



POSITRONIC INDUSTRIES

introduces . . .

Series 41 Power Sequencing Connectors, 15 Amperes Continuous

The **Series 41 Multi-Pole Power Connector** is designed for use with DIN 41612 connectors. It may also be used as a power connector to the printed board for other connector applications.

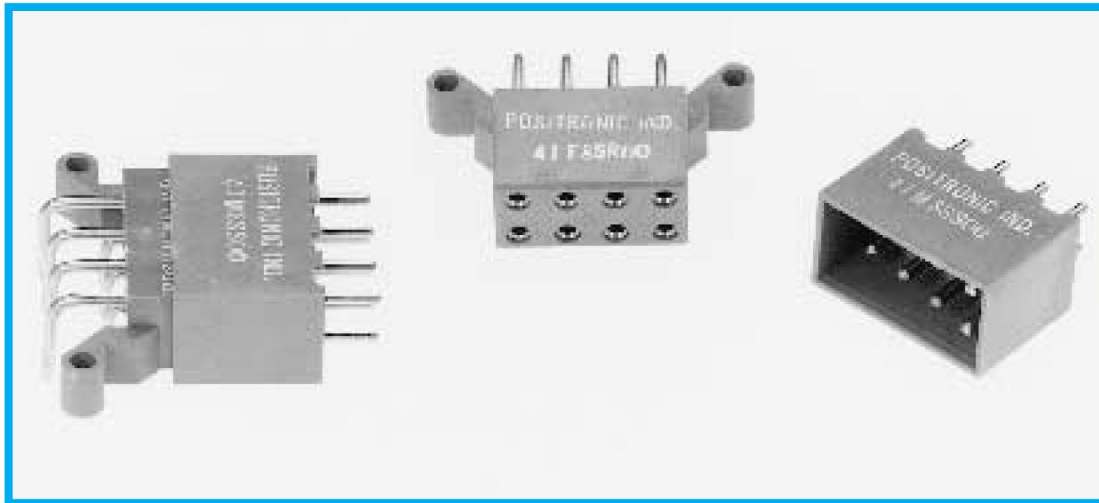
The Series 41 Power Connector contains 8 power contacts rated to 15 amperes, continuous. The contacts are paired at four different lengths. This feature permits the sequential mating of the contacts at four different intervals, and eliminates the possibility of a power overload at first contact, which could damage sensitive circuit components.

The four contact lengths also provide for a make-first,

break-last “*contact to ground*” sequence in conjunction with three other sequentially-made circuits.

The physical profiles of both connectors are designed to be dimensionally compatible with 3 row or “C” type DIN 41612 connectors. The male connector is always on the mother board and needs no mounting ears. The female connector’s mounting ears fit behind those of the daughter board DIN connectors.

Immediately available from factory to stock in the United States and Europe. See code numbering system to specify connector part number requirements.



TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

Insulator:	Glass filled polyester, UL 94V-0.
Contacts:	Precision machined copper alloy with 0.000010 inch (0,25 microns) gold over nickel, or 0.000030 inch (0,8 microns) gold over nickel. Solder-coated terminations optional.

ELECTRICAL CHARACTERISTICS:

