



Edac's waterproof Wire-to-Wire and Wire-to-Board series was designed for both extreme moisture and nonsubmersion applications supporting both low-level signal and power applications up to 12 amps and 300 volts.

Major applications include automotive, commercial and recreational vehicles, outdoor lighting, appliances, marine & aftermarket products, solar power installations, industrial equipment, process control, construction equipment, outdoor broadcast systems and portable devices.

Edac's waterproof series comes in pitch sizes ranging from 2.0mm to 5.08mm and feature silicone rubber gaskets either pre-installed in all-in-one plugs and receptacle housings or loose and available in a range of sizes to accomodate wire from 28 - 14 AWG with either thin or standard wire insulation. Operating temperature range across the whole series of -40° to +105° C.

Some of the unique features of Edac's waterproof series include integral locking tabs designed to prevent accidental disengagements, keying system to prevent miss-mating, circuit sizes from 1 to 9 positions and visual confirmation of proper sealing.

Application tooling available includes hand tools for prototype and small builds to fully automated presses and applicators for high production applications. Edac also offers the whole series in custom cables already fully assembled.

#### **Features and Benefits**

Pre assembled housings, seals and Terminal Position Assurance (TPA) components Simple crimp, poke and plug application Integral two way, mate and interface seals designed and tested to IP67 and SAE USCAR-2\* Easy terminal extraction and insertion Compatible with a wide range of UL (28 to 14 AWG) and SAE Automotive (28 to 14) style wires Integral locking latch with secondary connector position assurance (CPA) option Applied cost savings No need to crimp individual wire seals for 565 and 566 Series Locks terminals into housings and prevents terminals from backing out More than just waterproof, a true sealed connector system tested under submerged conditions Quick, low cost field repairs Support a wide range of power and signal applications Assures positive mating of connector and prevents accidental disengagement during high vibration and

#### Applications

severe shock application

Lighting	Industrial Pumps	Welding Equipment	Sound / Broadcast Systems
Process Equipment	Marine	Traffic Management	Liquid Monitoring Meters
Portable Equipment	Test Equipment	Recreation Vehicles	Construction Equipment
Emergency Vehicles	Industrial Equipment	Automotive	Appliances

(\* Except 567 Series - Tested to IP52 Splashproof)



#### **Quick Reference Guide**

Series	Туре	Amps	Pitch	Terminal	Page
565	Wire to Wire	3	2.5mm	565 Series	4
565	Wire to Board	3	2.5mm	565 Series	4
566	Wire to Wire	2	2.0mm	566 Series	6
566	Wire to Board	2	2.0mm	566 Series	6
567	Wire to Wire	8	5.0x5.9mm	570 Series	8
570	Wire to Wire	10	5.8mm	570 Series	10
570	Wire to Board	10	5.8mm	570 Series	10
568	Wire to Wire	12	N/A	570 Series	12
Tools					13

#### How to use this Catalogue

 Using the quick reference guide above, select the type of solution you need and proper current rating for your application and refer to the section of the catalogue with the series you've selected.

 Select the part with the appropriate number of contacts required for your application and the mating connector if required. (Quantities shown are standard pack quantities).

• If applicable, using the Wire Seal selection guide in the series section, select the seal required for the wire gauge to be used in the application.

 Terminals are supplied on the reel and in bulk. See specific series section for more information on available standard quantities. Custom assemblies are available in all series directly from Edac manufactured to your specifications. Contact the factory or your local representative for more information.

