Jameco Part Number 792546

PRODUCT SPECIFICATION

.093 SERIES PLUG AND RECEPTACLE POWER CONNECTORS

1.0 SCOPE

This Product Specification covers the 5.03 mm (.198 inch) centerline connector series using pin and socket terminals terminated with 14 to 24 AWG wire using crimp technology with tin plating.

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME AND SERIES NUMBER(S)

PRODUCT NAME	SERIES NUMBER
Plug Housing, 1-circuit	1619-1P
Receptacle Housing, 1-circuit	1619-1R
Plug Housing, 2-circuit	1545-P*
Receptacle Housing, 2-circuit	1545-R*
Plug Housing, 3-circuit	1396-P*
Receptacle Housing, 3-circuit	1396-R*
Plug Housing, 4-circuit (in-line)	1490-P*
Receptacle Housing, 4-circuit (in-line)	1490-R*
Plug Housing, 4-circuit (2 x 2)	2163-P*
Receptacle Housing, 4-circuit (2 x 2)	2163-R*
Plug Housing, 5-circuit	1653-P*
Receptacle Housing, 5-circuit	1653-R*
Plug Housing, 6-circuit	1261-P*
Receptacle Housing, 6-circuit	1261-R*
Plug Housing, 9-circuit	1292-P*
Receptacle Housing, 9-circuit	1292-R*
Plug Housing, 12-circuit	1360-P*
Receptacle Housing, 12-circuit	1360-R*
Socket Terminal, 14-18 AWG	1189
Pin Terminal, 14-18 AWG	1190
Socket Terminal, 18-22 AWG	1380
Pin Terminal, 18-22 AWG	1381
Socket Terminal, 22-24 AWG	2870
Pin Terminal, 22-24 AWG	2871
Socket Terminal, 14-18 AWG, (P-B)	4550
Socket Terminal, 18-22 AWG, (P-B)	2151

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

Housings are molded of UL 94V-2 rated PA66.
Terminals are tin-plated brass or phosphor-bronze.
See appropriate sales drawings for additional information on dimensions, materials, platings and markings.

2.3 SAFETY AGENCY APPROVALS

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

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

See the appropriate sales drawings for necessary referenced documents and specifications.

4.0 RATINGS

4.1 VOLTAGE

250 Volts AC (RMS)

4.2 CURRENT AND APPLICABLE WIRES

AWG	Circuit Size	Amps
14	3	14
14	9	11
18	3	10
18	9	7
22	3	7
22	9	5

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	**Dielectric Withstanding Voltage**	Mate connectors: apply a voltage of **2000** VAC for **1** minute between adjacent terminals and between terminals to ground.	No breakdown; current leakage < **500** mA
3	**Temperature Rise (via Current Cycling)**	Mate connectors, measuring the temperature rise at 60 minute intervals during **96** hours of steady state at rated current; followed by **240** hours of current cycling (**45** minutes ON and **15** minutes OFF per hour) with measurements made during last 5 minute period of each ON cycle; followed by **96** hours of steady state at rated current with measurements taken at 60 minute intervals.	Temperature rise: **+30**°C MAXIMUM

5.2 MECHANICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
4	**Connector Mate and Unmate Forces**	Mate and unmate connector (male to female) at a rate of **25 ± 6** mm (**1 ± ¼** inch) per minute for a total of 25 cycles. Initial mate forces to be measured. Unmate forces to be measured after 25 cycles.	**15.6** N (**3.5** lbf) MAXIMUM insertion force **4.4** N (**1** lbf) MINIMUM withdrawal force
5	**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** N (**20** lbf) MINIMUM retention force
6	**Wire Pullout Force (Axial)**	Apply an axial pullout force on the wire at a rate of **25 ± 6** mm (**1 ± ¼** inch).	MINIMUM pullout forces: 14 AWG **178** N (**40** lbf) 16 AWG **156** N (**35** lbf) 18 AWG **133** N (**30** lbf) 20 AWG **89** N (**20** lbf) 22 AWG **62** N (**14** lbf) 24 AWG **36** N (**8** lbf)
7	**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

