

#### Introduction











#### **Product Features**

- Keyed / polarized, prevents mismating
- Lanceless contacts, no damaged tangs or tangled contacts
- Integral CPA protects against accidental unlocking
- Sleeved assembly for contact beam protection provides
   50 durability cycles
- Attachment feature on pin housing provides connector clip mounting
- Integral PLR provides primary latch reinforcement with no additional assembly
- Sealing of interface and wires provides for environmental integrity
- Resistant to a wide range of chemicals
- RoHS and ELV compliant



The AMPSEAL 16 Connector System is targeted for off-road, heavy duty industrial, recreational and agricultural applications. This wire-to-wire and wire-to-device connector line was designed to meet the rigorous demands of an industry that requires the highest standards in performance.

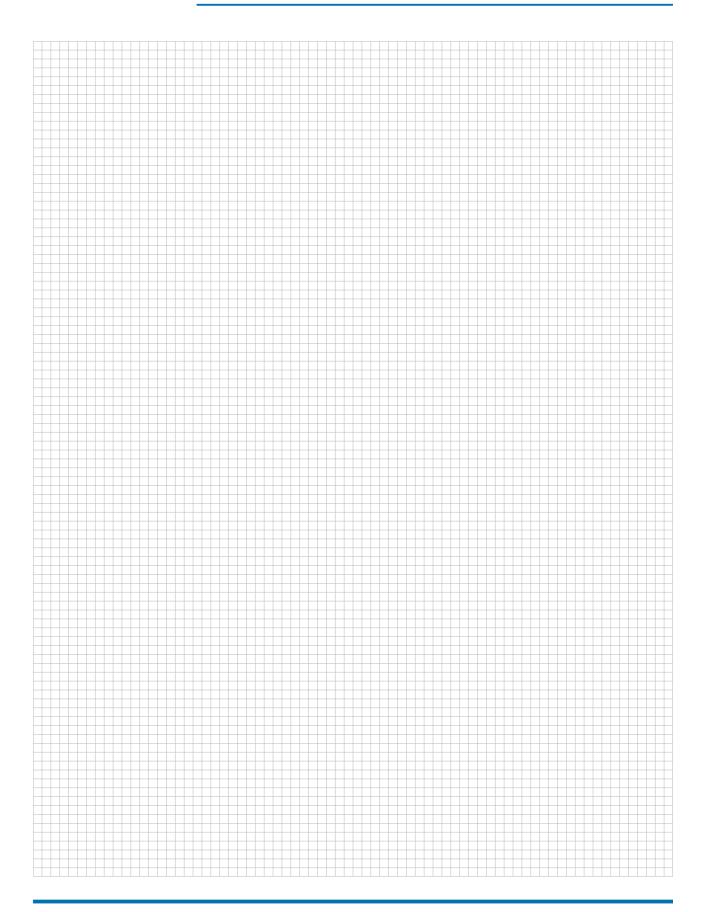
Thermoplastic housings (-40 °C to +125 °C rated) and silicone seals allow the connectors to withstand extreme temperatures and moisture.

This connector family will feature the HDSF Size 16 Pin and Socket contacts as a terminal system.

These contacts are stamped and formed versions of the screw machined MIL-C-39029 contacts. The 2-, 3-, 4-, 6-, 8- and 12-position housings will offer a one-piece assembly for both plug and cap.



**Engineering Notes** 



# AMPSEAL 16 Connector System Contact System

Section Catalog 1654281-2 Revised 12-2009 Main Catalog 1654400-1 Chapter 30 – Issued 3-2010

Introduction











#### **Product Features**

- 1.58 mm Pin and Socket System per MIL-C-39029
- Lanceless design
- Dual Beam Socket Contact
- Wire Size Range 0.5–2.0 mm² (20–14 AWG)
- Wire Insulation 1.3–3.7 mm
- Terminal Plating Gold or Nickel
- Current Rating up to 13 amps
- Vibration Performance up to 35 G's
- RoHS and ELV compliant



The HDSF Size 16 Pin and Socket contacts system is a stamped and formed version of the screw machine MIL-C-39029 contacts.

The Tyco Electronics Size 16 contact system offers a thicker and higher performance alloy base metal, providing the following superior benefits over most of the competitive stamped and formed size 16 contact systems.

- Increased terminal/ beam strength
- 2. Greater resistance to stress relaxation
- 3. Increased current carrying ability due to lower T-Rise (20%)

# AMPSEAL 16 Connector System Contact System

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Size 16 Terminal Selection Guide

The Terminal Summary Chart can be used as a quick guide to determine the part number for a particular application based on the following:

1) Insulation Barrel preference; 2) Plating preference; 3) Wire Size; and 4) Insulation Diameter.

#### Size 16 Terminal Summary Chart

	Terminal Part Number	Plating		Wire Size	Insulation Rar		Terminal Part Number	Plating	
	(Reeled)	Au	Ni	(AWG)	Inch	mm	(Loose-Piece)	Au	Ni
Pin with Insulation Barrel	1924463	-1	-3	20–18	0.050-0.107	1.27-2.72	1924579	-1	-3
Socket with Insulation Barrel	1924464	-1	-2	20–18	0.050-0.107	1.27-2.72	1924580	-1	-2
Pin with Insulation Barrel	638078	-1	-3	18-14 <b>*</b>	0.089-0.131	2.26-3.33	776300	-1	-2
Socket with Insulation Barrel	776492	-1	-2	18-14 <b>*</b>	0.089-0.131	2.26-3.33	776299	-1	-2
Pin without Insulation Barrel	638112	-1	-3	18–14	0.077-0.155	1.96-3.94	776298	-1	-2
Socket without Insulation Barrel	776491	-1	-2	18–14	0.077-0.155	1.96-3.94	776297	-1	-2

<sup>\*) 14</sup> AWG (SXL) wire not recommended for crimping on terminals with an Insulation Barrel.

The Terminal/Wire Selection for Connector Wire Seal Chart can be used as a guide to determine the following:

1) Wire Size and Insulation Type; 2) Nominal Insulation Diameter; 3) Recommended Terminal Part Number; and 4) Recommended Connector Wire Seal. For questions and concerns, please consult a Tyco Electronics Product Specialist.

Size 16 Terminal / Wire Selection for Connector Wire Seal Chart

				Tei	rminal Part N	lumber (Reele	ed)		Connector Wire Seal	
Wire Size (Insulation Type)		n Diameter ninal)	1924463	1924464	638078	776492	638112	776491	Standard Diameter (mm)	Reduced Diameter (mm)
	(mm)	(mm) (Inch)	(Pin)	(Socket)	(Pin)	(Socket)	(Pin)	(Socket)	2.18-3.67	1.30-2.54
0.5 mm <sup>2</sup> (TXL)	1.78	0.070	V	V						V
0.5 mm <sup>2</sup> (GXL)	2.22	0.087	~	~						~
0.5 mm <sup>2</sup> (SXL)	2.55	0.100	~	~					V	
20 AWG (TXL)	1.78	0.070	~	~						~
20 AWG (GXL)	2.16	0.085	~	~						~
20 AWG (SXL)	2.44	0.096	V	V					V	
18 AWG (TXL)	1.98	0.078	V	V			~	~		V
18 AWG (GXL)	2.34	0.092	~	~	V	~	V	V	V	~
18 AWG (SXL)	2.72	0.107			~	~	V	V	V	
1.0 mm <sup>2</sup> (TXL)	2.28	0.090					V	V	V	~
1.0 mm <sup>2</sup> (GXL)	2.72	0.107			V	~	V	V	V	
1.0 mm <sup>2</sup> (SXL)	3.15	0.124			V	~	V	V	V	
16 AWG (TXL)	2.24	0.088					V	V	V	~
16 AWG (GXL)	2.62	0.103			V	~	V	V	V	
16 AWG (SXL)	3.05	0.120			V	~	V	<b>V</b>	~	
2.0 mm <sup>2</sup> (TXL)	2.58	0.102			V	~	~	~	V	
2.0 mm <sup>2</sup> (GXL)	3.02	0.119			V	~	V	~	V	
2.0 mm <sup>2</sup> (SXL)	3.65	0.144					~	~		
14 AWG (TXL)	2.62	0.103			~	~	~	<b>✓</b>	V	
14 AWG (GXL)	2.97	0.117			~	~	~	<b>✓</b>	V	
14 AWG (SXL)	3.58	0.141					~	~	<b>V</b>	

Note: Insulation Diameter (Nominal) accuracy not guaranteed.

