

## 2PM Type Connector

www.renhotec.com

### Russia Standard 2PM Type

**2PM series** circular electrical connectors mainly adopt Russian connector technology. It is widely used for electrical connection and signal transmission between electrical equipment in railway system, trams and trolley bus etc. Its unique structure can make up for the shortcomings of many other similar connectors, making it more convenient and scientific to use. The cable plug and panel socket are threaded connection. The panel socket has a glass sintered sealed socket (M) and a glass sintered sealed bulkhead socket (C), which can simultaneously meet the use requirements in special environments such as vacuum, sealing, and high temperature. Now there are mainly 2PM14/18/22/24/27/30/33/36 and other specifications, its special structure and performance have won the general recognition of the market. At the same time, it can be matched and interchanged with original parts of Russian 2PM(T)/2 (T)、2 /2 、 2 /2 series.



#### Product Parameters

Connector type: Cable plug /panel socket

Orientation: Straight/Angled

Connection method: Thread connection

Shell Material: Aluminum alloy

Contact Material: Copper with silver/gold plated

Shell Size: 2PM14/18/22/24/27/30/33/36/39...

Pin number: 4/7/8/10/19/20/22/24/32...

Termination: Solder

Mating Cycles: 500 times

Working Voltage: 700V

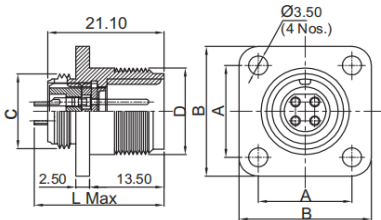
Working Current: 5-30A

Insulator: Bakelite/PBT

Operating temperature: -60 - +200

Insulation resistance: Normal  $\geq 1000M\Omega$  Moist heat  $\geq 20M\Omega$

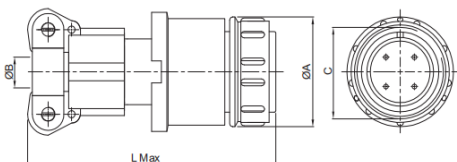
Contact resistance: 0.8-5m $\Omega$



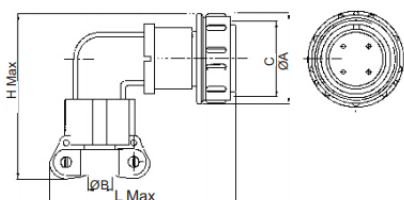
SHELL SIZE	14	18	22	24	27	30	33	36	39	42	45
A	17	20	23	26	29	31	32	35	37	40	43
B	24	27	30	33	36	38	40	43	46	49	52
C (LH) THREAD	M14X1.0	M18X1.0	M22X1.0	M24X1.0	M27X1.0	M30X1.0	M33X1.0	M38X1.0	M39X1.0	M42X1.0	M45X1.0
D (RH) THREAD	M16X1.0	M20X1.0	M24X1.0	M27X1.5	M30X1.5	M33X1.5	M38X1.5	M39X1.5	M39X1.5	M45X1.5	M48X1.5

For connectors with  $\phi 1.0$  and  $\phi 1.5$ mm contacts dimension L=26.00 max.

For connectors with  $\phi 2.0$  and  $\phi 3$ mm contacts dimension L=28.00 max.



SHELL SIZE	14	18	22	24	27	30	33	36	39	42	45
A MAX	22	25	29	32	35	39	42	45	48	51	54
B (MIN) CABLE ENTRY DIA	6.5	10.5	14.50	16.50	18.50	20.50	23.00	23.00	24.50	30.50	30.50
C (RH) THREAD	M16X1.0	M20X1.0	M24X1.0	M27X1.5	M30X1.5	M33X1.5	M36X1.5	M39X1.5	M39X1.5	M45X1.5	M48X1.5
L MAX	53.50	53.50	56	62.50	62.50	62.50	57.50	67.50	67.50	67.50	67.50



SHELL SIZE	14	18	22	24	27	30	33	36	39	42	45
A MAX	22	25	29	32	35	39	47	45	48	51	54
B (MIN) CABLE ENTRY DIA	6.5	10.5	14.50	16.50	18.50	20.50	23.00	23.00	24.50	30.50	30.50
C (RH) THREAD	M16X1.0	M20X1.0	M24X1.0	M27X1.5	M30X1.5	M33X1.5	M36X1.5	M39X1.5	M39X1.5	M45X1.5	M48X1.5
L MAX	51.5	58	62	64	67	71	71	71	74	81	88
H MAX	37.5	41	47.5	50	53.5	57.5	50.5	63.5	56.5	69.5	72.5

### ORDER INFORMATION

Shell Size: 2PM14/18/22/24/27/30/33/36/39/42/45

K: Female J: Male

Number of contacts: 4/7/8/10/19/20/22/24/32 ...

