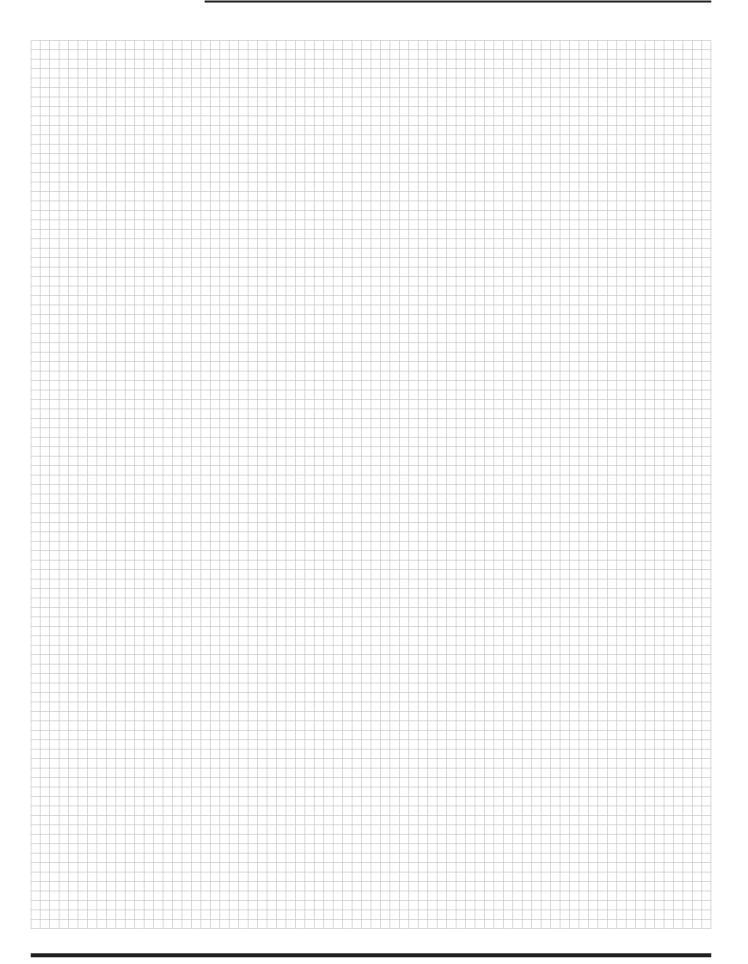


Engineering Notes



AMPSEAL 16 Connector System Contact System

Section Catalog 1654281-2 Revised 4-2010 Main Catalog 1654400-1 Chapter 30 - Issued 4-2010

Introduction





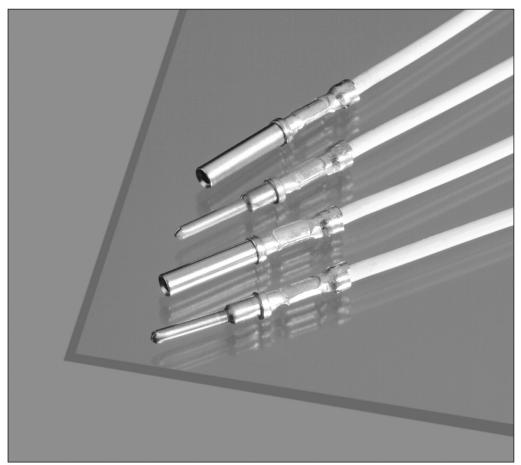






Product Features

- 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 TE Connectivity 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	Pla	ting	Wire Size	Insulation Rar		Terminal Part Number	Plating	
	(Reeled)	Au	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*	0.089-0.131	2.26-3.33	776300	-1	-2
Socket with Insulation Barrel	776492	-1	-2	18–14 *	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

^{*) 14} 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 TE Connectivity 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) (Inch)	(Pin)	(Socket)	(Pin)	(Socket)	(Pin)	(Socket)	2.18-3.67	1.30-2.54	
0.5 mm ² (TXL)	1.78	0.070	V	V						V
0.5 mm ² (GXL)	2.22	0.087	V	V						V
0.5 mm ² (SXL)	2.55	0.100	~	V					V	
20 AWG (TXL)	1.78	0.070	~	V						V
20 AWG (GXL)	2.16	0.085	~	V						V
20 AWG (SXL)	2.44	0.096	~	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	
1.0 mm ² (TXL)	2.28	0.090					V	V	V	V
1.0 mm ² (GXL)	2.72	0.107			V	V	v	V	V	
1.0 mm ² (SXL)	3.15	0.124			V	V	v	V	V	
16 AWG (TXL)	2.24	0.088					~	~	V	V
16 AWG (GXL)	2.62	0.103			~	~	~	~	V	
16 AWG (SXL)	3.05	0.120			~	~	~	~	V	
2.0 mm ² (TXL)	2.58	0.102			~	~	~	~	V	
2.0 mm ² (GXL)	3.02	0.119			~	~	~	~	V	
2.0 mm ² (SXL)	3.65	0.144					~	~		
14 AWG (TXL)	2.62	0.103			~	~	~	~	V	
14 AWG (GXL)	2.97	0.117			~	~	~	~	V	
14 AWG (SXL)	3.58	0.141					~	~	V	

Note: Insulation Diameter (Nominal) accuracy not guaranteed.

AMPSEAL 16 Connector System

Contact System

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Receptacle Contacts (Sockets)

Technical Features

Contact Material:

Copper Alloy

Contact Finish:

Gold or Nickel

Wire Size Range:

0.5-2.0 mm² (20-14 AWG)

Insulation Diameter:

1.27-3.67 mm

Current Carrying Capacity:

13 amps

Temperature Range

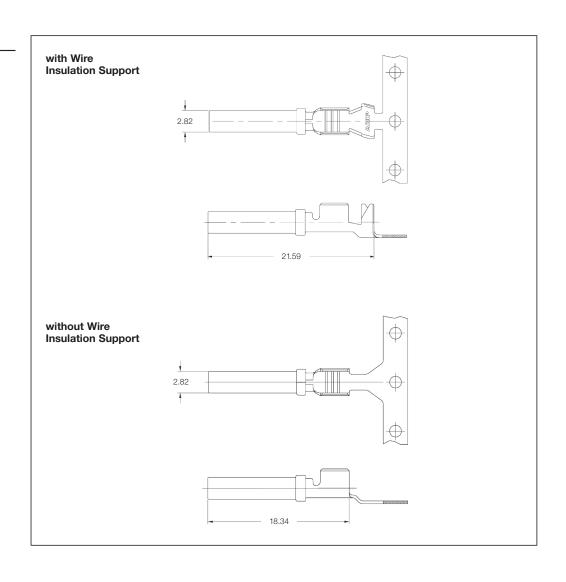
-40 °C to +125 °C

Product Specification:

