# RM SERIES SHELL SIZE 12 - 31mm CIRCULAR CONNECTORS

## Introduction

easy to use. type, bayonet sleeve type or quick detachable type are

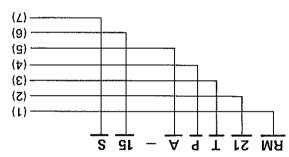
.19~03 aged no Refer to the contact arrangements of RM series connectors possible to meet the most stringent demands of users. mechanical and electrical performance thus making it RM Series are miniaturized in size, rugged and excellent in Various kinds of accessories are available.

special series. The lock mechanisms with thread coupling able in two types). And also available water proof type in 10, 12, 15, 20, 31, 40, and 55 (contacts 2 and 4 are avail-31. There are also 16 kinds of contacts: 2, 3, 4, 5, 6, 7, 8, RM Series is available in 5 shell sizes: 12, 15, 21, 24, and communication equipment as well as electronic equipment. proven experience to meet the most stringent demands of developed as the result of many years of research and RM Series are compact, circular connectors HIROSE has

#### (Note that the above may not apply depending on type.) Main materials

Silver plated	Copper alloy	Female contact
Silver plated	Copper alloy	Male contact
	Synthetic resin	Insulator
Nickel plated	Brass and Zinc alloy	Shell
dsini∃	Material	Part

# Ordering Information



:S (Z)

:91 (9)

:A (3)

#### Product identification

R-F: Square flange for receptacle A-C: Cap of receptacle

Shell model change mark P-B: Cord bushing

Each time the shell undergoes a change in en-

Do not use the letter for C, J, P, R avoiding closure or the like, it is marked as A, B, D, E.

Number of pins confusion.

nig :q Shape of contact

shall be classified adding with alphabetical letter, However, connecting method of contact or type 2: Socket

> The shell size is figured by outer diameter of (1) RM: Round Miniature series name

12, 15, 21, 24, 31. fitting section of plug and available in 5 types,

Thread coupling type Type of lock mechanism as follows; :1 (E)

Type of connector :ব (৮) Gnick detachable type :0 Bayonet sleeve type :8

Waterproof :4М : ۲ Receptacle: :8 Plug

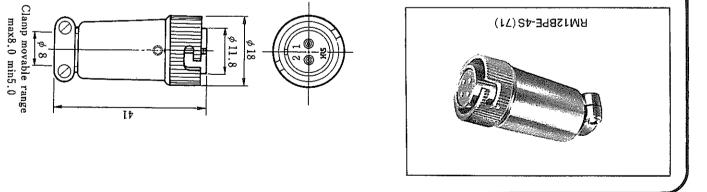
P-CP\*: Cord clamp for plug Waterproof receptacle

(\* is shown applicable diameter of cable)

Standard RM Series

RM12B Connectors

(Bayonet sleeve type)



109-0422-7-71 RM12BPE-7PH(71) 109-0428-3-71 RM12BPE-75(71) 109-0421-4-71|RM12BPE-6PH(71) 109-0427-0-71|RM12BPE-65(71) 109-0420-1-71 RM12BPE-5PH(71) 109-0456-8-71 RM12BPE-5S(71) 0 109-0419-2-71 RM12BPE-4PH(71) 109-0452-2-71 RM12BPE-4S(71) 109-0418-0-71 RM12BPE-3PH(71) 109-0454-2-71 RM12BPE-3S(71) 109-0417-7-71 RM128PE-2PH(71) 7 109-0423-0-71 RM128PE-2S(71) SHoA to .oV SHoA to oV Part No. ON SAH Part No. HBS NO. (An example in shape)

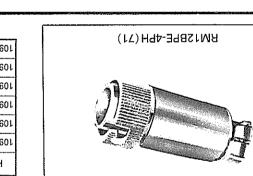
sleeve locking mechanism, the most compact in the series.

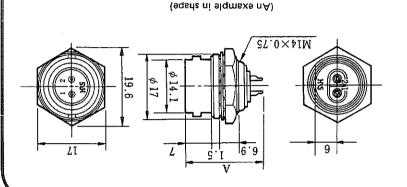
dustproof or waterproof design.