Receptacle Contacts (Sockets)

#### **Technical Features**

**Contact Material:** 

Copper Alloy

**Contact Finish:** 

Gold or Nickel

Wire Size Range:

0.5-2.0 mm<sup>2</sup> (20-14 AWG)

**Insulation Diameter:** 

1.27-3.67 mm

**Current Carrying Capacity:** 

13 amps

**Temperature Range** 

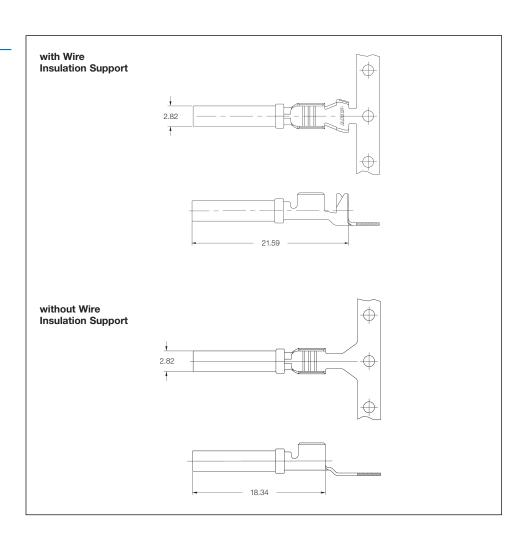
-40 °C to +125 °C

**Product Specification:** 

108-2184

**Application Specification:** 

114-13045



#### **Receptacle Contacts with Wire Insulation Support**

	Size	Insulation	Material			Part	Part Numbers			
(mm²)	(AWG)	Diameter (mm)	and Finish	Strip Form	Package Quantity	Loose- Piece	Package Quantity	Applicator	Hand Tool	
0.5-0.8	0.5.00		Copper Alloy, Gold	1924464-1	4,000	1924580-1	1,000			
0.5-0.6	20–18	1.27–2.72	Copper Alloy, Nickel	1924464-2	4,000	1924580-2	1,000	See Application	Specification	
0.8–2.0	0.8–2.0 18–14	0.00.0.00	Copper Alloy, Gold	776492-1	4,000	776299-1	1,000	114-13	3045	
0.0-2.0	10-14	2.26–3.33	Copper Alloy, Nickel	776492-2	4,000	776299-2	1,000			

Note: All Part Numbers are RoHS and ELV compliant.

# **Receptacle Contacts without Wire Insulation Support**

	Wire Size		Material		Part Numbers						
	nge	Diameter (mm)	and Finish	Strip	Package	Loose-	Package	Applicator	Hand Tool		
(mm²)	(AWG)	(11111)	Fori		Form Quantity	Piece	Quantity				
0.8–2.0	18–14	2.18–3.67	Copper Alloy, Gold	776491-1	4,000	776297-1	1,000	See Application	Specification		
0.0-2.0	0.8–2.0 18–14 2.		Copper Alloy, Nickel	776491-2	4,000	776297-2	1,000	114-13045			

Note: All Part Numbers are RoHS and ELV compliant.

Pin Contacts

#### **Technical Features**

**Contact Material:** 

Copper Alloy

**Contact Finish:** 

Gold or Nickel

Wire Size Range:

 $0.5-2.0 \ mm^2 \ (20-14 \ AWG)$ 

**Insulation Diameter:** 

1.27-3.67 mm

**Current Carrying Capacity:** 

13 amps

**Temperature Range** 

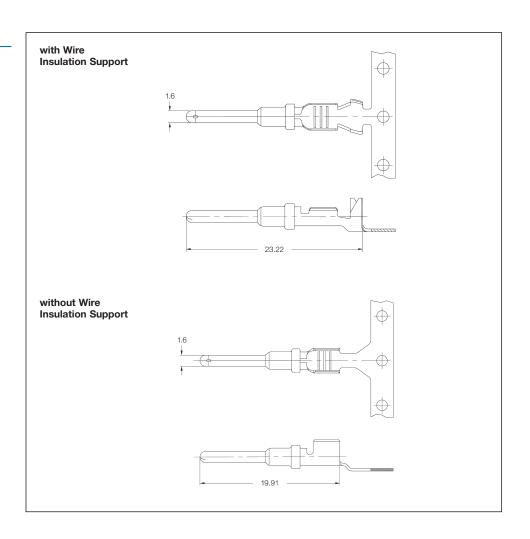
-40 °C to +125 °C

**Product Specification:** 

108-2184

**Application Specification:** 

114-13045



#### **Pin Contacts with Wire Insulation Support**

	Size	Insulation	Material	Part Nur			Numbers	umbers		
(mm²)	(AWG)	Diameter (mm)	and Finish	Strip Form	Package Quantity	Loose- Piece	Package Quantity	Applicator	Hand Tool	
05.00	00.40 4.07.0.70		Copper Alloy, Gold	1924463-1	4,000	1924579-1	1,000			
0.5–0.8	20–18	1.27–2.72	Copper Alloy, Nickel	1924463-3	4,000	1924579-3	1,000	See Application	Specification	
0000	18–14	0.00.000	Copper Alloy, Gold	638078-1	4,000	776300-1	1,000	114-13	3045	
0.8–2.0	10-14	2.26–3.33	Copper Alloy, Nickel	638078-3	4,000	776300-2	1,000			

Note: All Part Numbers are RoHS and ELV compliant.

# Pin Contacts without Wire Insulation Support

	Wire Size		Material		Part Numbers				
Har	nge	Diameter	and Finish	Strip	Package	Loose-	Package	Annliantar	Hand Tool
(mm²)	(AWG)	(mm)		Form	Quantity	Piece	Quantity	Applicator	nand 1001
0000	10 1/	2.18–3.67	Copper Alloy, Gold	638112-1	4,000	776298-1	1,000	See Application	Specification
0.0-2.0	0.8–2.0 18–14 2.1		Copper Alloy, Nickel	638112-3	4,000	776298-2	1,000	114-13045	

Note: All Part Numbers are RoHS and ELV compliant.

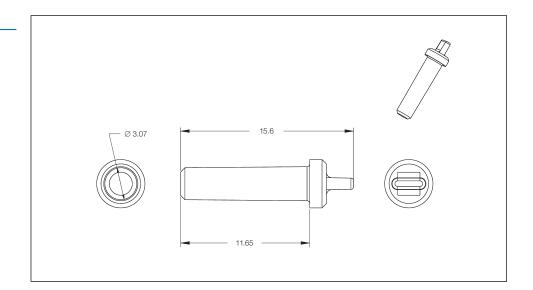
# **AMPSEAL 16 Connector System** Contact System

Section Catalog 1654281-2 Revised 12-2009 Main Catalog 1654400-1 Chapter 30 – Issued 3-2010