2PM 14 K 4 Q A 2

1 : Gold plated pin  
2 : Silver plated pin

Q: Straight cable plug  
Z: Flange receptacle

A: Shielded tail attachment  
B: Unshielded tail attachment

Note:

Z(MC)A / Z(MC)B:

Receptacle with shielded/unshielded attachment

W: Angled cable plug

M: Sealed Flange receptacle

C: Sealed Bulkhead receptacle

**RENHOTEC:**

**2PM 18 J/K 4 Q / W A/B 1/2**

- 2PM - Series
- 18 - Shell Size
- J/K - Male/Female
- 4 - Number of contacts
- Q/W - Straight/Angled cable plug
- A/B - Shielded/Unshielded tail attachment
- 1/2 - Gold/Silver plated pin



QB



WB



QA



WA

**Russian:**

**2 ( )/2 ( ) 18 / / 4 / 5 A/B 1/2 (B)**

- 2 /2 - Series
- 18 - Shell Size
- / - Straight /Angled cable plug
- / - Unshielded/Shielded tail attachment
- 4 - Number of contacts
- / - Male/Female
- 5 - Combination No.
- A/B - Gold/Silver plated pin
- 1/2 - 100 / 200
- B - All climate performance

**2PM 18 J/K 4 Z M C 1/2**

- 2PM - Series
- 18 - Shell Size
- J/K - Male/Female
- 4 - Number of contacts
- Z- Unsealed Flange receptacle
- M- Sealed Flange receptacle
- C- Sealed bulkhead receptacle
- 1/2 - Gold/Silver plated pin



Z  
2 /2

M  
2 /2

**2 ( )/2 ( )  
2 /2 18 4 / 5 A/B/E 1/2 (B)  
2 (2 )**

- 2 ( )/2 ( )
- 2 /2 - Series
- 2 (2 - )
- 18 - Shell Size
- Receptacle
- 4 - Number of contacts
- / - Male/Female
- 5 - Combination No.
- A/B/E- Gold/Silver/nickel plated pin
- 1/2 - 100 / 200
- B - All climate performance



C  
2 /2

**2PM 18 J/K Z A/B 1/2**

- 2PM - Series
- 18 - Shell Size
- J/K - Male/Female
- 4 - Number of contacts
- Z - Unsealed Flange receptacle
- M- Sealed Flange receptacle
- C- Sealed Bulkhead receptacle
- A/B - Shielded/Unshielded tail attachment
- 1/2 - Gold/Silver plated pin