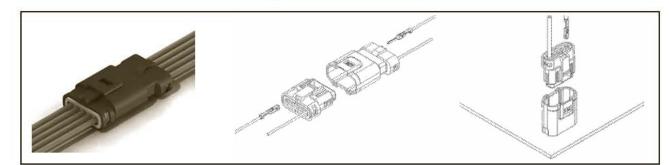
Gauge / A.W.G.	Sectional Area mm <sup>2</sup>	Gauge / A.W.G.	Sectional Area mm
#10	5.2	#24	0.21
#12	3.3	#26	0.13
#14	2.0	#28	0.08
#16	1.31	#30	0.05
#18	0.83	#32	0.03
#20	0.52	#34	0.02
#22	0.33	#36	0.01

# Wire Gauge Cross Reference

Wire to Wire Wire to Board

#### Waterproof Type

#### **IP67 CERTIFIED**



# Features

•2.5mm pitch, Rated current: 3A Max

•Fully Waterproof solution

•Available in wire-to-wire and wire-to-board (potable) options

- •Seals preassembled into housing-no external sealing required
- •True crimp and poke solution
- •Available with wire already installed
- •Waterproof caps available to cover unused holes

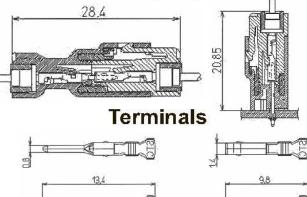
#### Materials

Housing	PBT (UL94V-0)	
Terminal	Phosphor Bronze/Tin Plating PBT with glass (UL94V-0) Brass / Tin Plating	
PCB Header		
Wire • Housing Seal	Silicone Rubber	

# Specifications

1	Circuits	2,3,5P	
2	Pitch	2.5mm	
3	Rated Voltage	250∨	
4	Rated Current	3A max.	
5	Withstand Voltage	AC1000V r.m.s.	
6	Contact Resistance	15m Ω max.	
7	Insulation Resistance	1000M Ω min. /DC 500 ∨	
8	Temperature Range	-40°C ~+ 105°C	
9	Waterproof Grade	IP67	
1	PCB Thickness	1.6mm	

# **Assembly Layout**





565-290-711/731

#### Contact Edac for more information.

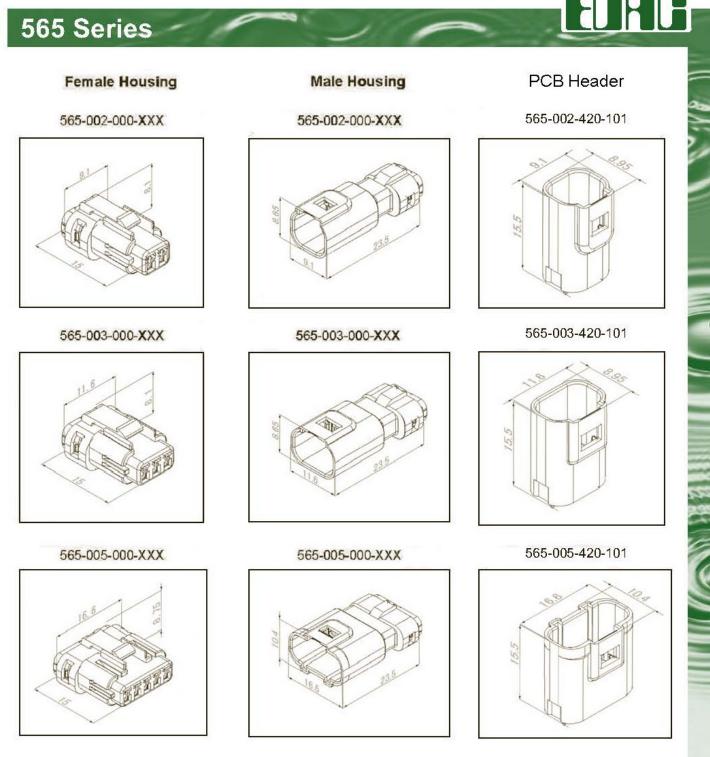
AWG #22 - 28		Ins. Dia.	Pcs/Reel	
REC (F)	565-290-721	Ø1.60 max	10,000 x 6 R	
TAB (M)	565-290-711	01.00 max	8,000 x 5 R	
AWG #20 - 22		Ins. Dia.	Pcs/Reel	
REC (F)	565-290-741	Ø1.70 max	8,000 x 6 R	
TAB (M)	565-290-731	91.70 max	8,000 x 5 R	