Cavity Plugs for Unsealed Cavity

# **Technical Features**

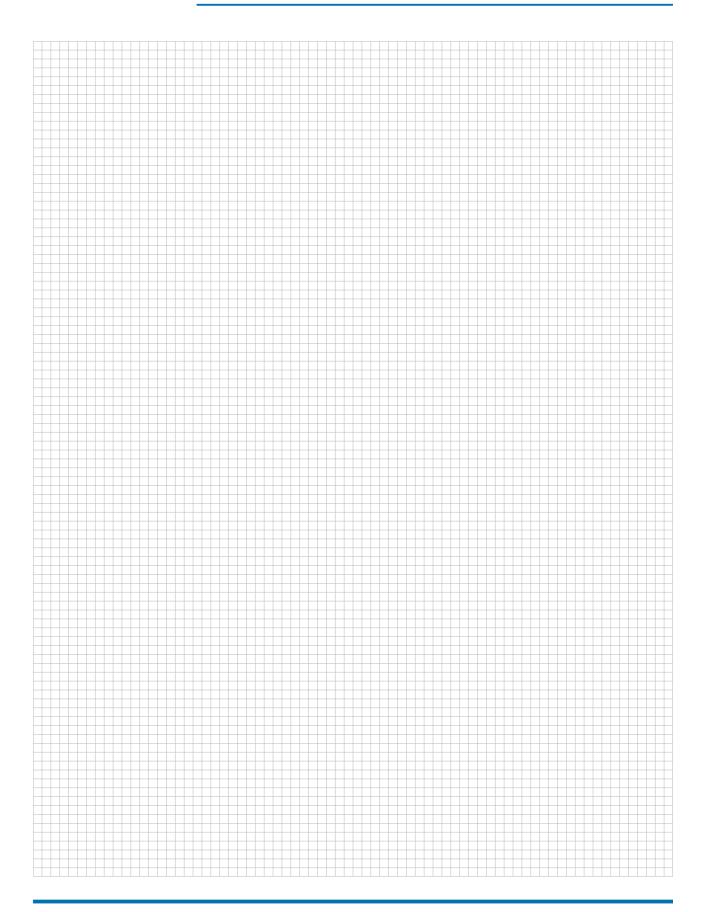
- Material: Glass reinforced PBT
- Resistant to a wide range of chemicals
- UL 94-HB rated
- RoHS and ELV compliant



	Contact Cavity Size		Color	Part Number	Package Quantity	
	(mm)	(AWG)			Quantity	
Standard Diameter	3.07	16	Yellow	776363-1	10,000	
Reduced Diameter	2.55	20	White	776364-1	10,000	



**Engineering Notes** 



Section Catalog 1654281-2 Revised 12-2009 Main Catalog 1654400-1 Chapter 30 – Issued 3-2010

#### Introduction











#### **Product Features**

- Integral PLR provides primary latch reinforcement with no additional assembly
- Keyed / polarized, prevents mismating
- Integral CPA protects against accidental unlocking
- Attachment feature on pin housing provides connector clip mounting
- Resistant to a wide range of chemicals
- RoHS and ELV compliant



The AMPSEAL 16 Receptacle and Pin housings come fully assembled, offering a one-piece approach for applied cost savings. Receptacle housing assemblies consist of the plug housing with both interface and wire seals, wire seal cover, PLR & CPA.

Thermoplastic housings (-40 °C to +125 °C rated) and silicone seals allow connectors to withstand extreme temperatures and moisture.

Pin housing assemblies are comprised of cap housing with wire seal, wire seal cover, and PLR. The single latch design with anti-overstress feature is only one of many additional features. Both color coding and physical keying prevents mismating when multiple housings of the same position size are used in the application.

# 1-Row Sealed Receptacle (Plug) Housings

#### **Technical Features**

No. of Positions:

2 (1×2) Positions Assembly

**Housing Material:** 

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

1.30-2.54 mm

(with reduced diameter wire seal)

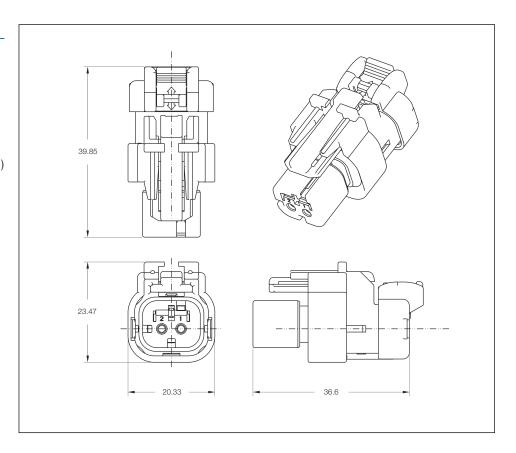
**Product Specification:** 

108-2184

**Application Specification:** 

114-13065

- UL 94-HB rated
- Resistant to a wide range of chemicals
- RoHS and ELV compliant



## Sealed Receptacle Housings 1-Row with Standard Diameter Wire Seal

No. of	DI D Color	Vania	Part Numbers			
Positions	PLR Color	Keying	Receptacle (Plug) Housing	Mating Pin (Cap) Housing		
	Red	Kov A	776427-1	776428-1		
	Hea	Key A	110421-1	1717672-1		
	Gray	Key B	776427-2	776428-2		
2	Gray	rey b	110421-2	1717672-2		
2	Yellow	Key C	776427-3	776428-3		
	reliow	rey C	110421-3	1717672-3		
	Green	Key D	776427-4	776428-4		
	Green	riey D	110421-4	1717672-4		

No. of	PLR Color	V a via a	Part Numbers			
Positions	PLR Color	Keying	Receptacle (Plug) Housing	Mating Pin (Cap) Housing		
	Red	Key A	776522-1	776534-1		
0	Gray	Key B	776522-2	776534-2		
2	Yellow	Key C	776522-3	776534-3		
	Green	Key A	776522-4	776534-4		

# 1-Row Sealed Receptacle (Plug) Housings (continued)

#### **Technical Features**

No. of Positions:

3 (1×3) Positions Assembly

**Housing Material:** 

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

1.30-2.54 mm

(with reduced diameter wire seal)

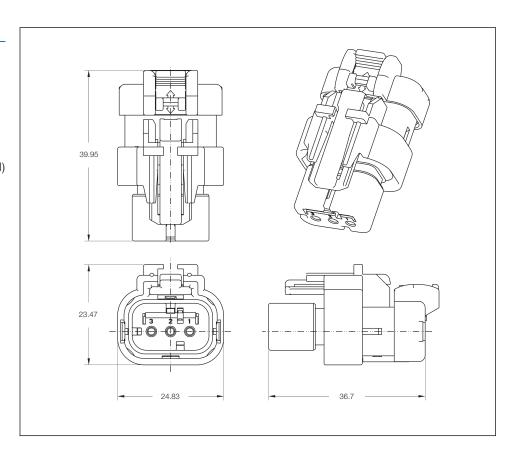
**Product Specification:** 

108-2184

**Application Specification:** 

114-13065

- UL 94-HB rated
- Resistant to a wide range of chemicals
- RoHS and ELV compliant



## Sealed Receptacle Housings 1-Row with Standard Diameter Wire Seal

No. of	PLR Color	Varian	Part Numbers			
Positions	PLR Color	Keying	Receptacle (Plug) Housing	Mating Pin (Cap) Housing		
	Red	Key A	776429-1	776430-1		
	neu	Key A	770429-1	1717673-1		
	Gray	Key B	776429-2	776430-2		
3	Gray	Ney D	110423-2	1717673-2		
3	Yellow	O	776429-3	776430-3		
	reliow	Key C	110429-3	1717673-3		
	Green	Key D	776429-4	776430-4		
	Green	Rey D	110425-4	1717673-4		

No. of	PLR Color	March 19	Part Numbers				
Positions	ons	Keying	Receptacle (Plug) Housing	Mating Pin (Cap) Housing			
	Red	Key A	776523-1	776535-1			
0	Gray	Key B	776523-2	776535-2			
3	Yellow	Key C	776523-3	776535-3			
	Green	Key A	776523-4	776535-4			

# 2-Row Sealed Receptacle (Plug) Housings

#### **Technical Features**

No. of Positions:

4 (2×2) Positions Assembly

**Housing Material:** 

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

1.30-2.54 mm

(with reduced diameter wire seal)

