

2,8 (.110) Type Series Terminals

The 2,8 series of terminals is basically designed for small appliances and automotive components. Within this range, there are terminals with references to the following ranges: UP-STA, UP-TP, UP-SEK, UP-TIM, UP-POWER and UP-NIP.

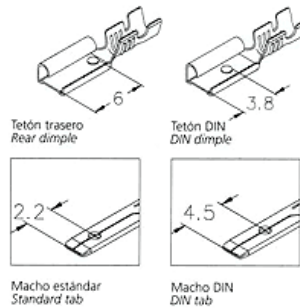
RECEPTACLES

UP-STA

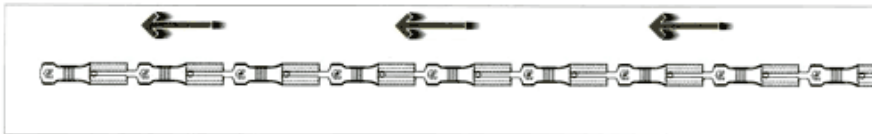
In the 2,8 UP-STA range, there are two types of receptacles:

The first is for connection to standard tabs, which have holes in the front, and the second is for DIN tabs, which have holes 4mm from the front of the terminal.

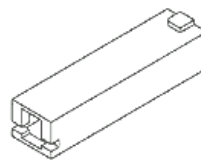
Both receptacles share the following characteristics:



Wire size mm ² (AWG)	0,1-0,3 (26-22) 0,5-1 (20-18)
Material thickness	0,25 mm
For tab	0,3 mm / 0,5 mm / 0,8 mm
Materials	Base: brass - Finish: Nat, Sn
	Base: bronze - Finish: Nat, Sn
	Base: steel - Finish: Ni



Standard housing for these receptacles is 2281010 (L=20 mm) or 2281110 (L=25 mm).

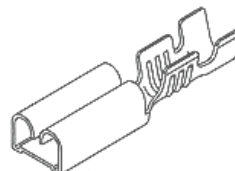


UP-TBI

In cases when terminal dimensions do not permit TP design, yet we want to ensure a first introduction of less than 15 N, we should use a 2,8 TBI receptacle.

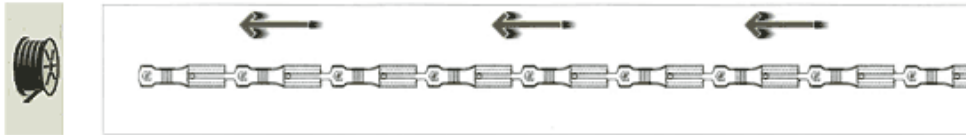
This terminal is based on a modification of the standard design in order to introduce it more easily the first time.

As with the standard range, this receptacle is manufactured with two dimple positions, DIN and standard, with the latter being the one included in the standard range of the catalog.



Wire size mm ² (AWG)	0,1-0,3 (26-22) 0,5-1 (20-18)
Material thickness	0,25 mm
For tab	0,3 mm / 0,5 mm / 0,8 mm

Materials	Base: brass - Finish: Nat, Sn
	Base: bronze - Finish: Nat, Sn
	Base: steel - Finish: Ni
Introduction	< 15 N
Extraction	> 20 N

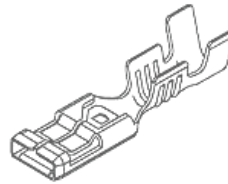


Standard housing for this type of receptacle is once again 2281010 or 2281110.

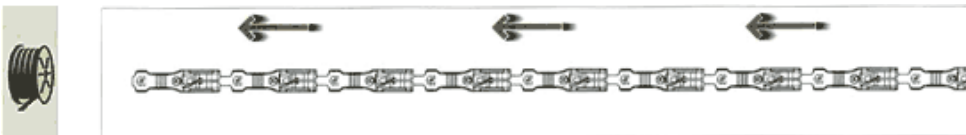
UP-TP

When dimensions so allow, the TP design has been incorporated into the family of 2,8 receptacles.

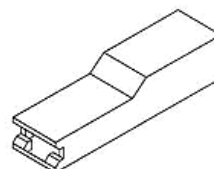
As with the standard range, this receptacle is manufactured with two dimple positions, DIN and standard, with the latter being the one included in the standard range of the catalog.



Wire size mm ² (AWG)	0,5-1 (20-18)
Material thickness	0,3 mm
For tab	0,5 mm / 0,8 mm
Materials	Base: brass - Finish: Nat, Sn
	Base: bronze - Finish: Nat, Sn
	Base: steel - Finish: Ni
Introduction	< 15 N
Extraction	> 25 N



Standard housing for this type of receptacle is 2281410.



UP-SEK

Making the most of the tiny space we have in this type of terminal, we designed it to achieve a non-removable safety terminal within the 2,8 range. This terminal guarantees connection that is 100% impossible to disconnect.

