PRODUCT SPECIFICATION

DUALCON TM
STRAIGHT/ON EDGE DUAL POSITION CONNECTOR

1.0 SCOPE
This Product Specification covers the 3.96 mm (.156 inch) centerline (pitch) straight/on edge Dualcon – TM connectors terminated with 18 to 30 AWG wire when mated to the edge of a printed circuit board (PCB).

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME AND SERIES NUMBERS
Crimp terminals: 4366 (18 – 24 AWG; Insulation Dia. .060-.120), 4573 (24 – 30 AWG; Insulation Dia. .040 - .090)
Solder lug terminals: 4574
Split – eyelet terminals: 4873
Housings: 4338

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS
Terminal Material: Alloy 260 brass, .010 thick
Housing Material: Glass filled polyester, UL – 94 V – 0

2.3 SAFETY AGENCY APPROVALS
UL File Number……E29179
CSA……..LR19980

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS
None

4.0 RATINGS

4.1 VOLTAGE
Rated voltages, current maximum voltage: 250 VAC

4.2 CURRENT
Up to 5 amps maximum per circuit is possible (*)
(*) Current capacity is dependent on wire size, connector size, contact material/plating, ambient temperature, printed circuit board characteristics and related factors.

4.3 TEMPERATURE
Ambient Temperature Range: -40°C to 120°

5.0 PERFORMANCE

5.1 ELECTRICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	**Terminal Resistance (Voltage drop measured at 1 amp)**	Depends greatly on mating P.C. board and finish and condition of mating surface. One probe should be placed on the wire approximately 1" from the crimp barrel and the other probe on the P.C. board conductor as close as possible to the terminal interface (18 GA. Wire).	**5.0 mV** Typical value Includes the terminal, P.C.B. interface, plus the crimp.
2	**Dielectric Withstanding Voltage**	Unmate connectors: apply a voltage of **1500** VAC for **1** minute between adjacent terminals and between terminals to ground.	No breakdown; current leakage < **5** mA
3	**Temperature Rise (via Current Cycling)**	Mate connectors: measure the temperature rise at the rated current after: 1.) **96** hours (steady state) 2.) **240** hours (**45** minutes ON and **15** minutes OFF per hour). 3.) **96** hours (steady state)	Temperature rise: **+30**°C MAXIMUM

5.2 MECHANICAL REQUIREMENTS (continued)

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
4	**Terminal Retention Force (in Housing)**	Axial pullout force on the terminal in the.	**44.48** N (**10** lbf) MINIMUM retention force
5	**Wire Pullout Force (Axial)**	Apply an axial pullout force on the wire.	AWG / N / lbf 18 **88.96** **20** 20 **66.72** **15** 22 **53.38** **12** 24 **35.59** **8** 26 **22.24** **5** 28 **13.34** **3** 30 **8.90** **2**
6	**Terminal Insertion Force (into Housing)**	Apply an axial insertion force on the terminal.	**13.34** N (**3** lbf) Avg. insertion force
7	**Normal Force**	Apply a perpendicular force.	**3.43** N (**350** g) approx.
8	**PCB Engagement and Separation Forces**	Engage and separate a connector at a rate. (Depends on the number of circuits and the actual size and type of P.C. board)	**3.89** N (**.875** lbf) Typical insertion force **1.11** N (**.25** lbf) Typical withdrawal force (Typical force per dual circuits)

6.0 PACKAGING

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

7.0 GAGES AND FIXTURES

8.0 OTHER INFORMATION

Polarizing key (between contacts) # 6532 polyester, color: natural.
Polarizing key (replaces contacts) #4338-* polyester, color: natural.