

# Circular Connectors Conforming to JIS C 5432

## JR Series



### ■ Features

1. These round connectors conform to JIS C 5432 "Circular connectors for electric appliances."

### ■ Product Specifications

Ratings	Rated current	Shell size	Number of contacts	Rated current
		13	3	10A
		5	5A	
	16	7	10A	
		10, 14	5A	
	21	10	10A	
		16	5A (Crimp type: 3A)	
		26	5A (Contact numbers A and B only: 10A)	
	25	4	30A	
		5, 16	10A	
		24	5A (Crimp type: 3A)	

Ratings	Rated voltage	Shell size	Number of contacts	Rated current
		13	3, 5	AC250, DC350V
	16	7, 10, 14	AC250, DC350V	
	21	10, 16, 26	AC250, DC350V	
	25	4, 5	AC1000V, DC1400V	
		16, 24	AC250, DC350V	

Ratings	Operating temperature range	-25 to 85°C
	Storage temperature range	-10 to 60°C

Items	Specifications	Conditions
1. Contac resistance	5 mΩ max. JR 21-16 contact crimping type: 10 mΩ max. JR 25-24 contact crimping type: 10 mΩ max.	Measured at DC 1 A
2. Insulation resistance	1,000 MΩ min. JR 25-4 and 5 contacts: 10,000 mΩ min.	Measured at DC 500 V
3. Withstanding voltage	No flashover or dielectric breakdown.	AC 1,000 V for one minute JR 25-4, 5 contacts: AC 3,000 V for one minute
4. Vibration resistance	No electrical discontinuity for 10 μs or greater	10 to 55 Hz/cycle, amplitude: 0.75 mm, 3 directions, 2 hours each
5. Shock resistance	No electrical discontinuity for 10 μs or greater	Acceleration: 490 m/s <sup>2</sup> , duration: 11 ms, 3 axis directions, 3 cycles each
6. Mating cycles	Contact resistance: 10 mΩ max.	500 times
7. Temperature cycle	Insulation resistance: 1,000 MΩ min. JR 25-4 and 5 contacts: Insulation resistance: 10,000 MΩ min.	-40°C: 30 minutes → Normal temperature: 10 to 15 minutes → 100°C: 30 minutes → Normal temperature: 10 to 15 minutes, left for 5 cycles
8. Moisture resistance	Insulation resistance (when dry) 100 MΩ min. 5,000 MΩ min. : JR 25-4 , 5 contacts	Temperature: 40°C, relative humidity: 90 to 95%, left for 96 hours

### ■ Materials

Part	Material	Finish	Remarks
Shell	Aluminum alloy	Nickel plating	————
Insulator	Phenol resin PPS resin	————	UL94V-0
Contact	Copper alloy	Silver plating	————

## Ordering Information

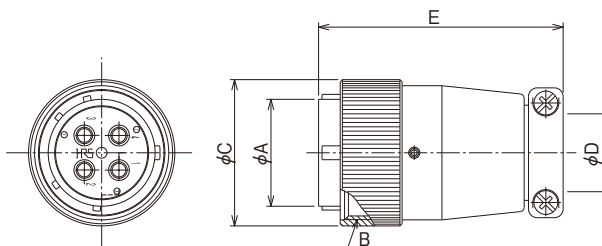
### JR 16 P A - 10 S C (\*\*)

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Model name: JR Series	⑤ Number of contacts
② Shell size: The shell size is the outer shell diameter of the mating end of the plug.	⑥ Contact form P: Male contact S: Female contact
③ Shell type P : Threaded lock plug      J : Threaded lock jack R : Threaded lock receptacle    BP : Bayonet-lock plug RC : Threaded lock receptacle cap    BR : Bayonet-lock receptacle	⑦ Contact termination method: None : Solder termination C : Crimp termination
④ Shell variation: Letters such as A, B, C, etc. indicate variations in the shell.	⑧ Other specifications: A two-digit number is added to indicate other specifications.