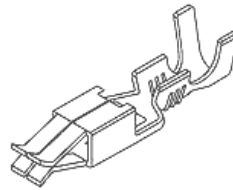


Wire size mm ² (AWG)	0,5-1 (20-18)
Material thickness	0,30 mm
For tab	0,5 mm / 0,8 mm
Materials	Base: brass - Finish: Nat, Sn
	Base: bronze - Finish: Nat, Sn
	Base: steel - Finish: Ni

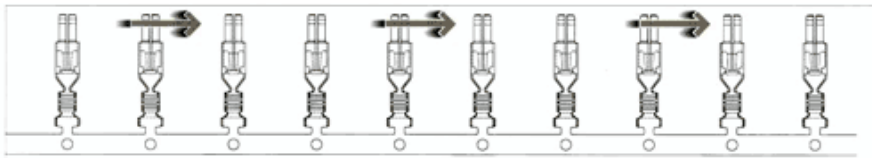


UP-TIM

These terminals, which have a wide range of applications within the automobile sector, are available in standard and SEAL versions.

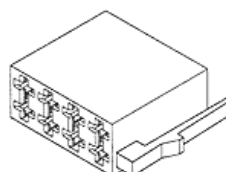


Material thickness	0,32 mm
SEAL wire size mm ² (AWG)	0,5-1 (20-18)
	1-1,5 (18-16)
Materials	Base: brass - Finish: Nat, Pre-Sn
	Base: bronze - Finish: Nat, Pre-Sn
Standard wire size mm ² (AWG)	0,5-1 (20-18)
	1-1,5 (18-16)
	1-2,5 (18-14)
	1,5-2,5 (16-14)
	2-3 (14-12)



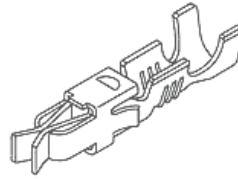
These terminals are manufactured with Pre-Sn as standard finish.

There is a wide range of ISO connectors for audio for this type of terminal.

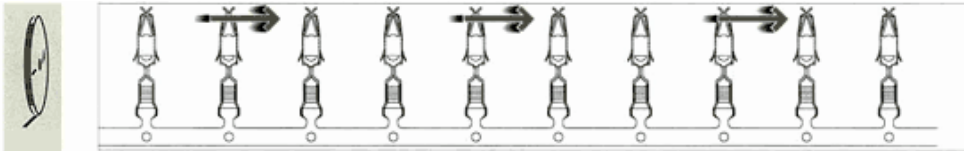


UP-POWER

Having a basic use in the automobile industry, this terminal is characterized by having established itself as a standard contact for the automotive market. Having a spring-like contact area that is similar to the UP-TIM 2,8, the UP-POWER range incorporates a spring in the contact area to give it greater contact strength.



Wire size mm ² (AWG)	0,5-1 (20-18) 1-2,5 (18-14)
Material thickness	0,32 mm
For tab	0,8 mm
Materials	Base: bronze / Finish: Pre-Sn
	Base: CuFe / Finish: Pre-Sn
Spring material	Steel



RECEPTACLES FOR CONNECTORS

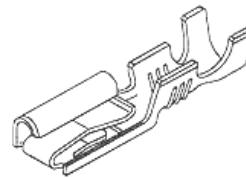
UP-STA

Wire size mm ² (AWG)	0,1-0,3 (26-22) 0,5-1 (20-18)
Material thickness	0,25 mm
For tab	0,3 mm / 0,5 mm / 0,8 mm
Materials	Base: brass - Finish: Nat, Sn
	Base: bronze - Finish: Nat, Sn
	Base: steel - Finish: Ni

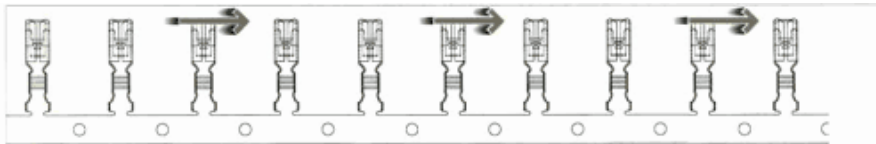


UP-NIP

This design offers an active contact area inside. Connection is made with any 2,8 x 0,5 tab, with the 6405.XX tab being the most commonly used for this connection.



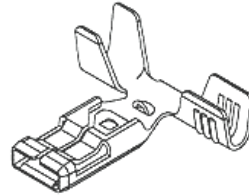
Wire size mm ² (AWG)	0,5-1 (20-18)
Material thickness	0,25 mm
For tab	0,5 mm
Materials	Base: brass - Finish: Nat, Pre-Sn
	Base: bronze - Finish: Nat, Pre-Sn



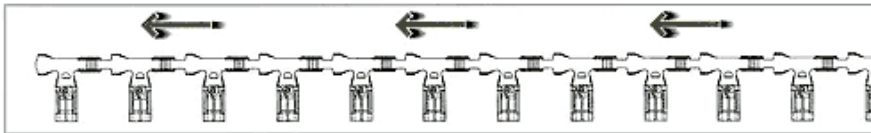
FLAGS

UP-TP

11 flags from the 2,8 series correspond to the UP-TP range.