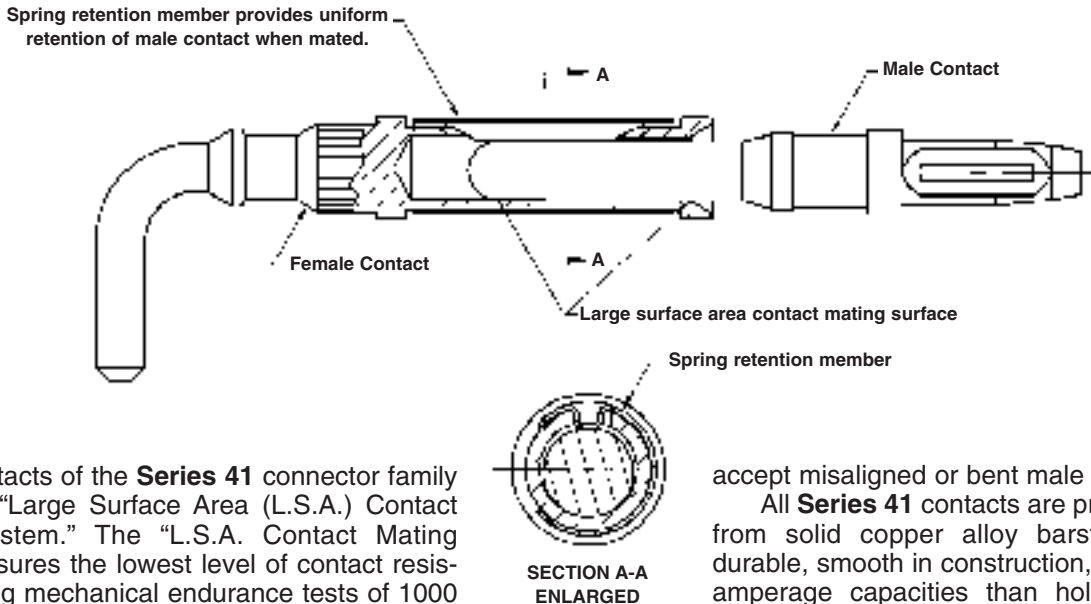
Contact Current Rating:	15 amperes per contact, continuous. All contacts under load derated per IEC 512-3, Test 5b. See page 2 for performance curves.
Initial Contact Resistance:	0.003 ohms max. per IEC 512-2, Test 2b.
After 1000 Operations:	0.007 ohms max. per IEC 512-2, Test 2b.
Insulation Resistance:	5 G ohms per IEC 512-2, Test 3a, Method A.
Voltage Proof:	2000 Vrms per IEC 512-2, Test 4a, Method C.
Creepage Distance:	0.157 inch (4 mm) minimum.
Clearance Distance:	0.125 inch (3,2 mm) minimum.
Working Temperature:	-55°C to +125°C.
Working Voltage:	Designed to meet UL 660 VAC and CSA 600 VAC.

MECHANICAL CHARACTERISTICS:

Fixed Contacts:	Size 16, 0.062 inch (1,57 mm) diameter male contact. Female contact has “closed entry” design for highest reliability.
Contact Retention in Insulator:	15 lbs. (67N) per IEC 512-8, Test 15a.
Contact Terminations:	Straight and 90° solder printed board mount, 0.051 inch (1,30 mm) tail diameter. Compliant and solid termination press-fit. See Power Connection Systems Catalog for compliant press-fit termination performance characteristics.
Contact Insertion and Withdrawal Forces:	8 oz. (2,2 N) nominal per contact.
Sequential Mating System:	Male contacts provide as many as four mating lengths.
Mechanical Operations:	1000 operations per IEC 512-5.

SERIES 41 CONTACTS

“LARGE SURFACE AREA CONTACT MATING SYSTEM”
 HIGH RELIABILITY “CLOSED ENTRY” DESIGN
 PRECISION MACHINED SOLID COPPER ALLOY



All contacts of the **Series 41** connector family utilize the “Large Surface Area (L.S.A.) Contact Mating System.” The “L.S.A. Contact Mating System” insures the lowest level of contact resistance during mechanical endurance tests of 1000 coupling cycles or more. Contact insertion/withdrawal forces remain substantially the same during the life of the connector.

The **Series 41** connectors use only “Closed Entry” design female contacts. The “Closed Entry” design prevents probe damage to the female contacts, and will not allow the female contact to

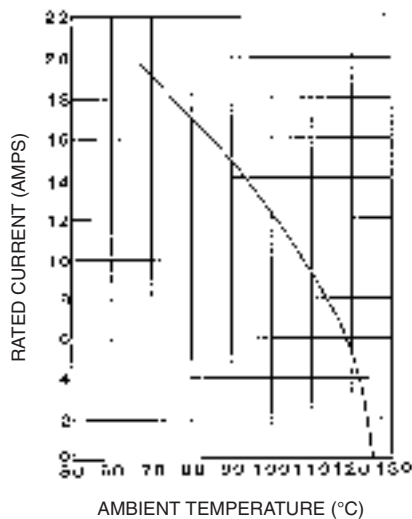
accept misaligned or bent male contacts.

All **Series 41** contacts are precision machined from solid copper alloy barstock. They are durable, smooth in construction, and have greater amperage capacities than hollow, sheet metal style contacts.

The **Series 41** contact, having a large contact surface area, produces less heat at the contact surface, thereby permitting the connector to operate at high amperage levels continuously, and still maintain lower connector temperatures.