RM12B connectors (bayonet sleeve type) are provided with a bayonet

special measures are taken for resistance to harsh conditions such as construction. Used widely for all types of equipment, although no our former models. Mechanically stable thanks to its rigid and simple

Standard RM series are more compact and higher in performance than





Receptacle

RM12BRD-4PH(71)	
- *	

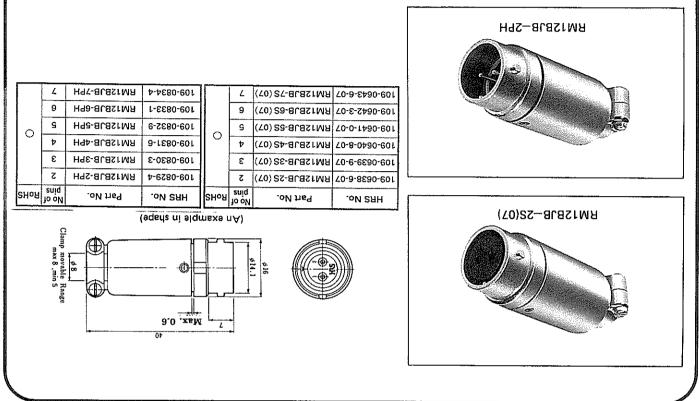
RM12BRD-4S(71)

SHoA	A	to .oM aniq	Рап Ио.	.on SRH
	9.12	2	RM128RD-25(71)	14-8-6090-601
	9.12	ε	RM128RD-3S (71)	17-7-0130-601
	9.12	Þ	(IT) SP-GR8STMA	17-0-1130-601
0	9.1S	g	(17) SS-GABSTMA	17-2-2130-601
	9.15	9	(17)28-GA821MA	17-2-8130-601
	9,12	L	(17) ST-GABS1MA	17-1-6130-601

	٠,	09 ə6ed	ass , salod gnitnuom	Remark: For
	20.5	L	RM128RD-7PH(71)	17-1-8280-901
	20.5	9	RM12BRD-6PH(71)	1 <i>L-6-L</i> Z80-60t
٦	3.02	9	RM128RD-5PH(71)	17-8-8280-601
$ ^{\circ}$	20.5	Þ	RM128RD-4PH(71)	16-6825-3-71
	20.5	ε	RM128RD-3PH(71)	109-0854-0-71
	20.5	2	(17) H9S-GA8S1MA	17-8-6280-601
SHPH	٧	aniq	Part No.	ON SHH

#### For mounzing holes, see page 60. Note that the RABSMB differs in mounting dimensions from the 20.5 H97-88821MR | 8-5280-901 RM128RB-75 0-9190-601 RM12BRB-6PH 9'0Z Z-LZ80-601 9.12 RM128R8-65 0-1890-601 RM128RB-4PH 20'2 H98-8881MR 0-0280-601 88-8881MR 8-0890-601 RM128RB-4PH 0-6180-601 20'2 9.12 RM12BRB-45 109-0279-9 9'0Z RM128R8-3PH 8-8180-601 9.1S RM12BRB-3S 9-8780-601 9'0Z RM128R8-2PH 2-4180-601 9.1Z RM128RB-25 E-7780-601 гои теч ٨ HES No. Part No. HES No. (An example in shape) RM12BRB-45 6 7 Ø - Þ 6 17 Receptacle (square flange) single methed

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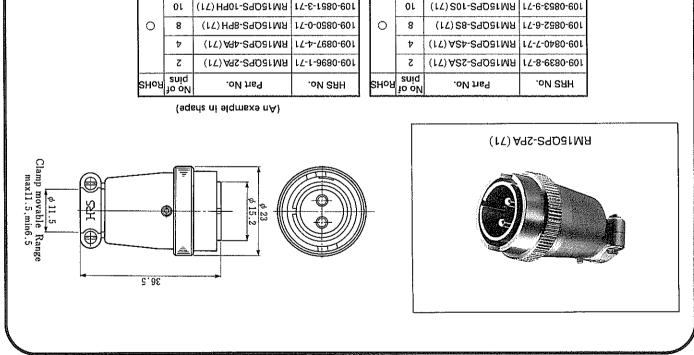


# Receptacle

### Model RM15Q Connectors

### (Quick insertion/extraction system)

# Plug



15

mechanism of a thread coupling or bayonet coupling.