Wire size mm ² (AWG)	0,1-0,3 (26-22)
	0,5-1 (20-18)
Material thickness	0,3 mm
For tab	0,5 mm / 0,8 mm
Materials	Base: brass - Finish: Nat, Pre-Sn
	Base: bronze - Finish: Nat, Pre-Sn
	Base: steel - Finish: Ni



TABS

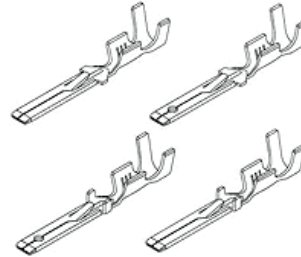
UP-STA

The designs for standard tabs are different, basically due to two elements:

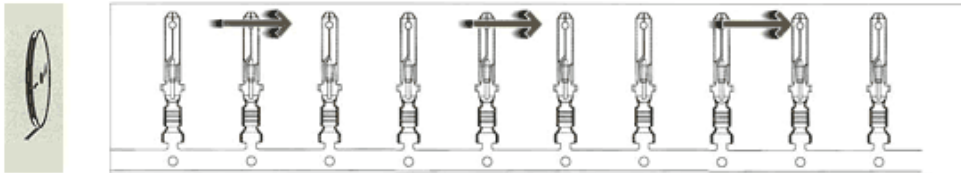
- Existence/inexistence of a hole in the tab
- Existence/inexistence of side stops for connector

This gives us four different designs.

The fourth design has Seal and standard versions.

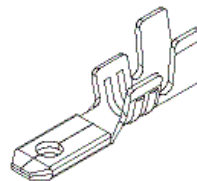


Wire size mm ² (AWG)	0,5-1 FLR (20-18)
	0,5-1 (20-18)
	0,5-1 SEAL (20-18)
	1-2,5 (18-14)
	1-3 (18-12)
Material thickness	0,4 mm
For tab	0,8 mm
Materials	Base: brass - Finish: Nat, Pre-Sn
	Base: bronze - Finish: Nat, Pre-Sn



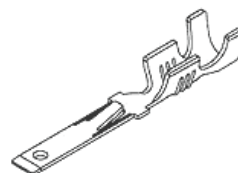
2,8 mm SHORT MALE

A short 2,8 mm male allow a male-female connection in the minimum possible space. Tab thickness of short 2,8 male is 0,8 mm



UP-NIP

The 6405 tab is a 0,5 mm tab used to connect to our receptacle for connector 4303.XX

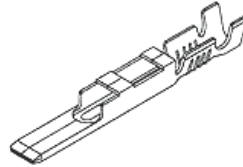


Wire size mm ² (AWG)	0,5-1 (20-16)
Tab thickness	0,5 mm
Material thickness	0,5 mm
Materials	Base: brass - Finish: Nat, Sn



UP-TAB

Some newly created tabs have been included in the 2,8 series.



Wire size mm ² (AWG)	0,35-1 (20-16) 1-3 (18-12)
Tab thickness	0,8 mm
Material thickness	0,4 mm
Materials	Base: brass - Finish: Nat, Pre-Sn



These tabs are available in versions with and without holes.

UL APPROVED REFERENCES

UL

Following 2.8 mm series references are UL approved.



REFERENCIA REFERENCE	AWG	LATON BRASS	LATON SN BRASS SN	ACERO NI STEEL NI
		00	01/02	24
4408.	20-18	X	X	
4408D	20-18	X	X	
4410.	20-18	X	X	
4410D	20-18	X	X	
4809.	20-18	X	X	X
4809D	20-18	X	X	X
4811.	20-18	X	X	X
4811D	20-18	X	X	X
5408.	20-18	X	X	
5408D	20-18	X	X	
5410.	20-18	X	X	
5410D	20-18	X	X	

NOTES:

