

R28

SERIES

WATER-PROOF CIRCULAR CONNECTORS

T.M.W

R28 Series

Tajimi R28 series high density miniature circular connectors are water-proof up to 20 meter in depth. It's superior quality and miniature size offer design flexibility for a wide variety of applications including small electronic instruments and electro mechanical devices which operate under high humidity conditions.

■ Specifications

Insulation Resistance : DC 100V 1,000M Ω min.

Contact Resistance : DC3V 1A 10m Ω max.

Shock : 50G

Vibration : MIL-STD-202-201A

Moisture Resistance : MIL-STD-202-103B

Corrosion : MIL-STD-202-101D

Temperature Range : -25°C ~ +85°C

Water-proofing : Withstand water pressure =
property 2kg/cm² (atg)

■ Current Rating, Voltage Rating & Withstanding Voltage

Number of Contacts	Insert No.	Voltage Rating (AC Vrms)	Current Rating	Withstanding Voltage (AC Vrms)	Hole size (for Contact)
8	6 - 8	100	2	300	0.5 ϕ
12	9 - 12	100	2	300	0.5 ϕ

● Materials

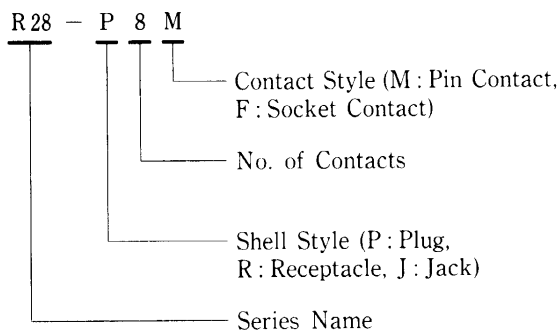
Principal Part	Materials	Plating
Shell	Brass & Zinc Alloy	Nickel
Contact	Copper Alloy	Gold
Insulation	PBT Resin Quolified to UL Standard (94 V-O)	

● Applicable Cable Size

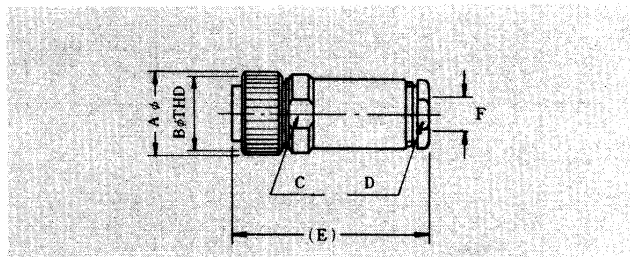
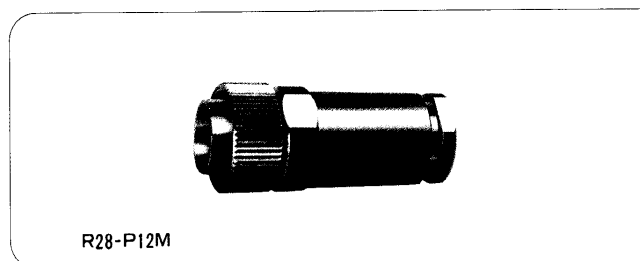
Diameter of Cable-Contact		0.5mm
Core Cable	Conductor Square	0.1mm ² max
	AWG No.	#26 max

Note : Outer diameter of cable should not be larger than Inner diameter of clamping nut.

■ Part Numbering System



■ Plugs

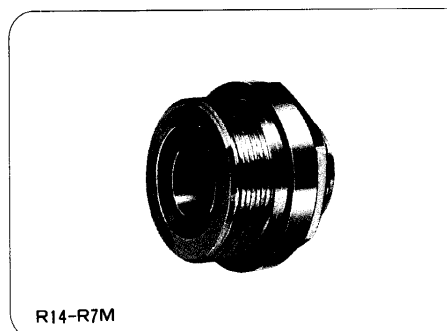


Insert Size	Number of Contacts	Part Number Pin Contact	Dimensions Millimeter					I.D	Number of Contacts	Part Number Socket Contact
			A ϕ	B ϕ	C	D	E			
6	8	R 28 - P 8 M	12.0	10.5 (P=0.75)	10.7	9.0	38.0	4.8 ϕ	8	R 28 - P 8 F
9	12	R 28 - P 12M ()	15.5	M14 (P=1)	14.0	12.0	40.0	6.3 ϕ 6.8 ϕ 7.3 ϕ	12	R 28 - P 12F ()

