

Introduction





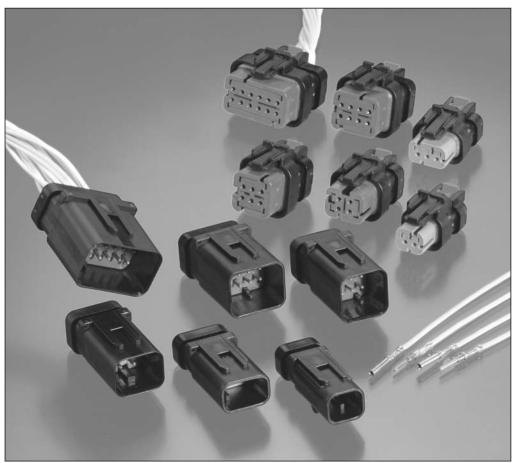






Product Features

- 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



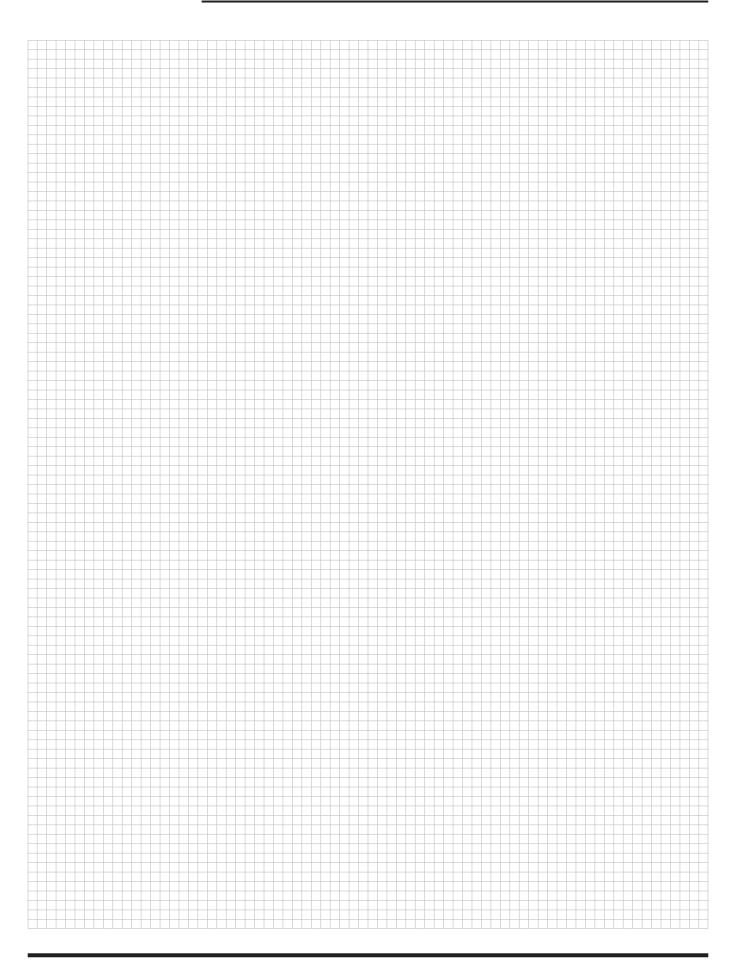
The AMPSEAL 16 Connector System is targeted for offroad, heavy duty industrial, recreational and agricultural applications. This wire-to-wire and wire-to-device connector line was designed to meet the rigorous demands of an industry that requires the highest standards in performance.

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 4-2010 Main Catalog 1654400-1 Chapter 30 – Issued 4-2010

Introduction





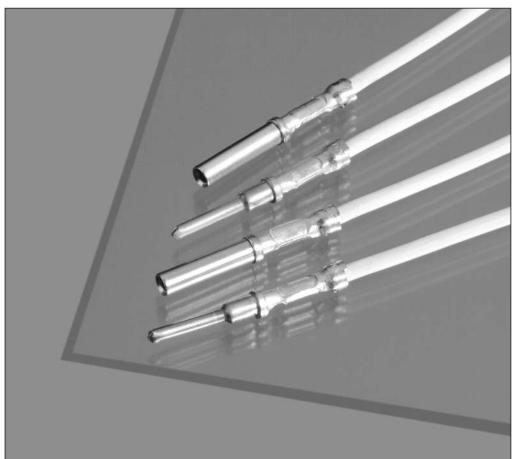






Product Features

- 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

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	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	Number (Reel	ed)		Connecto	r Wire Seal
Wire Size (Insulation Type)	Insulation Diameter (Nominal)		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					V	
20 AWG (TXL)	1.78	0.070	V	V						V
20 AWG (GXL)	2.16	0.085	V	V						V
20 AWG (SXL)	2.44	0.096	V	V					V	
18 AWG (TXL)	1.98	0.078	~	~			~	~		V
18 AWG (GXL)	2.34	0.092	✓	V	V	v	V	v	V	v
18 AWG (SXL)	2.72	0.107			V	v	V	v	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	v
16 AWG (GXL)	2.62	0.103			V	✓	V	✓	V	
16 AWG (SXL)	3.05	0.120			V	✓	V	✓	V	
2.0 mm ² (TXL)	2.58	0.102			V	~	~	~	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.