## **Internal Wire Seal**

Ins. Dia.	Color	Applicable Terminal	
Ø1.0~1.30	Yellow	565-290-711 565-290-721	
Ø1.30~1.70	Orange	565-290-731 565-290-741	

## Waterpoofing Cap

565-200-100



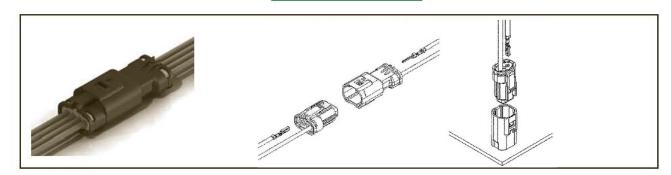
Insulation Diameter	"XXX"	Male Housing Color
Q1 0mm to Q1 2mm	110	White
Ø1.0mm to Ø1.3mm	310	Black
Ø1.3mm to Ø1.7mm	111	White
01.30001.70001.70001	311	Black

Insulation Diameter	"XXX"	Female Housing Color
Ø1.0mm to Ø1.3mm	210	White
Ø1.0mm to Ø1.3mm	410	Black
Ø1.3mm to Ø1.7mm	211	White
Ø1.3mm to Ø1.7mm	411	Black

Wire to Wire Wire to Board

#### Waterproof Type

#### **IP67 CERTIFIED**



#### Features

•2.0mm pitch, rated current: 2A Max

- •Fully waterproof solution
- Available in wire-to-wire and wire-to-board options
  Seals preassembled into housing-no external sealing required
- •True crimp and poke solution
- •Available with wire already installed
- •Waterproof caps available to cover unused holes

#### **Materials**

Housing	PBT (UL 94V-0)	
Terminal	Phosphor Bronze/Tin Plating	
PCB Header	PBT with glass (UL 94V-0) Brass/Tin Plating	
Wire + Housing Seal	Silicone Rubber	

# **Specifications**

1	Wire-to-Wire Circuits	2, 3, 4P
-	Wire-to-Board Circuits	2, 3P
2	Pitch	2.0mm
3	Rated Voltage	250V
4	Rated Current	2A max
5	Withstand Voltage	AC 1000V r.m.s.
6	Contact Resistance	10 mΩ max
7	Insulation Resistance	10000 MΩ min/DC 500V
8	Temperature Range	-40ºC ~ +105ºC
9	Waterproof Grade	IP67
10	PCB Thickness	1.6mm

# Waterproofing Cap

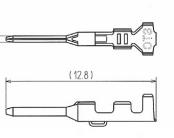
566-200-100

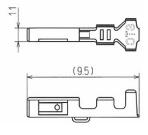
# **Assembly Layout**

# 

# Terminals

Part Number	Wire Range	Ins. Dia.	Pcs/Reel	Gender
566-290-711	0.8-0.3mm <sup>2</sup> (AWG #22-#28)	Ø1.0~1.5	12,000	Male
566-290-721	0.8-0.3mm <sup>2</sup> (AWG #22-#28)	Ø1.0~1.5	12,000	Female