108-2184

 ${\bf Application\ Specification:}$

114-13045



Receptacle Contacts with Wire Insulation Support

	Size	Insulation	Material	Part Numbe			Numbers		
(mm²)	(AWG)	Diameter (mm)	and Finish	Strip Form	Package Quantity	Loose- Piece	Package Quantity	Applicator	Hand Tool
0.5–0.8	20–18	1 07 0 70	Copper Alloy, Gold	1924464-1	4,000	1924580-1	1,000		
0.5-0.6	20-10	1.27–2.72	Copper Alloy, Nickel	1924464-2	4,000	1924580-2	1,000	See Application	Specification
0.8–2.0	18–14	2.26–3.33	Copper Alloy, Gold	776492-1	4,000	776299-1	1,000	114-13045	
0.0-2.0	10-14	2.20-3.33	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 Insulation		Material	Part Numbers					
	nge	Diameter	and Finish	Strip	Package	Loose-	Package	Applicator	Hand Tool
(mm²)	(AWG)	(mm)		Form	Quantity	Piece	Quantity	Applicator	mand 1001
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	10-14	2.10-0.07	Copper Alloy, Nickel	776491-2	4,000	776297-2	1,000	114-1	3045

Note: All Part Numbers are RoHS and ELV compliant.

AMPSEAL 16 Connector System

Main Catalog 1654400-1 Chapter 30 - Issued 4-2010 Contact System

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Revised 4-2010

Pin Contacts

Technical Features

Contact Material:

Copper Alloy

Contact Finish:

Gold or Nickel

Wire Size Range:

0.5-2.0 mm² (20-14 AWG)

Insulation Diameter:

1.27-3.67 mm

Current Carrying Capacity:

13 amps

Temperature Range

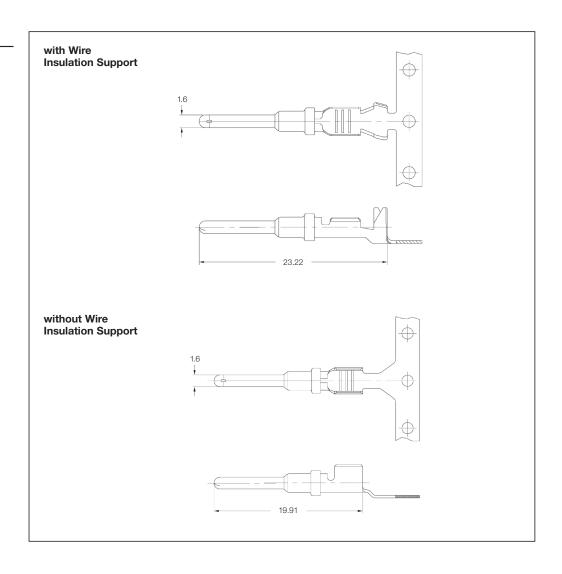
-40 °C to +125 °C

Product Specification:

108-2184

Application Specification:

114-13045



Pin Contacts with Wire Insulation Support

	Size	Insulation	Material	Part Numb			Numbers			
(mm²)	(AWG)	Diameter (mm)	and Finish	Strip Form	Package Quantity	Loose- Piece	Package Quantity	Applicator	Hand Tool	
0.5–0.8	20–18	1 07 0 70	Copper Alloy, Gold	1924463-1	4,000	1924579-1	1,000			
0.5-0.6	20-10	1.27–2.72	1.21-2.12	Copper Alloy, Nickel	1924463-3	4,000	1924579-3	1,000	See Application	Specification
0.8–2.0	18–14	2.26–3.33	Copper Alloy, Gold	638078-1	4,000	776300-1	1,000	114-13045		
0.0-2.0	10-14	2.20-3.33	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 Insulation		Material	Part Numbers					
(mm²)	(AWG)	Diameter (mm)	and Finish	Strip Form	Package Quantity	Loose- Piece	Package Quantity	Applicator	Hand Tool
0.8–2.0	18–14	2.18–3.67	Copper Alloy, Gold	638112-1	4,000	776298-1	1,000	See Application	Specification
0.0-2.0	10-14	2.10-3.07	Copper Alloy, Nickel	638112-3	4,000	776298-2	1,000	114-1	3045

Note: All Part Numbers are RoHS and ELV compliant.

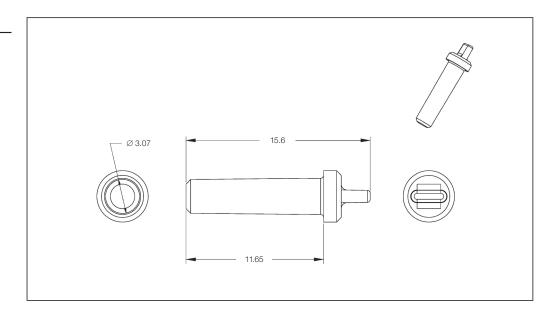
AMPSEAL 16 Connector System Contact System

Section Catalog 1654281-2 Revised 4-2010 Main Catalog 1654400-1 Chapter 30 – Issued 4-2010