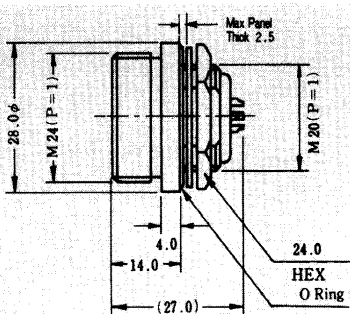
Note : () = Select the most suitable size from the table of inner diameter(I.D) of clamping nut for applicable size cable.



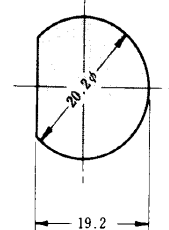
■ Bulkhead Receptacles



R14-R7M



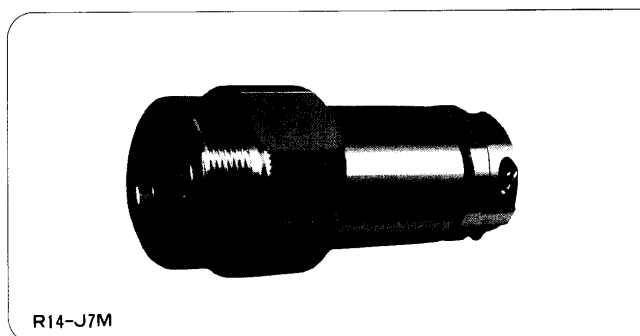
Mounting Hole Dimension



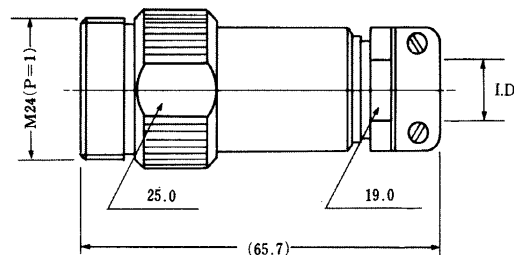
Note : ▼ shows the guide-position.

Number of Contacts	Part Number	Hole size (for Contact)	Voltage Rating (AC Vrms)	Current Rating(A)	Withstanding Voltage (AC Vrms)
2	R14-R 2 M	1.8 ϕ	600	10	1800
3	R14-R 3 M	1.8 ϕ	350	10	1000
4	R14-R 4 M	1.2 ϕ	400	5	1200
5	R14-R 5 M	1.2 ϕ	350	5	1000
7	R14-R 7 M	1.2 ϕ	300	5	900

■ Jacks

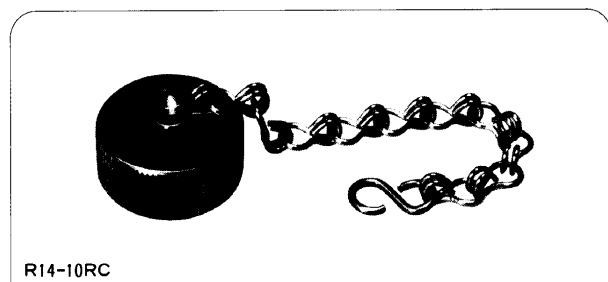


R14-J7M



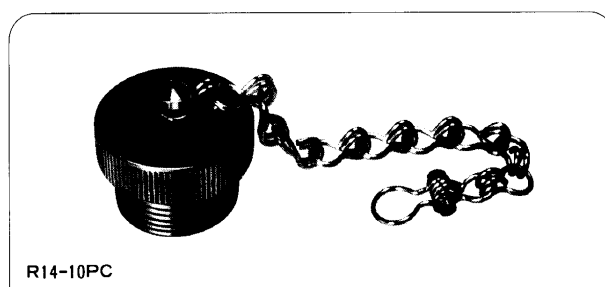
Number of Contacts	Part Number	Hole size (for Contact)	Voltage Rating (AC Vrms)	Current Rating(A)	Withstanding Voltage (AC Vrms)	I.D
2	R14-J 2 M	1.8 ϕ	600	10	1800	10.3 ϕ
3	R14-J 3 M	1.8 ϕ	350	10	1000	
4	R14-J 4 M	1.2 ϕ	400	5	1200	
5	R14-J 5 M	1.2 ϕ	350	5	1000	
7	R14-J 7 M	1.2 ϕ	300	5	900	