## Solder Type

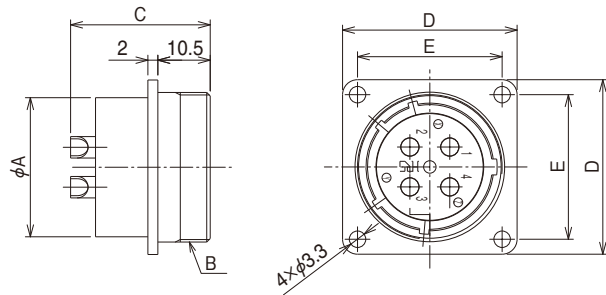
### ● Threaded lock plug



HRS No.	Part No.	No. of contacts	φA	B	φC	φD	E	JIS No.
114-0501-7 71	JR13PK-3P(71)	3	12.7	M18×1	21.8	8.5	45.5	CNR01SPM013003
114-0502-0 71	JR13PK-5P(71)	5						CNR01SPM013005
114-0503-2 71	JR16PK-7P(71)	7	16.3	M22×1	25.8	11.5	49.5	CNR01SPM016007
114-0504-5 71	JR16PK-10P(71)	10						CNR01SPM016010
114-0505-8 71	JR21PK-10P(71)	10	20.5	M26×1	29.8	15	53.5	CNR01SPM021010
114-0506-0 71	JR21PK-16P(71)	16						CNR01SPM021016
114-0507-3 71	JR25PK-16P(71)	16	24.7	M30×1	33.8	18	56.5	CNR01SPM025016
114-0508-6 71	JR25PK-24P(71)	24						CNR01SPM025024
114-0626-2	JR25PH-4P	4						_____
114-0624-7	JR25PH-5P	5						_____
114-0509-9 71	JR13PK-3S(71)	3	12.7	M18×1	21.8	8.5	45.5	CNR01SPF013003
114-0510-8 71	JR13PK-5S(71)	5						CNR01SPF013005
114-0511-0 71	JR16PK-7S(71)	7	16.3	M22×1	25.8	11.5	49.5	CNR01SPF016007
114-0512-3 71	JR16PK-10S(71)	10						CNR01SPF016010
114-0513-6 71	JR21PK-10S(71)	10	20.5	M26×1	29.8	15	53.5	CNR01SPF021010
114-0514-9 71	JR21PK-16S(71)	16						CNR01SPF021016
114-0515-1 71	JR25PK-16S(71)	16	24.7	M30×1	33.8	18	56.5	CNR01SPF025016
114-0516-4 71	JR25PK-24S(71)	24						CNR01SPF025024
114-0627-5	JR25PH-4S	4						_____

## ■ Solder Type

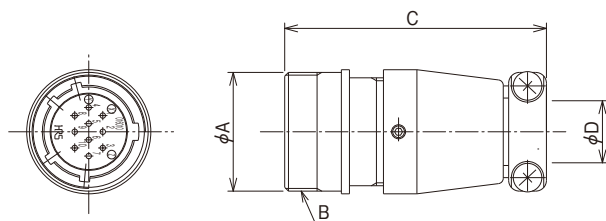
### ● Threaded lock receptacle



HRS No.	Part No.	No. of contacts	φA	B	C	D	E	JIS No.
114-0517-7	JR13RK-3P	3	15.9	M18×1	26.6	26	20	CNR01SRM013003
114-0518-0	JR13RK-5P	5			26.1			CNR01SRM013005
114-0519-2	JR16RK-7P	7	19.9	M22×1	26.6	29	23	CNR01SRM016007
114-0520-1	JR16RK-10P	10			26.1			CNR01SRM016010
114-0521-4	JR21RK-10P	10	23.9	M26×1	26.6	32	26	CNR01SRM021010
114-0522-7	JR21RK-16P	16			26.1			CNR01SRM021016
114-0523-0	JR25RK-16P	16	27.9	M30×1	26.6	35	29	CNR01SRM025016
114-0524-2	JR25RK-24P	24			26.1			CNR01SRM025024
114-0628-8	JR25RH-4P	4			28			—
114-0525-5	JR13RK-3S	3			28			CNR01SRF013003
114-0526-8	JR13RK-5S	5	15.9	M18×1	27	26	20	CNR01SRF013005
114-0527-0	JR16RK-7S	7	19.9	M22×1	28			CNR01SRF016007
114-0528-3	JR16RK-10S	10	23.9	M26×1	27	29	23	CNR01SRF016010
114-0529-6	JR21RK-10S	10			28			CNR01SRF021010
114-0530-5	JR21RK-16S	16	27	M26×1	27	32	26	CNR01SRF021016
114-0531-8	JR25RK-16S	16			28			CNR01SRF025016
114-0532-0	JR25RK-24S	24	27.9	M30×1	27	35	29	CNR01SRF025024
114-0629-0	JR25RH-4S	4			28			—
114-0625-0	JR25RH-5S	5			27.8			—

