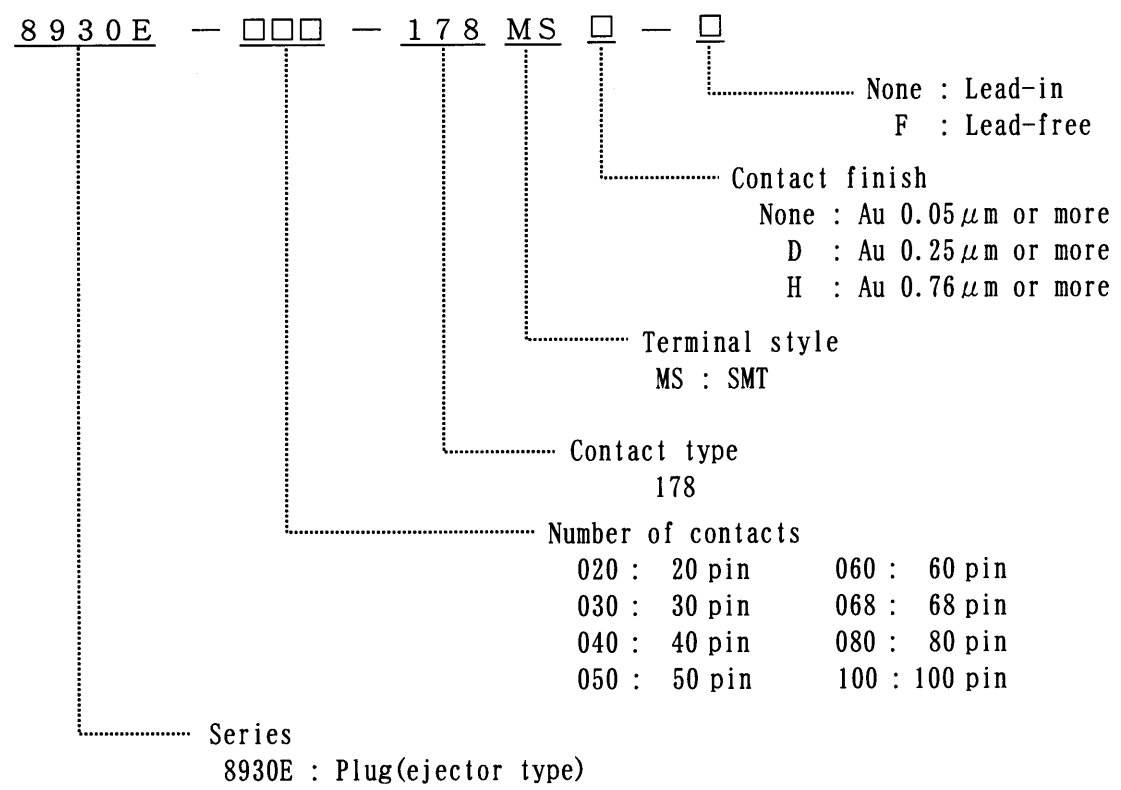


KEL CORPORATION	8930E-□□□-178MS□-□ SPECIFICATION	No.	SP-1773
		DATE	Oct. 20, 1994

1. SCOPE

1.1 SPECIFICATION for 8930E-□□□-178MS□-□

2. CODING RULES for PART NUMBER



3. MECHANICAL DETAILS

3.1 REFER to the DRAWINGS as LISTED BELOW.

PART NUMBER	DWG. No.	PART NUMBER	DWG. No.
8930E-□□□-178MS□-□	P37462		

3.2 MATERIAL and FINISH

INSULATOR : Glass-filled PPS , UL94V-0 , Color / Natural (Brown)

CONTACT MATERIAL : Copper alloy

CONTACT FINISH : Under plating / Nickel

Contact area / Gold plating thickness  
None : Au 0.05 μm or more  
D : Au 0.25 μm or more  
H : Au 0.76 μm or more

