

## AMP Series

### Description

AMP series designed according to ten years of experience and customer's opinion applies new technology, new process and new material and can be interchangeable with ZE series products. It features are:

- Quick and safety coupling system
- Reliable sealing system:

Sealing cushion between the plug and receptacle insulates the contact from the outer environment with excellent sealing performance and water proof. The connector can withstand 0.3 atmospheres.

Standard: 21E0.204.080JT



### Main technical characteristics

#### [Mechanical]

- Shell: high strength aluminum alloy,
- Shielding plating: olive-green, zinc plating, passive, electroless nickel plating
- Non-shielding plating: black anodized
- Insulator: thermosetting
- Contact material: copper alloy, gold plating or silver plating
- Vibration: frequency 10~2000Hz  
acceleration: 196 m/s<sup>2</sup>
- Shock: acceleration 980 m/s<sup>2</sup>
- Constant acceleration: 980 m/s<sup>2</sup>
- Endurance: 1000 cycles

#### [Electrical]

— Contact resistance and current rating

Contact size (mm)	Contact resistance (mΩ)	Rated current (A)	I.D. of barrel (mm)
φ1.0	≤5	5	φ1.4
φ1.5	≤2.5	10	φ2.0
φ2.0	≤1.25	20	φ2.5
φ3.0	≤0.75	40	φ3.0
φ4.5	≤0.35	65	φ4.5

— Rated voltage, withstanding voltage and Insulation resistance:

Operation environment	Rated voltage (V)	Withstanding voltage (V)	Insulation resistance (MΩ)
Normal temp.	500	≥1500	≥5000
Damp heat	500	≥750	≥100
Altitude (1kPa)	150	≥200	

— Continuity between shells  
Aluminum alloy shell ≤2.5mΩ

#### [Environmental]

- Operation temperature: -55℃~+200℃
  - RH: 95% at 40℃
  - Salt spray:  
96h for electroless nickel plating  
1000h for stainless steel passive
  - Altitude: 30000m
  - Hermetic: 35.5kPa
- Humidity resistance, corrosion resistance, rain resistance, fungus resistance, and dust proof.



## Ordering information

<b>Basic series</b>	<b>AMP</b>	<b>14</b>	<b>T</b>	<b>4</b>	<b>S</b>	<b>P1</b>	<b>(W)</b>
ZEI- wire spring soldering electrical connector							
<b>Shell size</b>	14-18-22-24-27-30-33-36-39						
<b>Type</b>	T plug F square flange receptacle						
<b>Number of contact</b>	1~ 62 (See the insert arrangement)						
<b>Contact</b>	P pin, silver plating                      P1 pin, gold plating S socket, silver                              S1 socket, gold plating						
<b>Plating and accessories</b>	(blank) non-thread termination, anodized D1 non-thread termination, electroless nickel plating D3 non-thread termination, olive-green zinc plating, passive D40 non-thread termination, stainless steel, passive E thread termination, with accessory, anodized P1 thread termination, with accessory, electroless nickel plating P3 thread termination, with accessory, olive-green zinc plating, passive P40 thread termination, with accessory, stainless steel, passive						
<b>Polarization</b>	blank-N, (W)-W, (X)-X, (Y)-Y, (Z)-Z						

Note: For more detail, see ZE and its variation electrical connector accessory

[ Part number identification example]

(1) AMP14T4PP3(W): AMP series, 14# shell, plug with 4 silver plated pins, shielding, olive-green zinc plating, passive, W polarization

(2) AMP14F4SP3(W): AMP series, 14# shell, square flange receptacle with 4 silver plated sockets, thread termination, shielding, olive-green zinc plating, passive, W polarization

## Outline dimension

AMP plug

	shell size	<b>D1</b>	<b>D2</b>
	<b>14</b>	24	14
	<b>18</b>	28	18
	<b>22</b>	32	22
	<b>24</b>	34	24
	<b>27</b>	37	27
	<b>30</b>	40	30
	<b>33</b>	43	33
	<b>36</b>	46	36
	<b>39</b>	49	39



### AMP receptacle (thread termination)

	shell size	D1	D2	B	E
	<b>14</b>	15.7	14	25	19
<b>18</b>	19.7	18	27.5	21.5	
<b>22</b>	23.7	22	30	24	
<b>24</b>	25.7	24	32	26	
<b>27</b>	28.7	27	34.5	28	
<b>30</b>	31.7	30	36.5	30	
<b>33</b>	34.7	33	39.5	32.5	
<b>36</b>	37.7	36	41	34	
<b>39</b>	40.7	39	43	36	

### AMP receptacle (non-thread termination)




























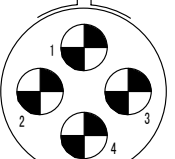
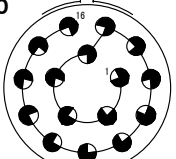
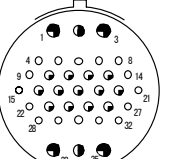
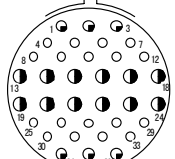
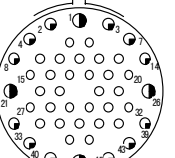
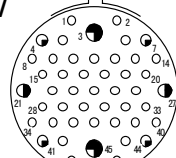
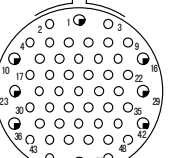
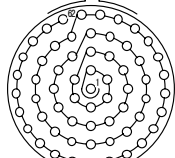
	shell size	D1	D2	B	E
	<b>14</b>	15.7	14	25	19
<b>18</b>	19.7	18	27.5	21.5	
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<b>24</b>	25.7	24	32	26	
<b>27</b>	28.7	27	34.5	28	
<b>30</b>	31.7	30	36.5	30	
<b>33</b>	34.7	33	39.5	32.5	
<b>36</b>	37.7	36	41	34	
<b>39</b>	40.7	39	43	36	

### AMP receptacle recommended panel cut-out dimension

	shell size	D	E
	<b>14</b>	14.3	19
<b>18</b>	18.3	21.5	
<b>22</b>	22.3	24	
<b>24</b>	24.3	26	
<b>27</b>	27.3	28	
<b>30</b>	30.3	30	
<b>33</b>	33.3	32.5	
<b>36</b>	36.3	34	
<b>39</b>	39.3	36	

### AMP Series Insert Arrangement (front face of pin insert)

Shell number


14	1 	2 	3 	4 	5 
18	4 	5 	7 	4-01 	
22	10 	14 			
24	5 	12 	19 		
27	12 	19 	24 		
30	15 	19 	22 	30 	
33	22 	27 	41 		
36	40 	41 	55 		
39	4 	16 	35 	36 	
	46 	47 	51 	62 	

  $\phi 1.0$

  $\phi 1.5$

  $\phi 2.0$

  $\phi 3.0$

  $\phi 4.5$

Note:-01 in 4-01 insert arrangement should be marked on the end, for example:

AMP18T4PP-01.