

# 8900MS SERIES

## 1.27mm PITCH LOW PROFILE CONNECTOR / SMT TYPE

RoHS  
Compliant



### FEATURES

- ▶ Highly reliable contact design with independent and synchronized spring.
- ▶ Low insertion force and withdrawal force.
- ▶ Insulator protects the contacts from damage or breakage.
- ▶ PPS insulator resists infrared soldering temperature.
- ▶ SMT retention clips reduce the stress on SMT lead pins.

### ORDER CODE

**8903** -    - **177 MS**  -  - **F**

①      ②      ③      ④      ⑤      ⑥      ⑦

\*Please order in multiples of the quantity per package.

- ① **[Type] 8903**: Receptacle
- ② **[Number of contacts]** 020: 20pin 030: 30pin 040: 40pin 050: 50pin 060: 60pin 080: 80pin 100: 100pin 120: 120pin
- ③ **[Contact name]** 177
- ④ **[Contact tail style]** MS: Straight, SMT
- ⑤ **[Plating of contact area]** Omit: Au 0.05  $\mu$  m (Standard) D: Au 0.25  $\mu$  m (Upon request)
- ⑥ **[Stacked height]** A: 7mm(0.276) B: 8mm(0.315)
- ⑦ **[RoHS]** F: RoHS Compliant

If you would like semi-customized products, please contact your local KEL sales office.

### ORDER CODE

**8913** -    - **178 MS**  - **A-F**

①      ②      ③      ④      ⑤      ⑥      ⑦

\*Please order in multiples of the quantity per package.

- ① **[Type] 8913**: Plug
- ② **[Number of contacts]** 020: 20pin 030: 30pin 040: 40pin 050: 50pin 060: 60pin 080: 80pin 100: 100pin 120: 120pin
- ③ **[Contact name]** 178
- ④ **[Contact tail style]** MS: Straight, SMT
- ⑤ **[Plating of contact area]** Omit: Au 0.05  $\mu$  m (Standard) D: Au 0.25  $\mu$  m (Upon request)
- ⑥ **[Stacked height]** A: 7, 8mm(0.276, 0.315)
- ⑦ **[RoHS]** F: RoHS Compliant

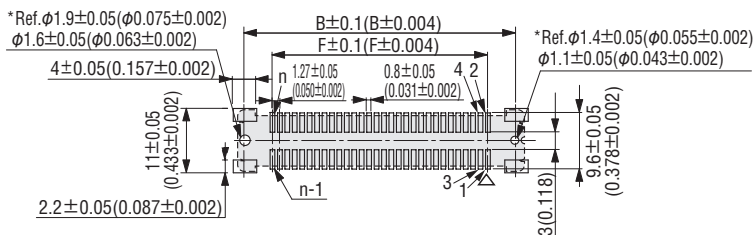
If you would like semi-customized products, please contact your local KEL sales office.

### SPECIFICATIONS

Material and plating		Electrical Characteristics	
Insulator material	Glass-filled PPS (UL94V-0), Brown	Current rating	0.5A per contact
Contact material	Copper alloy	Contact resistance	40m $\Omega$ max.
Contact plating	[8909MS] (Contact area) Gold over Nickel (Terminal area) Tin copper over Nickel	Dielectric withstanding voltage	650V AC for 1 minute
	[8913MS] Gold over Nickel	Insulation resistance	1,000M $\Omega$ min. at 500V DC
Retention clip material	Copper alloy	Operating temperature	-55°C to +85°C
Retention clip plating	Tin copper over Nickel		

Because connectors of 8900MS Series (SMT type) and 8900 Series (DIP type) may not be mated to each other, please consult with your local KEL sales office in advance.