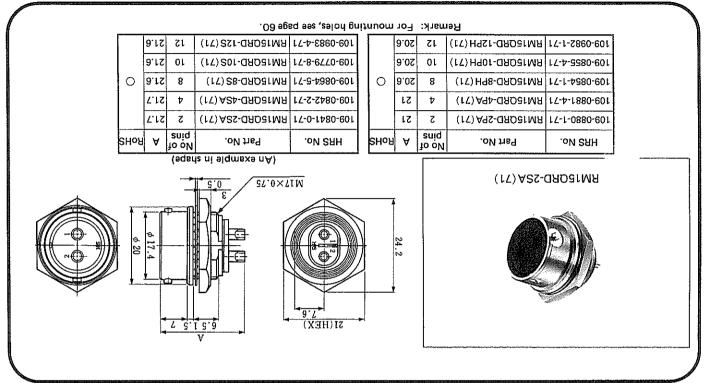
mechanism allows quicker operation than the locking extraction locking-mechanism. Developed by HIROSE, this

The model RM15Q connectors have a quick insertion/

(17) H921-292031MA | 17-0-0860-601

# Receptacle (Jam Mut to be fastened)

109-0981-9-71 RM15QPS-12S(71)



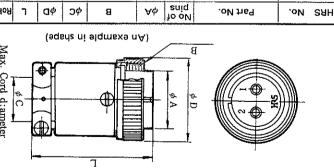
T Connectors )MA

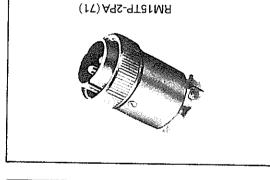
(Thread coupling)

Plug

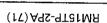
Connectors of shell size 21 and larger use trapezoidal A connector of shell size 15 uses threads of 1 mm pitch, sizes of 15, 21, 24, and 31 have this locking mechanism. mechanism. Four models of the connectors with shell The RM[ ]T connectors have a screw coupling locking

# Max. В Cord d:amet φD





(17) A22-9TatMA



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_	TM35×2	8.05	SS	(17) 928-9T1EMR	17-2-4960-601			
	Z×25MT	30.8	99	(17) 233-9T15MR	17-7-2950-601			
	Z×25MT	8.05	0Þ	(17) 904-9T15MA	17-0-6360-601			
_				<del> </del>				

109-0482-9-71 RM24TP-31P(71)

109-0481-6-71 RM24TP-31S(71)

109-0324-8-71 RM21TP-20P(71)

109-0322-2-71 RM21TP-205(71)

109-0323-5-71 RM21TP-15P(71)

109-0321-0-17 RM21TP-155 (71)

(17)H901-9T21M8 |17-0-7380-601

(17) 201-9731MA 17-8-3300-901

(17) H98-9T31MA | 17-7-8280-601

109-0053-2-71 RM15TP-8S (71)

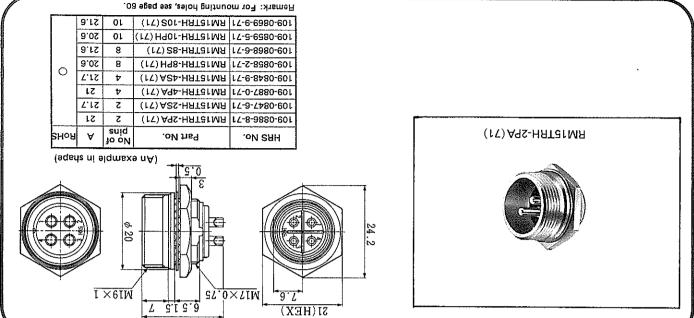
(IT) A94-9T31MA | IT-0-9880-901

(17) A24-9T21MA | 17-E-8480-601

(17) A92-9T81MR 17-7-8880-801

(17) A2S-9T21MA | 17-0-2480-601

# Receptacle (Jam Nu



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2.12 11.5

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3.12 3.11

3,15 21.5

3.15 21.5

3.11

TM29×2

S×6SMT

**TM25×2** 

TM25×2

**TM25×2** 

**LM25×2** 

L×6LW

L×6LW

1×61W

1×61W

1×61W

L×61W

L×61W

r×61M

24.3

24.3

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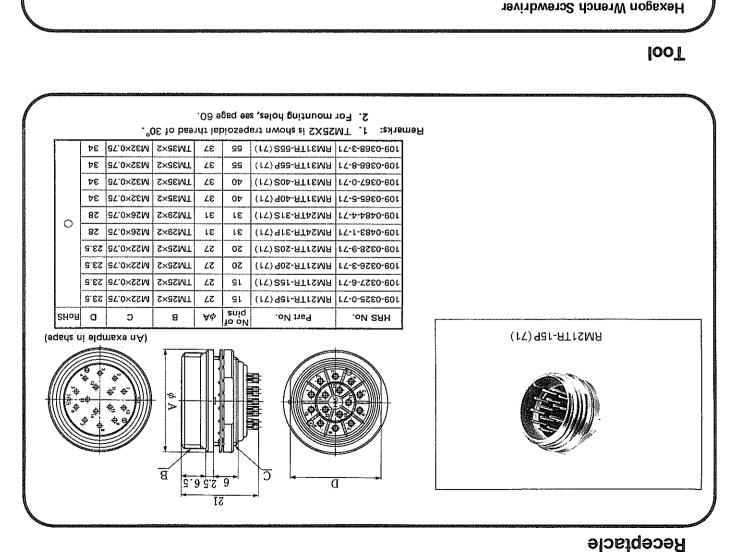
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threads for quick operation.