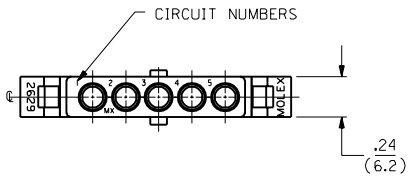
5.3 ENVIRONMENTAL REQUIREMENTS

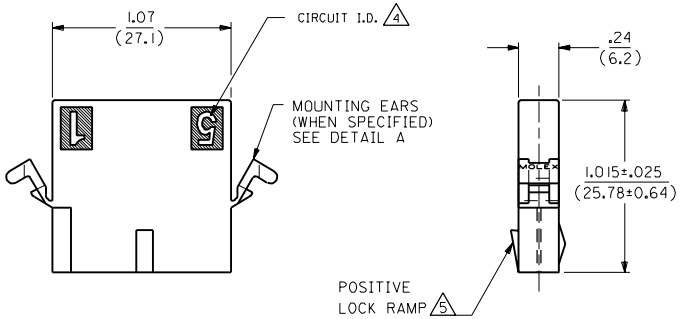
ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
8	**Thermal Cycling**	Mate connectors; expose to temperature cycling between **–25**°C and **70**°C for 500 cycles with a dwell time of 30 minutes at each extreme. Measurements to be taken initially and after every 100 cycles.	**10** milliohms MAXIMUM (change from initial) & Visual: No Damage

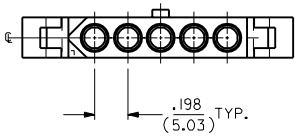
6.0 PACKAGING

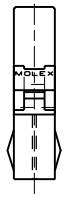
Parts shall be packaged to protect against damage during handling, transit and storage. See the appropriate sales drawings for additional information on packaging requirements.

RECEPTACLE



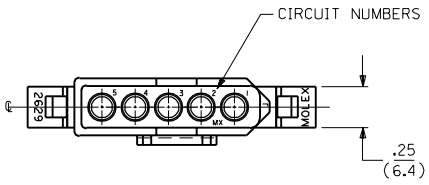


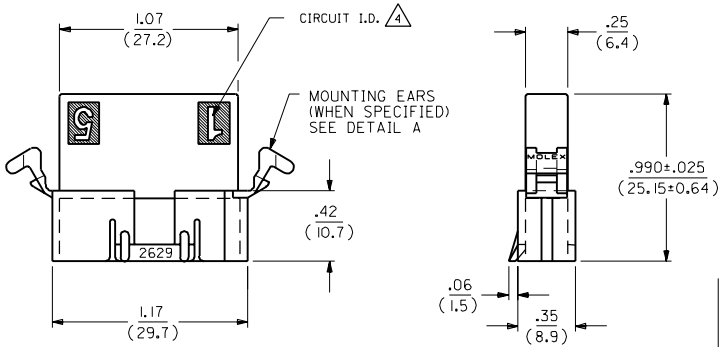


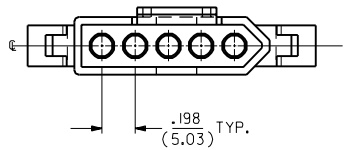


VIEW OF RECEPTACLE VERSION
WITH PASSIVE LOCK RAMPS

PLUG







2629

MFG.	SH.	REV.	LTR.	REVISIONS
		J	H	REVISED PER ECN# U61508 05/31/96 CM
		I	I	X-REMOVE -R2 ECN #U6 1080 3-6-96 RW
		J	K	ADD PASSIVE LOCKS ECN #U5 0520 11-30-94 RW
		I	J	ADD -P2 W/EDP # ECR U3 0450 GC 4/1/93 RW
		J	I	X-REMOVE ECR U2 1105 GC 7/29/92 RW
		I	H1	ADD -C MAT'L. PER ECR U2 0741 GC 5/7/92 RW
		J	H	REVISE PER ECR U1 2237 GC 1/9/92 RW
2	I	J	G	REVISED & REDRAWN ECR # U81801 KBW 02-03-89 RW

DIMENSIONS SHOWN (METRIC) INCH

UNLESS OTHERWISE SPECIFIED TOLERANCES: ANGULAR ± DMS

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

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

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

▽=0 ▼=0 REVISE ONLY ON CAD SYSTEM

TITLE
.093/(2.36) HOUSINGS
PLUG & RECEPTACLE
5 CIRCUIT, .198/(5.03)C

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

SHEET NO. 1 OF 2 | DATE 2/ 3/89

PART NO. SEE CHART | DRWG. NO. SD-2629-•

FILE NAME S26295X1.DGN

DIV. CP | SIZE C

PLUG		RECEPTACLE	
ORDER NO	ENG NO	ORDER NO	ENG NO
03-09-2057	2629-P1	03-09-1057	2629-R1
PRELIMINARY	2629-P	PRELIMINARY	2629-R
		03-09-1054	2629-R2