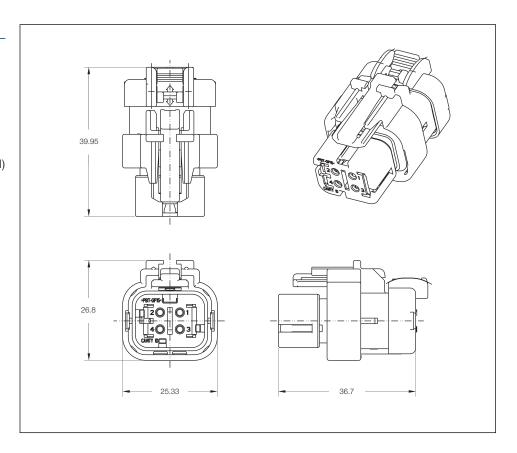
**Product Specification:** 

108-2184

**Application Specification:** 

114-13065

- UL 94-HB rated
- Resistant to a wide range of chemicals
- RoHS and ELV compliant



## Sealed Receptacle Housings 2-Row with Standard Diameter Wire Seal

No. of	DI D Color	Varian	Part Nu	umbers
Positions	PLR Color	Keying	Receptacle (Plug) Housing	Mating Pin (Cap) Housing
	Red	Key A	776487-1	776488-1
	Red	Ney A	110401-1	1717674-1
	Gray	Key B	776487-2	776488-2
4	Gray	rey D	110401-2	1717674-2
4	Yellow	Key C	776487-3	776488-3
	reliow	rey C	110401-3	1717674-3
	Green	Key D	776487-4	776488-4
	Green	rey D	110401-4	1717674-4

No. of Positions	PLR Color Kevina		Part Numbers	
	PLR Color	Keying	Receptacle (Plug) Housing         Mating Pin (Cap) Hou           776524-1         776536-1           776524-2         776536-2	Mating Pin (Cap) Housing
4 -	Red	Key A	776524-1	776536-1
	Gray	Key B	776524-2	776536-2
	Yellow	Key C	776524-3	776536-3
	Green	Key A	776524-4	776536-4

# 2-Row Sealed Receptacle (Plug) Housings (continued)

#### **Technical Features**

No. of Positions:

6 (2×3) Positions Assembly

**Housing Material:** 

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

1.30-2.54 mm

(with reduced diameter wire seal)

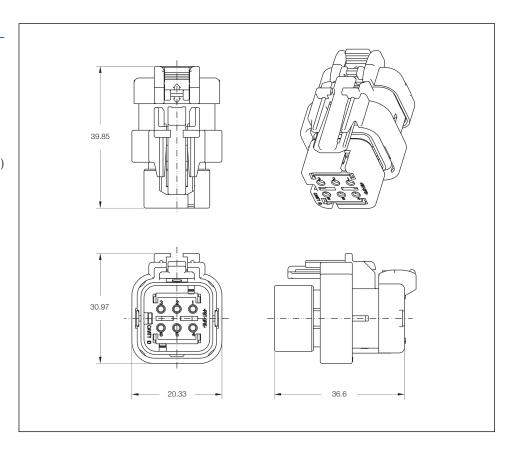
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108-2184

**Application Specification:** 

114-13065

- UL 94-HB rated
- Resistant to a wide range of chemicals
- RoHS and ELV compliant



## Sealed Receptacle Housings 2-Row with Standard Diameter Wire Seal

No. of Positions	DI D Color	Varian	Part Nu	umbers
	PLR Color	Keying	Receptacle (Plug) Housing	Mating Pin (Cap) Housing
	Red	Vov A	776433-1	776434-1
	neu	Key A	110433-1	1717675-1
6	Crou	I/ov D	Key B 776433-2	776434-2
0	Gray	rey b		1717675-2
	Yellow	Key C	776422 2	776434-3
rellow	reliow	ney C	776433-3	1717675-3

No. of Positions	PLR Color		Part Numbers	
	PLR Color	Keying	Receptacle (Plug) Housing	Mating Pin (Cap) Housing
Red	Dod	14. A	770501 1	776537-1
	Red	Key A	776531-1	1717975-1
6	Crow	Key B	776531-2	776537-2
6 Gray	Gray	Ney D		1717975-2
	Vollow	Kov C	776531-3	776537-3
	reliow	Key C	110031-3	1717975-3

# 2-Row Sealed Receptacle (Plug) Housings

#### **Technical Features**

No. of Positions:

8 (2×4) Positions Assembly

**Housing Material:** 

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

1.30-2.54 mm

(with reduced diameter wire seal)

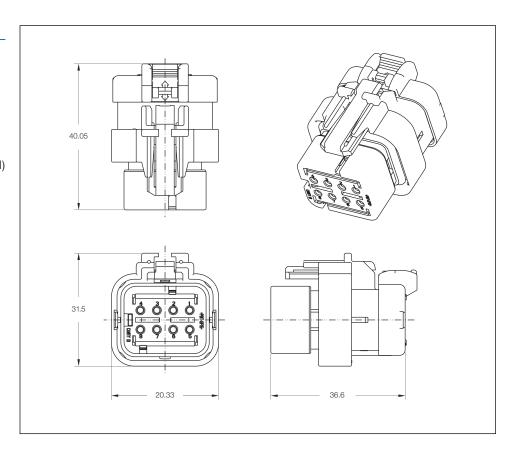
**Product Specification:** 

108-2184

**Application Specification:** 

114-13065

- UL 94-HB rated
- Resistant to a wide range of chemicals
- RoHS and ELV compliant



## Sealed Receptacle Housings 2-Row with Standard Diameter Wire Seal

No. of	DI D Color	Vanion	Part Nu	ımbers
Positions	PLR Color	Keying	Receptacle (Plug) Housing	Mating Pin (Cap) Housing
	Red	17. A	776494-1	776495-1
	neu	Key A	770494-1	1717676-1
	Gray	Key B	776494-2	776495-2
8	Gray	rey b	110494-2	1717676-2
O	Yellow	Key C	776494-3	776495-3
	reliow	rey C	110494-3	1717676-3
	Green	Key D	776494-4	776495-4
	Green	riey D	110494-4	1717676-4

No. of Positions	PLR Color Kevina		Part Numbers	
	PLR Golor	Keying	Receptacle (Plug) Housing Mating Pin (Cap) H	
	Red	Key A	776532-1	776538-1
0	Gray	Key B	776532-2	776538-2
8	Yellow	Key C	776532-3	776538-3
	Green	Key A	776532-4	776538-4

# 2-Row Sealed Receptacle (Plug) Housings (continued)

#### **Technical Features**

No. of Positions:

12 (2×6) Positions Assembly

**Housing Material:** 

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

1.30-2.54 mm

(with reduced diameter wire seal)

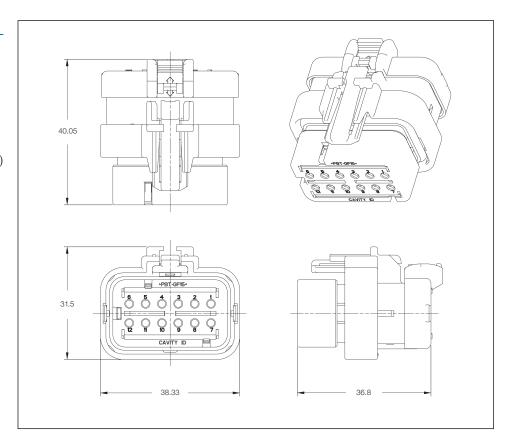
**Product Specification:** 

108-2184

 ${\bf Application\ Specification:}$ 

114-13065

- UL 94-HB rated
- Resistant to a wide range of chemicals
- RoHS and ELV compliant



