING.



SELECTOR NUMBER	A GO DIA.	B NO-GO DIA.
1	.0280	.0330
2	.0320	.0370
3	.0360	.0410
4	.0390	.0440
5	.0450	.0500
6	.0520	.0570
7	.0590	.0640
8	.0680	.0730



- NOTES:
- THE CA-5D12 IS A HAND OPERATED CRIMPER FOR ELECTRICAL CONTACTS. IT IS ADJUSTABLE TO 3 CONTACT SIZES (12, 16 & 20) AND 8 INDENTER CRIMP POSITIONS FOR DIFFERENT WIRE SIZES (12AWG THRU 26 AWG).
 - WEIGHT: 1.64 LBS
 - SELECTING CONTACT SIZE: PRESS THE RELEASE LATCH ON SIDE OF THE CONTACT LOCATOR "TURRET". ROTATE TO THE DESIRED CONTACT SIZE. THE TOP OF THE "TURRET" IS EMBOSSED WITH THE CONTACT SIZES.
 - SELECTING WIRE SIZE: REMOVE THE LOCKING CLIP. GRASP THE SELECTOR AND ROTATE TO THE DESIRED NUMBER.

CONTACT SIZE		SELECTOR NUMBER							
LOCATOR "TURRET" POSITION COLOR	26 AWG WIRE	24 AWG WIRE	22 AWG WIRE	20 AWG WIRE	18 AWG WIRE	16 AWG WIRE	14 AWG WIRE	12 AWG WIRE	
20-20 RED	1	2	3	4					
16-22 BLUE	4	5	6						
16-20 BLUE	1	2	3	4					
16-16 BLUE				4	5	6			
12-16 YELLOW				4	5	6			
12-12 YELLOW						7	8		

QUANTITY	PART NUMBER	DESCRIPTION	ITEM
MATERIALS LIST			
SIGNATURES DATE			
DRAWN: BERLIN 6/3/09			
CHECKED: FINCK 6/3/09			
ENGINEER: BERLIN			
APPROVAL: BERLIN 6/3/09			
CUSTOMER: SINE			
THE USE OF THIS DRAWING IS SPECIFIC TO THE PART AND THE PROPERTY OF AMPHENOL CORP. ALL DOCUMENTS RETURNED HEREON MAY CONTAIN UNCLASSIFIED DATA.			
INSTRUCTIONS FOR CA-5D12 CRIMPER, HAND, MACHINED CONTACTS			
SIZE FROM DRAWING: S2-15219			
SCALE: NONE			
SHEET 1 OF 1			

SINE Systems Corporation

A Subsidiary of Amphenol Corporation
44724 Moley Drive
Canton Township, MI 48036

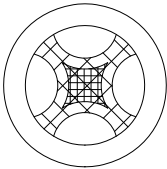
REVISIONS				
REV	ZONE	ECO	DESCRIPTION	
1			RELEASE NUMBER 016571	
DATE	BY	APPR		
6/12/09	B.D.B.	M.R.F.		

CONTACT P/N	SIZE TYPE	WIRE SIZE	REF. ONLY TENSILE LBS[N]
AT60-202-16XX	16PIN	1.5mm ² 16AWG	35[156]
AT62-201-16XX	16SOC	1.0mm ² 18AWG	25[111]
A		0.75mm ² 20AWG	20[89]
		0.50mm ²	

RECOMMENDED STRIP LENGTH	
CONTACT SIZE	STRIP LENGTH INCH[MM]
16	0.250-0.312[6.35-7.92]

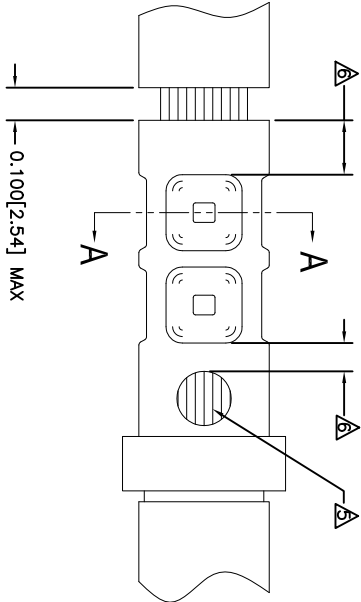
CRIMP TOOLING					
CONTACT SIZE	CRIMP TOOL PART NUMBER	CONTACT LOCATOR "TURRET" POSITION	WIRE SELECTOR NUMBER	GO GAGE INCH[MM]	"NOGO" GAGE INCH[MM]
16	CA-5D12	BLUE	6	0.052[1.32]	0.057[1.45]
16	CA-5E12	BLUE	4	0.039[.991]	0.044[1.12]

- NOTES: UNLESS OTHERWISE SPECIFIED
- MINIMUM +/-0.0005 [0.013] TOLERANCE STEEL GAGE PINS. DO NOT CRIMP GAGE PINS. CLOSE DIE, THEN USE GAGE PINS.
 - WHEN XX=31, CONTACT PLATING IS GOLD WHEN XX=141, CONTACT PLATING IS NICKEL
 - PULL RATE OF 1.0 IN [25.4] PER MINUTE. ACTUAL STRENGTH DEPENDS ON WIRE SIZE.
 - FOR CONTACT PERFORMANCE, MATERIAL SPECIFICATIONS AND APPLICATION DETAILS, SEE DRAWING S2-15217.
 - CONDUCTOR STRANDS MUST BE VISIBLE THRU THE INSPECTION HOLE PRIOR TO CRIMP.
 - PROPER CRIMP TOOLING WILL PRODUCE A CRIMP CENTERED BETWEEN THE INSPECTION HOLE AND CRIMP BARREL END.
 - WIRE SIZES PER SAE J1128 AND J1560 [DIN 72551-6] REFERENCE INSTRUCTION MANUALS S2-15219 AND S2-15220 FOR CA-5D12 AND CA-5E12 HAND AND PNEUMATIC CRIMPER.
 - THE CRIMP HEIGHT DIMENSION AFTER CRIMPING MAY VARY FROM THE VALUES LISTED FOR THE "GO-NOGO" PINS.



SECTION A-A
CRIMP CROSS-SECTION

0.100[2.54] MAX



QUANTITY	PART NUMBER	DESCRIPTION	ITEM
MATERIALS LIST			
UNLESS OTHERWISE SPECIFIED			
1) All dimensions are in inches.	SIGNATURES	DATE	
2) All dimensions are in millimeters.	DRAWN: BERNU	6/3/09	
3) All dimensions are in both inches and millimeters.	CHECKED: RNOCE	6/3/09	
4) All dimensions are in both inches and millimeters.	ENGINEER: BERNU		
5) Fabrication Standards Per: SD-20020	APPROVAL: BERNU	6/3/09	
6) All dimensions are in both inches and millimeters.	CUSTOMER:		
MATERIAL SPECIFICATIONS:			
N/A			
PROCESS SPECIFICATIONS:			
THE USE OF THIS DRAWING IS LIMITED TO THE SPECIFICATIONS AND PERFORMANCE OF THE CRIMPING PROCESS. IT IS NOT TO BE USED FOR ANY OTHER PURPOSE. ALL DIMENSIONS ARE SUBJECT TO NORMAL MANUFACTURING VARIATION. DOCUMENTS RETAINED HEREON MAY CONTAIN LIMITED RIGHTS DATA.			
SIZE FROM DRAWING NO:	CRIMP INFORMATION		REVISION
C [0644]	S2-15218		A1
SCALE: NONE	S2-15218	SHEET 1 OF 1	

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