Cavity Plugs for Unsealed Cavity

Technical Features

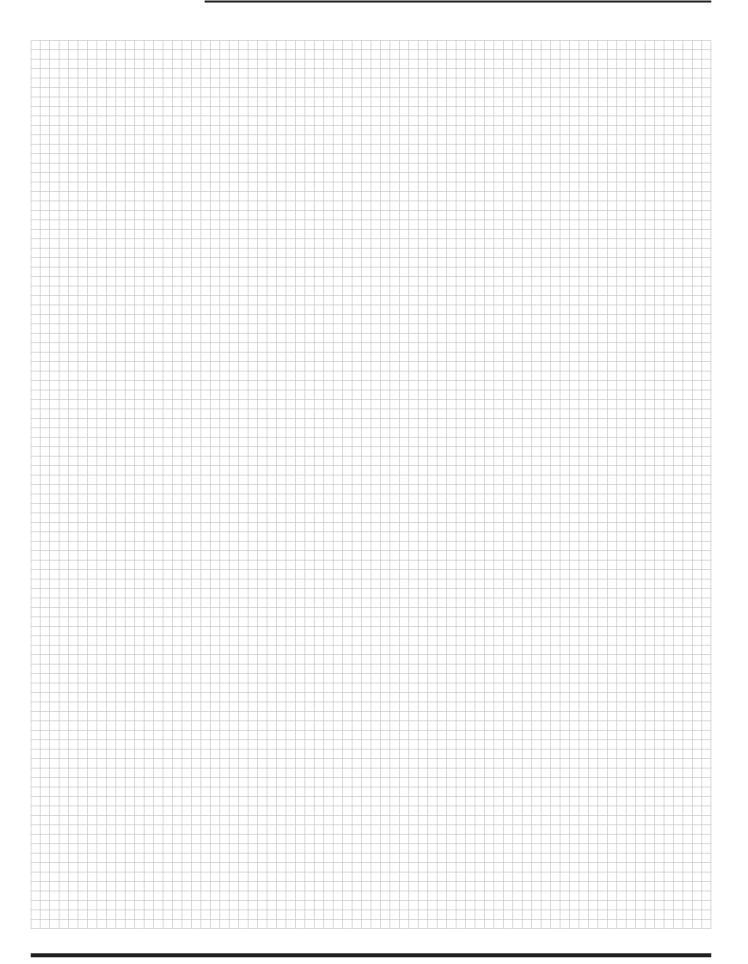
- Material: Glass reinforced PBT
- Resistant to a wide range of chemicals
- UL 94-HB rated
- RoHS and ELV compliant



	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



AMPSEAL 16 Connector System

Housings and Connectors

Section Catalog 1654281-2 Revised 4-2010 Main Catalog 1654400-1 Chapter 30 – Issued 4-2010

Introduction





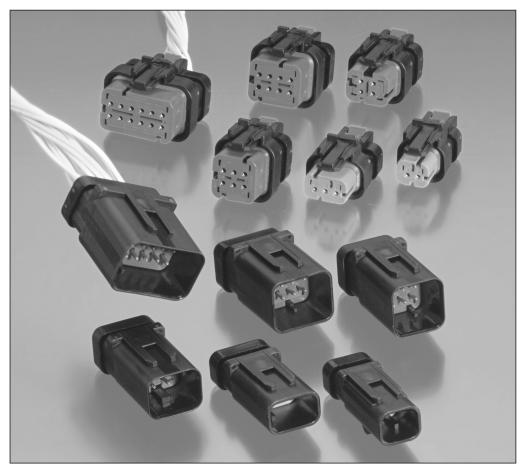






Product Features

- 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.

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1-Row Sealed Receptacle (Plug) Housings

Technical Features

No. of Positions:

2 (1×2) Position Assembly

Housing Material:Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

1.30-2.54 mm (with reduced diameter wire seal)

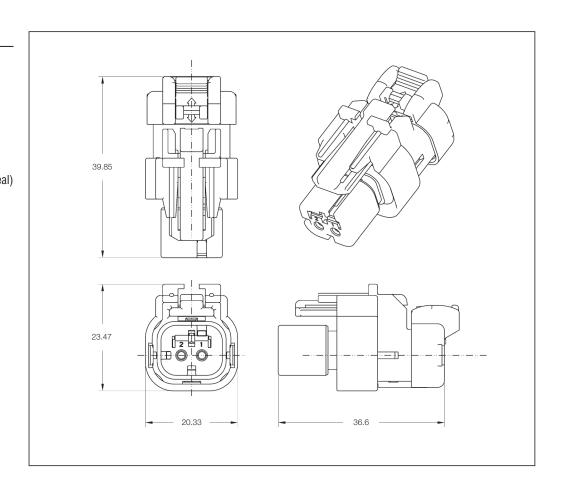
Product Specification:

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 1-Row with Standard Diameter Wire Seal

No. of	DI D Color	Keying	Part Numbers				
Positions	PLR Color		Receptacle (Plug) Housing	Mating Pin (Cap) Housing			
	Red	Key A	776407 1	776428-1			
	neu	Ney A	ey A 776427-1	1717672-1			
		Key B	776427-2	776428-2			
2	Gray	Rey D	110421-2	1717672-2			
2	Velleur	Kay C	776427-3	776428-3			
	Yellow	Key C	110421-3	1717672-3			
	Green	Kov D	776427-4	776428-4			
	Green	Key D	110421-4	1717672-4			

No. of	PLR Color	Varian	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 D	776522-4	776534-4		

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

Technical Features

No. of Positions:

 $3 (1 \times 3)$ Position Assembly

Housing Material:Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

1.30-2.54 mm

(with reduced diameter wire seal)

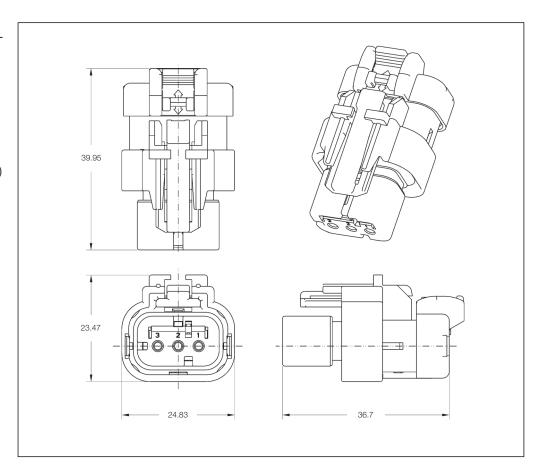
Product Specification:

108-2184

 $\label{lem:application} \textbf{Application Specification:}$

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. O-I	Keying	Part Numbers				
Positions	PLR Color		Receptacle (Plug) Housing	Mating Pin (Cap) Housing			
	Red	Key A	776420.1	776430-1			
	neu	Ney A	776429-1	1717673-1			
		Key B	776429-2	776430-2			
3	Gray	Key B	110429-2	1717673-2			
3	Velley	Key C	776429-3	776430-3			
	Yellow	Key C	110429-3	1717673-3			
Green	Key D	776400.4	776430-4				
	Green	Key D	776429-4	1717673-4			

