


**Econoseal J Series [Mark II(+)] . . . Sealed Connectors****Contacts**

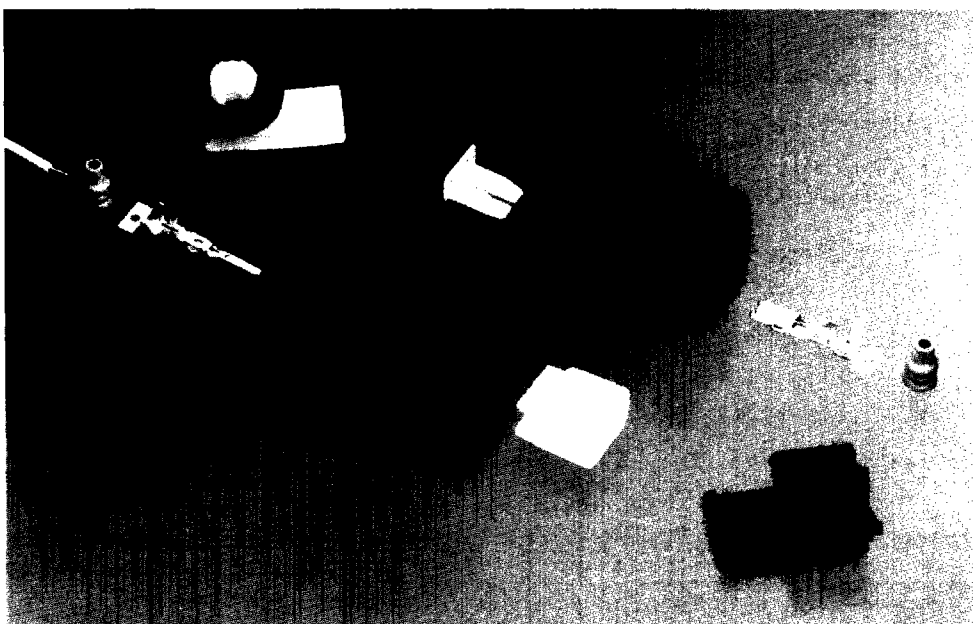
- 070 series tab contacts.  
1.8 mm [.071 in.] wide x  
0.64 mm [.025 in.] thick
- Receptacle contacts are  
available in brass or phos-  
phor bronze with pre-tin or  
gold plating.
- Tab contacts are available  
in pre-tin or gold plated  
brass.
- Lanceless design to reduce  
tangling.
- Wire range 0.20 - 1.25  
mm<sup>2</sup> [#24 - #16 AWG]

**Wire Seals and Cavity Plugs**

- Made from NBR material.
- Wire seal and contact  
crimped simultaneously.
- For wire insulation diame-  
ters of 1.4 - 2.6 mm  
[.055 - .102 in.]

**Connector Housings**

- Housings and lock plates  
made from PBT material.
- Connectors available in 1,  
2, 3, 4, 6, 8, 10, and 12  
position versions.
- Utilize a loose piece sec-  
ondary lock (sold separately).
- Cavity plugs are available  
to seal unused contact  
cavities.
- An audible click helps  
insure proper connector  
mating.
- Protected locking lever.
- Recognized under the  
Component Program of  
Underwriters  
Laboratories Inc.   
File No. E28476.



AMP Econoseal J Series Mark II(+) Connectors have been developed for use in automobile engine compartments and other applications where waterproof protection and rugged construction are required.

Waterproof protection is achieved by means of a wire seal which is inserted onto the wire and crimped simultaneously with the insulation support of the contact. Plug housings include a factory installed NBR interface seal. Cavity plugs are available to seal contact positions on the connector which are not used.

The wire seals and cavity plugs incorporate a beveled, 3 ridge design, with the front two ridges being slightly smaller than the rear ridge to reduce insertion into the connector

housing. Another important feature allows trapped air to escape when the internal connector pressure becomes excessive due to changes in temperature or atmospheric pressure.

The MarkII(+) connector incorporates a secondary lock plate which when inserted into the connector housing will detect partially mated contacts. The lock plate also increases contact retention and prevents contact damage during mating or unmating of the connector. One lock plate is required for each connector housing. Lock plates are sold separately.