#### Sealed Receptacle Housings 2-Row with Standard Diameter Wire Seal

No. of Positions	DI D Color		Part Numbers	
	PLR Color	Keying	Receptacle (Plug) Housing	Mating Pin (Cap) Housing
	Pod	Key A	776437-1	776538-1
Red	neu	Key A		1717677-1
	Gray	Key B	776437-2	776538-2
10	Gray	Rey D		1717677-2
12 Yellow Green	Vollow	- Kerr O	776437-3	776538-3
	TEIIOW	Key C	110431-3	1717677-3
	Groon	Key D	776437-4	776538-4
	GIEEN	riey D	110431-4	1717677-4

No. of Positions	DI D Color		Part Numbers	
	PLR Color	Keying	Receptacle (Plug) Housing	Mating Pin (Cap) Housing
	Red	Key A	776533-1	776539-1
	neu	rtey A	110000-1	1717934-1 776539-2
	Gray	Key B	776533-2	776539-2
12	Gray	Rey D	110000-2	1717934-2
Yellow Green	Vollow	Kov C	776533-3	776539-3
	reliow	Key C		1717934-3
	Groop	Kov D	776533-4	776539-4
	GIEEH	Key D	110033-4	1717934-4

# 1-Row Sealed Pin (Cap) Housings

#### **Technical Features**

No. of Positions:

2 (1×2) Positions Assembly

**Housing Material:** 

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

1.30-2.54 mm

(with reduced diameter wire seal)

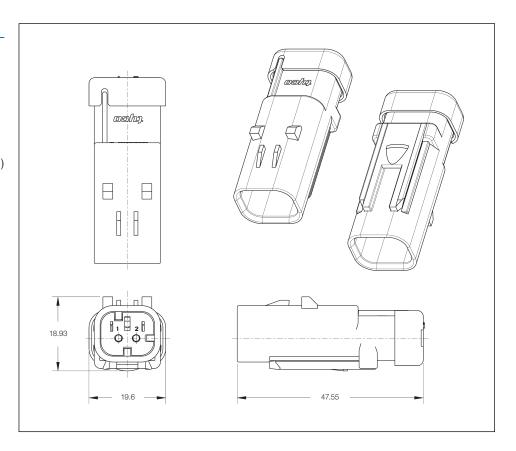
**Product Specification:** 

108-2184

Application Specification:

114-13065

- UL 94-HB rated
- Resistant to a wide range of chemicals
- RoHS and ELV compliant



## Sealed Pin Housings 1-Row with Standard Diameter Wire Seal

No. of Positions	PLR Color	Varian	P	art Numbers
	PLR Color	Keying	Pin (Cap) Housing         Mating Receptacle (Plug) H           776428-1         776427-1           776428-2         776427-2	Mating Receptacle (Plug) Housing
	Red	Key A	776428-1	776427-1
0	Gray	Key B	776428-2	776427-2
2	Yellow	Key C	776428-3	776427-3
	Green	Key D	776428-4	776427-4

#### Sealed Pin Housings 1-Row with Reduced Diameter Wire Seal

No. of	PLR Color	Vanda a	Part Numbers	
Positions	PLR Color	Keying	Pin (Cap) Housing	
	Red	Key A	776534-1	776522-1
0	Gray	Key B	776534-2	776522-2
2	Yellow	Key C	776534-3	776522-3
	Green	Key D	776534-4	776522-4

# 1-Row Sealed Pin (Cap) Housings - Reversed Type

### **Technical Features**

No. of Positions:

2 (1×2) Positions Assembly

**Housing Material:** 

Glass Reinforced PBT

Wire Size Range: 2.18-3.67 mm

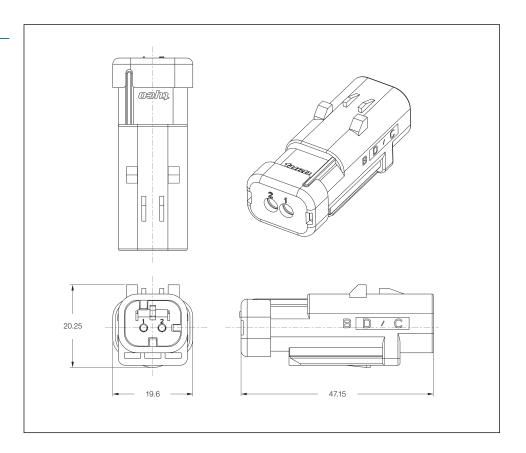
**Product Specification:** 

108-2184

 ${\bf Application\ Specification:}$ 

114-13065

- UL 94-HB rated
- Resistant to a wide range of chemicals
- RoHS and ELV compliant



## Sealed Pin Housings 1-Row – Reversed Mounting Feature

No. of Positions	PLR Color	Varian	Part Numbers	
	PLR Color	Keying		Mating Receptacle (Plug) Housing
	Red	Key A	1717672-1	776427-1
0	Gray	Key B	1717672-2	776427-2
2	Yellow	Key C	1717672-3	776427-3
	Green	Key D	1717672-4	776427-4

# 1-Row Sealed Pin (Cap) Housings

#### **Technical Features**

No. of Positions:

3 (1×3) Positions Assembly

**Housing Material:** 

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

1.30-2.54 mm

(with reduced diameter wire seal)

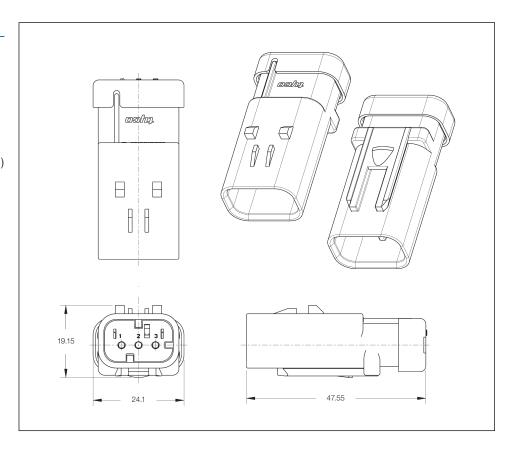
**Product Specification:** 

108-2184

 ${\bf Application\ Specification:}$ 

114-13065

- UL 94-HB rated
- Resistant to a wide range of chemicals
- RoHS and ELV compliant



## Sealed Pin Housings 1-Row with Standard Diameter Wire Seal

No. of	PLR Color	Vandana	P	art Numbers
Positions	PLR Color	Keying		Mating Receptacle (Plug) Housing
	Red	Key A	776430-1	776429-1
3	Gray	Key B	776430-2	776429-2
3	Yellow	Key C	776430-3	776429-3
	Green	Key D	776430-4	776429-4

#### Sealed Pin Housings 1-Row with Reduced Diameter Wire Seal

No. of	PLR Color	Varian	Part Numbers	
Positions	PLR Color	Keying	Pin (Cap) Housing	
	Red	Key A	776535-1	776523-1
3	Gray	Key B	776535-2	776523-2
3	Yellow	Key C	776535-3	776523-3
	Green	Key D	776535-4	776523-4

# 1-Row Sealed Pin (Cap) Housings - Reversed Type

### **Technical Features**

No. of Positions:

3 (1×3) Positions Assembly

**Housing Material:** 

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

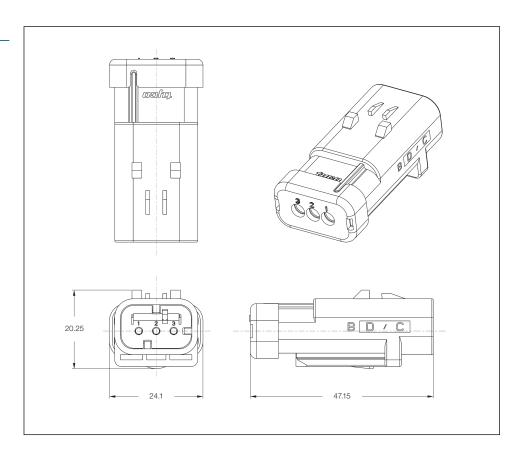
**Product Specification:** 

108-2184

 ${\bf Application\ Specification:}$ 

114-13065

- UL 94-HB rated
- Resistant to a wide range of chemicals
- RoHS and ELV compliant