PB 205/1.27

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Part No.

Remark

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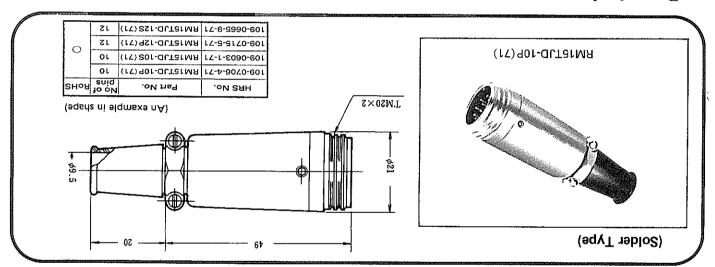
RM15T(D Type) connectors

Since the model D uses locking threads of  $30^\circ$  trapezoidal connectors boast a highly refined design. grade of commercial applications such as VTR. These The RM15T (model D) connectors are designed for high

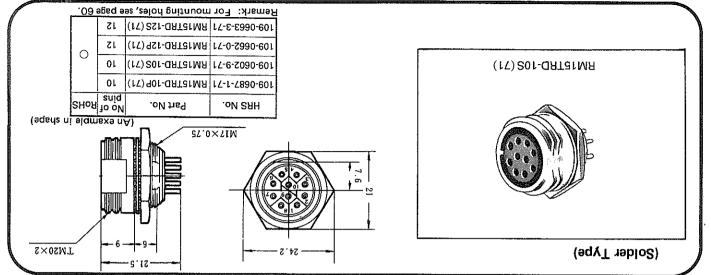
threads, it is incompatible with the RM15T connectors.

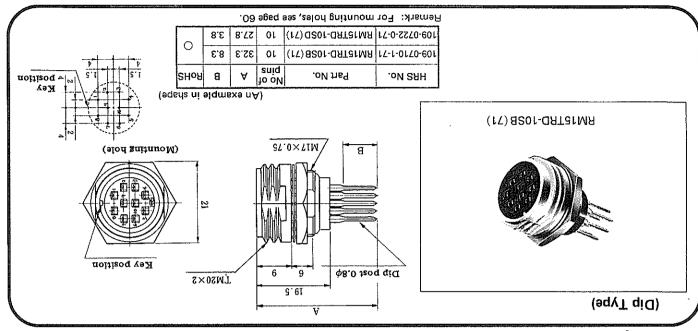
#### (17) 2S1-09T21MA | 17-8-1660-901 (tt)921-09T21MA|17-2-0880-601 (17)901-09T21MR (17)901-09T81MR 17-8-1080-801 109-0686-9-71 RM15TPD-10S (71) SHoA to oV aniq TM20×2 Part No. HBS No. (eqeda ni elamexe nA) ø23 (Solder Type) 50 6n<sub>Id</sub>

## Jack

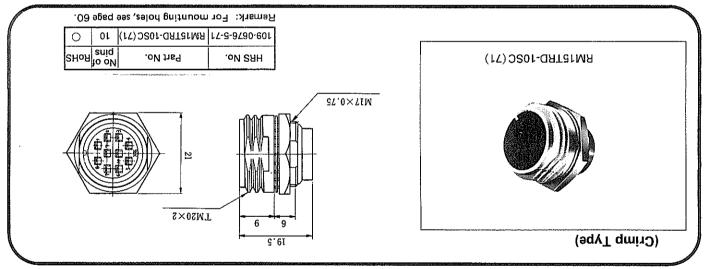


# Receptacle

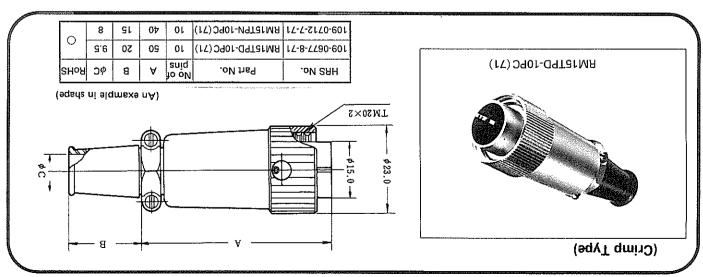




### Receptacle



# Receptacle



6n<sub>ld</sub>

# Contact

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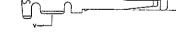
#### Pin contact