Sealing surfaces of the MarkII(+) connector are located inside of the connector housing thus reducing the possibility of damage to the seal during handling.

**Product Performance****Temperature Rating**

-30 to 105° C (including temperature rise due to applied current.)

**Contact Termination Resistance**

3 mΩ(Max. (Initial))

10 mΩ(Max. (Final))

**Dielectric Strength**

1.0 kVAC between adjacent contacts.

**Current Guidelines**

See page 13 of the product specification for information.

**Product Documentation****Product Specification**

108-5262

**Application Specification**

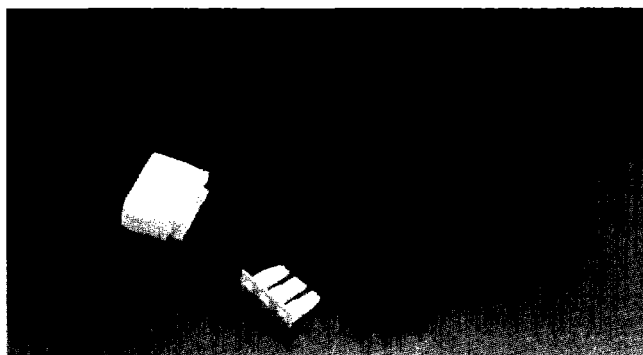
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**Customer Manual**

CM-325J

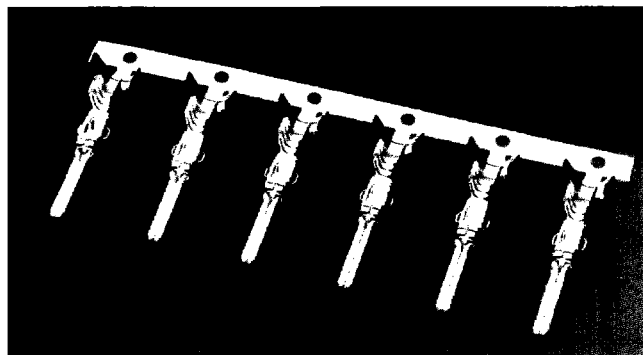
**Sample Kit**

889458

**Econoseal J Series [Mark II+] (Continued)****Connector Housings and Double Lock Plates**

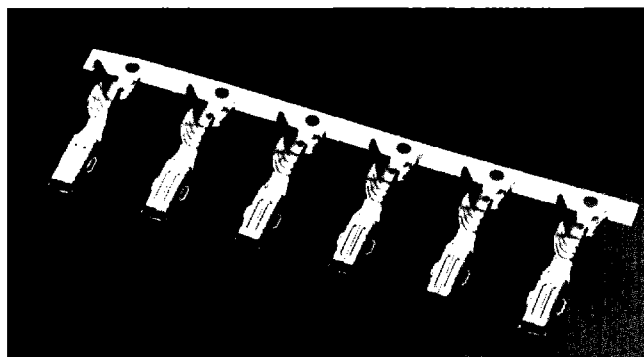
Double lock plates are sold separately. One lock plate is required for each connector housing. Plug housings include a factory assembled, black, NBR interface seal.

Positions	Plug Connector Utilizes Receptacle Contacts		Cap Connector Utilizes Tab Contacts	
	Housing Black Polyester	Lock Plate Yellow Polyester	Housing Black Polyester	Lock Plate Yellow Polyester
1	174877-2	174878-7	174879-2	174880-7
2	174352-2	174353-7	174354-2	174355-7
3	174357-2	174358-7	174359-2	174360-7
4	174257-2	174258-7	174259-2	174260-7
6	174262-2	174263-7	174264-2	174265-7
8	174982-2	174983-7	174984-2	174985-7
10	174655-2	174656-7	174657-2	174658-7
12	174661-2	174662-7	174663-2	174664-7

**070 Series Tab Contacts**

- Manufactured from 0.32 [.013] thick material.
- Tab contact area measures 1.8 [.071] wide x 0.64 [.025] thick.
- Uncrimped contact length = 20.4 [.803]