## Sealed Pin Housings 1-Row – Reversed Mounting Feature

No. of Positions	PLR Color	Varian	P	art Numbers
	PLR Color	Keying	Pin (Cap) Housing	Mating Receptacle (Plug) Housing
	Red	Key A	1717673-1	776429-1
2	Gray	Key B	1717673-2	776429-2
3	Yellow	Key C	1717673-3	776429-3
	Green	Key D	1717673-4	776429-4

# 2-Row Sealed Pin (Cap) Housings

#### **Technical Features**

No. of Positions:

4 (2×2) Positions Assembly

**Housing Material:** 

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

1.30-2.54 mm

(with reduced diameter wire seal)

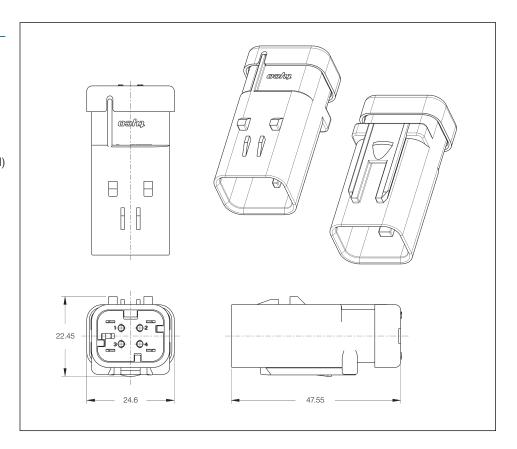
**Product Specification:** 

108-2184

**Application Specification:** 

114-13065

- UL 94-HB rated
- Resistant to a wide range of chemicals
- RoHS and ELV compliant



## Sealed Pin Housings 2-Row with Standard Diameter Wire Seal

No. of Positions	PLR Color	Varian	P	art Numbers
	PLR Color	Keying	Pin (Cap) Housing	Mating Receptacle (Plug) Housing
	Red	Key A	776488-1	776487-1
4	Gray	Key B	776488-2	776487-2
4	Yellow	Key C	776488-3	776487-3
	Green	Key D	776488-4	776487-4

#### Sealed Pin Housings 2-Row with Reduced Diameter Wire Seal

No. of Positions	PLR Color	Vanda a	Р	art Numbers
	PLR Color	Keying	776536-1 776524-1 776536-2 776524-2 776536-3 776524-3	Mating Receptacle (Plug) Housing
	Red	Key A	776536-1	776524-1
4	Gray	Key B	776536-2	776524-2
4	Yellow	Key C	776536-3	776524-3
	Green	Key D	776536-4	776524-4

# 2-Row Sealed Pin (Cap) Housings - Reversed Type

### **Technical Features**

No. of Positions:

4 (2×2) Positions Assembly

**Housing Material:** 

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

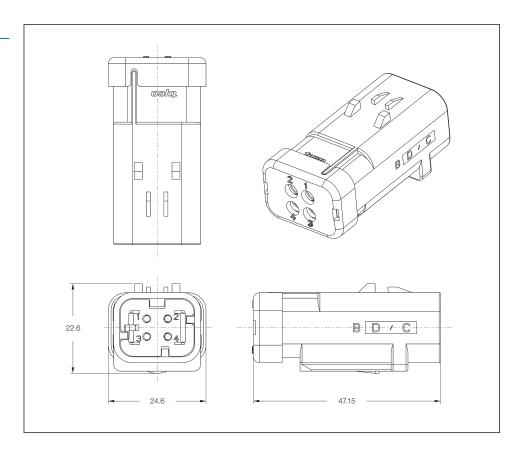
**Product Specification:** 

108-2184

 ${\bf Application\ Specification:}$ 

114-13065

- UL 94-HB rated
- Resistant to a wide range of chemicals
- RoHS and ELV compliant



## Sealed Pin Housings 2-Row – Reversed Mounting Feature

No. of	PLR Color	V audin a	Part Numbers		
Positions	PLR Color	Keying	Pin (Cap) Housing         Mating Receptacle (Plug) House           1717674-1         776487-1           1717674-2         776487-2           1717674-3         776487-3	Mating Receptacle (Plug) Housing	
	Red	Key A	1717674-1	776487-1	
4	Gray	Key B	1717674-2	776487-2	
4	Yellow	Key C	1717674-3	776487-3	
	Green	Key D	1717674-4	776487-4	

# 2-Row Sealed Pin (Cap) Housings

#### **Technical Features**

No. of Positions:

6 (2×3) Positions Assembly

**Housing Material:** 

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

1.30-2.54 mm

(with reduced diameter wire seal)

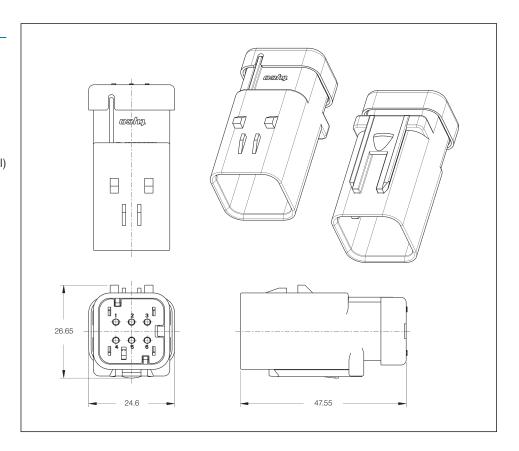
**Product Specification:** 

108-2184

**Application Specification:** 

114-13065

- UL 94-HB rated
- Resistant to a wide range of chemicals
- RoHS and ELV compliant



## Sealed Pin Housings 2-Row with Standard Diameter Wire Seal

No. of	DI D Color	Varian	Part Numbers	
Positions	PLR Color	Keying	Pin (Cap) Housing	Mating Receptacle (Plug) Housing
	Red	Key A	776434-1	776433-1
6	Gray	Key B	776434-2	776433-2
	Yellow	Key C	776434-3	776433-3

#### Sealed Pin Housings 2-Row with Reduced Diameter Wire Seal

No. of	DI D Color	Varian	Part Numbers	
Positions	PLR Color	Keying		Mating Receptacle (Plug) Housing
	Red	Key A	776537-1	776531-1
6	Gray	Key B	776537-2	776531-2
	Yellow	Key C	776537-3	776531-3

# 2-Row Sealed Pin (Cap) Housings - Reversed Type

#### **Technical Features**

No. of Positions:

6 (2×3) Positions Assembly

**Housing Material:** 

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

1.30-2.54 mm

(with reduced diameter wire seal)

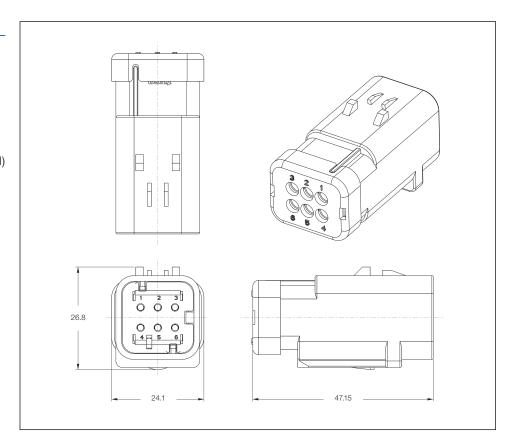
**Product Specification:** 

108-2184

**Application Specification:** 

114-13065

- UL 94-HB rated
- Resistant to a wide range of chemicals
- RoHS and ELV compliant



## Sealed Pin Housings 2-Row – Reversed Mounting Feature

No. of	DI D Color	Varian	Part Numbers	
Positions	PLR Color	Keying	Pin (Cap) Housing	Mating Receptacle (Plug) Housing
	Red	Key A	1717675-1	776433-1
6	Gray	Key B	1717675-2	776433-2
	Yellow	Key C	1717675-3	776433-3