Z(M/C)+A/B  
+ /

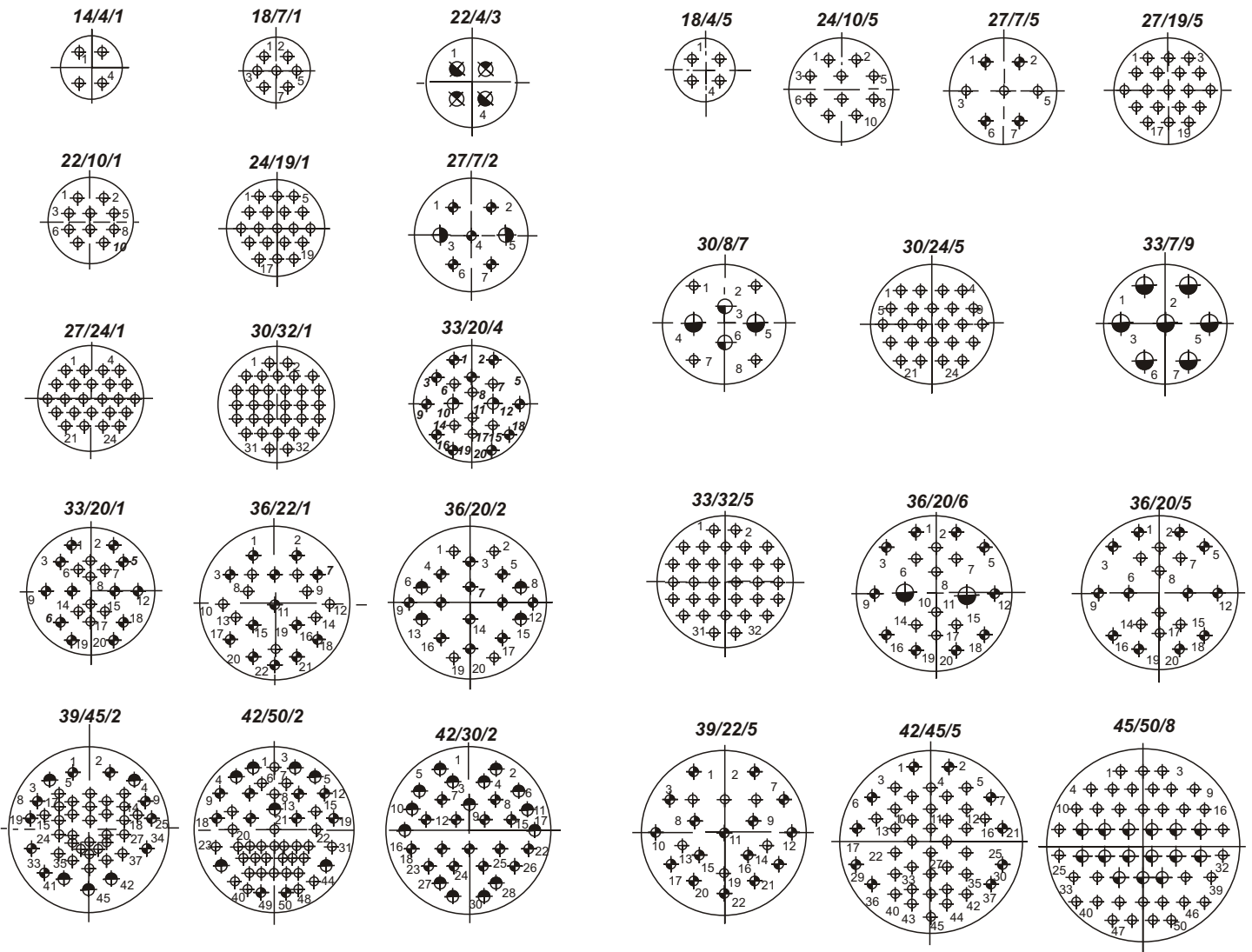
**2 ( )/2 ( ) 18 / 4 / 5 A/B 1/2 (B)  
2 /2  
2 (2 )**

- 2 ( )/2 ( )
- 2 /2 - Series
- 2 (2 )
- 18 - Shell Size
- Receptacle with tail attachment
- / - Unshielded/Shielded tail attachment
- 4 - Number of contacts
- / - Male/Female
- 5 - Combination No.
- A/B/E- Gold/Silver/nickel plated pin
- 1/2 - 100 / 200
- B - All climate performance

# Contact layout diagrams for 2PM(T)

# Contact layout diagrams for 2 ( )

Ex: Shell Size / No. of Contacts / Combination No.



Contact configuration in insert								
For 2PMT size.								
Sr. No.	Inserts			OD and numbers of Contacts				
	Shell Size	No. of Contacts	Combination No.	1.0	1.5	2.0	3.0	
1	14	4	1	4	-	-	-	
2	18	7	1	7	-	-	-	
3	22	4	3	-	-	2	2	
4	22	10	1	10	-	-	-	
5	24	19	1	19	-	-	-	
6	27	24	1	24	-	-	-	
7	30	32	1	32	-	-	-	
8	33	20	4	18	-	-	2	
9	39	45	2	40	5	-	-	
10	42	50	2	43	7	-	-	
For 2 size.								
1	18	4	5	-	4	-	-	
2	24	10	5	-	10	-	-	
3	27	19	5	-	19	-	-	
4	30	8	7	-	4	2	2	
5	30	24	5	-	24	-	-	
6	33	32	5	-	32	-	-	
7	36	20	6	-	18	-	2	
8	42	45	5	-	45	-	-	
9	33	7	9	-	-	-	7	
10	45	50	8	-	35	15	-	