Contact System

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

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

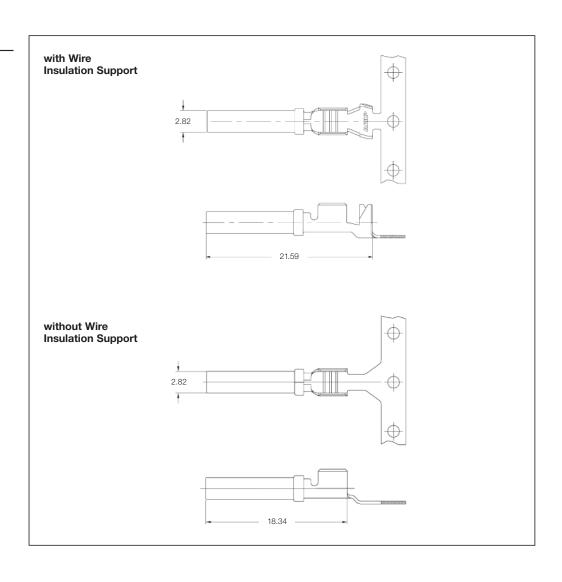
-40 °C to +125 °C

Product Specification:

108-2184

 ${\bf Application\ Specification:}$

114-13045



Receptacle Contacts with Wire Insulation Support

	Size	Insulation	Material	al ————		Part			
(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	114-13	8045
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						
(mm²)	nge (AWG)	Diameter (mm)	and Finish	Strip Form	Package Quantity	Loose- Piece	Package Quantity	Applicator	Hand Tool	
		0.40.0.67	Copper Alloy, Gold	776491-1	4,000	776297-1	1,000	See Application	n Specification	
0.8–2.0	18–14	2.18–3.67	Copper Alloy, Nickel	776491-2	4,000	776297-2	1,000	114-1	3045	

Note: All Part Numbers are RoHS and ELV compliant.

Contact System

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

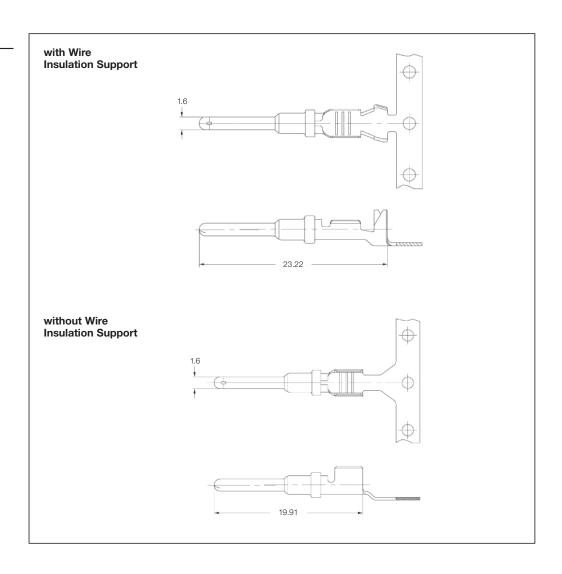
-40 °C to +125 °C

Product Specification:

108-2184

Application Specification:

114-13045



Pin Contacts with Wire Insulation Support

	Size	Insulation	Material	Part Nun			Numbers	umbers		
(mm²)	(AWG)	Diameter (mm)	and Finish	Strip Form	Package Quantity	Loose- Piece	Package Quantity	Applicator	Hand Tool	
0.5–0.8	20–18	1.27–2.72	Copper Alloy, Gold	1924463-1	4,000	1924579-1	1,000			
0.5-0.8	20-16	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	114-13	3045	
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
	(AVVG)		Copper Alloy, Gold	638112-1	4.000	776298-1	1,000		
0.8–2.0	18–14	2.18–3.67	Copper Alloy, Nickel	638112-3	4,000	776298-2	1,000	See Application Specification 114-13045	

Note: All Part Numbers are RoHS and ELV compliant.

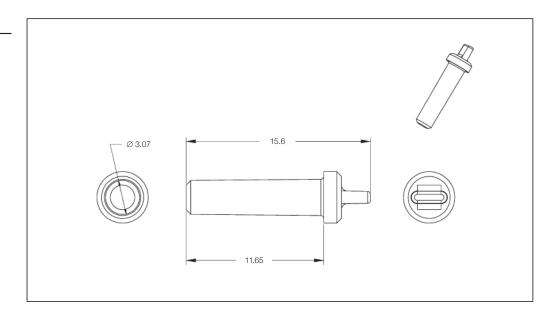
AMPSEAL 16 Connector System Contact System