#### Sealed Pin Housings 2-Row – Reversed Type with Reduced Diameter Wire Seal

No. of	DI D Color	Marrian.	Part Numbers	
Positions	PLR Color	Keying	Pin (Cap) Housing	Mating Receptacle (Plug) Housing
	Red	Key A	1717975-1	776531-1
6	Gray	Key B	1717975-2	776531-2
	Yellow	Key C	1717975-3	776531-3

# 2-Row Sealed Pin (Cap) Housings

#### **Technical Features**

No. of Positions:

8 (2×4) Positions Assembly

**Housing Material:** 

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

1.30-2.54 mm

(with reduced diameter wire seal)

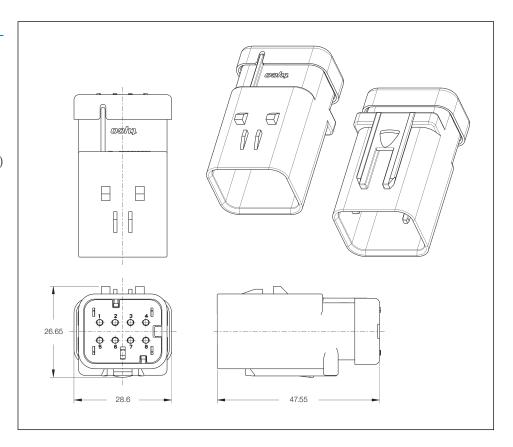
 $\label{lem:product Specification:} \textbf{Product Specification:}$ 

108-2184

Application Specification:

114-13065

- UL 94-HB rated
- Resistant to a wide range of chemicals
- RoHS and ELV compliant



# Sealed Pin Housings 2-Row with Standard Diameter Wire Seal

No. of Positions	PLR Color	Varian	P	art Numbers
	PLR Color	Keying	Pin (Cap) Housing Matin	Mating Receptacle (Plug) Housing
	Red	Key A	776495-1	776494-1
Ω	Gray	Key B	776495-2	776494-2
8	Yellow	Key C	776495-3	776494-3
	Green	Key D	776495-4	776494-4

#### Sealed Pin Housings 2-Row with Reduced Diameter Wire Seal

No. of	PLR Color	Vanda a	Р	art Numbers
Positions	PLR Color	Keying	Pin (Cap) Housing         Mating Receptacle (Plug) House           776538-1         776532-1           776538-2         776532-2	Mating Receptacle (Plug) Housing
	Red	Key A	776538-1	776532-1
8	Gray	Key B	776538-2	776532-2
0	Yellow	Key C	776538-3	776532-3
	Green	Key D	776538-4	776532-4

# 2-Row Sealed Pin (Cap) Housings - Reversed Type

#### **Technical Features**

No. of Positions:

8 (2×4) Positions Assembly

**Housing Material:** 

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

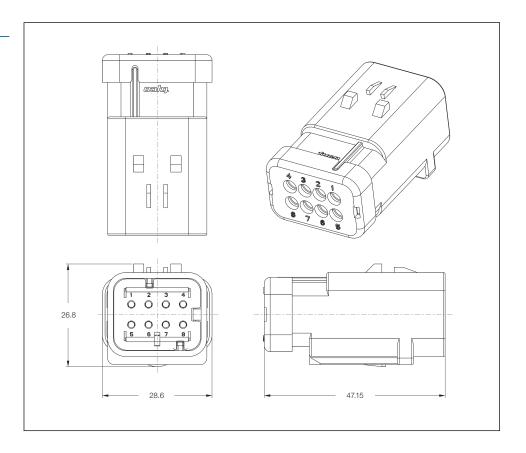
**Product Specification:** 

108-2184

 ${\bf Application\ Specification:}$ 

114-13065

- UL 94-HB rated
- Resistant to a wide range of chemicals
- RoHS and ELV compliant



## Sealed Pin Housings 2-Row – Reversed Mounting Feature

No. of Positions	PLR Color	Varian	P	art Numbers
	PLR Color	Keying	Pin (Cap) Housing Mating Receptacle (PI	Mating Receptacle (Plug) Housing
	Red	Key A	1717676-1	776494-1
0	Gray	Key B	1717676-2	776494-2
2	Yellow	Key C	1717676-3	776494-3
	Green	Key D	1717676-4	776494-4

# 2-Row Sealed Pin (Cap) Housings

#### **Technical Features**

No. of Positions:

12 (2×6) Positions Assembly

**Housing Material:** 

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

1.30-2.54 mm

(with reduced diameter wire seal)

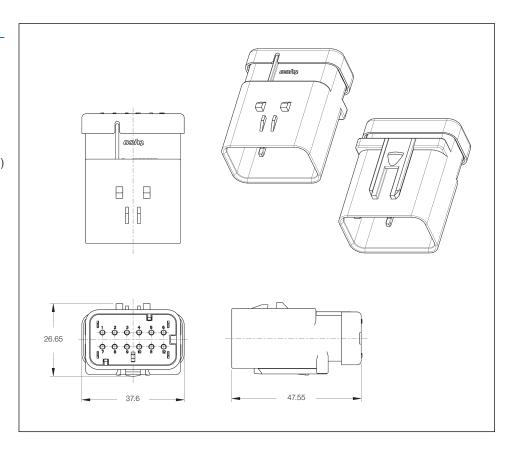
**Product Specification:** 

108-2184

 ${\bf Application\ Specification:}$ 

114-13065

- UL 94-HB rated
- Resistant to a wide range of chemicals
- RoHS and ELV compliant



## Sealed Pin Housings 2-Row with Standard Diameter Wire Seal

No. of Positions	PLR Color	Varian	Р	art Numbers
	PLR Color	Keying	Pin (Cap) Housing Matir	Mating Receptacle (Plug) Housing
12	Red	Key A	776438-1	776437-1
	Gray	Key B	776438-2	776437-2
	Yellow	Key C	776438-3	776437-3
	Green	Key D	776438-4	776437-4

#### Sealed Pin Housings 2-Row with Reduced Diameter Wire Seal

No. of	DI D Color	Vanda a	Р	Part Numbers	
Positions	PLR Color	Keying	Pin (Cap) Housing	Mating Receptacle (Plug) Housing	
	Red	Key A	776539-1	776533-1	
12	Gray	Key B	776539-2	776533-2	
12	Yellow	Key C	776539-3	776533-3	
	Green	Key D	776539-4	776533-4	

# 2-Row Sealed Pin (Cap) Housings - Reversed Type

#### **Technical Features**

No. of Positions:

12 (2×6) Positions Assembly

**Housing Material:** 

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

1.30-2.54 mm

(with reduced diameter wire seal)

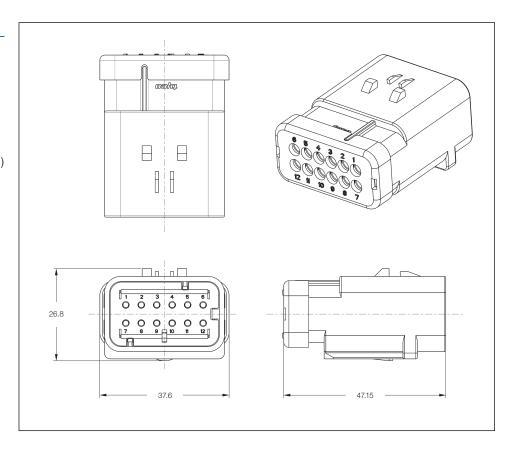
**Product Specification:** 

108-2184

 ${\bf Application\ Specification:}$ 

114-13065

- UL 94-HB rated
- Resistant to a wide range of chemicals
- RoHS and ELV compliant



## Sealed Pin Housings 2-Row – Reversed Mounting Feature

No. of	PLR Color Kevina		P	art Numbers
Positions	PLR Color	Keying	Pin (Cap) Housing	Mating Receptacle (Plug) Housing
	Red	Key A	1717677-1	776437-1
40	Gray	Key B	1717677-2	776437-2
12	Yellow	Key C	1717677-3	776437-3
	Green	Key D	1717677-4	776437-4