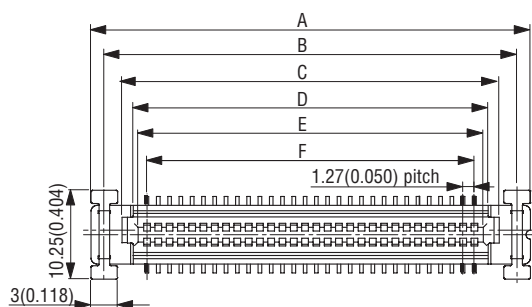
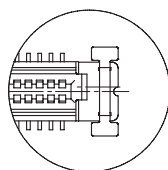
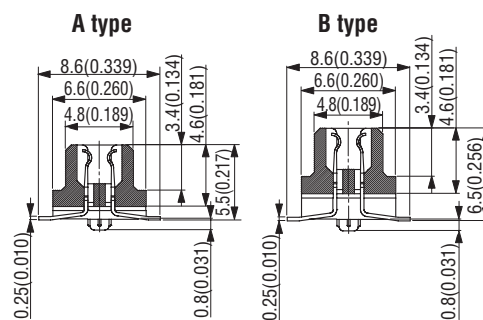
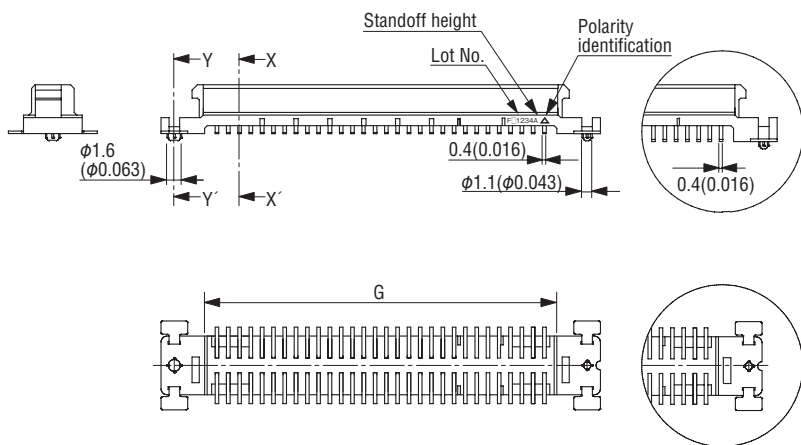
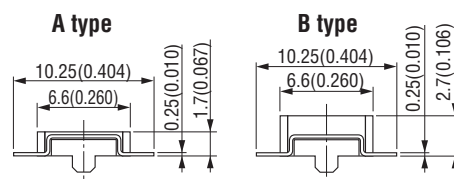
		PLUG(MALE)CONNECTORS					
		8911-□□□-178S□-A-F	8911-□□□-178S□-C-F	8913-□□□-178S□-A-F	8913-□□□-178S□-C-F	8911-□□□-178L□-F	8913-□□□-178MS□-A-F
RECEPTACLE(FEMALE)CONNECTORS	8901-□□□-177S□-A-F	Stacked Height 7(0.276)	Stacked Height 9(0.354)	Stacked Height 7(0.276)	Stacked Height 9(0.354)	Vertical Mating	Stacked Height 7(0.276)
	8901-□□□-177S□-B-F	Stacked Height 8(0.315)	Stacked Height 10(0.394)	Stacked Height 8(0.315)	Stacked Height 10(0.394)		Stacked Height 8(0.315)
	8901-□□□-177S□-D-F	Stacked Height 10(0.394)	Stacked Height 12(0.472)	Stacked Height 10(0.394)	Stacked Height 12(0.472)		Stacked Height 10(0.394)
	8903-□□□-177S□-A-F	Stacked Height 7(0.276)	Stacked Height 9(0.354)	Stacked Height 7(0.276)	Stacked Height 9(0.354)		Stacked Height 7(0.276)
	8903-□□□-177S□-B-F	Stacked Height 8(0.315)	Stacked Height 10(0.394)	Stacked Height 8(0.315)	Stacked Height 10(0.394)		Stacked Height 8(0.315)
	8903-□□□-177S□-D-F	Stacked Height 10(0.394)	Stacked Height 12(0.472)	Stacked Height 10(0.394)	Stacked Height 12(0.472)		Stacked Height 10(0.394)
	8901-□□□-177L□-F	Vertical Mating	Vertical Mating	Vertical Mating	Vertical Mating	Horizontal Mating	Vertical Mating
	8903-□□□-177MS□-A-F	No	No	Stacked Height 7(0.276)	Stacked Height 9(0.354)	No	Stacked Height 7(0.276)
	8903-□□□-177MS□-B-F	No	No	Stacked Height 8(0.315)	Stacked Height 10(0.394)	No	Stacked Height 8(0.315)

**Printed Circuit Board Layout (Component Side View)**


▽ = Polarity identification

"n" is number of contacts.

