Jameco Part Number 792589

PRODUCT SPECIFICATION

.093 SERIES HIGH CURRENT END-CARRIED TERMINALS

1.0 SCOPE

This Product Specification covers the .093 Series 6.71 mm (.264 inch) centerline (pitch) 3191 Series and the 5.03 mm (.198 inch) centerline Standard .093 Series connectors using.

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT SERIES NUMBER AND DESCRIPTION

42477 / 42478 - .093 SERIES HIGH CURRENT, END-CARRIED CRIMP TERMINALS

3191 - .093 SERIES TYPE PLUG AND RECEPTACLE HOUSINGS

1261,1292, 1360.1375, 1396, 1490, 1545, 1619, 1951, 2163, 2629 - STANDARD .093 SERIES PLUG AND RECEPTACLE HOUSINGS

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

See the appropriate sales drawings of above series numbers for further information on dimensions, materials, platings and markings.

2.3 SAFETY AGENCY APPROVALS

UL File #E29179
CSA File #LR19980
TUV License #R75107

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

MIL-STD-1344A
UL 1682

4.0 RATINGS

4.1 VOLTAGE

600 Volts AC (RMS) for 3191 Series
250 Volts AC (RMS) for Standard .093 Series

4.2 CURRENT AND APPLICABLE WIRES

AWG	Amps	Outside Insulation Diameter
14	17	3.56 mm (.140 inch)
18	12	2.79 mm (.110 inch)

4.3 TEMPERATURE

Operating: - 55°C to + 105°C

5.0 PERFORMANCE

5.1 ELECTRICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	**Contact Resistance (Low Level)**	Mate connectors: apply a maximum voltage of **20** mV and a current of **20** mA. (Measurement locations in Section 7.0)	**10** milliohms MAXIMUM [initial]
2	**Contact Resistance of Wire Termination (Low Level)**	Terminate the applicable wire to the terminal and measure wire using a voltage of **20** mV and a current of **100** mA. (Measurement locations in Section 7.0)	**2** milliohms MAXIMUM [initial]
3	**Dielectric Withstanding Voltage**	Mate connectors: apply a voltage of **5000** VAC for the 3191 Series, **2000** VAC for the .093 Series for **1** minute between adjacent terminals and between terminals to ground.	No breakdown; current leakage < **5** mA
4	**Temperature Rise (via Current Cycling)**	Mate connectors: measure the temperature rise at the rated current, subjecting the connector to : **96** hours of continuous current, followed by **240** hours of current cycling (**45** minutes ON and **15** minutes OFF per hour).	Temperature rise: **+30**°C MAXIMUM

5.2 MECHANICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
5	**Terminal Insertion Force**	Insert terminal into housing until fully locked at a rate of **25 ± 6** mm (**1 ± ¼** inch) per minute.	**22.2** N (**5** lbf) MAXIMUM insertion force
6	**Connector Mate and Unmate Forces**	Mate and unmate connector (male to female) at a rate of **25 ± 6** mm (**1 ± ¼** inch) per minute.	**15.6** N (**3.5** lbf) MAXIMUM insertion force **6.7** N (**1.5** lbf) MINIMUM [initial] withdrawal force
7	**Terminal Retention Force (in Housing)**	Axial pullout force on the terminal in the housing at a rate of **25 ± 6** mm (**1 ± ¼** inch) per minute.	**89.0** N (**20** lbf) MINIMUM retention force
8	**Durability**	Mate connectors up to **{25** cycles for tin (non-noble) plating OR **250** cycles for gold (noble) plating**}** at a maximum rate of **5** cycles per minute prior to Environmental Tests.	**10** milliohms MAXIMUM (change from initial)
9	**Vibration (Random)**	Subject mated connectors to vibration with an amplitude of **1.52** mm (**.060** inch) peak to peak; a sweep of 10-55-10 hertz in 1.0 min.; and a duration of 2.0 hours in the ±X,±Y,±Z axes.	**10** milliohms MAXIMUM (change from initial) & Discontinuity < **1** microsecond