■ Caps for Receptacles

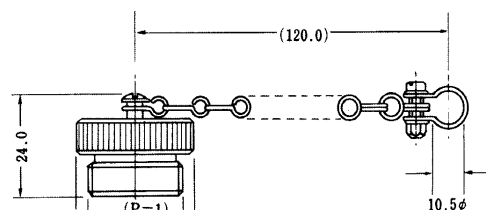
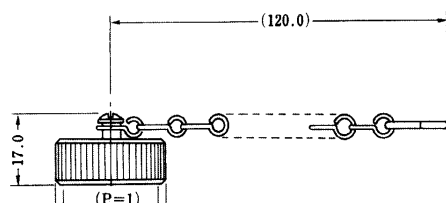


R14-10RC

■ Caps for Plugs

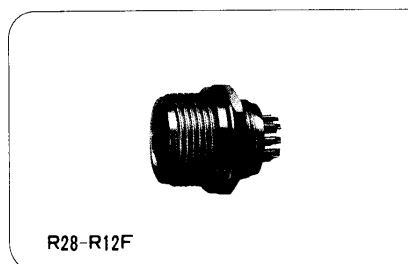


R14-10PC

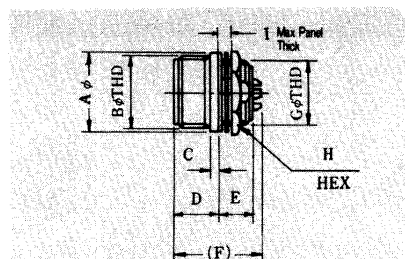




■ Bulkhead Receptacles



R28-R12F



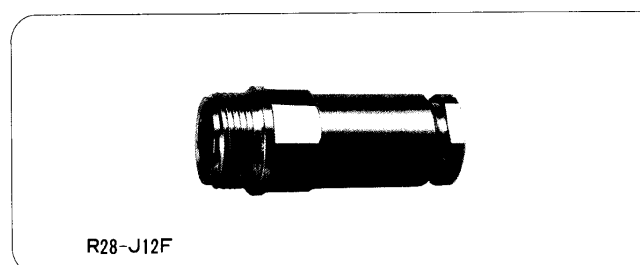
● Mounting Hole Dimension (Bulkhead Receptacles)

Insert Size	No. of Contact	A φ	B
6	8	9.2	8.4
9	12	12.2	11.2

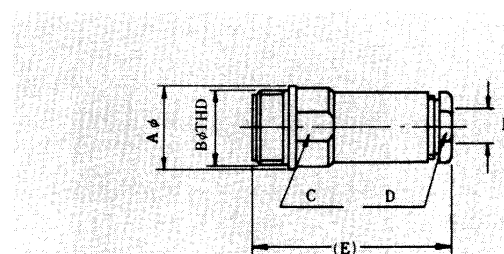
Note: ▼ shows the guide-position.

Insert Size	Number of Contacts	Part Number Socket Contact	Dimensions Millimeter									Number of Contacts	Part Number Pin Contact
			A ϕ	B ϕ	C	D	E	F	G ϕ	H	I		
6	8	R 28- R 8 F	12.0	$\begin{matrix} 10.5 \\ (P=0.75) \end{matrix}$	1.5	9.0	6.5	17.8	$\begin{matrix} 9.0 \\ (P=0.5) \end{matrix}$	11.0	1.6	8	R 28- R 8 M
9	12	R 28- R 12 F	15.5	$\begin{matrix} M14 \\ (P=1) \end{matrix}$	1.5	9.0	6.5	17.8	$\begin{matrix} 12.0 \\ (P=0.8) \end{matrix}$	14.0	1.6	12	R 28- R 12M