Wire Range mm <sup>2</sup> / AWG	Wire Ins. Dia. mm / Inches	Material & Finish	Tab Part Number	
			Strip	Loose Piece
0.20 - 0.50 [24 - 20]	1.4 - 2.4 [.055 - .094]	Brass Pre-Tin	171631-1	173600-1
		Brass Select Gold	171631-2	—
0.50 - 1.25 [20 - 16]	2.0 - 2.6 [.079 - .102]	Brass Pre-Tin	171661-1	173706-1
		Brass Select Gold	171661-2	—

**070 Series Receptacle Contacts**

- Manufactured from 0.3 [.012] thick material.
- Uncrimped contact length = 16.5 [.650]

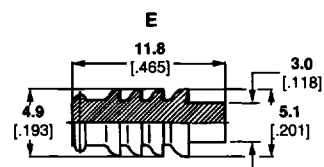
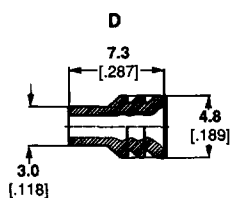
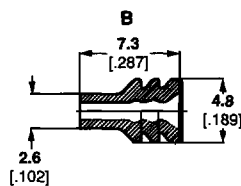
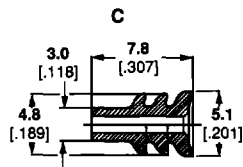
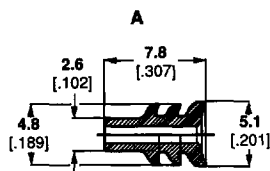
Wire Range mm <sup>2</sup> / AWG	Wire Ins. Dia. mm / Inches	Material & Finish	Tab Part Number	
			Strip	Loose Piece
0.20 - 0.50 [24 - 20]	1.4 - 2.4 [.055 - .094]	Brass Pre-Tin	171630-1	171699-1
		Phos. Bronze Select Gold	171630-5	—
0.50 - 1.25 [20 - 16]	2.0 - 2.6 [.079 - .102]	Brass Pre-Tin	171662-1	173707-1
		Phos. Bronze Pre-Tin	171662-4	—
		Phos. Bronze Select Gold	171662-5	—

**Econoseal J Series [Mark II+] (Continued)****Wire Seals and Cavity Plugs**

One wire seal is required for each contact.  
Cavity plugs are used to seal unused connector cavities.

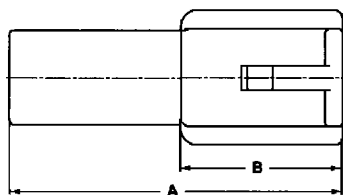


Description	Wire Range mm <sup>2</sup> /AWG	Wire Ins. Dia. mm/Inches	Material & (Color)	Style	Wire Seal Part Number	Use With Contact Part Number
Wire Seals	0.2-0.5 [24-20]	1.4-2.4 [.055-.094]	NBR (Black)	A	172746-1	171631-1 171631-2 173600-1 171630-1 171630-5 171699-1
		1.4-2.1 [.055-.083]		B	178210-1	171661-1 171661-2 173706-1 171662-1 171662-4 171662-5 173707-1
	0.50-1.25 [20-16]	2.0-2.6 [.079-.102]	NBR (Gray)	C	172888-2	
		2.0-2.6 [.079-.102]		D	176886-2	
Cavity Plug	—	—	NBR (Black)	E	172748-1	—
			NBR (Gray)		172748-2	

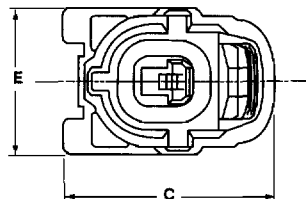
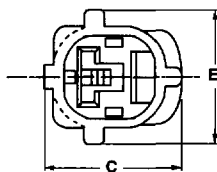
**Wire Seals and Cavity Plugs . . . Dimensional Data**