## ■ Solder Type

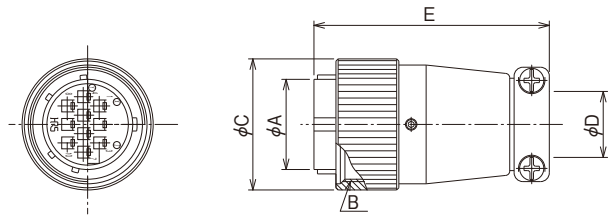
### ● Threaded lock jack



HRS No.	Part No.	No. of contacts	φA	B	C	φD
114-0533-3	JR13JK-3P	3	19	M18×1	44.5	8.5
114-0534-6	JR13JK-5P	5				
114-0535-9	JR16JK-7P	7	23	M22×1	48.5	11.5
114-0536-1	JR16JK-10P	10				
114-0537-4	JR21JK-10P	10	27	M26×1	52.5	15
114-0538-7	JR21JK-16P	16				
114-0539-0	JR25JK-16P	16	31	M30×1	55.5	18
114-0540-9	JR25JK-24P	24				
114-0541-1	JR13JK-3S	3	19	M18×1	44.5	8.5
114-0542-4	JR13JK-5S	5				
114-0543-7	JR16JK-7S	7	23	M22×1	48.5	11.5
114-0544-0	JR16JK-10S	10				
114-0545-2	JR21JK-10S	10	27	M26×1	52.5	15
114-0546-5	JR21JK-16S	16				
114-0548-0	JR25JK-24S	24	31	M30×1	55.5	18

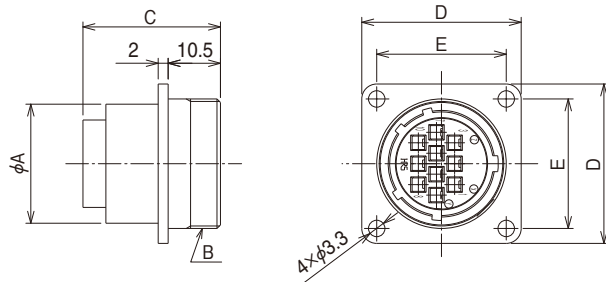
## ■ Crimp Type

### ● Threaded lock plug



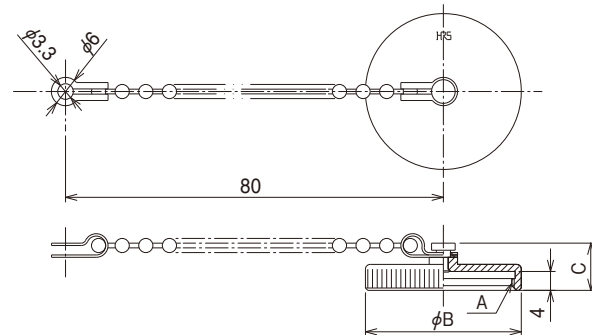
HRS No.	Part No.	No. of contacts	$\phi A$	B	$\phi C$	$\phi D$	E	Remarks
114-0570-0 71	JR21PK-10PC(71)	10	20.5	M26×1	29.8	15	53.5	Contact $\phi 1.6$
114-0571-2 71	JR21PK-10SC(71)							Contact $\phi 1$
114-0572-5 71	JR21PK-16PC(71)	16	24.7	M30×1	33.8	18	56.5	
114-0573-8 71	JR21PK-16SC(71)							
114-0574-0 71	JR25PK-24PC(71)	24	24.7	M30×1	33.8	18	56.5	
114-0575-3 71	JR25PK-24SC(71)							

### ● Threaded lock receptacle



HRS No.	Part No.	No. of contacts	$\phi A$	B	C	D	E	Remarks
114-0577-9	JR21RK-10SC	10	23.9	M26×1	27.6	32	26	Contact $\phi 1.6$
114-0578-1	JR21RK-16PC	16			25.4			35
114-0579-4	JR21RK-16SC				23			
114-0581-6	JR25RK-24SC	24			23			