\* 1.9 and 1.4 are the recommend hole sizes when using automated placement equipment. Precision of the placement equipment should be considered.

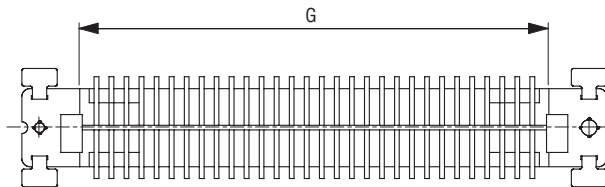
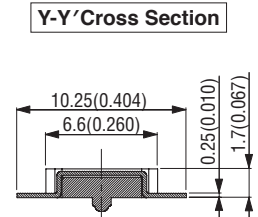
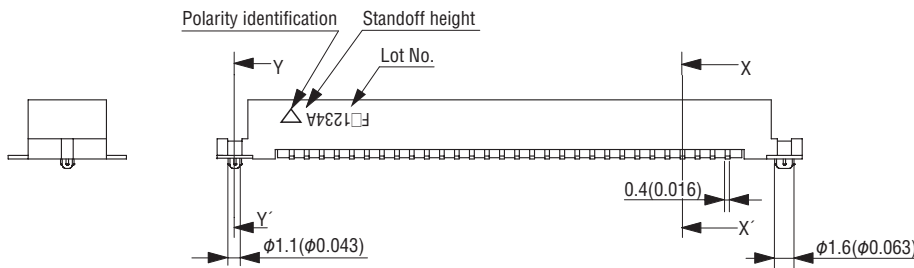
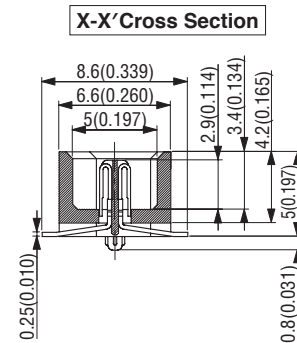
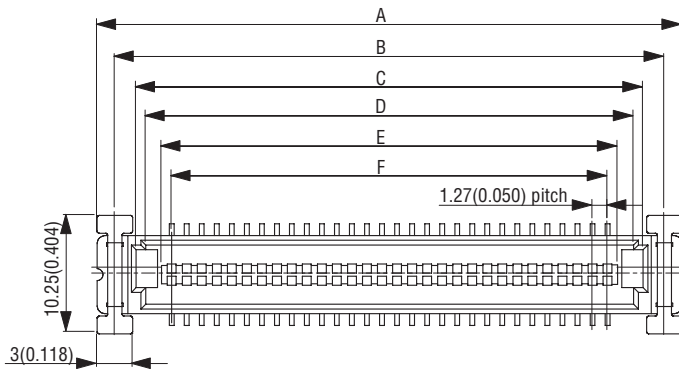
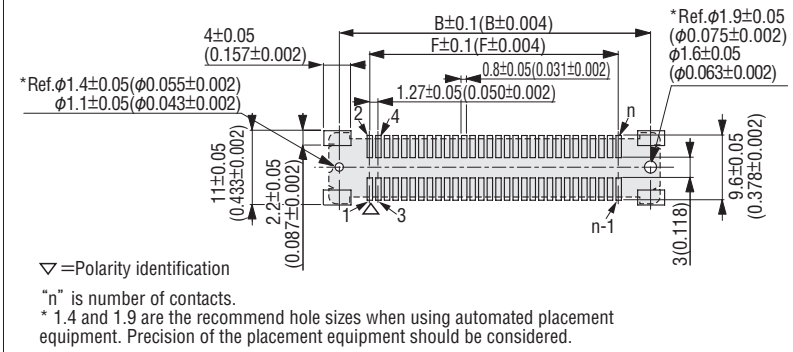
**A type**