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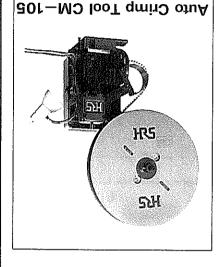
# Socket contact



A-Anoitse&

oo Fig—2

Note: Loose-piece pins are available in pack.
Each pack contains 100 pieces.
Reel pins are available, one reel contains 8,000 pieces.



AWG#24~#28

VMG#50~#54

WWG#24~#28

∀M@#50~#5¢

AWG#24~#28

₩G#20~#2¢

8Z#~₽Z#DM∀

₩C#20~#24

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**BW-2C-555** 

RM-SC-212

EM-SC-155

8M-SC-112

Part No.

**BM-PC-222** 

RM-PC-212

RM-PC-122

RM-PC-112

Part No.

7-9490-601

1-1760-601

7-E780-e01

0-6990-601

ON SAH

0-ÞZ90-60L

6-0290-60L

109-0672-4

Z-8990-601

HES NO.

contact

Loose contact

Type

Chain contact

Loose contact

Type

Chain

		qT-MA	120-0008-7	xtraction	3
VMG#54~#58	RM-SC-222	7 1411 001 114		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
60 # ·- VC # 5/V(V	RM-PC-222	S-MA-2014A	7-8102-106		
Þ2 # ~02 # 5MA	BM-80-515			Applicator	oitemotuA
	RM-PC-212	r-MA-2019A	4-710S-109		
Munghay	_	CM-105	<b>7-9000-106</b>	Automatic crimping Ybod əninəsm	
VMG#54~#58	BM-8C-155	71 01 201	+ (000 00)		Manual
00 # · - PO # ONV	EW-PC-122	RM-TC-12	⊅-2000-031	foot	
VMG#50~#54	BM-8C-112	11 01 101		Manual crimping	
	RM-PC-112	FIL-DT-MB	1-9000-091		
Applicable wire	Applicable ferminal	Part No.	ON SAH	məti	эфүТ



Hand Crimp Tool

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The RM series have accessories such as a cap, cord busing, and square flange designed for different applications.

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TM35×2

TM29×2

TM25×2

21.5

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109-0394-3-71 RM31TR-C(71)

109-0492-2-71 RM24TR-C(71)

109-0354-9-71 RM21TR-C(71)

109-0080-5-71 RM15TR-C(71)

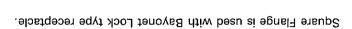
HBS No.

Part No.

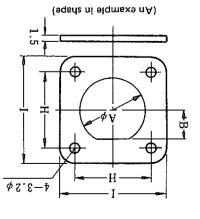
# RM Series accessories

# RM15TR-C(71) Receptacle cap 17.5 **TM25×2** 28 109-0353-6-71 RM21TP-C(71) 9.91 15 I×61M 9.12 (17) 2-9781 RM15TP-C(71) SHOR a Э 8 Part No. HBS No. (egeds ni elgmexe nA) RM15TP-C(71) Plug cap nector. The cap is designed for both the standards and waterproof conand prevents dust and water from entering. The cap protects the mating surface and threads of the connector Caps

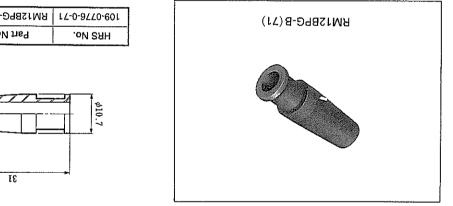
# Sduare Flange



	28	9.02	9.T	1.71	RM15TR-F(71)	17-8-0150-601
	97	18	9	וליו	RM128R-F(71)	12-0-Þ910-601
SHoя	ı	н	8	∀φ	Part No.	.on SAH







0		RM12BPG-B(71)	f7-0-8770-601
SHOA	Remark	Part No.	HKS No.

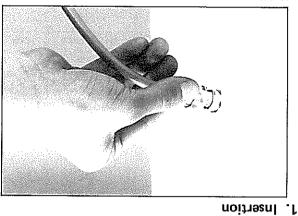
2, Extraction

Then, pull it straight for easy releasing.