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

Cavity Plugs for Unsealed Cavity

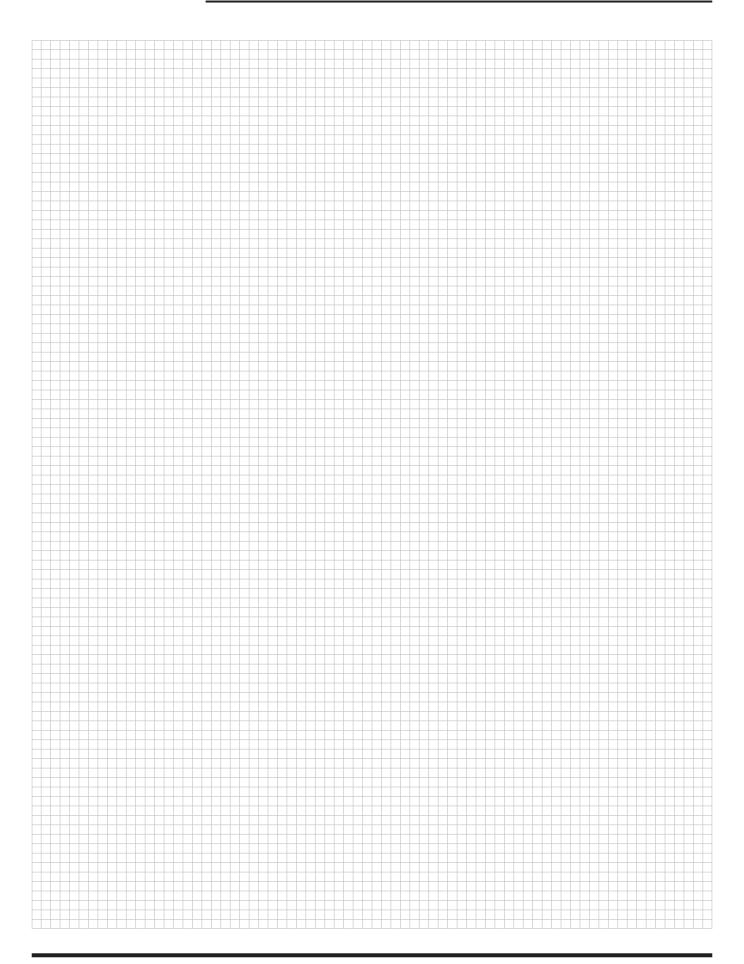
Technical Features

- 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	
	(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 4-2010 Main Catalog 1654400-1 Chapter 30 – Issued 4-2010

Housings and Connectors

Introduction





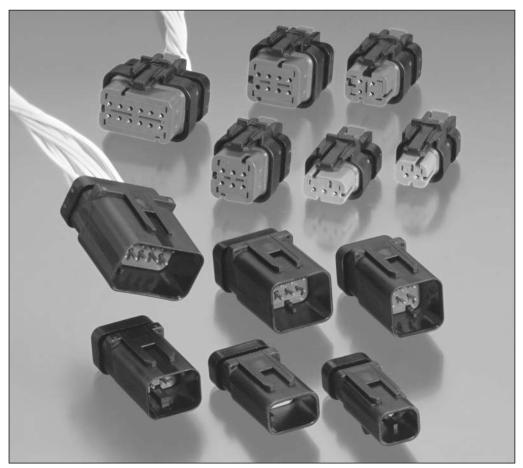






Product Features

- 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.

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

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)

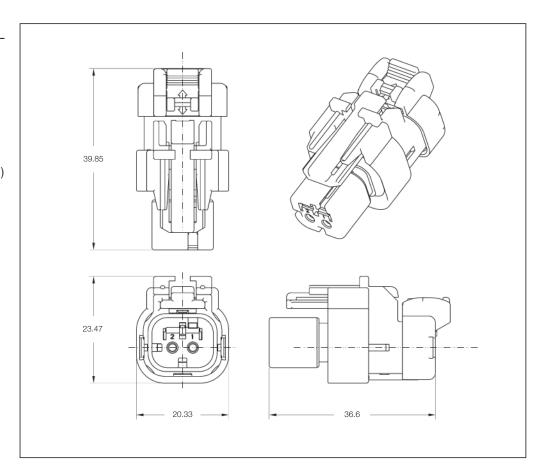
Product Specification:

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 O-I		Part Numbers				
Positions	PLR Color	Keying	Receptacle (Plug) Housing	Mating Pin (Cap) Housing			
	Dod	May A	776427-1	776428-1			
	Red	Key A	110421-1	1717672-1			
		Key B	776427-2	776428-2			
2	Gray	Rey D	110421-2	1717672-2			
2	Velleur	Key C	776427-3	776428-3			
	Yellow ———————————————————————————————————	Key C	110421-3	1717672-3			
		Key D	776407.4	776428-4			
	Green	Key D	776427-4	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		

Section Catalog 1654281-2 Main Catalog 1654400-1 Chapter 30 - Issued 4-2010 **Housings and Connectors**

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)

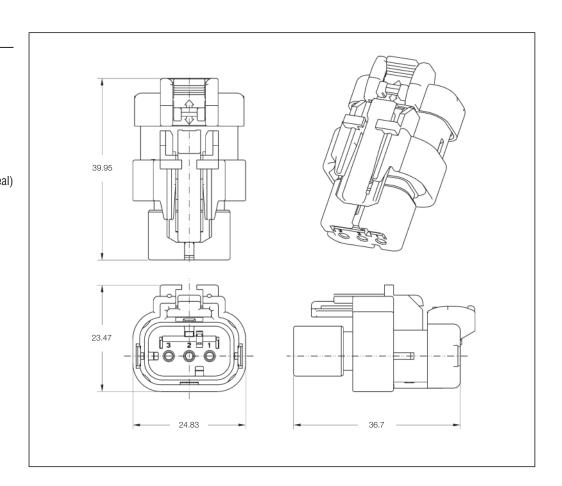
Product Specification:

108-2184

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	Kov A	776429-1	776430-1		
	neu	Ney A	Key A 776429-1	1717673-1		
		Key B	776429-2	776430-2		
3	Gray	Rey D	110429-2	1717673-2		
3	Vollow	Key C	776429-3	776430-3		
	Yellow	Key C	110429-3	1717673-3		
	Green	Kov D	776429-4	776430-4		
	Green	Key D	110429-4	1717673-4		