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

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2-Row Sealed Receptacle (Plug) Housings

Technical Features

No. of Positions:

4 (2×2) Position Assembly

Housing Material:

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm 1.30-2.54 mm

(with reduced diameter wire seal)

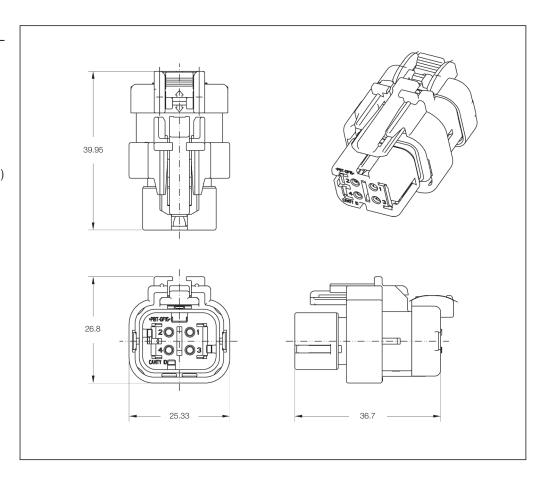
Product Specification:

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	DI D O-I	Keying	Part Numbers				
Positions	PLR Color		Receptacle (Plug) Housing	Mating Pin (Cap) Housing			
	Red	May A	776407 1	776488-1			
	Red	Key A	Key A 776487-1	1717674-1			
		Key B	776487-2	776488-2			
4	Gray	Key B	110461-2	1717674-2			
4	Velleur	Key C	776487-3	776488-3			
	Yellow	Key C	110401-3	1717674-3			
Green	Key D	776487-4	776488-4				
	Green	rey D	110481-4	1717674-4			

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

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

Technical Features

No. of Positions:

6 (2×3) Position Assembly

Housing Material:

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm 1.30-2.54 mm

(with reduced diameter wire seal)

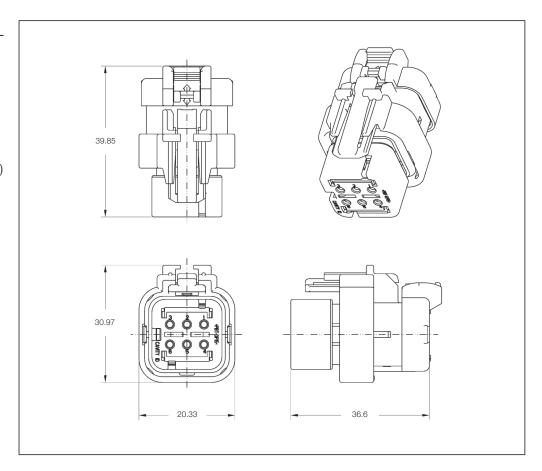
Product Specification:

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 PLR Positions	DI D O-I	DI D Oalan	Part Numbers	
	PLR Color	Keying	Receptacle (Plug) Housing	Mating Pin (Cap) Housing
	Red	17. 4	776433-1	776434-1
	Red	Key A	770433-1	1717675-1
6	Crov		776433-2	776434-2
6 Gray Yellow	Key B	110433-2	1717675-2	
	Vollow	14 0	776499 9	776434-3
	Key C	776433-3	1717675-3	

No. of Positions	DI D Color		Part Numbers		
	PLR Color	Keying	Receptacle (Plug) Housing Mating Pin (Ca	Mating Pin (Cap) Housing	
6 Gray Yellow	Dod	I/ov A	770501 1	776537-1	
	Red	Key A	776531-1 —		
	Crov		770501.0	776537-2	
	Key B	776531-2	1717975-2		
	Vollow	Key C	776531-3	776537-3	
	rellOW			1717975-3	

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2-Row Sealed Receptacle (Plug) Housings

Technical Features

No. of Positions:

8 (2×4) Position Assembly

Housing Material:

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

1.30-2.54 mm (with reduced diameter wire seal)

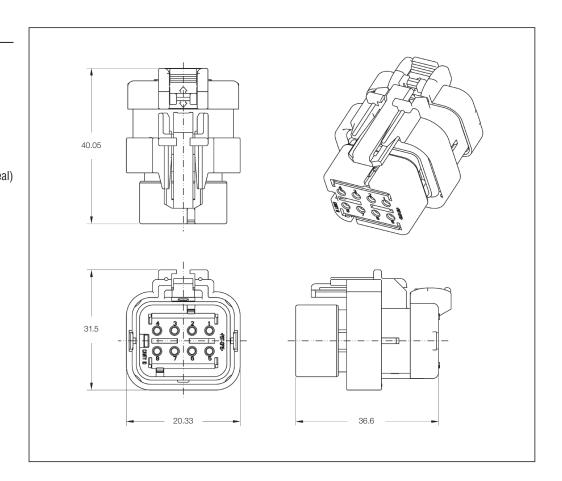
Product Specification:

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 O-I	V di	Part Numbers		
Positions	PLR Color	Keying	Receptacle (Plug) Housing	Mating Pin (Cap) Housing	
	Dod	17. A	776404 1	776495-1	
Red	Red	Key A	776494-1 1717676-		
	Gray	Key B	776494-2	776495-2	
8	Gray	Key D		1717676-2	
0	Yellow	Key C	776494-3	776495-3	
	reliow		110494-3	1717676-3	
	Croon	Key D	776494-4	776495-4	
	Green	Rey D	110494-4	1717676-4	

No. of Positions	PLR Color	Koving	Part Numbers Receptacle (Plug) Housing Mating Pin (Cap) Ho	
	PLR Color	Keying		
	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 D	776532-4	776538-4

AMPSEAL 16 Connector System

Housings and Connectors

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

Technical Features

No. of Positions:

12 (2×6) Position Assembly

Housing Material:

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

1.30-2.54 mm (with reduced diameter wire seal)