5.2 MECHANICAL REQUIREMENTS (CONTINUED)

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
10	**Shock (Mechanical)**	Subject mated connectors to 3 shocks at **50** g's with ½ sine wave (11 milliseconds) shocks in the ±X,±Y,±Z axes (**18** shocks total).	**10** milliohms MAXIMUM (change from initial]) & Discontinuity < **1** microsecond
11	**Wire Pullout Force (Axial)**	Apply an axial pullout force on the wire at a rate of **25 ± 6** mm (**1 ± ¼** inch).	******* N (******* lbf) MINIMUM pullout force **{**Recommended minimum value: 75% of tensile strength of the wire**}**
12	**Wire Pullout Force (Right Angle)**	Apply a right angle pullout force on the wire at a rate of **25 ± 6** mm (**1 ± ¼** inch).	MINIMUM pullout force: **18 AWG: 89** N (**20** lbf) **16 AWG: 133** N (**30** lbf) **14 AWG: 267** N (**60** lbf) **{**Recommended minimum value: 75% of tensile strength of the wire**}**
13	**Terminal Insertion Force (into Housing)**	Apply an axial insertion force on the terminal at a rate of **25 ± 6** mm (**1 ± ¼** inch).	**22** N (**5** lbf) MAXIMUM insertion force

5.3 ENVIRONMENTAL REQUIREMENTS

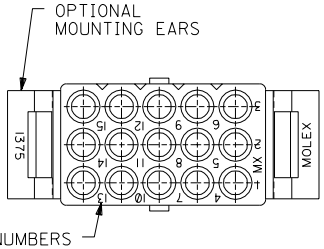
ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
14	**Shock (Thermal)**	Mate connectors; expose to **10** cycles of: Temperature °C — Duration (Minutes) **-40 +0/-3** — **30** **+25 ±10** — **5** MAXIMUM **+105 +3/-0** — **30** **+25 ±10** — **5** MAXIMUM	**10** milliohms MAXIMUM (change from initial) & Visual: No Damage
15	**Humidity (Cyclic)**	Expose mated connectors to a temperature cycles of **25 ± 3°**C at **95 ± 5**% relative humidity and **65 ± 3°**C at **50 ± 5**% relative humidity; dwell time of **1.0** hour; ramp time of **0.5** hours for **240** hours.	**10** milliohms MAXIMUM (change from initial) & Dielectric Withstanding Voltage: No Breakdown at **500** VAC & Insulation Resistance: **1000** Megohms MINIMUM & Visual: No Damage
16	**Salt Spray**	Mate connectors: Duration: **96** hours exposure; Atmosphere: salt spray from a **5**% solution; Temperature: **35 +1/-2°**C	**10** milliohms MAXIMUM (change from initial) & Visual: No Damage

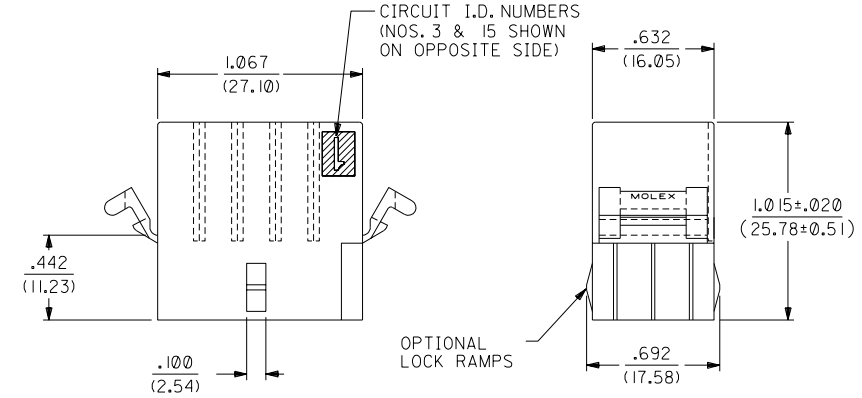
5.3 ENVIRONMENTAL REQUIREMENTS (continued)