Sealed Receptacle Housings 1-Row with Reduced Diameter Wire Seal

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

Revised 4-2010

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

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

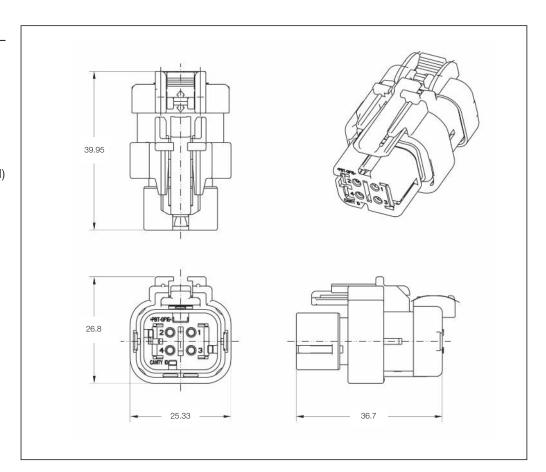
1.30-2.54 mm (with reduced diameter wire seal)

Product Specification:

108-2184

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	V do-	Part Numbers				
Positions	PLR Color	Keying	Receptacle (Plug) Housing	Mating Pin (Cap) Housing			
	Dod	Key A	776487-1	776488-1			
	Red	Key A	770407-1	1717674-1			
		Key B	776487-2	776488-2			
4	Gray	Rey D	110401-2	1717674-2			
4	Velleur	Kay C	776487-3	776488-3			
	Yellow	Key C	110461-3	1717674-3			
Green	Kay D	776487-4	776488-4				
	Green	Key D	770487-4	1717674-4			

No. of	PLR Color	Varian	Part Numbers	
Positions	PLR Color	Keying	Receptacle (Plug) Housing Mating Pin (Cap) Hou 776524-1 776536-1	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

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

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

Technical Features

No. of Positions:

6 (2×3) Position Assembly

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

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm 1.30-2.54 mm

(with reduced diameter wire seal)

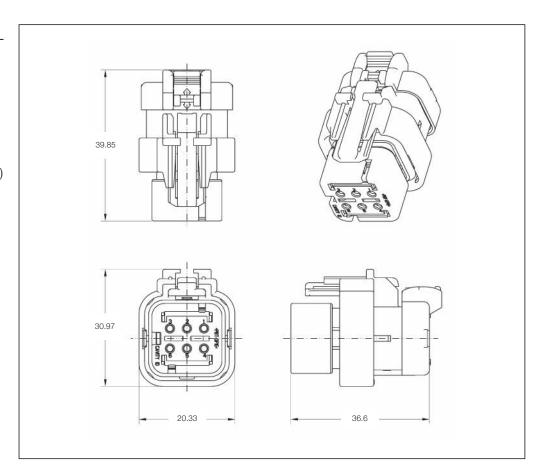
Product Specification:

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 O-I	V	Part Numbers	
	PLR Color	Keying	Receptacle (Plug) Housing	Mating Pin (Cap) Housing
D 1	Red	14. A	776433-1	776434-1
	Red	Key A	176433-1	1717675-1
6	Crov		776433-2	776434-2
6 Gray Yellow	Key B	110433-2	1717675-2	
	Vollow	И. О	776499 9	776434-3
	Key C	776433-3	1717675-3	

No. of	PLR Color	Varian	Part Numbers	
Positions	Positions PLR Color	Keying	Receptacle (Plug) Housing	Mating Pin (Cap) Housing
	Red	Kov A	776531-1	776537-1
	Red	Key A	770031-1	1717975-1
6	Crou	Key B	776531-2	776537-2
0	6 Gray			1717975-2
	Yellow	Kov C	776531-3	776537-3
	Yellow	Key C		1717975-3

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

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)

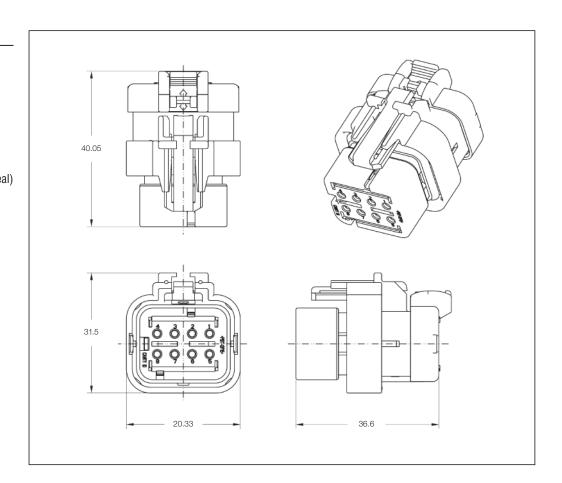
Product Specification:

108-2184

 ${\bf Application\ Specification:}$

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 Color		Part Numbers			
Positions	PLR Color	Keying	Receptacle (Plug) Housing	Mating Pin (Cap) Housing		
	Red	17. 4	776404 1	776495-1		
Red	neu	Key A	776494-1			
	Crov	K D	776494-2	776495-2		
8	Gray	Key B		1717676-2		
0	Yellow	Kov C	776404 0	776495-3		
	Key C 776494-3	1717676-3				
	Croon	Key D	776404 4	776495-4		
	Green	Key D 776494-4	110494-4	1717676-4		