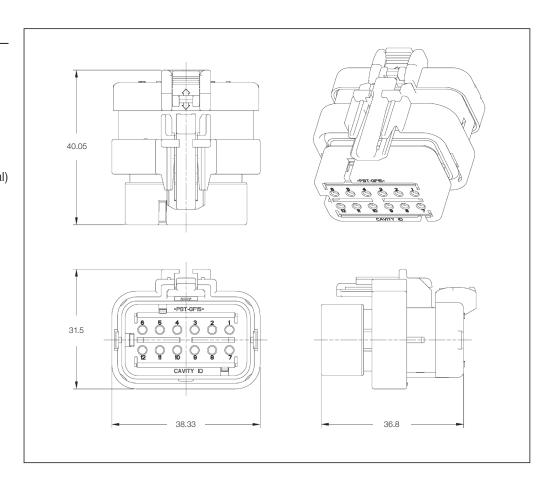
Product Specification:

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	No. of PLR Color			umbers
Positions	PLR Color	Keying	Receptacle (Plug) Housing	Mating Pin (Cap) Housing
	Red	17. A	776437-1	776538-1
	neu	Key A	776437-1	
	Crov	Kay B	776437-2	776538-2
12	Gray	Key B		1717677-2
12	Yellow	Key C	776437-3	776538-3
	rellow	Key C		1717677-3
	Green	Kov D	776437-4	776538-4
	Green	Key D	776437-4	1717677-4

No. of	PLR Color	Keying	Part Numbers	
Positions	PLN COIOI	Reyling	Receptacle (Plug) Housing	Mating Pin (Cap) Housing
	Red	Key A	776533-1	776539-1
	neu	Ney A		1717934-1
	Gray	Key D	776533-2	776539-2
12	Gray	Key B	110050-2	1717934-2
12	Yellow	Key C	776533-3	776539-3
	reliow	Key C		1717934-3
	Green	Kov D	776533-4	776539-4
	Green	Key D	110033-4	1717934-4

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1-Row Sealed Pin (Cap) Housings

Technical Features

No. of Positions:

2 (1×2) Position Assembly

Housing Material:Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

1.30-2.54 mm (with reduced diameter wire seal)

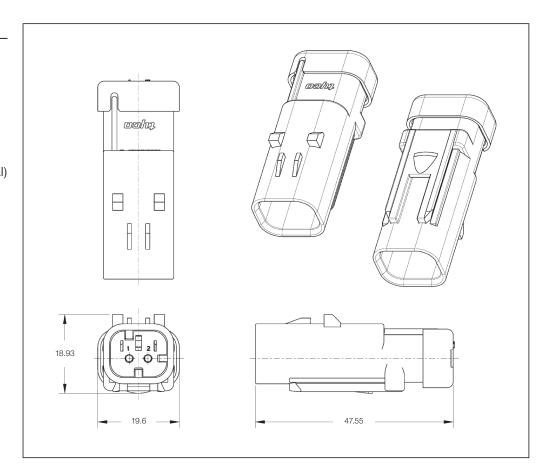
Product Specification:

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 Positions	DI D O-I	Vi	Part Numbers	
	PLR Color	Keying	Pin (Cap) Housing Mating Receptacle (Plug)	Mating Receptacle (Plug) Housing
2	Red	Key A	776428-1	776427-1
	Gray	Key B	776428-2	776427-2
	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	Vd	Р	art Numbers
Positions	PLR Color	Keying		Mating Receptacle (Plug) 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

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

Technical Features

No. of Positions:

2 (1×2) Position Assembly

Housing Material:

Glass Reinforced PBT

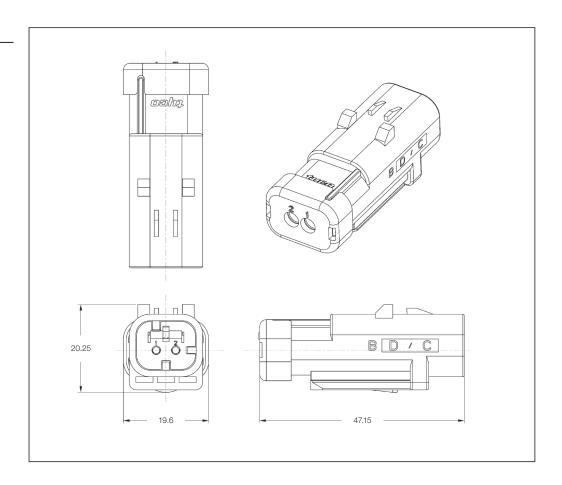
Wire Size Range: 2.18-3.67 mm

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 – Reversed Mounting Feature

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

Section Catalog 1654281-2 Revised 4-2010 Main Catalog 1654400-1 Chapter 30 - Issued 4-2010

1-Row Sealed Pin (Cap) Housings

Technical Features

No. of Positions:

 $3 (1 \times 3)$ Position Assembly

Housing Material:Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

1.30-2.54 mm (with reduced diameter wire seal)

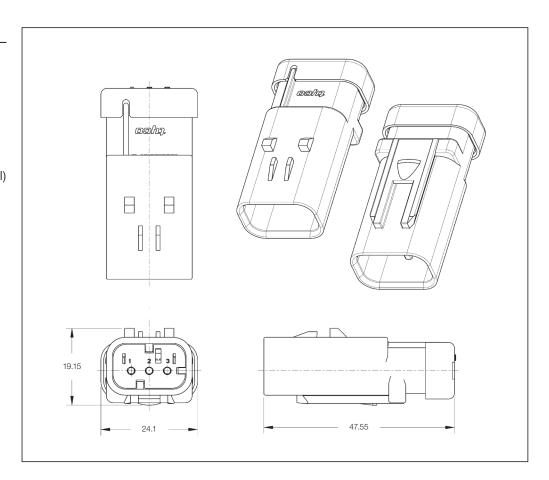
Product Specification:

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	DI D Color	DI D Colon	Part Numbers	
Positions	PLR Color	Keying	Pin (Cap) Housing Mating Receptacle (Plu	Mating Receptacle (Plug) Housing
3	Red	Key A	776430-1	776429-1
	Gray	Key B	776430-2	776429-2
	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	Vd	Р	art Numbers
Positions	PLR Color	Keying		Mating Receptacle (Plug) Housing
	Red	Key A	776535-1	776523-1
0	Gray	Key B	776535-2	776523-2
3	Yellow	Key C	776535-3	776523-3
	Green	Key D	776535-4	776523-4

Section Catalog 1654281-2 Revised 4-2010 Main Catalog 1654400-1 Chapter 30 – Issued 4-2010