LEGEND:

2629-****-*

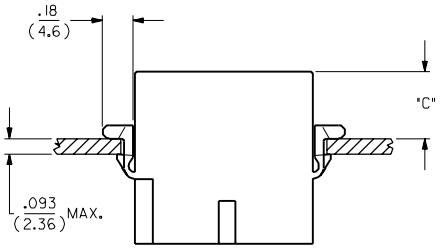
TYPE:
- P = PLUG
- R = RECEPTACLE

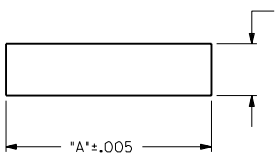
PLUG FEATURES:
- BLANK = WITH PREBENT EARS
- 1 = WITHOUT EARS

RECEPTACLE FEATURES:
- BLANK = WITH PREBENT EARS, WITH POSITIVE LOCK RAMP
- 1 = WITHOUT EARS, WITH POSITIVE LOCK RAMP
- 2 = WITHOUT EARS, WITH PASSIVE LOCK RAMPS

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

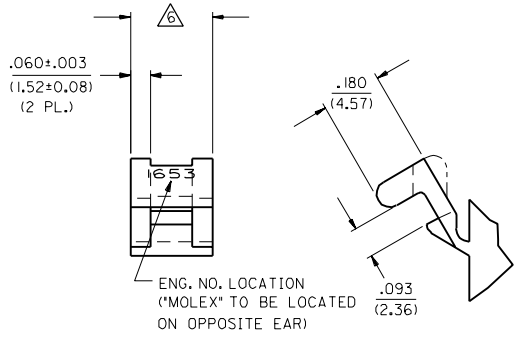
MATERIAL:
- BLANK = NYLON TYPE 66, 94V-2 PER SMES-128-A-*





RECOMMENDED PANEL OPENING

HOUSING	DIM. "A"	DIM. "B"	"C" PREBENT EAR
PLUG	1.33/(33.78)	.42/(10.67)	.40/(10.1)
RECEPT.	1.23/(31.24)	.31/(7.87)	.42/(10.6)



DETAIL A

.093/(2.36)PREBENT MOUNTING EAR

(SCALE 4:1)

NOTES:
1. MOLEX PRODUCT SPEC 02-09 APPLIES.
2. 2629-P* (PLUG) WILL ACCEPT 2629-R*
   5 CIRCUIT RECEPTACLES OR 1490-R* 4 CIRCUIT RECEPTACLE.
3. ACCEPTS MOLEX .093 SERIES TERMINALS.
4. CIRCUIT I.D. NUMBERS ON HOUSING APPEAR ON PARTS FROM TOOLS BUILT AFTER 1/6/92.
5. LOCK RAMP ON THIS SIDE OF PART AVAILABLE IN EITHER A POSITIVE LOCK RAMP OR PASSIVE LOCK RAMP STYLE.
6. FOR DIMENSION, SEE SHEET 1.

LTR.	REVISIONS	LTR.	REVISIONS
		I	SEE SHEET 1
		K	SEE SHEET 1
		J	SEE SHEET 1
		I	SEE SHEET 1
		H1	SEE SHEET 1
		H	SEE SHEET 1
J	SEE SHEET 1	G	SEE SHEET 1

DIMENSIONS SHOWN (METRIC) INCH
UNLESS OTHERWISE SPECIFIED TOLERANCES: ANGULAR ± DEC

	INCH	METRIC
3 PLACE	± .010	---
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DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

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

▽=0 ▼=0 REVISE ONLY ON CAD SYSTEM

TITLE: .093/(2.36) HOUSINGS
PLUG & RECEPTACLE
5 CIRCUIT, .198/(5.03)¢

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

SHEET NO. 2 DATE 2/3/89

PART NO. SEE CHART DRWG. NO. SD-2629-■

FILE NAME S26295X2.DGN

DIV. CP SIZE C