No. of	PLR Color	Varian	Part No	umbers
Positions	PLR Color	Keying	776532-1 776538-1	Mating Pin (Cap) Housing
	Red	Key A	776532-1	776538-1
8	Gray	Key B	776532-2	776538-2
0	Yellow	Key C	776532-3	776538-3
	Green	Key D	776532-4	776538-4

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

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)

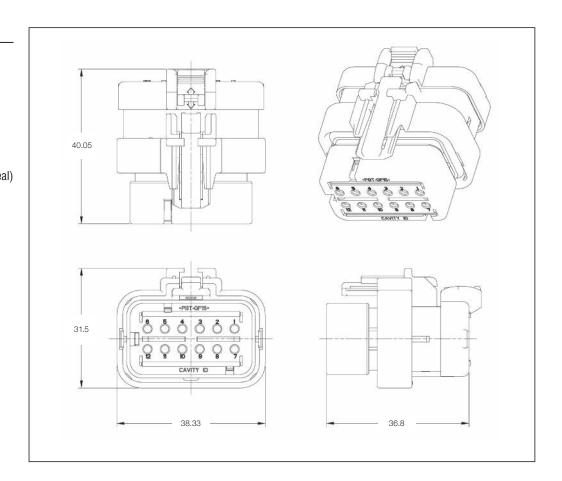
Product Specification:

108-2184

 ${\bf Application\ Specification:}$

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	No. of PLR Color			umbers
Positions	PLR Color	Keying	Receptacle (Plug) Housing	Mating Pin (Cap) Housing
	Red		776497 1	776538-1
	Red	Key A	776437-1 776437-2 776437-2 776437-3 776437-3 776437-4 776437-4	1717677-1
	Crov	Vov D	776407 0	776538-2
12	Gray	Key B	110431-2	1717677-2
12	Yellow	Vov. C	776437-3	776538-3
	rellow	Key C		1717677-3
	Green	Kov D	776497 4	776538-4
	Green	Key D	776437-4	1717677-4

No. of		Keying	Part Nu	Part Numbers	
Positions	PER COIOI	Reyling	Receptacle (Plug) Housing	Mating Pin (Cap) Housing	
	Red	Key A	776533-1	776539-1	
	neu	Ney A	110333-1	1717934-1	
	Gray	Key B	776533-2	776539-2	
12	Gray	Key D	1717934-2		
12	Yellow	Key C	776533-3	776539-3	
	reliow	Key C		1717934-3	
	Green	Key D	776533-4	776539-4	
	Green	Ney D	110033-4	1717934-4	

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:

2 (1×2) Position Assembly

Housing Material:Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm 1.30-2.54 mm

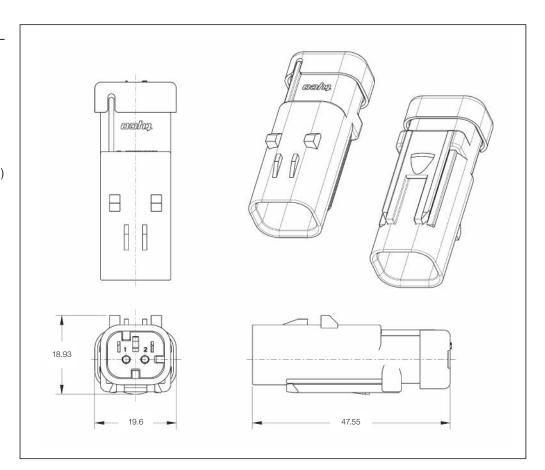
(with reduced diameter wire seal)

Product Specification:

108-2184

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 Color Koring		Part Numbers	
	PLR Color	Keying	Pin (Cap) Housing Mating Receptacle (P	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	Part Numbers	
Positions	PLR Color	Keying	Pin (Cap) Housing Mating Receptacle (Plug) 776534-1 776522-1	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

Housings and Connectors

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:

2 (1×2) Position Assembly

Housing Material:

Glass Reinforced PBT

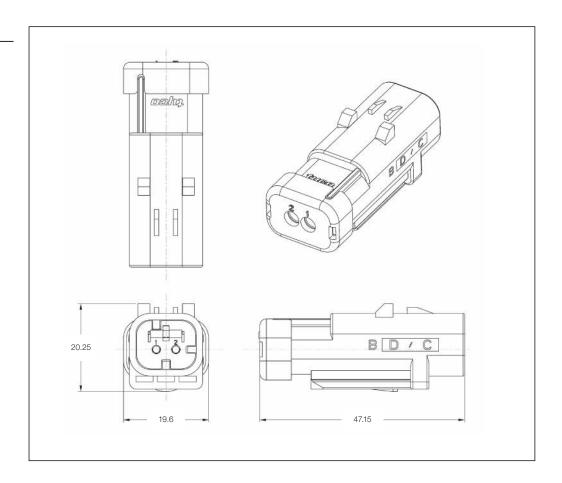
Wire Size Range: 2.18-3.67 mm

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		Part Numbers	
	PLR Color	Keying	Pin (Cap) Housing Mating Receptacle (Plu	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)