01. RECEPTACLES

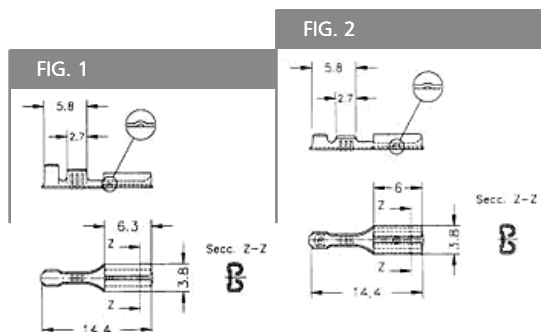


FIGURE	WIRE SIZE mm ² (AWG)	Ø INSULATION mm	TAB THICKNESS mm	DIN	STRIP FORM		MATERIAL	TREATMENT	MATERIAL WIDTH mm	PARTS COIL
					BASE	EXTENSION				
1	0,1-0,3 (26-22)	1-1,8	2,8x0,3	Esp.	4400.	00	BRASS	-	0,25	15000
						02		SN		
						30	BRONZE	-		
						32		SN		
2				Esp.	4400D	00	BRASS	-		
						02		SN		
						30	BRONZE	-		
						32		SN		
1	0,1-0,3 (26-22)	1-1,8	2,8x0,5	Esp.	4402.	00	BRASS	-	0,25	15000
						02		SN		
						30	BRONZE	-		
						32		SN		
2				46247	4402D	00	BRASS	-		
						02		SN		
						30	BRONZE	-		
						32		SN		
1	0,1-0,3 (26-22)	1-1,8	2,8x0,8	Esp.	4404.	00	BRASS	-	0,25	15000
						02		SN		
						04	BRONZE	NI		
						30		-		
2				46247	4404D	32	BRONZE	SN		
						00		BRASS		
						02	SN			
						30	BRONZE	-		
32	SN									

2,8 (.110) Type Series Terminals

01. RECEPTACLES

FIGURE	WIRE SIZE mm ² (AWG)	Ø INSULATION mm	TAB THICKNESS mm	DIN	STRIP FORM		MATERIAL	TREATMENT	MATERIAL WIDTH mm	PARTS COIL
					BASE	EXTENSION				
1	0,5-1 (20-18)	1,8-2,5	2,8x0,3	Esp	4406.	00	BRASS	-	0,25	15000
						02		SN		
						30	BRONZE	-		
						32		SN		
2					4406D	00	BRASS	-		
						02		SN		
						30	BRONZE	-		
						32		SN		
1			4408.	2,8x0,5	Esp	00	BRASS	-		
						02		SN		
						04	BRONZE	NI		
						30		-		
2	4408D	46247		00		BRASS	-			
				02			SN			
				30		BRONZE	-			
				32			SN			
1	4410.	2,8x0,8	Esp	00	BRASS	-				
				02		SN				
				30	BRONZE	-				
				32		SN				
2			4410D	46247	00	BRASS	-			
					02		SN			
					30	BRONZE	-			
					32		SN			

2,8 (.110) Type Series Terminals

02. LOW INSERTION RECEPTACLES

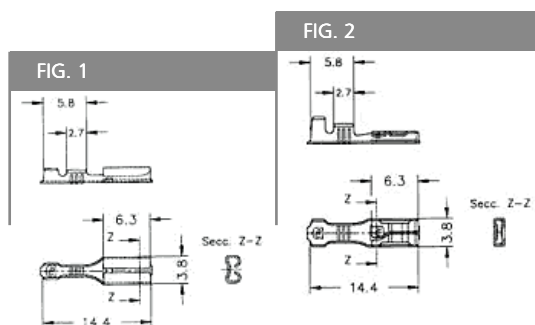


FIGURE	WIRE SIZE mm ² (AWG)	Ø INSULATION mm	TAB THICKNESS mm	DIN	STRIP FORM		MATERIAL	TREATMENT	MATERIAL WIDTH mm	PARTS COIL		
					BASE	EXTENSION						
1	0,1-0,3 (26-22)	1-1,8	2,8x0,3	Esp.	4800.	00	BRASS	-	0,25	15000		
						02	BRASS	SN				
						30	BRONZE	-				
				32		BRONZE	SN					
				Esp.		00	BRASS	-				
						02	BRASS	SN				
			30		BRONZE	-						
			Esp.	2,8x0,8	Esp.	4804.	70	Ni SILVER			-	
							00	BRASS			SN	
							02	BRASS			SN	
					Esp.		30	BRONZE			-	
							32	BRONZE			SN	
00	BRASS	-										
2	0,5-1 (20-18)	1,8-2,5	2,8x0,3	Esp.	4806.	00	BRASS	-	0,3			
						02	BRASS	SN				
						30	BRONZE	-				
						32	BRONZE	SN				
						Esp.	2,8x0,5	4809.		00	BRASS	-
										01	BRASS	PRE-SN
			30		BRONZE					-		
			2,8x0,8		4811.		31			BRONZE	PRE-SN	
							00			BRASS	-	
							01			BRASS	PRE-SN	
			30			BRONZE	-					
			1,8-3,3			2,8x0,5	4809.	24		STEEL	NI	
24	STEEL	NI										