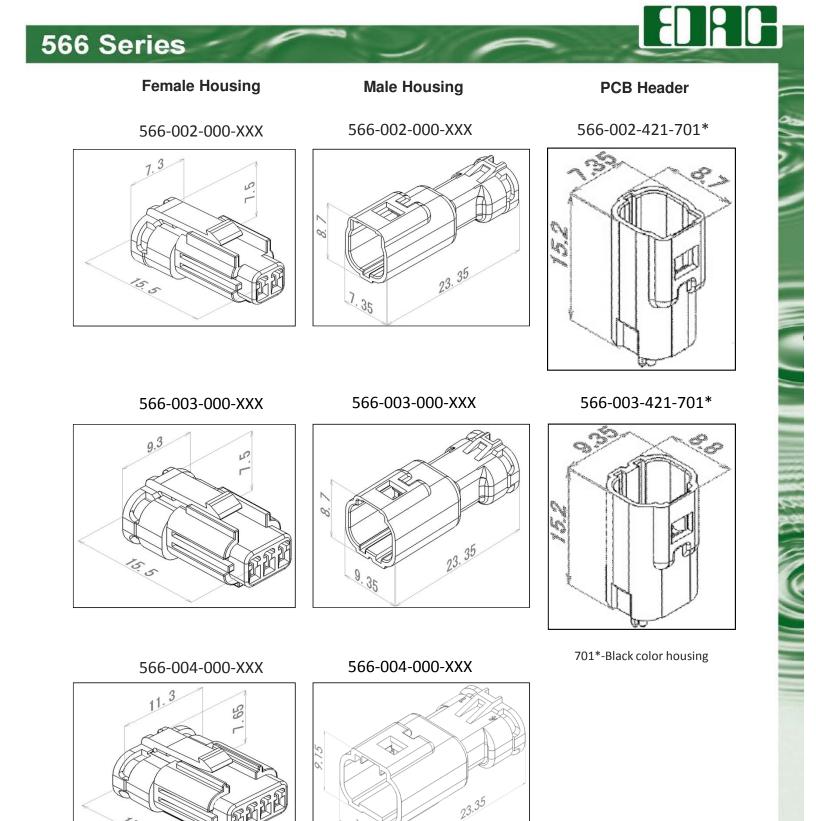
566-290-711

566-290-721

## **Internal Wire Seal**

Insulation Diameter	Color	Applicable Terminal
Ø1.0~Ø1.25	Light Blue	566-290-711
Ø1.25 ~ Ø1.5	Orange	566-290-721

Contact Edac for more information.



Insulation Diameter	"XXX"	Male Housing Color
Ø1.0mm to	510	White
Ø1.25mm	710	Black
Ø1.25mm to	511	White
Ø1.5mm	711	Black

15.5

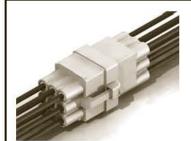
Insulation Diameter	"XXX"	Female Housing Color
Ø1.0mm to	610	White
Ø1.25mm	810	Black
Ø1.25mm to	611	White
Ø1.5mm	811	Black

11.6

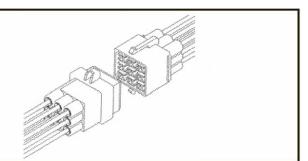
#### Wire to Wire

#### Splash proof type

#### **IP52 CERTIFIED**



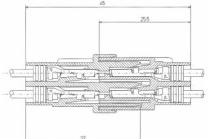
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#### Features

•5.0x5.9mm pitch, rated current: 8A Max •Splash proof solution tested to IP52 •Available with wire already installed

## **Assembly Layout**



# Materials

Housing	PBT (UL94V-0)
Terminal	Brass, Phosphor Bronze/Tin Plating
Wire • Housing Seal	Silicone Rubber

# Specifications

1	Circuits	1,2,3,4,6,9P
2	Pitch	5.0X5.9mm
3	Rated Voltage	300V
4	Rated Current	8A max.
5	Withstand Voltage	AC1700V r.m.s.
6	Contact Resistance	10m Ω max.
7	Insulation Resistance	1000M Ω min. /DC 500 V
8	Temperature Range	-40°C ~+ 105°C
9	Waterproof Grade	IP 52

#### Terminals

Part Number	Material	Wire Range	Inside Dia	PCS/Reel	Туре
570-290-711	Brass	0.3-0.5mm <sup>2</sup> (AWG #22~#20)	Ø2.7 max	4,000	Male
570-290-721	Brass	0.3-0.5mm <sup>2</sup>	Ø2.7 max	4.000	Female
570-291-721	Phos.Br*	(AWG #22~#20)	02.7 max	4,000	remale
570-290-731	Brass	0.5-1.25mm <sup>2</sup>	Ø3.1 max	4.000	Male
570-291-731	Phos.Br*	(AWG #20~#16)	00.1 max	4,000	IVIDIO
570-290-741	Brass	0.5-1.25mm <sup>2</sup>	Ø3.1 max	4.000	Female
570-291-741	Phos.Br*	(AWG #20~#16)	00.1 max	4,000	remaie
570-290-751	Brass	2.0mm <sup>2</sup> (AWG #14)	Ø3.1 max	4,000	Male
570-290-761	Brass	2.0mm <sup>2</sup> (AWG #14)	Ø3.1 max	4,000	Female