■ Jacks



R28-J12F



Insert Size	Number of Contacts	Part Number Socket Contact	Dimensions Millimeter					I.D	Number of Contacts	Part Number Pin Contact
			A φ	B φ	C	D	E	F		
6	8	R 28-J 8 F	12.0	$\begin{matrix} 10.5 \\ (P=0.75) \end{matrix}$	10.7	9.0	38.0	4.8 φ	8	R 28-J 8 M
9	12	R 28-J 12 F ()	15.5	$\begin{matrix} M14 \\ (P=1) \end{matrix}$	14.0	12.0	40.5	$\begin{matrix} 6.3 \phi \\ 6.8 \phi \\ 7.3 \phi \end{matrix}$	12	R 28-J 12M ()

Note : () = Select the most suitable size from the table of inner diameter(I.D) of clamping nut for applicable size cable.

■ Outer Diameter of Stranding Center Conductor

● A.W.G.(American Wire Gauge)

A.W.G. Size	Construction No./mm	Outer Dia. mm
28	7/0.127	0.38
	8/0.12	0.39
26	7/0.16	0.48
24	7/0.203	0.61
	11/0.16	0.61
22	7/0.254	0.78
	17/0.16	0.76
20	7/0.32	0.96
	20/0.18	1.0
	26/0.16	0.94
18	19/0.254	1.27
	43/0.16	1.21
16	19/0.287	1.44
	26/0.26	1.53
	54/0.18	1.53

● Sectional Area

Sectional area mm ²	Construction No./mm	Outer Dia. mm
0.05	7/0.1	0.3
0.08	7/0.12	0.36
0.1	7/0.14	0.42
	10/0.12	0.48
0.14	7/0.16	0.48
	7/0.18	0.54
0.2	7/0.2	0.6
	19/0.12	0.6
0.3	7/0.23	0.69
	7/0.26	0.78
	12/0.18	0.75
0.4	16/0.18	0.9
0.5	7/0.29	0.87
	19/0.18	0.9
	20/0.18	1.0

Sectional area mm ²	Construction No./mm	Outer Dia. mm
0.75	19/0.23	1.15
	30/0.18	1.15
0.9	7/0.4	1.2
	19/0.26	1.3
1.25	7/0.45	1.35
	30/0.23	1.48
	50/0.18	1.51

● Other than the table above, the formula of stranding center conductor is as follows.

$$D = d \times 1.154 \times \sqrt{N}$$

D : Outer Dia. of Stranding Center Conductor

d : Outer Dia. of Component Wire

N : No. of Component Wire

Insert Arrangements All the drawings below are ones viewed from the rear side of pin insulators.(pin contacts)

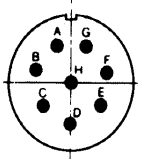
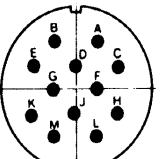
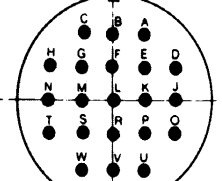
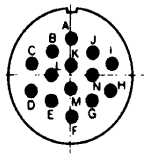
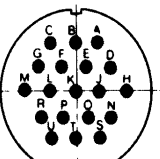
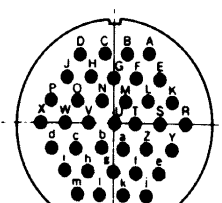
R04 SERIES

INSERT 6			INSERT 9		INSERT 12
					
6-2	6-3	6-5	9-6	9-8	12-12

R 2 8 SERIES

INSERT 6	INSERT 9
	
6-8	9-12

TCI 108 SERIES and R14 SERIES(INSERT 10 ONLY)

INSERT 10	INSERT 16	INSERT 20	INSERT 26
			
10-2 A	16-8 A	20 S-12	26 S-21
			
10-3 A	16-14	20 S-19	26 S-37
			
10-4			
			
10-5			
			
10-7			

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