2,8 (.110) Type Series Terminals

03. RECEPTACLES FOR CONNECTOR

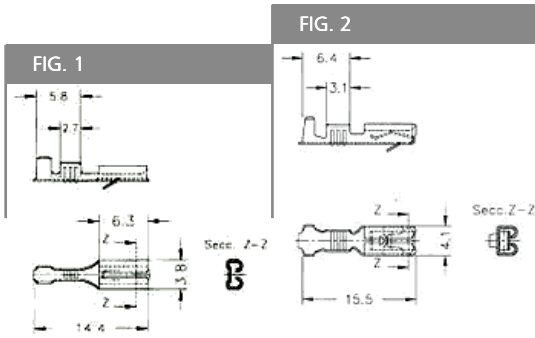


FIGURE	WIRE SIZE mm ² (AWG)	Ø INSULATION mm	TAB THICKNESS mm	DIN	STRIP FORM		MATERIAL	TREATMENT	MATERIAL WIDTH mm	PARTS COIL				
					BASE	EXTENSION								
1	0,1-0,3 (26-22)	1-1,8	2,8x0,3	Esp	4300.	00	BRASS	-	0,25	15000				
						02		SN						
						30	BRONZE	-						
						32		SN						
			46340	2,8x0,5	4302.	00	BRASS	-						
						02		SN						
		30				BRONZE	-							
		32					SN							
		2,8x0,8		4304.	00	BRASS	-							
					02		SN							
		30	BRONZE	-										
		32		SN										
2	0,5-1 (20-18)	1,5-2,1	2,8x0,5	Esp	4303.	00	BRASS	-						
						01		PRE-SN						
						30	BRONZE	-						
						31		PRE-SN						
						1	0,5-1 (20-18)	1,8-2,5	2,8x0,3	Esp	4306.	00	BRASS	-
												02		SN
30	BRONZE	-												
32		SN												
46340	2,8x0,5	4308.	00	BRASS	-									
			02		SN									
			30	BRONZE	-									
			32		SN									
2,8x0,8	4310.	00	BRASS	-										
		02		SN										
		30	BRONZE	-										
		32		SN										

2,8 (.110) Type Series Terminals

04. LOCKABLE RECEPTACLES

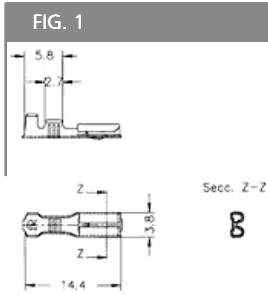


FIGURE	WIRE SIZE mm ² (AWG)	Ø INSULATION mm	TAB THICKNESS mm	STRIP FORM		MATERIAL	TREATMENT	MATERIAL WIDTH mm	PARTS COIL
				BASE	EXTENSION				
1	0,5-1 (20-18)	1,8-2,5	2,8x0,5	4508.	00	BRASS	-	0,3	15000
					02		SN		
					24		NI		
			2,8x0,8	4509.	00	BRASS	-		
					02		SN		
					24		NI		

2,8 (.110) Type Series Terminals

05. LOW INSERTION FLAGS UP-TP

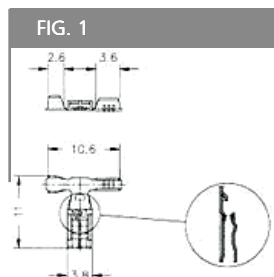


FIGURE	WIRE SIZE mm ² (AWG)	Ø INSULATION mm	TAB THICKNESS mm	STRIP FORM		MATERIAL	TREATMENT	MATERIAL WIDTH mm	PARTS COIL
				BASE	EXTENSION				
1	0,1-0,3 (26-22)	1-1,8	2,8x0,5	5402.	00	BRASS	-	0,3	10000
					01		PRE-SN		
					30	BRONZE	-		
					31		PRE-SN		
			2,8x0,8	5404.	00	BRASS	-		
					01		PRE-SN		
					30	BRONZE	-		
					31		PRE-SN		
	0,5-1 (20-18)	1,8-2,5	2,8x0,5	5408.	00	BRASS	-		
					01		PRE-SN		
					30	BRONZE	-		
					31		PRE-SN		
			2,8x0,8	5410.	00	BRASS	-		
					01		PRE-SN		
					30	BRONZE	-		
					31		PRE-SN		

2,8 (.110) Type Series Terminals

06. TABS

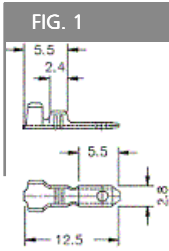


FIGURE	WIRE SIZE mm ² (AWG)	Ø INSULATION mm	TAB THICKNESS mm	STRIP FORM		MATERIAL	TREATMENT	MATERIAL WIDTH mm	PARTS COIL
				BASE	EXTENSION				
1	0,2-0,5 (24-20)	1,4-2,1	0,8	6507.	00	BRASS	-	0,4	15000
					01		PRE-SN		
					30	BRONZE	-		
					31		PRE-SN		
	0,5-1 (20-18)	1,8-3,3		6508.	00	BRASS	-		
					01		PRE-SN		
					30	BRONZE	-		
					31		PRE-SN		