\*Phosphor Bronze terminals are available in special order Terminals are also available in smaller strip lengths

# Wire Seal

Part Number	Ins. Dia.	Color	Pcs
570-260-001	Ø 1.7 ~ 2.1	Black	1,000
570-260-002	Ø 2.1 ~ 2.7	Blue	1,000
570-260-003	Ø 2.1 ~ 2.7	Blue	1,000
570-260-004	Ø 2.7 ~ 3.1	Brown	1,000

570-260-003

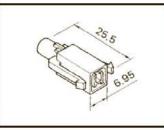
570-260-001 570-260-002

570-260-004

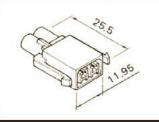


#### Female Housing

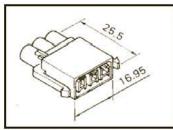
567-001-000-410



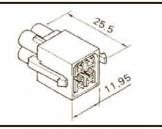
567-002-000-410



567-003-000-410

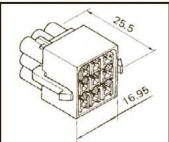


567-004-000-410



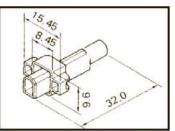
567-006-000-410



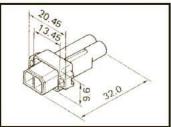


Male Housing

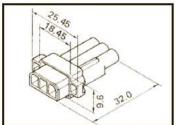
567-001-000-310



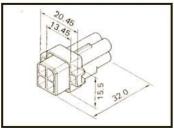
567-002-000-310



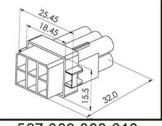
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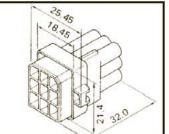
567-004-000-310



567-006-000-310



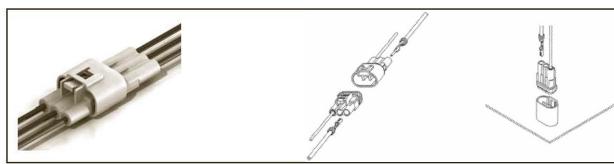
567-009-000-310



Wire to Wire Wire to Board

#### Waterproof Type

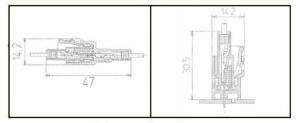
#### **IP67 CERTIFIED**



#### Features

•5.8mm pitch, Rated current: 10A Max •Waterproof solution from 1 to 3 positions •Wide range of wire sizes available •Wire to wire and board mount options available •Available with wire already installed

# **Assembly Layout**



Terminals

# Materials

Housing	PBT (UL 94V-0)
Terminal	Brass, Phosphor Bronze/Tin Plating
PCB Header	PBT with glass (UL 94V-0) Brass/Tin Plating
Wire + Housing Seal	Silicone Rubber

# Specifications

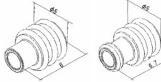
1	Circuits	1,2,3P	
2	Pitch	5.8mm	
3	Rated Voltage	300V	
4	Rated Current	10A max.	
5	Withstand Voltage	AC1700V r.m.s.	
6	Contact Resistance	10m Ω max.	
7	Insulation Resistance	1000M Ω min. /DC 500 V	
8 Temperature Range		-40°C ~+ 105°C	
9 Waterproof Grade IP67		IP67	
1 0	PCB Thickness	1.6mm	