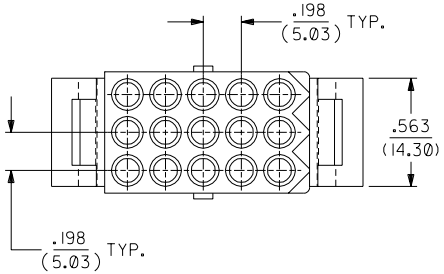
ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
17	**Thermal Aging**	Mate connectors; expose to: **240** hours at **105 ± 2°**C	**10** milliohms MAXIMUM (change from initial]) & Visual: No Damage
18	**Humidity (Steady State)**	Mate connectors: expose to a temperature of **40 ± 2°**C with a relative humidity of **90-95**% for **240** hours.	**10** milliohms MAXIMUM (change from initial) & Dielectric Withstanding Voltage: No Breakdown at **500** VAC & Insulation Resistance: **1000** Megohms MINIMUM & Visual: No Damage

6.0 PACKAGING

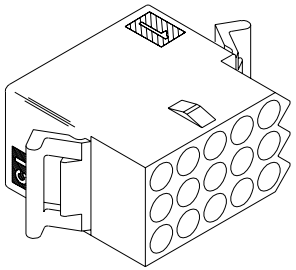
Parts shall be packaged to protect against damage during handling, transit and storage.