2,8 (.110) Type Series Terminals

07. TABS FOR CONNECTOR

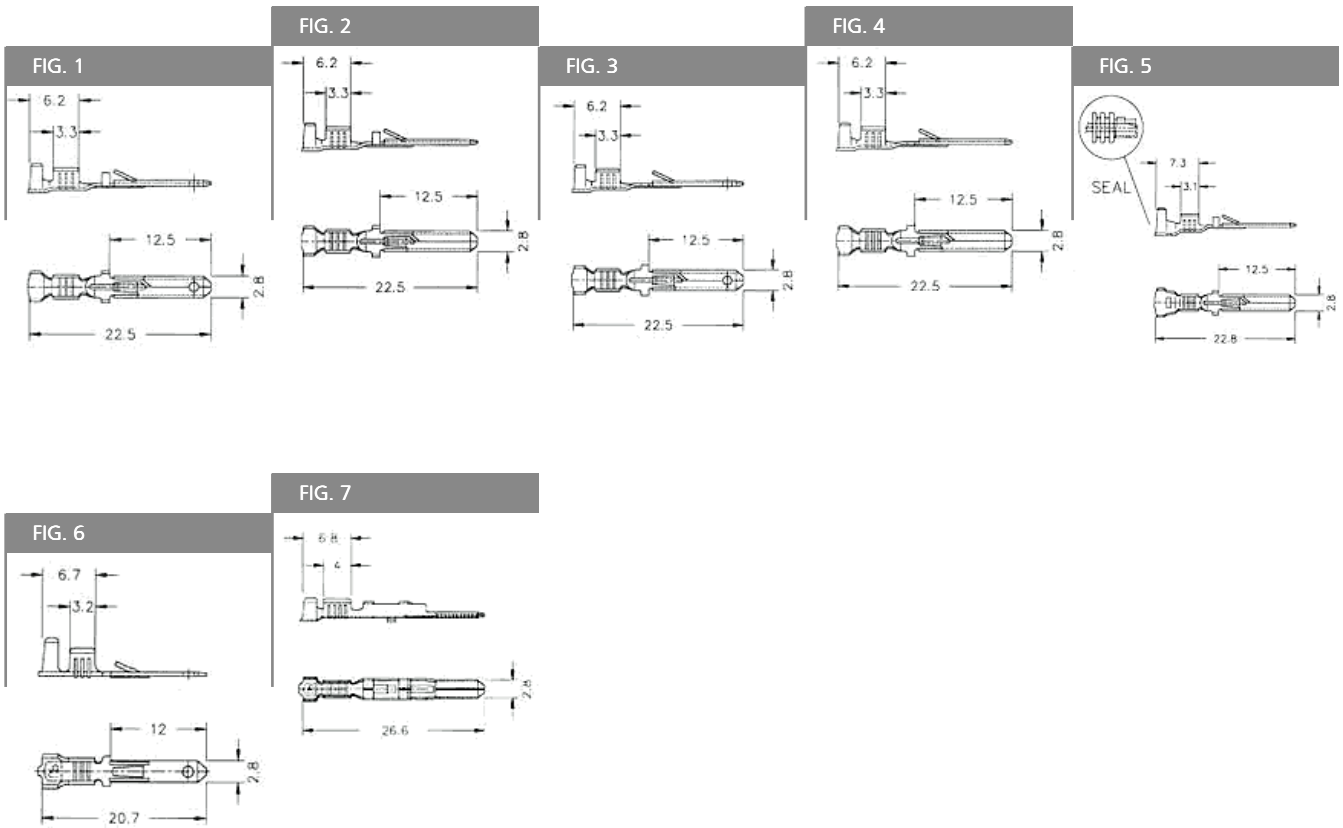


FIGURE	WIRE SIZE mm ² (AWG)	Ø INSULATION mm	TAB THICKNESS mm	STRIP FORM		MATERIAL	TREATMENT	MATERIAL WIDTH mm	PARTS COIL
				BASE	EXTENSION				
7	0,35-1 (22-18)	1,3-2	0,8	6503.	01	BRASS	PRE-SN	0,4	7000
					31		-		
6	0,5-1,5 (20-16)	2-3,3	0,5	6405.	00	BRASS	-	0,5	9000
					02		SN		
1	0,5-1 (20-18)	1,4-2,3	0,8	6407.	00	BRONZE	-	0,4	5000
					01		PRE-SN		
					30	BRASS	-		
					31		PRE-SN		
2	0,5-1 (20-18)	1,4-2,3	0,8	6400.	00	BRONZE	-	0,4	5000
					01		PRE-SN		
					30	BRASS	-		
					31		PRE-SN		