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

Technical Features

No. of Positions:

 $3 (1 \times 3)$ Position Assembly

 $\label{eq:Housing Material:} \textbf{Housing Material:}$

Glass Reinforced PBT

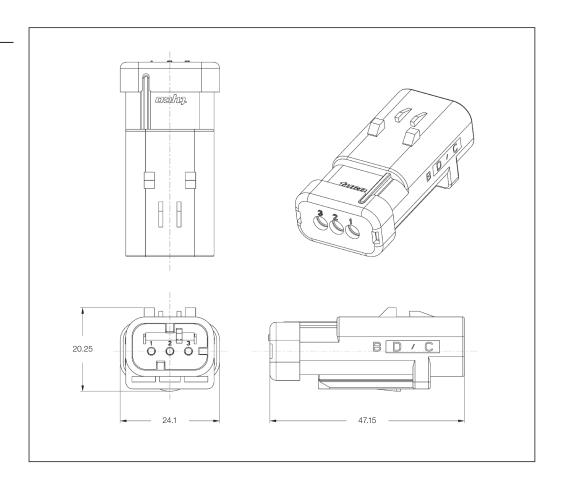
Wire Size Range: 2.18-3.67 mm

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 – Reversed Mounting Feature

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

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2-Row Sealed Pin (Cap) Housings

Technical Features

No. of Positions:

4 (2×2) Position Assembly

Housing Material:Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

1.30-2.54 mm (with reduced diameter wire seal)

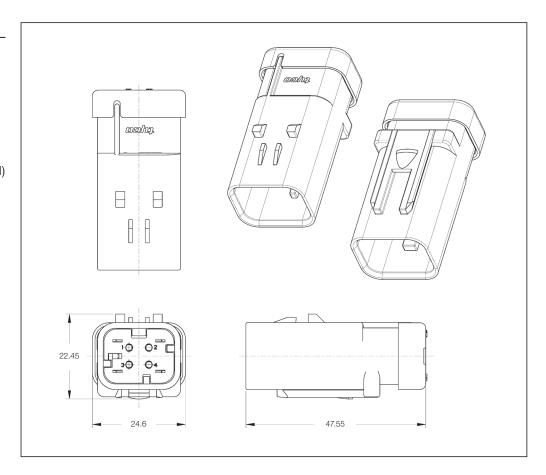
Product Specification:

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	DI D O-I	Vi	Part Numbers	
	PLR Color	Keying		Mating Receptacle (Plug) Housing
4	Red	Key A	776488-1	776487-1
	Gray	Key B	776488-2	776487-2
	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	PLR Color	Vi	Part Numbers	
Positions	PLR Color	Keying	Pin (Cap) Housing Mating Receptacle (Plug) Housing 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

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

Technical Features

No. of Positions:

4 (2×2) Position Assembly

 $\label{eq:Housing Material:} \textbf{Housing Material:}$

Glass Reinforced PBT

Wire Size Range:

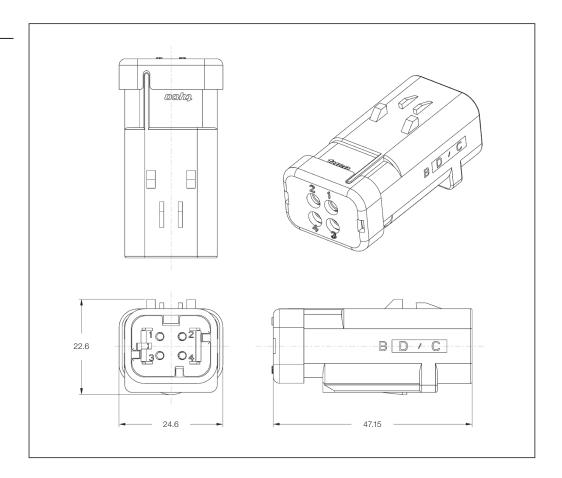
2.18-3.67 mm

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 Positions	DI D O-I		Part Numbers	
	PLR Color	Keying	Pin (Cap) Housing Mating Receptacle (Plug) Housing 1717674-1 776487-1	Mating Receptacle (Plug) Housing
4	Red	Key A	1717674-1	776487-1
	Gray	Key B	1717674-2	776487-2
	Yellow	Key C	1717674-3	776487-3
	Green	Key D	1717674-4	776487-4

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2-Row Sealed Pin (Cap) Housings

Technical Features

No. of Positions:

6 (2×3) Position Assembly

Housing Material:

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm 1.30-2.54 mm

(with reduced diameter wire seal)

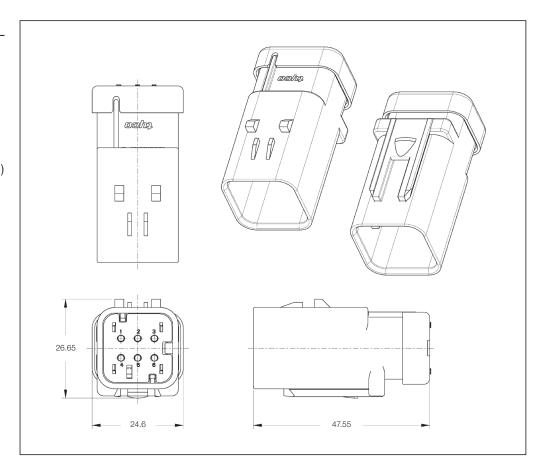
Product Specification:

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	DI D. Color	Varian	Part Numbers	
Positions	PLR Color	Keying	776434-1 776433-1	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		Part Numbers	
Positions	PLR Color	Keying	Pin (Cap) Housing Mating Receptacle (Plug) Hou	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

Section Catalog 1654281-2 Revised 4-2010 Main Catalog 1654400-1 Chapter 30 - Issued 4-2010

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

Technical Features

No. of Positions:

6 (2×3) Position Assembly

Housing Material:Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

1.30-2.54 mm

(with reduced diameter wire seal)