#### Sealed Pin Housings 2-Row – Reversed Type with Reduced Diameter Wire Seal

No. of	DI D Color	Varian	P	Part Numbers	
Positions	PLR Color	Keying	Pin (Cap) Housing	Mating Receptacle (Plug) Housing	
	Red	Key A	1717934-1	776533-1	
12	Gray	Key B	1717934-2	776533-2	
12	Yellow	Key C	1717934-3	776533-3	
	Green	Key D	1717934-4	776533-4	

Vertical and 90° Backshells

AMPSEAL 16 Vertical and 90° Backshells for Commercial Vehicle Markets



#### Standard Height

Description	Part Number
2 Position / 0° Exit / NC 08	2035047-1
3 Position / 0° Exit / NC 08	2035047-2
4 Position / 0° Exit / NC 08	2035047-3
6 Position / 0° Exit / NC 08	2035047-4
4 Position / 0° Exit / NC 12	2035047-5
6 Position / 0° Exit / NC 12	2035047-6
8 Position / 0° Exit / NC 12	2035047-7
12 Position / 0° Exit / NC 12	2035047-8
8 Position / 0° Exit / NC 16	2035047-9
12 Position / 0° Exit / NC 16	1-2035047-0
12 Position / 0° Exit / NC 20	1-2035047-1
2 Position / 90° Exit / NC 08	2035048-1
3 Position / 90° Exit / NC 08	2035048-2
4 Position / 90° Exit / NC 08	2035048-3
2 Position / 90° Exit / NC 12	2035048-5
3 Position / 90° Exit / NC 12	2035048-6
4 Position / 90° Exit / NC 12	2035048-7

 $\mbox{\bf Note:}$  All Part Numbers are RoHS and ELV compliant.

#### **Low Profile**

Description	Туре	Part Number
2 Position / 90° Exit / NC 08	Plug Type	2035366-1
2 POSITION / 90 EXIL / NG 00	Cap Type	2098436-1
3 Position / 90° Exit / NC 08	Plug Type	2035366-2
3 POSITION / 90 EXIL / NO 00	Cap Type	2098436-2
4 Position / 90° Exit / NC 08	Plug Type	2035366-7
4 POSITION / 90 EXIL / NO 00	Cap Type	2098436-7
6 Position / 90° Exit / NC 08	Plug Type	2035366-8
6 POSITION / 90° EXIL / NG 08	Cap Type	2098436-8
	Plug Type	2035366-3
2 Position / 90° Exit / NC 12	Plug Type Cap Type	2035366-3 2098436-3
2 Position / 90° Exit / NC 12 3 Position / 90° Exit / NC 12	Cap Type	2098436-3
3 Position / 90° Exit / NC 12	Cap Type Plug Type	2098436-3 2035366-4
	Cap Type Plug Type Cap Type	2098436-3 2035366-4 2098436-4
3 Position / 90° Exit / NC 12	Cap Type Plug Type Cap Type Plug Type	2098436-3 2035366-4 2098436-4 2035366-9

 $\mbox{\bf Note:}$  All Part Numbers are RoHS and ELV compliant.

Section Catalog 1654281-2 Revised 12-2009 Main Catalog 1654400-1 Chapter 30 – Issued 3-2010

Backshell Matrix

No. of	Conduit			Part Numbers		
Positions	Size	Standard Straight	Standard 90°	Low Profile 90°	Mating Connectors	Туре
					5366-1	776427-ALL
	NC08		Plug Assy		776522-ALL	-
2 NW7.5	2035047-17 2035048	2035048-1*		8436-1	776428-ALL	
			Cap Assy		776534-ALL	-
					5000.0	776429-ALI
			Plug Assy		5366-2	
3	NC08	2035047-2*	2035048-2*		776523-ALL	
	NW7.5		Cap Assy		8436-2	776430-ALI
			Cap 7 looy		776535-ALL	
			Dlug Acov		5366-7	776487-ALI
4	NC08	2035047-3*	Plug Assy 2035048-3*		776524-ALL	•
4	NW7.5	2030047-3**			8436-7	776488-ALL
			Cap Assy		776536-ALL	•
					5366-8	776433-ALL
	NC08	0005047.4*	Plug Assy		776531-ALL	-
6	NW7.5	2035047-4*	-		8436-8	776434-ALL
			Cap Assy		776537-ALL	-
					5366-3	776427-ALL
	NC12		Plug Assy		776522-ALL	-
2	NW10	-	-		8436-3	776428-ALL
			Cap Assy		776534-ALL	-
					5366-4	776429-ALL
0	NC12		Plug Assy		776523-ALL	•
3	NW10	-	2035048-6*		8436-4	776430-ALI
			Cap Assy		776535-ALL	•
					5366-9	776487-ALI
	NC12		Plug Assy		776524-ALL	-
4	NW10	2035047-5*	2035048-7*		8436-9	776488-ALL
			Cap Assy		776536-ALL	
				1.0005000.0	776433-ALL	Di 4
0	NC12	0005047.0*		1-2035366-0	776531-ALL	- Plug Assy
6	NW10	2035047-6*	-	1 0000 100 0	776434-ALL	0 1
				1-2098436-0	776537-ALL	- Cap Assy
					776494-ALL	Dlug Assi:
8	NC12	2035047-7*			776532-ALL	- Plug Assy
U	NW10	2000041-1	-		776495-ALL	- Cap Assy
					776538-ALL	Oap Assy
					776437-ALL	- Plug Assy
12	NC12	2025047-2*	_		776533-ALL	i iug Assy
IZ.	NW10 2035047-8* -	-		776438-ALL	- Cap Assy	
				-	776539-ALL	Cap Assy

Backshell Matrix (continued)

No. of C Positions	Conduit		Part Numbers			
	Size			Low Profile 90°	Mating Connectors	Туре
					776427-ALL	Plug Assy
0	NC16			_	776522-ALL	
2	NW13	_	-		776428-ALL	0 1
				-	776534-ALL	Cap Assy
					776429-ALL	Plug Assy
3	NC16			-	776523-ALL	Plug Assy
3	NW13	_	_		776430-ALL	O== A==
				-	776535-ALL	Cap Assy
					776487-ALL	Plug Assy
4	NC16			= ,	776524-ALL	
4 NW13	3		776488-ALL	Con Acou		
					776536-ALL	Cap Assy
		NC16			776433-ALL	Plug Assy  Cap Assy
6	NC16				776531-ALL	
О	NW13	_			776434-ALL	
					776537-ALL	
NC16				776494-ALL	Dlug Assi	
	NC16	NC16	_	-	776532-ALL	Plug Assy
8	NW13	2035047-9*	_		776495-ALL	O== A==
					776538-ALL	Cap Assy
					776437-ALL	— Plua Assv
12	NC16	1-2035047-0*		_	776533-ALL	
IZ	NW13	1-2030047-0*	-		776438-ALL	0 1
				-	776539-ALL	Cap Assy
					776437-ALL	Plug Assy
12	NC20	1 2025047 1 *	-	-	776533-ALL	
IZ	NW17	NW17 1-2035047-1* –	-		776438-ALL	One Ac-
				_	776539-ALL	Cap Assy

Note: \*) Backshell available only with latch window. Can be used for Cap Assembly if desired.

Section Catalog 1654281-2 Revised 12-2009 Main Catalog 1654400-1 Chapter 30 – Issued 3-2010

Mounting Clips

AMPSEAL 16 Mounting Clips for Commercial Vehicle Markets



Description	Part Number
Mounting Clip with Anti-Rotational Feature	1924487-2
Mounting Clip without Anti-Rotational Feature	1924487-1

Please call your local Tyco Electronics representative for personal assistance or visit our website.

Note: All Part Numbers are RoHS and ELV compliant.



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