2,8 (.110) Type Series Terminals

07. TABS FOR CONNECTOR

FIGURE	WIRE SIZE mm ² (AWG)	Ø INSULATION mm	TAB THICKNESS mm	STRIP FORM		MATERIAL	TREATMENT	MATERIAL WIDTH mm	PARTS COIL
				BASE	EXTENSION				
3	0,5-1 (20-18)	2,3-3,3	0,8	6401.	00	BRONZE	-	0,4	5000
					01		PRE-SN		
					30	BRASS	-		
					31		PRE-SN		
4				6402.	00	BRONZE	-		
					01	PRE-SN			
					30	BRASS	-		
					31	PRE-SN			
1		6403.		00	BRONZE	-			
				01	PRE-SN				
				30	BRASS	-			
				31	PRE-SN				
2	6404.	00	BRONZE	-					
		01	PRE-SN						
		30	BRASS	-					
		31	PRE-SN						
5	6406.	3,4 SEAL	00	BRONZE	-				
			01	PRE-SN					
			30	BRASS	-				
			31	PRE-SN					
2	6408.	1,8-2,9	00	BRONZE	-				
			01	PRE-SN					
			30	BRASS	-				
			31	PRE-SN					
7	6505.	2-3,2	01	BRONZE	PRE-SN	5000			
2	6410.	3-4,3	00	BRASS	-				
			01	PRE-SN					
			30	BRONZE	-				
			31		PRE-SN				

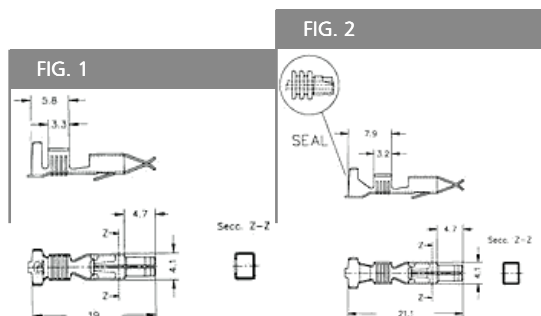


FIGURE	WIRE SIZE mm ² (AWG)	Ø INSULATION mm	STRIP FORM		PART N°	MATERIAL	TREATMENT	MATERIAL WIDTH mm	PARTS COIL
			BASE	EXTENSION					
2	0,5-1 (20-18)	3,4 SEAL	8401.	31	BRONZE	PRE-SN	0,32	3500	
				01	BRASS			5000	
1	1,5-2,5 (16-14)	1,5-2 FLR	8400.	31	BRONZE			3500	
				01	BRASS				
2	1-1,5 (18-16)	2,4-3,6	8404.	31	BRONZE				
				01	BRASS				
1	1-2,5 (18-14)	1,9-2,4	8403.	31	BRONZE			4500	
				01	BRASS			4000	
1	2-3 (14-12)	2,4-3,6	8402.	31	BRONZE			4500	
				01	BRASS				
1	2-3 (14-12)	3-4,3	8407.	31	BRONZE	3500			
				01	BRASS				
2	1-1,5 (18-16)	1,9-2,4	8405.	31	BRONZE				
				01	BRASS				



FIG. 1

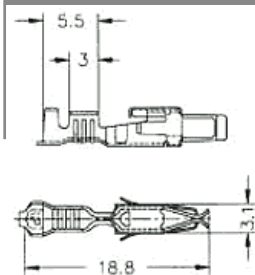


FIGURE	WIRE SIZE mm ² (AWG)	Ø INSULATION mm	STRIP FORM		MATERIAL	TREATMENT	MATERIAL WIDTH mm	PARTS COIL
			BASE	EXTENSION				
1	0,5-1 (20-18)	1,4-2,3	9301.	31	BRONZE	PRE-SN	0,32	5000
				41	CuFe			
	1-2,5 (18-14)	2,1-3,1	9305.	31	BRONZE			4000
				41	CuFe			