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Ī	Part Number	Material	Wire Range	Inside Dia	PCS/Reel	Туре
ł	570-290-711	Brass	0.3-0.5mm <sup>2</sup> (AWG #22~#20)	Ø2.7 max	4,000	Male
l	570-290-721	Brass	0.3-0.5mm <sup>2</sup>	Ø2.7 max	4.000	Female
ł	570-291-721	Phos.Br*	(AWG #22~#20)	02.7 max	4,000	remaie
l	570-290-731	Brass	0.5-1.25mm <sup>2</sup>	Ø3.1 max	4.000	Male
l	570-291-731	Phos.Br*	(AWG #20~#16)	00.1 max	4,000	IVIAIC
l	570-290-741	Brass	0.5-1.25mm <sup>2</sup>	Ø3.1 max	4.000	Female
1	570-291-741	Phos.Br*	(AWG #20~#16)	00.1 max	4,000	remaie
	570-290-751	Brass	2.0mm <sup>2</sup> (AWG #14)	Ø3.1 max	4,000	Male
	570-290-761	Brass	2.0mm <sup>2</sup> (AWG #14)	Ø3.1 max	4,000	Female

\*Phosphor Bronze terminals are available in special order Terminals are also available in smaller strip lengths

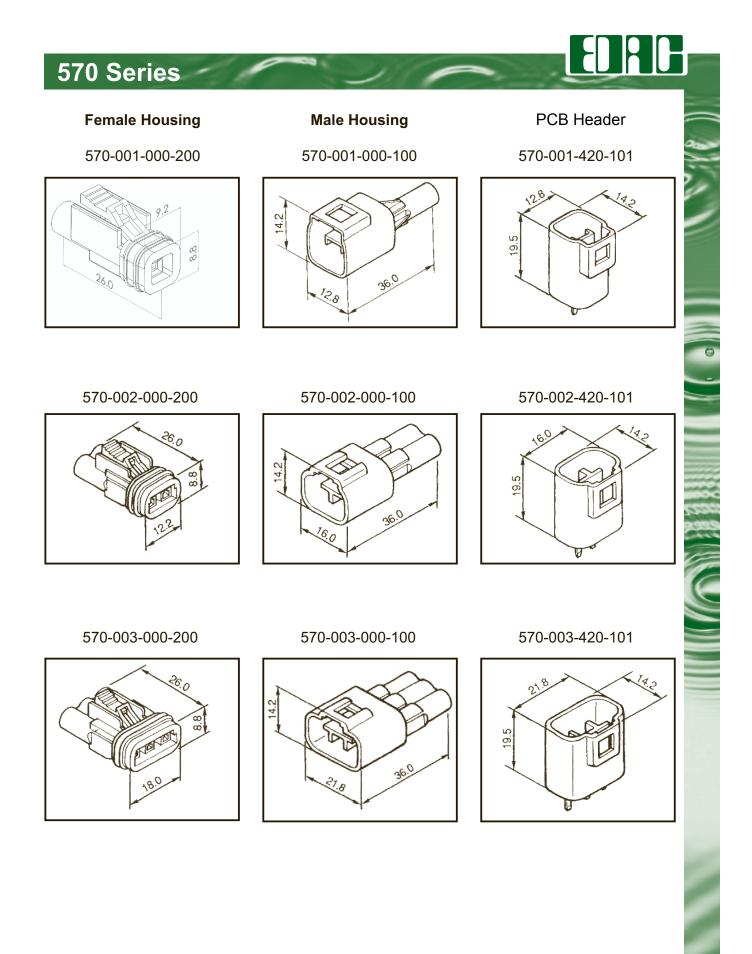
## Wire Seal

Part Number	Ins. Dia.	Color	Pcs
570-260-001	Ø 1.7 ~ 2.1	Black	1,000
570-260-002	Ø 2.1 ~ 2.7	Blue	1,000
570-260-003	Ø 2.1 ~ 2.7	Blue	1,000
570-260-004	Ø 2.7 ~ 3.1	Ø 2.7 ~ 3.1 Brown	
570-260-001 570-260-002	570-260-003 570-260		260-004