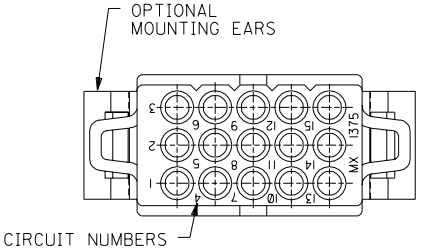


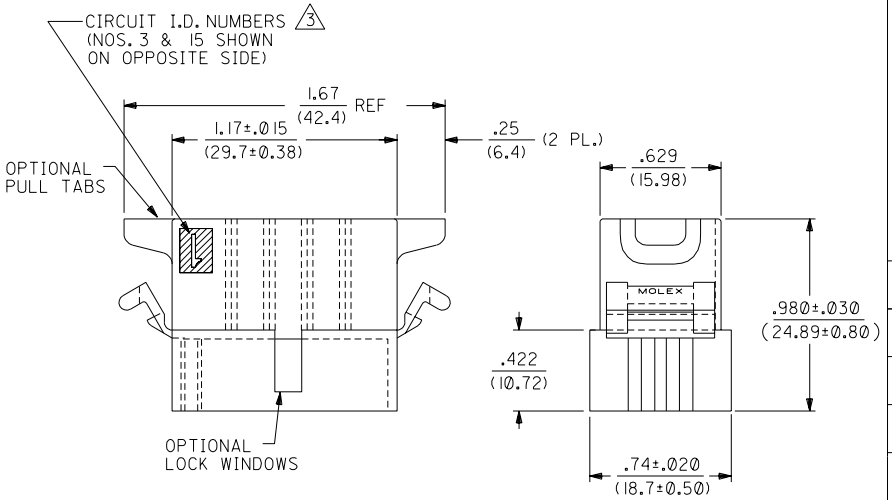


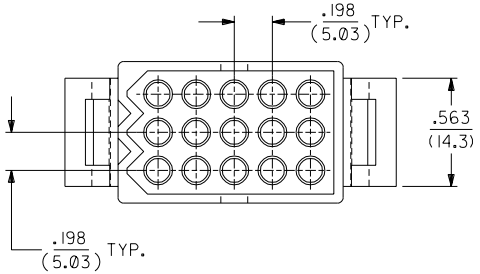


RECEPTACLE

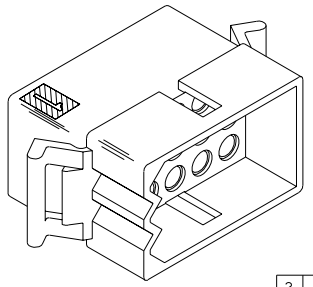








PLUG



AD	REV. DIM'S/ADD NOTES UCP2004-1055 ELHAG 12/04/03		
AC1	REINSTATE P/N UCR2002-0570 COMERCI 02/01/02		
AC	OBSOLETE P/N UCR2002-0270 COMERCI 01/9/25		
AB	REVISED UCR1999-0369 WANG 98-12-09		
AA1	REVISED UCR 1998-0108 WANG 98-03-27		
AA	REVISED PER ECN U61402 05/07/96 CM		
Z	X-RELEASE -P4 ECN #U6 1080 3-6-96 RW		
Y2	OBS. -R2 VER'S. ECR U6 0312 GC 9/1/95 RW		
Y1	ADD -P4 VERSION ECR #U4 0892 7-26-94 RW		
Y	REM'V. -P3•'S PER ECR U4 0622 GC 7-13-94 RW		
X	REVISE PER ECR U4 0251 GC 2-28-94 RW		
W	REVISE PER ECR U2-1820 AFG 01-12-93 RW		
V	ADD -P3YW OPTION ECR #U91187 11-20-89 RW		
T	ADD DYED OPTIONS ECR #U91070 10-06-89 RW		
2	AD	S	REVISED & REDRAWN ECR # U90658 KBW 06-14-89 RW
1	AD		

1375

MFG. SH.	REV.	LTR.	REVISIONS

▽ = 0 ▼ = 0 REVISE ONLY ON CAD SYSTEM

DIMENSIONS SHOWN (METRIC) INCH

UNLESS OTHERWISE SPECIFIED TOLERANCES: ANGULAR ± 1/2°

	INCH	METRIC
3 PLACE	± .010	---
2 PLACE	± .014	± 0.25
1 PLACE	---	± 0.35

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DRWG. BY	CHK'D. BY	APP'D. BY	SCALE
KBW	RW	RAS	2 : 1

TITLE
.093/(2.36) HOUSINGS
PLUG & RECEPTACLE
15 CIRCUIT, .198/(5.03)℄

molex MOLEX INCORPORATED
LISLE, ILL. 60532 U.S.A.

SHEET NO. 1 OF 2
DATE CI/14/89

PART NO. SEE CHART
DRWG. NO. SD-1375-*

FILE NAME M1375_15_S04

DIV. CP
SIZE C

PLUG			RECEPTACLE	
ORDER NO	ENG NO		ORDER NO	ENG NO
03-09-2151	1375-P		03-09-1151	1375-R
03-09-2159	1375-P4		03-09-1152	1375-R1
03-09-2158	1375-P7		03-09-1154	1375-R6
03-09-7158	1375-P7BK	OBSOLETE	03-09-1157	1375-R6-1
			03-09-6154	1375-R6BK

LEGEND FOR PLUG:

1375-P***

OPTIONS:
BLANK = W/O EARS, W/ PULL TABS, W/O LOCK WINDOWS
2 = W/ STANDARD EARS, W/O PULL TABS, W/O LOCK WINDOWS
4 = W/ PREBENT EARS, W/O PULL TABS, W/ LOCK WINDOWS
6 = W/O EARS, W/O PULL TABS, W/ LOCK WINDOWS
7 = W/O EARS, W/ PULL TABS, W/ LOCK WINDOWS
8 = W/ PREBENT EARS, W/O PULL TABS, W/O LOCK WINDOWS

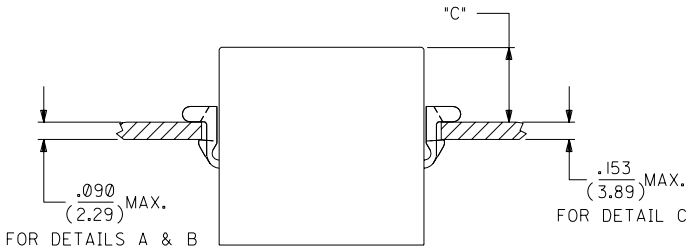
COLOR:
BLANK = NATURAL COLOR
AM = AMBER BK = BLACK BU = BLUE
BN = BROWN GY = GRAY GN = GREEN
OR = ORANGE RD = RED YW = YELLOW