Holding plug sleeve, twist it 30 degrees to the left,

### How to use the RM15Q Connectors

# (Quick insertion and extraction system)



Holding the plug body, match the key with the keyway on the receptacle and push straight in. Turn plug  $30^\circ$  to the right, coupling is completed.

#### Selon gnithnom to anoianemid

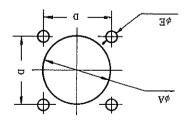
For details, contact our sales or engineering department. the flanges are installed on the front surface of a panel. connector. The dimensions of square flanges are those when standard connector are the same as those of a waterproof

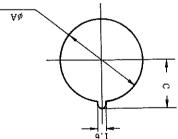
holes are given below for different shell sizes for the nut-For your reference, the dimensions of receptacle mounting

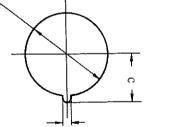
In the case of the nut-tightening type, the dimensions of a

tightening type and square-flange type.

Mounting holes, for shell sizes 21, 24, 31 Square flange type







Mounting holes, for shell sizes 12, 15

Mut tightening type

Remark: Use a 0.5  $\sim$  2 mm thickness panel for all shell sizes.

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3.41	32.1	1.92	1.22	1,71	1,71	l'ti	$\forall \phi$	
888	аяа ятw-ят			• GRT•HAT GRO R8W• (		явм•аяв	Sign Sign Sign Sign	
12	31	74	12	SI		Zl	Shell size	
Square flange		· · · · · · · · · · · · · · · · · · ·	Mounting method					

## RM Series contact arrangement

	1.14	1.14	r. r <sub>è</sub>	Γ. Γφ	r, r q	r. r <sub>è</sub>	to retemsib ebisal foq reblos
Ī	4mΩ or less	4mΩ or less	4mΩ or less	4mΩ or less	esal 10 Ωm <del>l</del>	essi 10 Ωmb	Contact resistance
	10 000MΩ or more	10 ΩM0001 erom	1000MΩ or more	1000MΩ or more	10 000MΩ or more	1000Mß or enom	eonstaiser noitsluant
Γ	A3	AB	AB	A3	AB	∀S	Current rating
Ī	AC1000V for a minute	AC1000V for stunim s	AC1000V for a minute	AC1500V for a minute	AC1500V for a minute	AC1800V for a minute	Withstanding voltage
	L	9	9	Þ	ε	2	Contact arrangement number
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# Contact arrangement

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eonsteizen tostnoO	2m2 or less	ssal 10 MmS	4mΩ or less	4mΩ or less	4m2 or less
epretsiser noitelusul	1000MΩ or more	1000МΩ от э <b>то</b> гп	1000MΩ or more	1000MΩ or 910m	10 \OM000 t anom
Ourrent rating	A0f	Aor	A3	Að	A3
egestiov gnibnessattiW	AC1800V for atunim s	AC1500V for a minute	tof V00015A s minute	AC1000V for a minute	AC1000V for a minute
Contact arrangement number	2	Þ	8	01	12
۶۱	0 0			10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 21 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Shell size				:	<b></b> -

(0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0	7 7		10 (10 ) 0 (10 ) 10 (10 ) 10 (10 ) 10 (10 ) 10 (10 )	1.7
15	Contact arrangement number	50	91	Contact arrangement
AC1500V for a minute	9gerlov gnibnetahriW	AC1000V for a minute	AC1500V for a minute	agetlov gnibnstattiW
∀G	Ourrent rating	∀S	A3	Current rating
1000MΩ or more	lnsulation resistance	1000MΩ or more	1000Ms or more	Insulation resistance
4m2 or less	Contact resistance	4mΩ or less	asel 10 Ωm4	Contact resistance
f. f &	to retamble dismeter of for solder pot	f.1&	1.14	to retembib ebisal fog reblos

#### Gemarks:

- necting side of pin inserts). from the fitting side of socket inserts (con-1. Figures show contact arrangements viewed
- In ordinary case, use connectors at about 1/3 2. Withstanding voltage is shown in test voltage.
- 3. Insulator resistance is a value measured at DC of test voltage.
- 4. Contact resistance is a value measured at DC

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4mی or less	4m2 or less	Contact resistance
1000MΩ or more	1000MΩ or more	eonstaisen noiteluanl
∀9	Ad	Current rating
AC1500V for a minute	AC1800V for a minute	Withstanding voltage
99	017	Contact arrangement number
		18
8		Shell size

# **X-ON Electronics**

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