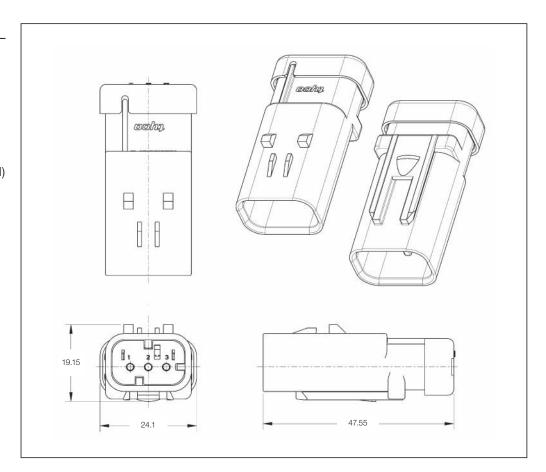
Product Specification:

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 Positions	DI D. Color		Part Numbers	
	PLR Color	Keying		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	Part Numbers	
Positions	PLR Color	Keying	Pin (Cap) Housing Mating Receptacle (Plug) Ho 776535-1 776523-1 776535-2 776523-2	Mating Receptacle (Plug) Housing
	Red	Key A	776535-1	776523-1
2	Gray	Key B	776535-2	776523-2
3	Yellow	Key C	776535-3	776523-3
	Green	Key D	776535-4	776523-4

Housings and Connectors

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

Housing Material:

Glass Reinforced PBT

Wire Size Range:

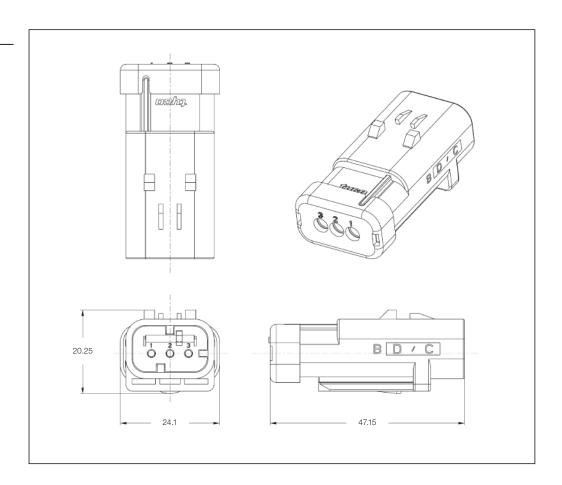
2.18-3.67 mm

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	PLR Color	Varian	Part Numbers		
Positions	PLR Color	Keying	Pin (Cap) Housing	Mating Receptacle (Plug) Housing	
	Red	Key A	1717673-1	776429-1	
9	Gray	Key B	1717673-2	776429-2	
3	Yellow	Key C	1717673-3	776429-3	
	Green	Key D	1717673-4	776429-4	

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:

4 (2×2) Position Assembly

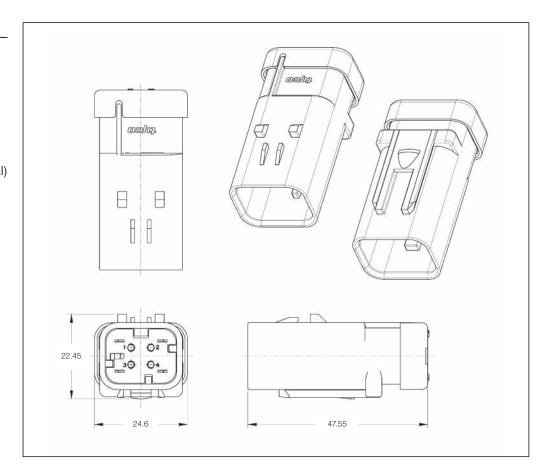
Housing Material:Glass Reinforced PBT

Wire Size Range: 2.18-3.67 mm 1.30-2.54 mm (with reduced diameter wire seal)

Product Specification: 108-2184

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
4 Red Gray Yellow Green	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	DI D O-I	Vi	Part Numbers	
Positions	PLR Color	Keying	Pin (Cap) Housing	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

Housings and Connectors

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:

4 (2×2) Position Assembly

Housing Material:

Glass Reinforced PBT

Wire Size Range:

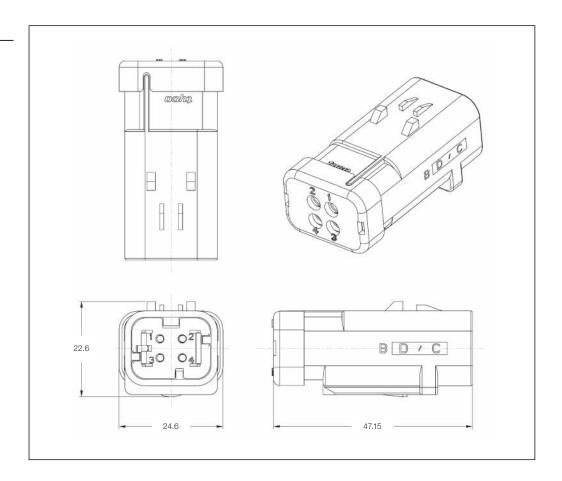
2.18-3.67 mm

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 2-Row – Reversed Mounting Feature

No. of Positions	DI D Colon		Part Numbers	
	PLR Color	Keying	Pin (Cap) Housing Mating Receptacle (Plug) Ho	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

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:

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)