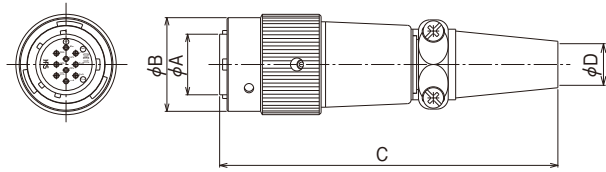
### ● Threaded lock receptacle cap



HRS No.	Part No.	A	$\phi B$	C	JIS No.
114-0053-8 71	JRC13RC(71)	M18×1	21	10	CNR01RC013
114-0054-0 71	JRC16RC(71)	M22×1	25		CNR01RC016
114-0055-3 71	JRC21RC(71)	M26×1	29		CNR01RC021
114-0056-6 71	JRC25RC(71)	M30×1	33		CNR01RC025

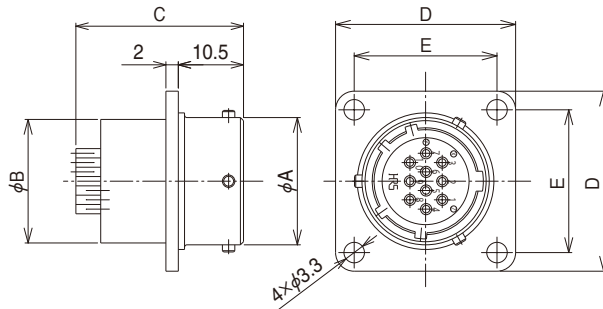
## ■ Solder Type

### ● Bayonet - lock plug



HRS No.	Part No.	No. of contacts	φA	φB	C	φD
114-0253-7 71	JRC16BP-7P(71)	7	16.3	27	91	11.2
114-0252-4 71	JRC16BP-10P(71)	10				
114-0251-1 71	JRC16BP-14P(71)	14				
114-0268-4 71	JRC21BPA-26P(71)	26	20.5	31	98	12.2
114-0256-5 71	JRC16BP-7S(71)	7	16.3	27	91	11.2
114-0254-0 71	JRC16BP-14S(71)	14				
114-0267-1 71	JRC21BP-26S(71)	26	20.5	31	98	12.2

### ● Bayonet - lock receptacle

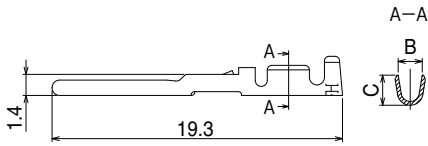


HRS No.	Part No.	No. of contacts	φA	φB	C	D	E
114-0259-3 71	JRC16BR-7P(71)	7	20.5	19.9	26.5	29	23
114-0257-8 71	JRC16BR-14P(71)	14			26.6		
114-0269-7 71	JRC21BR-26P(71)	26	25.8	23.9	26.8	32	26
114-0262-8 71	JRC16BR-7S(71)	7	20.5	19.9	27.7	29	23
114-0261-5 71	JRC16BR-10S(71)	10			26.5		
114-0260-2 71	JRC16BR-14S(71)	14			25.8		
114-0270-6	JRC21BRA-26S	26	25.8	23.9	28	32	26

## ◆ Crimp Contacts

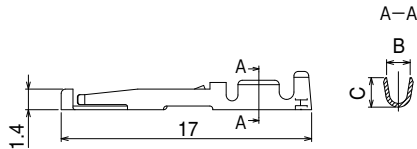
Contact diameter  $\phi 1.0\text{mm}$

### Male contact



Type	HRS No.	Part No.	B	C	Applicable wire
Loose contact	114-0243-3	JRC-PC2-112	1.6	2.0	AWG#20~24
	114-0244-6	JRC-PC2-122	1.45	1.5	AWG#24~28
Reel contact	114-0245-9	JRC-PC2-212	1.6	2.0	AWG#20~24
	114-0246-1	JRC-PC2-222	1.45	1.5	AWG#24~28

### Female contact

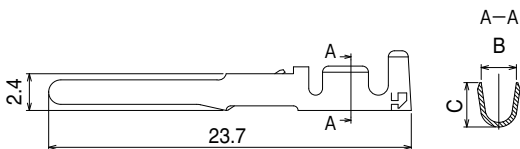


Type	HRS No.	Part No.	B	C	Applicable wire
Loose contact	114-0247-4	JRC-SC2-112	1.6	2.0	AWG#20~24
	114-0248-7	JRC-SC2-122	1.45	1.5	AWG#24~28
Reel contact	114-0249-0	JRC-SC2-212	1.6	2.0	AWG#20~24
	114-0250-9	JRC-SC2-222	1.45	1.5	AWG#24~28

Note: Loose contact in pack of 100 pcs. Reel contact contains 8,000 pcs.