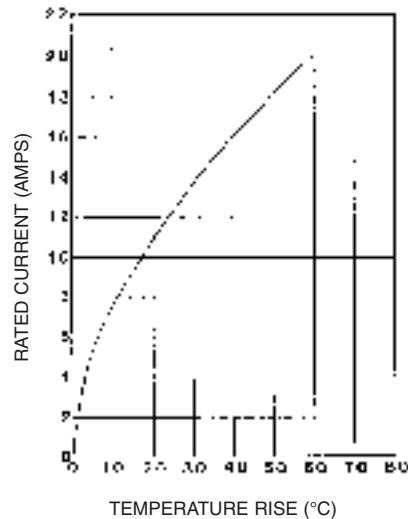
CURRENT - TEMPERATURE DERATING CURVE

(TESTED PER IEC PUBLICATION 512-3, TEST 5b)

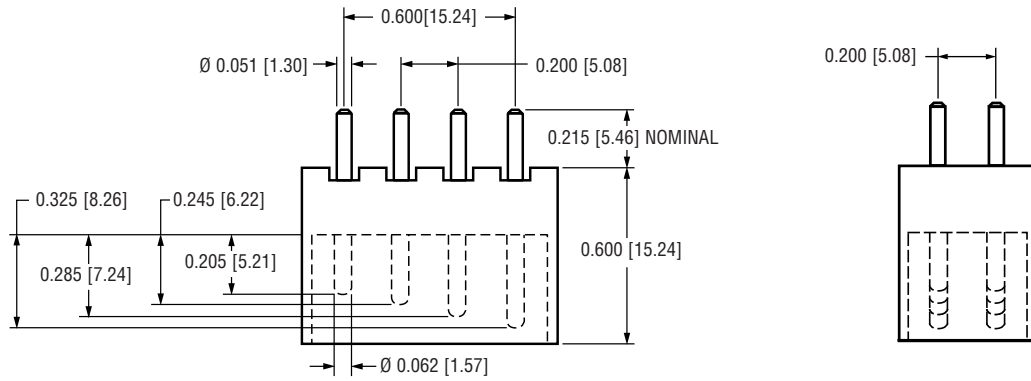


TEMPERATURE RISE CURVE

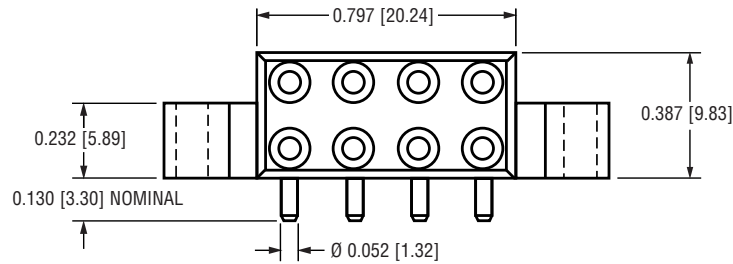
(TESTED PER IEC PUBLICATION 512-3, TEST 5a)