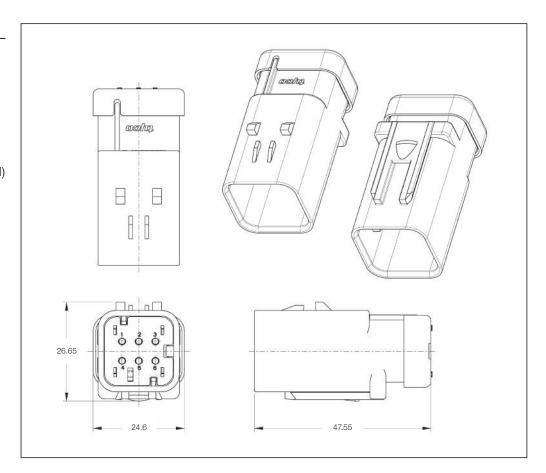
Product Specification:

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	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 Kovins	V du	Part Numbers	
Positions	PLR Color	Keying	Pin (Cap) Housing	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)

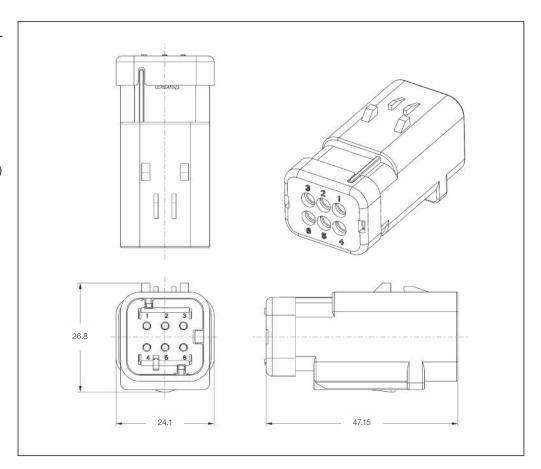
Product Specification:

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	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	PLR Color	Varian	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

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

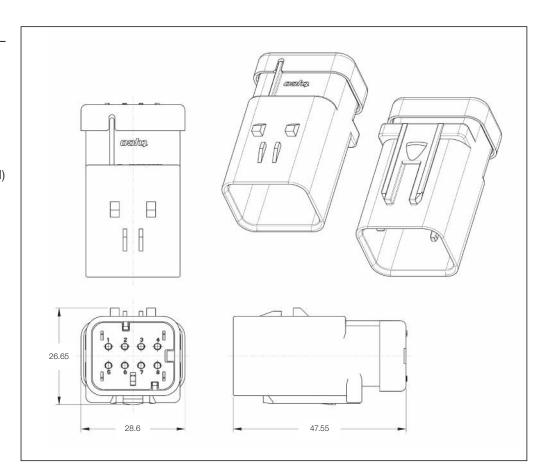
1.30-2.54 mm (with reduced diameter wire seal)

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

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	DI D.O. I		Part Numbers	
	PLR Color	Keying	Pin (Cap) Housing	Mating Receptacle (Plug) Housing
8	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	V du	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

Housings and Connectors

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:

8 (2×4) Position Assembly

Housing Material:

Glass Reinforced PBT

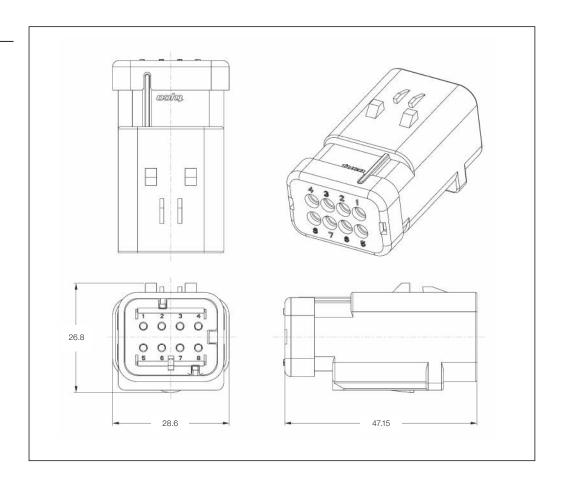
Wire Size Range: 2.18-3.67 mm

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	Р	art Numbers
	PLR Color	Keying		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

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:

12 (2×6) Position Assembly

Housing Material:

Glass Reinforced PBT

Wire Size Range:

2.18-3.67 mm

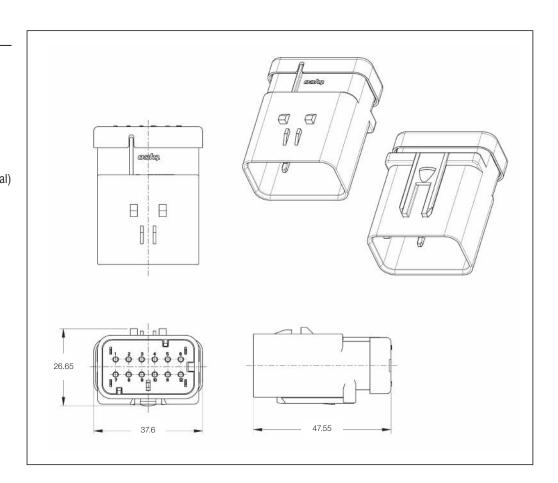
1.30-2.54 mm (with reduced diameter wire seal)

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	Vi	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	Varian	Part Numbers		
Positions	PLN COIOI	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)