## Econoseal J Series [Mark II+] (Continued)

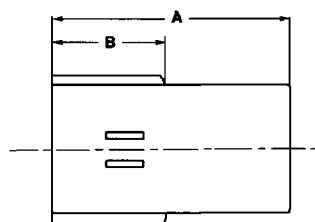
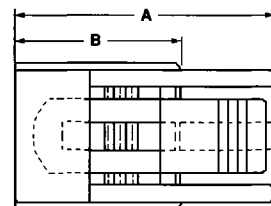
### Dimensional Data



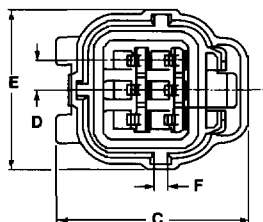
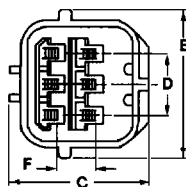
**Figure #1**  
**CAP HOUSING**  
Single Row Configuration



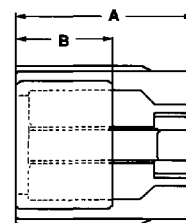
**Figure #2**  
**PLUG HOUSING**  
Single Row Configuration



**Figure #3**  
**CAP HOUSING**  
Double Row Configuration



**Figure #4**  
**PLUG HOUSING**  
Double Row Configuration



Position Housing Type	Part Number	Figure	Rows Single/ Double	Dim. "A"		Dim. "B"		Dim. "C"		Dim. "D"		Dim. "E"		Dim. "F"	
				mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.
1 / Cap	174879-2	1	1	32.5	[1.28]	15.7	[.618]	14.2	[.559]	—	—	13.5	[.531]	—	—
1 / Plug	174877-2	2	1	27.6	[1.09]	17.5	[.689]	22.0	[.866]	—	—	15.8	[.622]	—	—
2 / Cap	174354-2	1	1	32.5	[1.28]	15.7	[.618]	14.05	[.553]	4.8	[.189]	18.3	[.720]	—	—
2 / Plug	174352-2	2	1	27.6	[1.09]	17.5	[.689]	22.8	[.898]	4.8	[.189]	20.6	[.811]	—	—
3 / Cap	174359-2	1	1	32.5	[1.28]	15.7	[.618]	13.9	[.547]	4.8	[.189]	23.1	[.909]	—	—
3 / Plug	174357-2	2	1	27.6	[1.09]	17.5	[.689]	22.8	[.898]	4.8	[.189]	25.4	[1.00]	—	—
4 / Cap	174259-2	3	2	35.5	[1.40]	18.2	[.717]	20.6	[.811]	4.8	[.189]	18.3	[.720]	5.6	[.220]
4 / Plug	174257-2	4	2	27.6	[1.09]	21.5	[.846]	29.3	[1.15]	4.8	[.189]	20.6	[.811]	5.6	[.220]
6 / Cap	174264-2	3	2	35.5	[1.40]	18.2	[.717]	20.6	[.811]	4.8	[.189]	23.1	[.909]	5.6	[.220]
6 / Plug	174262-2	4	2	27.6	[1.09]	21.5	[.846]	29.3	[1.15]	4.8	[.189]	25.4	[1.00]	5.6	[.220]
8 / Cap	174984-2	3	2	36.5	[1.44]	19.7	[.776]	30.7	[1.21]	4.8	[.189]	27.9	[1.10]	5.6	[.220]
8 / Plug	174982-2	4	2	27.6	[1.09]	21.5	[.846]	33.2	[1.31]	4.8	[.189]	31.0	[1.22]	5.6	[.220]
10 / Cap	174657-2	3	2	36.5	[1.44]	19.7	[.776]	30.7	[1.21]	4.8	[.189]	32.7	[1.29]	5.6	[.220]
10 / Plug	174655-2	4	2	27.6	[1.09]	21.5	[.846]	33.2	[1.31]	4.8	[.189]	35.8	[1.41]	5.6	[.220]
12 / Cap	174663-2	3	2	36.5	[1.44]	19.7	[.776]	26.85	[1.06]	4.8	[.189]	37.5	[1.48]	5.6	[.220]
12 / Plug	174661-2	4	2	27.6	[1.09]	21.5	[.846]	33.2	[1.31]	4.8	[.189]	40.6	[1.60]	5.6	[.220]