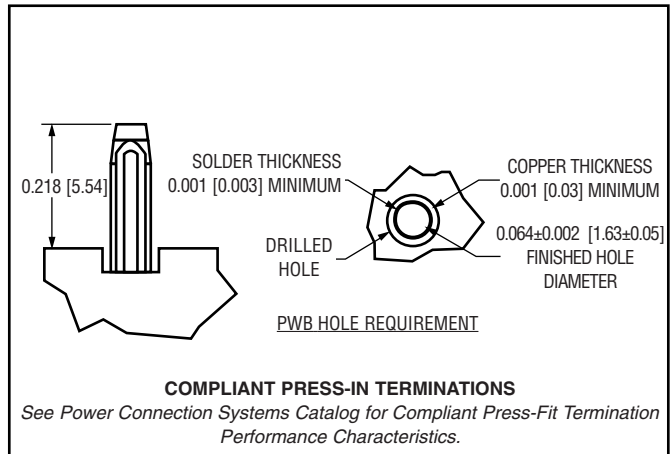
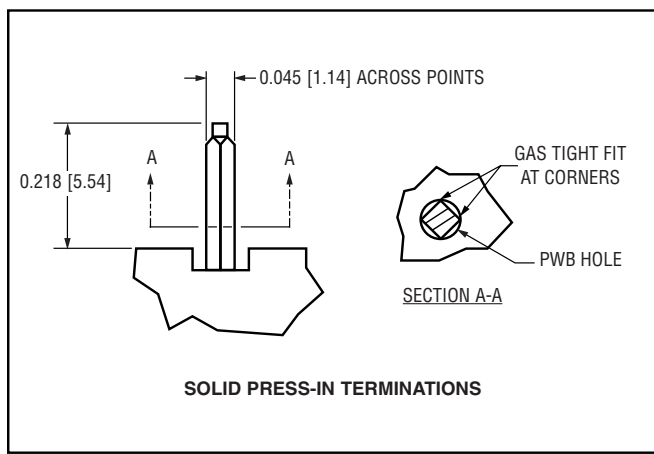
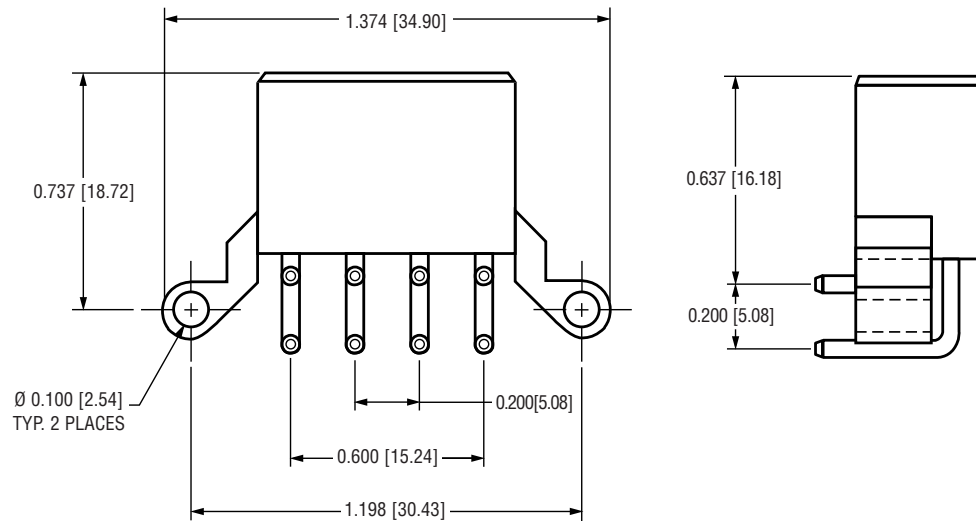
CURVES DEVELOPED USING SERIES 41 CONNECTORS AND 16 AWG (1,5 MM²) SIZE WIRE.
 ALL CONTACTS UNDER LOAD.



MALE



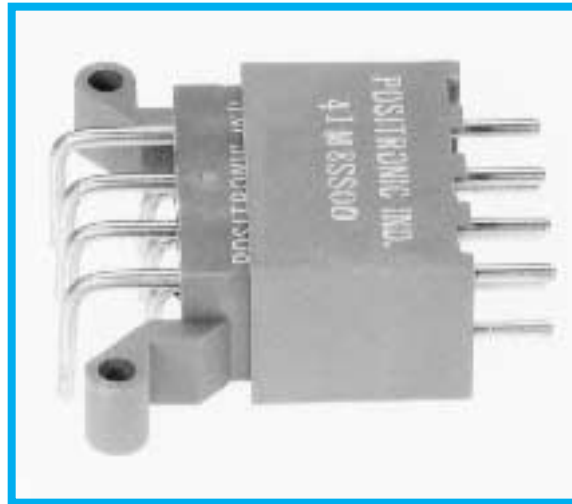
FEMALE



ORDERING INFORMATION - CODE NUMBERING SYSTEM

Specify Complete Connector By Following Steps 1 through 7
Insert "0" When Step Is Not Used

STEP	1	2	3	4	5	6	7
	41	F	8	SR	1	2	0
Step 1 Series Series 41						Step 7 Special Options 0 - None	
Step 2 Contact Gender M - Male Contacts F - Female Contacts						Step 6 Contact Termination Plating 2 - 0.000010 inch (0,3 microns) gold over nickel 3 - 0.000200 inch (5,0 microns) solder-coated terminations for use with contact termination styles SR and SS only.	
Step 3 Number of Contacts 8						Step 5 Contact Plating 1 - 0.000010 inch (0,3 microns) gold over nickel 3 - 0.000030 inch (0,8 microns) gold over nickel	
Step 4 Contact Termination Styles SR - 90° Printed Board Mount SS - Straight Printed Board Mount PF - Solid Press-In Termination *CP - Compliant Press-In Termination							
* See Power Connection Systems Catalog for Compliant Press-Fit Termination Performance Characteristics.							



Positronic Industries believes the data contained herein to be reliable. Since the technical information is given free of charge, the user employs such information at his own discretion and risk. Positronic Industries assumes no responsibility for results obtained or damages incurred from use of such information in whole or in part.



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