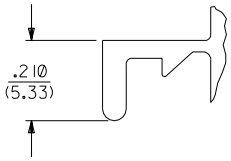
LEGEND FOR RECEPTACLE:

1375-R***

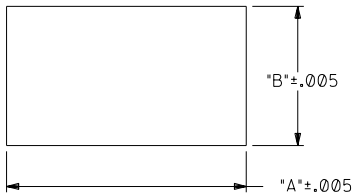
OPTIONS:
BLANK = W/ PREBENT EARS, W/O LOCK RAMPS
1 = W/O EARS, W/O LOCK RAMPS
6 = W/ STANDARD EARS & LOCK RAMPS
6-1 = W/O EARS, W/ LOCK RAMPS

COLOR:
BLANK = NATURAL COLOR
AM = AMBER BK = BLACK BU = BLUE
BN = BROWN GY = GRAY GN = GREEN
OR = ORANGE RD = RED YW = YELLOW



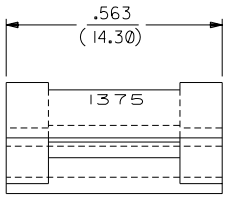


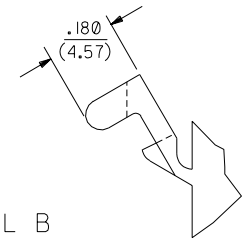
DETAIL A
.093/(2.36) STANDARD MOUNTING EAR
(SCALE 4:1)



RECOMMENDED PANEL OPENING

HOUSING	DIM. "A"	DIM. "B"	"C" PREBENT EAR	"C" STANDARD EAR	"C" SPECIAL EAR
PLUG	1.343/(34.11)	.760/(19.30)	.40/(10.2)	.36/(9.1)	———
RECEPT. W/ RAMPS	1.240/(31.50)	.725/(18.42)	.41/(10.4)	.37/(9.4)	.31/(7.8)
RECEPT. W/O RAMPS	1.240/(31.50)	.655/(16.64)	.41/(10.4)	.37/(9.4)	.31/(7.8)





DETAIL B
.093/(2.36)PREBENT MOUNTING EAR
(SCALE 4:1)

NOTES
1. MOLEX PRODUCT SPEC 02-09 APPLIES.
2. MATERIAL: NYLON TYPE 6/6, 94V-2.
3. ETCHED CIRCUIT I.D. NUMBERS ON SIDE OF HOUSINGS TO BE PRESENT ON PARTS FROM TOOLS BUILT AFTER 2/28/94.

		AC1	SEE SHEET 1	Y1	SEE SHEET 1	DIMENSIONS SHOWN (METRIC) INCH	▽ = 0 ▼ = 0 REVISE ONLY ON CAD SYSTEM
		AC	SEE SHEET 1	Y	SEE SHEET 1	UNLESS OTHERWISE SPECIFIED TOLERANCES: ANGULAR ± 1/2°	TITLE .093/(2.36) HOUSINGS PLUG & RECEPTACLE 15 CIRCUIT, .198/(5.03)℄
		AB	SEE SHEET 1	X	SEE SHEET 1	3 PLACE ± .010 --- / 2 PLACE ± .014 ± 0.25 / 1 PLACE --- ± 0.35	molex MOLEX INCORPORATED LISLE,ILL. 60532 U.S.A. SHEET NO. 2 DATE 6/14/89
		AA1	SEE SHEET 1	W	SEE SHEET 1	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	PART NO. SEE CHART DRWG. NO. SD-1375-*
		AA	SEE SHEET 1	V	SEE SHEET 1	DRWG. BY KBW CHK'D. BY RW APP'D. BY RAS SCALE - : -	FILE NAME M137515 505
		Z	SEE SHEET 1	T	SEE SHEET 1		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION. DIV. CP SIZE C
AD	SEE SHEET 1	Y2	SEE SHEET 1	S	SEE SHEET 1		
LTR.	REVISIONS	LTR.	REVISIONS	LTR.	REVISIONS		