**B type**

**X-X' Cross Section**

**Y-Y' Cross Section**


Packaging style

Pipe

**Product Table / Dimensions**

No. of contacts	Part Number	A	B	C	D	E	F	G	Number of packaging
20	8903-020-177MS□-□-F	24.03 (0.946)	21.03 (0.828)	17.03 (0.670)	14.23 (0.560)	13.43 (0.529)	11.43 (0.450)	14.23 (0.560)	21
30	8903-030-177MS□-□-F	30.38 (1.196)	27.38 (1.078)	23.38 (0.920)	20.58 (0.810)	19.78 (0.779)	17.78 (0.700)	20.58 (0.810)	17
40	8903-040-177MS□-□-F	36.73 (1.446)	33.73 (1.328)	29.73 (1.170)	26.93 (1.060)	26.13 (1.029)	24.13 (0.950)	26.93 (1.060)	14
50	8903-050-177MS□-□-F	43.08 (1.696)	40.08 (1.578)	36.08 (1.420)	33.28 (1.310)	32.48 (1.279)	30.48 (1.200)	33.28 (1.310)	12
60	8903-060-177MS□-□-F	49.43 (1.946)	46.43 (1.828)	42.43 (1.670)	39.63 (1.560)	38.83 (1.529)	36.83 (1.450)	39.63 (1.560)	10
80	8903-080-177MS□-□-F	62.13 (2.446)	59.13 (2.328)	55.13 (2.170)	52.33 (2.060)	51.53 (2.029)	49.53 (1.950)	52.33 (2.060)	8
100	8903-100-177MS□-□-F	74.83 (2.946)	71.83 (2.828)	67.83 (2.670)	65.03 (2.560)	64.23 (2.529)	62.23 (2.450)	65.03 (2.560)	6
120	8903-120-177MS□-□-F	87.53 (3.446)	84.53 (3.328)	80.53 (3.170)	77.73 (3.060)	76.93 (3.029)	74.93 (2.950)	77.73 (3.060)	5

**Printed Circuit Board Layout (Component Side View)**


Packaging style
Pipe

**Product Table / Dimensions**

No. of contacts	Part Number	A	B	C	D	E	F	G	Number of packaging
20	8913-020-178MS□-A-F	24.03 (0.946)	21.03 (0.828)	17.43 (0.686)	15.83 (0.623)	13.13 (0.517)	11.43 (0.450)	14.23 (0.560)	21
30	8913-030-178MS□-A-F	30.38 (1.196)	27.38 (1.078)	23.78 (0.936)	22.18 (0.873)	19.48 (0.767)	17.78 (0.700)	20.58 (0.810)	17
40	8913-040-178MS□-A-F	36.73 (1.446)	33.73 (1.328)	30.13 (1.186)	28.53 (1.123)	25.83 (1.017)	24.13 (0.950)	26.93 (1.060)	14
50	8913-050-178MS□-A-F	43.08 (1.696)	40.08 (1.578)	36.48 (1.436)	34.88 (1.373)	32.18 (1.267)	30.48 (1.200)	33.28 (1.310)	12
60	8913-060-178MS□-A-F	49.43 (1.946)	46.43 (1.828)	42.83 (1.686)	41.23 (1.623)	38.53 (1.517)	36.83 (1.450)	39.63 (1.560)	10
80	8913-080-178MS□-A-F	62.13 (2.446)	59.13 (2.328)	55.53 (2.186)	53.93 (2.123)	51.23 (2.017)	49.53 (1.950)	52.33 (2.060)	8
100	8913-100-178MS□-A-F	74.83 (2.946)	71.83 (2.828)	68.23 (2.686)	66.63 (2.623)	63.93 (2.517)	62.23 (2.450)	65.03 (2.560)	6
120	8913-120-178MS□-A-F	87.53 (3.446)	84.53 (3.328)	80.93 (3.186)	79.33 (3.123)	76.63 (3.017)	74.93 (2.950)	77.73 (3.060)	5