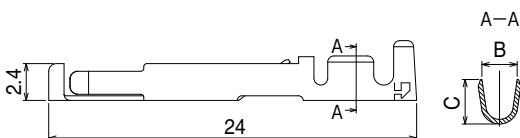
Contact diameter  $\phi 1.6\text{mm}$

### Male contact



Type	HRS No.	Part No.	B	C	Applicable wire
Loose contact	114-0239-6	JRC-PC-112	2.3	2.9	AWG#16~20
Reel contact	114-0240-5	JRC-PC-212			

### Female contact



Type	HRS No.	Part No.	B	C	Applicable wire
Loose contact	114-0241-8	JRC-SC-112	2.3	2.9	AWG#16~20
Reel contact	114-0242-0	JRC-SC-212			

Note: Loose contact in pack of 100 pcs. Reel contact contains 5,000 pcs.

◆ **Applicable Tools**

Contact dia.	Type	Item	HRS No.	Part No.	Applicable terminal	Applicable wire	
φ1	Manual	Manual crimping tool	150-0006-1	RM-TC-11	JRC-PC2-112 JRC-SC2-112	AWG#20~24	
		Automatic crimping tool	150-0007-4	RM-TC-12	JRC-PC2-122 JRC-SC2-122	AWG#24~28	
	Automatic	Applicator		901-0005-4	CM-105	—————	—————
				901-2037-1	AP105-JRC2-1	JRC-PC2-212 JRC-SC2-212	AWG#20~24
				901-2038-4	AP105-JRC2-2	JRC-PC2-222 JRC-SC2-222	AWG#24~28
		Extractor	150-0008-7	RM-TP	—————	—————	
φ1.6	Manual	Manual crimping tool	150-0033-4	JRC-TC-11	JRC-PC-112 JRC-SC-112	AWG#16	
			150-0034-7	JRC-TC-12	JRC-PC-112 JRC-SC-112	AWG#18~20	
	Automatic	Automatic crimping tool	901-0005-4	CM-105	—————	—————	
			901-2039-7	AP105-JRC-1	JRC-PC-212 JRC-SC-212	AWG#16~20	
		Extractor	150-0035-0	JRC-TP	—————	—————	

**Hand Tool Crimp**



(For Contact Diameter φ1.0mm)



(For Contact Diameter φ1.6mm)

**Extraction Tool**



(For Contact Diameter φ1.0mm)



(For Contact Diameter φ1.6mm)



**Automatic Crimping Machine CM-105**

### ◆ Contact Position Arrangement

Shell size					
No. of contacts	3		5		
Withstanding voltage	AC1000V a minute				
Current rating	10A		5A		
Insulation resistance	1000MΩ MIN.				
Contact resistance	5mΩ MAX.				
Solderpot inner diameter	1.7mm dia.		1.1mm dia.		
Shell size					
No. of contacts	7		10		14
Withstanding voltage	AC1000V a minute				
Current rating	10A		5A		
Insulation resistance	1000MΩ MIN.				
Contact resistance	5mΩ MAX.				
Solderpot inner diameter	1.7mm dia.			1.1mm dia.	
Shell size					
No. of contacts	10		16		26
Withstanding voltage	AC1000V a minute				
Current rating	10A		5A (crimp type 3A)	5A	10A (only A, B)
Insulation resistance	1000MΩ MIN.				
Contact resistance	5mΩ MAX.		5mΩ MAX. (crimp type 10mΩ)	5mΩ MAX.	
Solderpot inner diameter	1.7mm dia.		1.1mm dia.		1.7mm dia. (only A, B)
Shell size					
No. of contacts	4	5	16		24
Withstanding voltage	AC3000V a minute		AC1000V a minute		
Current rating	30A	10A		5A (crimp type 3A)	
Insulation resistance	10,000MΩ MIN.		1000MΩ MIN.		
Contact resistance	5mΩ MAX.			5mΩ MAX. (crimp type 10mΩ)	
Solderpot inner diameter	3.4mm dia.	1.7mm dia.		1.1mm dia.	

Remarks: 1. Viewed from mating face.  
2. The withstand voltage is the test value.



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