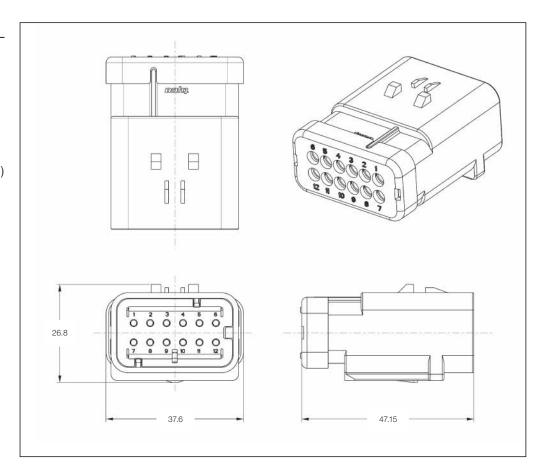
Product Specification:

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	PLR Color	Keying	Part Numbers		
Positions	PLR Color		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	Varian	Part Numbers		
Positions	PLN 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	

Housings and Connectors

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

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 POSITION / 90 EXIL / INC 06	Cap Type	2098436-1	
3 Position / 90° Exit / NC 08	Plug Type	2035366-2	
3 FUSILIOIT / 90 EXIL / INC U6	Cap Type	2098436-2	
4 Position / 90° Exit / NC 08	Plug Type	2035366-7	
4 POSITION / 90 EXIL / INC 06	Cap Type	2098436-7	
6 Position / 90° Exit / NC 08	Plug Type	2035366-8	
U FUSILIUIT / BU EXIL / INU UO	Cap Type	2098436-8	
2 Position / 90° Exit / NC 12	Plug Type	2035366-3	
2 Position / 90° Exit / NC 12	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	

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		
No. of Positions	Size	Standard Straight	Standard 90°	Low Profile 90°	Mating Connectors	Туре
0			2035048-1*	2035366-1	776427-ALL	Plug Assy
	NC08				776522-ALL	
2	NW7.5	2035047-1*		2098436-1	776428-ALL	Cap Assy
					776534-ALL	
				2035366-2	776429-ALL	Plug Assy
0	NC08	0005047.0*			776523-ALL	
3	NW7.5	2035047-2*	2035048-2 *		776430-ALL	- A
				2098436-2	776535-ALL	Cap Assy
				0005000 7	776487-ALL	
	NC08	0005047.0*	0005040.0*	2035366-7	776524-ALL	Plug Assy
4	NW7.5	2035047-3*	2035048-3 *		776488-ALL	
				2098436-7	776536-ALL	Cap Assy
					776433-ALL	
_	NC08			2035366-8	776531-ALL	Plug Assy
6	NW7.5	2035047-4*	_	2098436-8	776434-ALL	Cap Assy
					776537-ALL	
			-	2035366-3	776427-ALL	Plug Assy
	NC12				776522-ALL	
2	NW10	-		2098436-3	776428-ALL	Cap Assy
					776534-ALL	
					776429-ALL	
	NC12		2035048-6* * 2035048-7*	2035366-4	776523-ALL	Plug Assy
3	NW10	_		2098436-4	776430-ALL	Cap Assy Plug Assy Cap Assy
					776535-ALL	
					776487-ALL	
	NC12	NC12			776524-ALL	
4	NW10	2035047-5*			776488-ALL	
				2098436-9	776536-ALL	
					776433-ALL	
	NC12		-	1-2035366-0	776531-ALL	Plug Assy
6	NW10	2035047-6 *		1-2098436-0	776434-ALL	- Cap Assy
					776537-ALL	
					776494-ALL	
	NC12			_	776532-ALL	Plug Assy Cap Assy
8	NW10	2035047-7*	-		776495-ALL	
				-	776538-ALL	
		NC12 2035047-8*	_		776437-ALL	
					776533-ALL	Plug Assy
12					776438-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)

No. of	Conduit			Part Numbers		
Positions	Size	Standard Straight	Standard 90°	Low Profile 90°	Mating Connectors	Туре
')		_	-	-	776427-ALL	Plug Assy
	NC16				776522-ALL	
	NW13				776428-ALL	Cap Assy
					776534-ALL	
					776429-ALL	Plug Assy Cap Assy
3	NC16				776523-ALL	
3	NW13	_	_		776430-ALL	
				_	776535-ALL	
					776487-ALL	Plug Assy
4	NC16				776524-ALL	
4	NW13	_	_	-	776488-ALL	Cap Assy
					776536-ALL	
					776433-ALL	Dlug Ass
6	NC16			_	776531-ALL	Plug Assy
6	NW13	_	-		776434-ALL	Con Assu
				_	776537-ALL	Cap Assy
8		2035047-9*		-	776494-ALL	Plug Assy
	NC16				776532-ALL	
	NW13	2035047-9*	_		776495-ALL	Con Acou
				_	776538-ALL	Cap Assy
			-	-	776437-ALL	Plug Assy Cap Assy
12	NC16	1-2035047-0*			776533-ALL	
IZ	NW13	1-2030047-0*			776438-ALL	
					776539-ALL	
		1-2035047-1*	-	-	776437-ALL	Plug Assy
10	NC20 NW17				776533-ALL	
12					776438-ALL	Con 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
Cavity (Seal) Plug	776363-1
Cavity (Ocal) 1 lug	

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