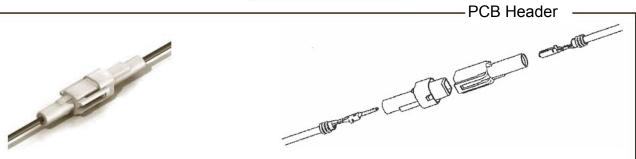
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#### Wire to Wire

#### Waterproof Type

#### **IP67 CERTIFIED**



#### **Features**

 Rated current 12A Max •Fully waterproof solution for single position Accommodates wide range of wire sizes Available with wire already installed

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# **Materials**

Housing	PBT (UL 94V-0)
Terminal	Brass, Phosphor Bronze/Tin Plating
Wire + Housing Seal	Silicone Rubber

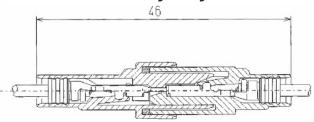
# **Specifications**

1	Circuits	1P			
2	Rated Voltage	300∨			
3	Rated Current	12A max.			
4	Withstand Voltage	AC1700V r.m.s.			
5	Contact Resistance	10m Ω max.			
6	Insulation Resistance	1000M Ω min. /DC 500 V			
7	Temperature Range	-40°C ~+ 105°C			
8	Waterproof Grade	IP67			

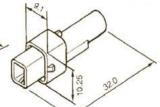
# Wire Seal

Part Number	Ins. Dia.	Color	Pcs	
570-260-001	Ø 1.7 ~ 2.1	Black	1,000	
570-260-002	Ø 2.1 ~ 2.7	Blue	1,000	
570-260-003	Ø 2.1 ~ 2.7	Blue	1,000	
570-260-004	Ø 2.7 ~ 3.1	Brown	1,000	

# **Assembly Layout**



#### 568-001-000-200



568-001-000-100

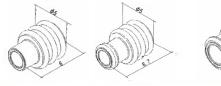
## **Terminals**

Part Number	Material	Wire Range	Inside Dia	PCS/Reel	Туре
570-290-711	Brass	0.3-0.5mm <sup>2</sup> (AWG #22~#20)	Ø2.7 max	4,000	Male
570-290-721	Brass	0.3-0.5mm <sup>2</sup> (AWG #22~#20)	Ø2.7 max	4.000	Female
570-291-721	Phos.Br*			02.7 max	4,000
570-290-731	Brass	0.5-1.25mm <sup>2</sup> (AWG #20~#16)	Ø3.1 max	4.000	Male
570-291-731	Phos.Br*		00.1 max	4,000	Wate
570-290-741	Brass	0.5-1.25mm <sup>2</sup>	Ø3.1 max	4.000	Female
570-291-741	Phos.Br*	(AWG #20~#16)	65.1 max	4,000	remaie
570-290-751	Brass	2.0mm <sup>2</sup> (AWG #14)	Ø3.1 max	4,000	Male
570-290-761	Brass	2.0mm <sup>2</sup> (AWG #14)	Ø3.1 max	4,000	Female

570-260-003

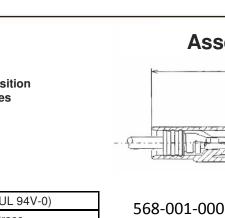
#### 570-260-001 570-260-002

570-260-004





\*Phosphor Bronze terminals are available in special order Terminals are also available in smaller strip lengths



# **Tools for Waterproof Connectors**

#### Automatic Contact Crimp Machine

- Applicators available to crimp all series contacts
- All required guards for operator safety
- Easy access for all setting changes
- Foot switch to initiate crimp cycle
- Mounts to any bench surface
- Quick change applicators allow for fast conversions from one contact type to another



#### Hand Crimp Tool

- Manual hand crimp tool
- Cuts the contacts from the carrier strip

**Contact Ejection Tool** 

• Tool to remove previously inserted contact from connector housing

**Contact EDAC customer service for more information** 



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