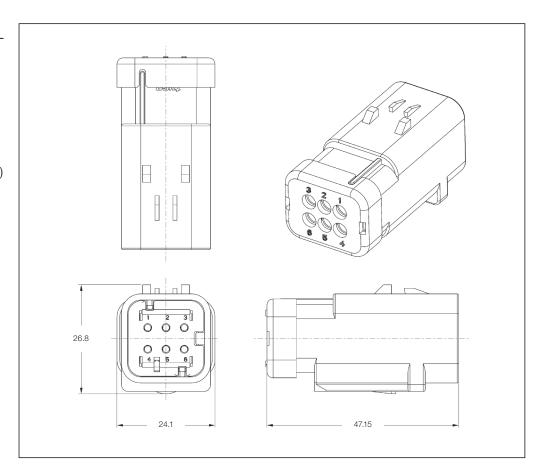
Product Specification:

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	DI D. Color	Varian	Part Numbers	
Positions	PLR Color	Keying	Pin (Cap) Housing Mating Receptacle (Plug) 1717675-1 776433-1	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		Part Numbers	
Positions	PLR Color	Keying	Pin (Cap) Housing Mating Receptacle (Plug) Hou	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

Section Catalog 1654281-2 Revised 4-2010 Main Catalog 1654400-1 Chapter 30 – Issued 4-2010

2-Row Sealed Pin (Cap) Housings

Technical Features

No. of Positions:

8 (2×4) Position Assembly

Housing Material:

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

1.30-2.54 mm

(with reduced diameter wire seal)

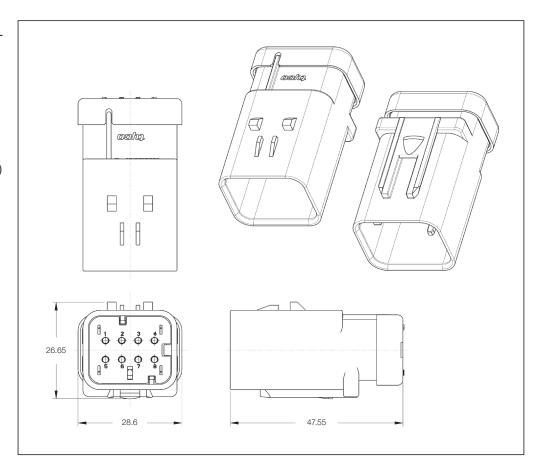
Product Specification:

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	DI D.O. I		Part Numbers	
	PLR Color	Keying	Pin (Cap) Housing	Mating Receptacle (Plug) Housing
8 Red Gray Yellow Green	Red	Key A	776495-1	776494-1
	Gray	Key B	776495-2	776494-2
	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	Vi	Part Numbers	
Positions	PLR Color	Keying	Pin (Cap) Housing	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

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

Technical Features

No. of Positions:

8 (2×4) Position Assembly

Housing Material:

Glass Reinforced PBT

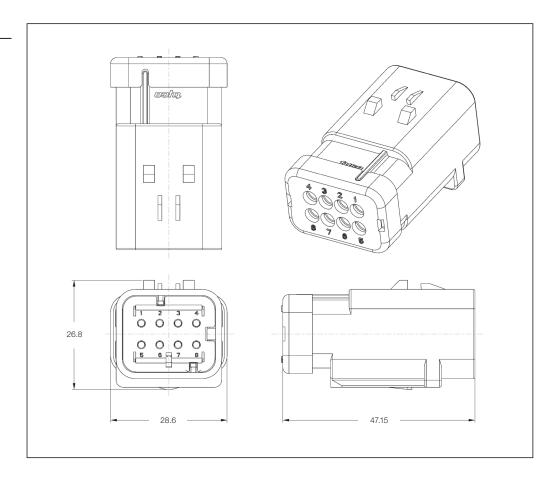
Wire Size Range: 2.18-3.67 mm

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 Positions	DI D O-I	Vi	Part Numbers	
	PLR Color	Keying	Pin (Cap) Housing Mating Receptacle (Plug) How 1717676-1 776494-1 1717676-2 776494-2	Mating Receptacle (Plug) Housing
2	Red	Key A	1717676-1	776494-1
	Gray	Key B	1717676-2	776494-2
	Yellow	Key C	1717676-3	776494-3
	Green	Key D	1717676-4	776494-4

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2-Row Sealed Pin (Cap) Housings

Technical Features

No. of Positions:

12 (2×6) Position Assembly

Housing Material:

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

1.30-2.54 mm

(with reduced diameter wire seal)

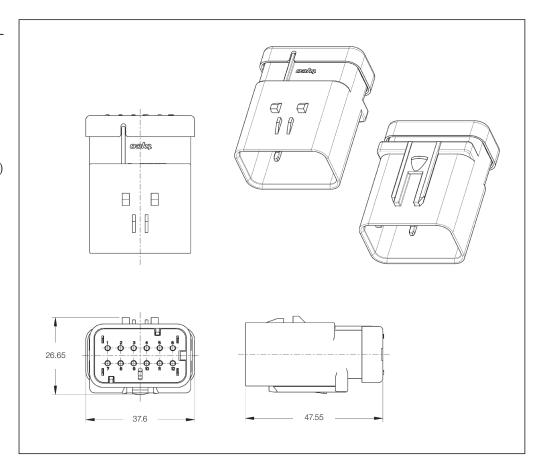
Product Specification:

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	DI D O I		Part Numbers	
	PLR Color	Keying	Pin (Cap) Housing	Mating Receptacle (Plug) Housing
12 Red Gray Yellow Green	Red	Key A	776438-1	776437-1
	Gray	Key B	776438-2	776437-2
	Yellow	Key C	776438-3	776437-3
	Key D	776438-4	776437-4	

Sealed Pin Housings 2-Row with Reduced Diameter Wire Seal

No. of	PLR Color	Vi	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	

Section Catalog 1654281-2 Revised 4-2010 Main Catalog 1654400-1 Chapter 30 - Issued 4-2010

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

Technical Features

No. of Positions:

12 (2×6) Position Assembly

Housing Material:

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

1.30-2.54 mm (with reduced diameter wire seal)