10. HOUSINGS 1 WAY

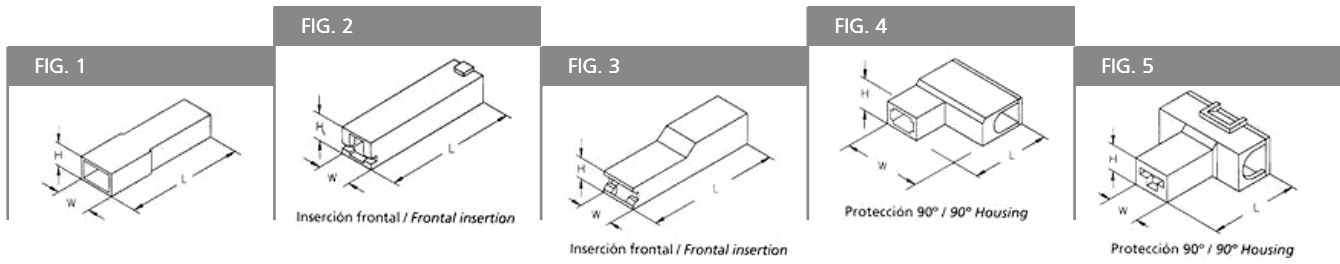


FIGURE	MATERIAL	REFERENCE	FOR TERMINAL	NUMBER OF WAYS	COLOUR	DIMMENSIONS	FAMILY
						H-W-L	
1	NYLON	2282010	4408.00	1	NATURAL	3,7-5,5-18	HOUSINGS 1 WAY
2		2281010				4-5-20	
		2281110	4-5-25				
3		2281410	4809.00			3,2-5-20	
4		2283010	-			3,3-5-11	
5	2283310	5408.00	4-5,5-12,8				
1	POLITILENE	2282000	4408.00			3,7-5,5-18	

Consult about other colours.

11. CONNECTORS

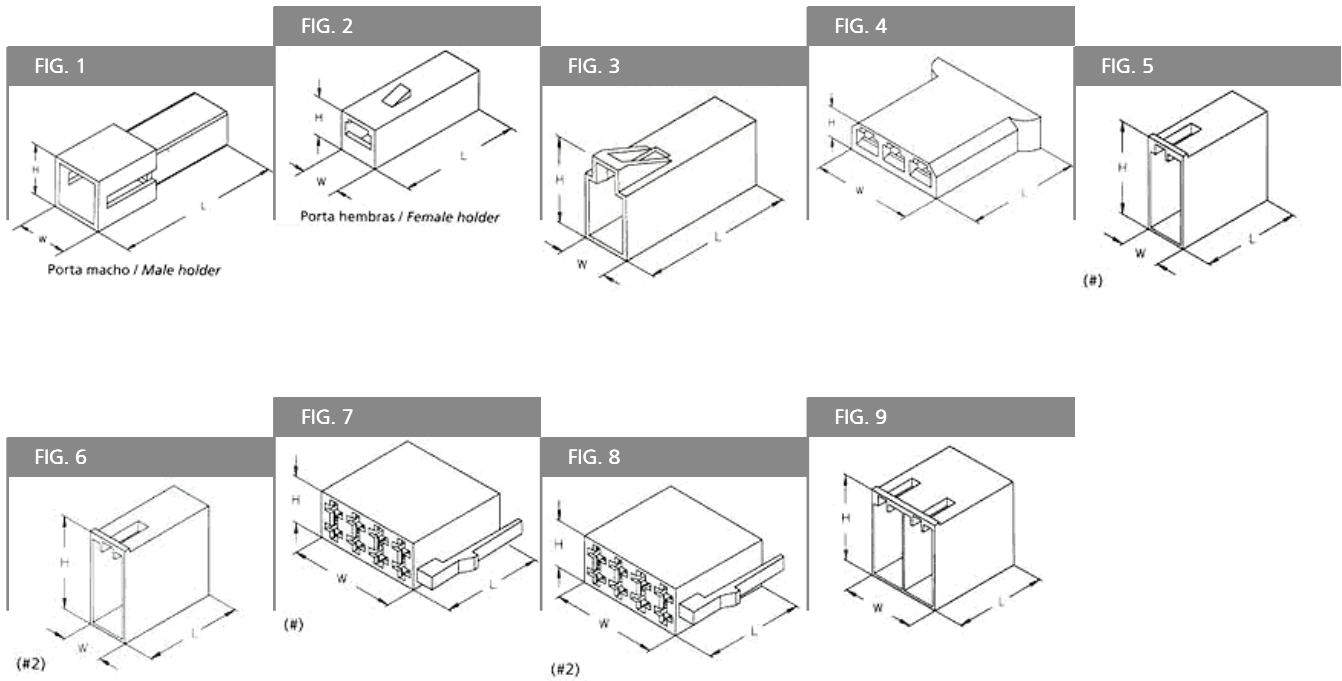


FIGURE	MATERIAL	REFERENCE	FOR TERMINAL	NUMBER OF WAYS	COLOUR	DIMMENSIONS H-W-L	FAMILY
4	NYLON	2284310	4310.00	3	NATURAL	5-16-18	CONNECTORS
5		2100815	6402.01	8	BLACK	33,2-15,1-35	
7		2100915	8402.01		BROWN	11-25-23,5	
8		2100917					
1		2284010	6402.01	1	NATURAL	8,5-8,5-26	
2		2285010	4310.00			6-6-18	
3		2100215		2	BLACK	19-11,2-35	
6		2100817	6402.01	8	BROWN	33,2-15,1-35	
9		2101615		16	BLACK	33,5-28,5-35	

(#) Left polarization.
 (#2) Central polarization.