Terminal area /  
Tin alloy (8930E-□□□-178MS□)  
Gold plating (8930E-□□□-178MS□-F)  
(Au 0.03 μm or more)

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#### 4. ELECTRICAL SPECIFICATION

4.1 CURRENT RATING  
0.5 A / pin

4.2 CONTACT RESISTANCE  
40 mΩ or less

4.3 DIELECTRIC WITHSTANDING VOLTAGE  
AC 650 V for 1 minute

4.4 INSULATION RESISTANCE  
1000 MΩ or more at 500 V DC.

#### 5. MECHANICAL SPECIFICATION

5.1 RETENTION FORCE  
2 N (0.2 kg) or more

##### 5.2 INSERTION and WITHDRAWAL FORCE

No. of contact	INSERTION FORCE (MAX.)	WITHDRAWAL FORCE (MIN.)
20	19 N ( 1.9 kg )	3 N ( 0.3 kg )
30	28 N ( 2.9 kg )	4 N ( 0.4 kg )
40	37 N ( 3.8 kg )	6 N ( 0.6 kg )
50	47 N ( 4.8 kg )	7 N ( 0.7 kg )
60	56 N ( 5.7 kg )	9 N ( 0.9 kg )
68	64 N ( 6.5 kg )	10 N ( 1.0 kg )
80	74 N ( 7.6 kg )	12 N ( 1.2 kg )
100	93 N ( 9.5 kg )	15 N ( 1.5 kg )

5.3 DURABILITY  
No damage shall be observed on appearance and contact resistance shall be 40 mΩ or less after 500 times at 400 ~ 600 cycles / hour.

##### 5.4 VIBRATION TEST

No damage shall be observed on mated connector after the test mentioned below.

No intermittence more than 1μs shall be detected during the test;  
(MIL-STD-202F METHOD-201A)

AMPLITUDE : 1.52 mm

FREQUENCY SWEEP RANGE : 10 to 55 Hz

DIRECTION : three perpendicular axes

DURATION : 2 hours

KEL CORPORATION	8930E-□□□-178MS□-□ SPECIFICATION	No.	SP-1773
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## 6. OTHER SPECIFICATION

## 6.1 THERMAL SHOCK TEST

No damage shall be observed on mechanical performances and contact resistance shall be 40 mΩ or less after the test mentioned below;

(MIL-STD-202F METHOD-107G CONDITION A)

THERMAL SHOCK : - 55 °C 30 min.

: + 25 °C 5 min.

: + 85 °C 30 min.

: + 25 °C 5 min.

TESTING CYCLE : repeat 5 cycles

## 6.2 SALT SPRAY TEST

Contact resistance shall be 40 mΩ or less after the test mentioned below;

(MIL-STD-202F METHOD-101D CONDITION A)

SALT CONCENTRATION : 5 %

TEMPERATURE : 35 °C

DURATION : 96 hours

## 6.3 HUMIDITY TEST

Contact resistance shall be 40 mΩ or less and insulating resistance shall be 1000 MΩ or more after the test mentioned below;

(MIL-STD-202F METHOD-103B CONDITION B)

HUMIDITY : 90 to 95 %RH

TEMPERATURE : 40 °C

DURATION : 96 hours

## 6.4 HEAT RESISTANCE AGAINST SOLDER REFLOW

240 °C 30 s (measured at insulator surface)

## 7. OTHERS

## 7.1 TEMPERATURE RANGE

- 55 to + 85 °C

## 7.2 This specification supersedes other catalog.

MADE BY	N. Sugita Oct. 28, 1994	REV. DATE	APPROVED	MADE	DESCRIPTION
CHECKED BY	S. Ikemoto Oct. 28, 1994	Jul. 3, 2007	A. Shimada	S. Tanaka	Added the plating thickness
APPROVED BY	A. Shimada Oct. 28, 1994				
REVISION No.	2				