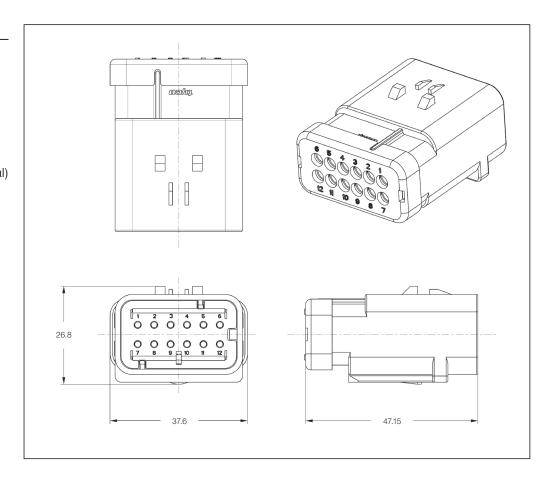
Product Specification:

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	DI D O-I	V du	Part Numbers		
Positions	PLR Color	Keying	Pin (Cap) Housing	Mating Receptacle (Plug) Housing	
	Red	Key A	1717677-1	776437-1	
10	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	PLR Color	Vi	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

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 FOSILIOIT/ 90 LXIL/ INC 00	Cap Type	2098436-1
3 Position / 90° Exit / NC 08	Plug Type	2035366-2
S FUSILIOIT / 90 EXIL / INC US	Cap Type	2098436-2
4 Position / 90° Exit / NC 08	Plug Type	2035366-7
4 FOSILIOIT/ 90 LXIL/ NO 00	Cap Type	2098436-7
6 Position / 90° Exit / NC 08	Plug Type	2035366-8
0 POSILIOIT/ 90 EXIL/ INC 00	Cap Type	2098436-8
	Plug Typo	2025366.3
2 Position / 90° Exit / NC 12	Plug Type	2035366-3
	Plug Type Cap Type Plug Type	2035366-3 2098436-3 2035366-4
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

Note: All Part Numbers are RoHS and ELV compliant.

Section Catalog 1654281-2 Revised 4-2010 Main Catalog 1654400-1 Chapter 30 – Issued 4-2010

Backshell Matrix

No. of	Conduit			Part Numbers			
Positions	Size	Standard Straight	Standard 90°	Low Profile 90°	Mating Connectors	Туре	
					776427-ALL		
_	NC08			2035366-1	776522-ALL	Plug Assy	
2	NW7.5	2035047-1*	2035048-1 *		776428-ALL		
				2098436-1	776534-ALL	Cap Assy	
					776429-ALL		
_	NC08			2035366-2	776523-ALL	Plug Assy	
3	NW7.5	2035047-2*	2035048-2*		776430-ALL		
				2098436-2	776535-ALL	Cap Assy	
				0005000 5	776487-ALL	D	
	NC08	0005047.04	0005040.0#	2035366-7	776524-ALL	Plug Assy	
4	NW7.5	2035047-3 *	2035048-3*	0000400 7	776488-ALL		
				2098436-7	776536-ALL	Cap Assy	
					776433-ALL		
_	NC08			2035366-8	776531-ALL	Plug Assy	
6	NW7.5	2035047-4*	_		776434-ALL		
				2098436-8	776537-ALL	Cap Assy	
					776427-ALL	Plug Assy	
_	NC12			2035366-3	776522-ALL		
2	NW10	_	_		776428-ALL	Cap Assy	
				2098436-3	776534-ALL		
					776429-ALL		
_	NC12			2035366-4	776523-ALL	Plug Assy	
3	NW10	_	2035048-6 *		776430-ALL		
				2098436-4	776535-ALL	Cap Assy	
					776487-ALL		
	NC12			2035366-9	776524-ALL	Plug Assy	
4	NW10	2035047-5 *	2035048-7*	0000400	776488-ALL		
				2098436-9	776536-ALL	Cap Assy	
				1 0005333 5	776433-ALL		
_	NC12			1-2035366-0	776531-ALL	Plug Assy	
6	NW10	2035047-6 *	_		776434-ALL		
				1-2098436-0	776537-ALL	- Cap Assy	
					776494-ALL	DI A	
0	NC12	00050 17 7*		_	776532-ALL	Plug Assy	
8	NW10	2035047-7*	_		776495-ALL	0 4	
				_	776538-ALL	Cap Assy	
					776437-ALL	DI 1	
40	NC12	00050 17 04		_	776533-ALL	Plug Assy	
12	NW10	2035047-8*	_		776438-ALL	0 1	
				_	776539-ALL	Cap Assy	

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

Section Catalog 1654281-2 Revised 4-2010 Main Catalog 1654400-1 Chapter 30 – Issued 4-2010

Backshell Matrix (continued)

				Part Numbers			
No. of Positions	Conduit Size	Standard Straight	Standard 90°	Low Profile 90°	Mating Connectors	Туре	
					776427-ALL	Diver Asses	
0	NC16			_	776522-ALL	Plug Assy	
2	NW13	_	_		776428-ALL	Can Assu	
				_	776534-ALL	Cap Assy	
					776429-ALL	Dlug Appy	
0	NC16			_	776523-ALL	Plug Assy	
3	NW13	_	_		776430-ALL		
				_	776535-ALL	Cap Assy	
					776487-ALL	DI	
4	NC16			_	776524-ALL	Plug Assy	
4	NW13	_	_		776488-ALL	O A	
				_	776536-ALL	Cap Assy	
					776433-ALL	DI A	
0	NC16			-	776531-ALL	Plug Assy	
6	NW13	_	_		776434-ALL	0 4	
				-	776537-ALL	Cap Assy	
					776494-ALL	DI A	
0	NC16	0005047.0*		-	776532-ALL	Plug Assy	
8	NW13	2035047-9 *	_		776495-ALL	0 4	
				_	776538-ALL	Cap Assy	
					776437-ALL	Di A	
10	NC16	1 0005047.6*		_	776533-ALL	Plug Assy	
12	NW13	1-2035047-0*	_		776438-ALL	0 1	
				_	776539-ALL	Cap Assy	
					776437-ALL	Dl A	
10	NC20	1 0005047 1*		_	776533-ALL	Plug Assy	
12	NW17	1-2035047-1*	_		776438-ALL	0 1	
				_	776539-ALL	- Cap Assy	

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

Section Catalog 1654281-2 Revised 4-2010 Main Catalog 1654400-1 Chapter 30 - Issued 4-2010

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
Description	Part Number
Description Cavity (Seal) Plug	Part Number 776363-1

Please call your local TE Connectivity representative for personal assistance or visit our website.

Note: All Part Numbers are RoHS and ELV compliant.



Engineering Notes

