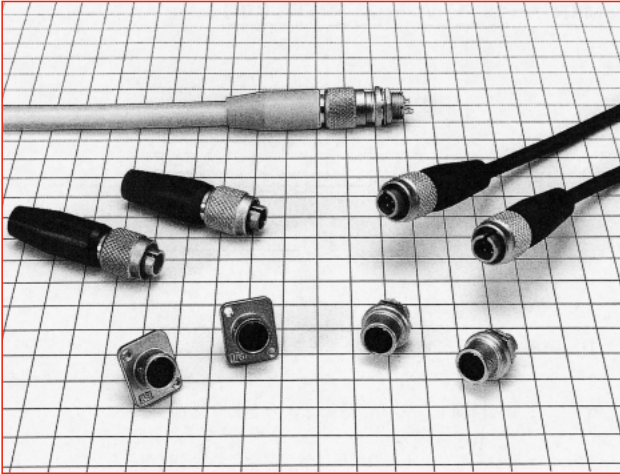


Miniature push-pull connectors with ground function

MXR Series



■ Features

1. User friendly lock mechanism

The single action push-pull lock function allows quick connections and disconnections as well as high density mounting.

2. Grounding function for FCC compliance

Metal, outer shell provides stable contact for grounding.

3. Sequential contact structure

A sequential mating type is available. This version allows for the contacts to mate in a sequenced order.

■ Product Specifications

Ratings	Rated current	Number of contacts	Rated current
		3 4 6 8	2A
	Rated voltage	Number of contacts	Rated voltage
		3 4 6 8	AC 100, DC 140 V
	Operating temperature range	-25 to +85 °C	
Storage temperature range	-10 to +60 °C		

Items	Specifications	Conditions
1. Contact resistance	A maximum of 20 mΩ	Measured at DC 1 A
2. Insulation resistance	A minimum of 1,000 MΩ	Measured at DC 100 V
3. Withstanding voltage	No flashover or dielectric breakdown.	AC 300 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 axis directions, 2 hours each
5. Shock resistance	No electrical discontinuity for 10 μs or greater.	Acceleration : 490 m/s ² , duration : 11 ms 3 axis directions, 3 times each
6. Mating cycles	Contact resistance : a maximum of 40 mΩ	1,000 times
7. Temperature cycle	Insulation resistance : a minimum of 1,000 MΩ	-55°C : 30 minutes → Normal temperature : 10 to 15 minutes → 85°C: 30 minutes → Normal temperature : 10 to 15 minutes, left for 5 cycles
8. Moisture resistance	Insulation resistance : a minimum of 10 MΩ (at high humidities) a minimum of 100 MΩ (when dry)	Temperature : 40°C, relative humidity : 90 to 95%, left for 96 hours

■ Materials

Part	Material	Finish	Remarks
Shell	Aluminum alloy	Nickel plating	————
Insulator	PBT resin	————	UL94V-0
Contact	Copper alloy	Gold plating, partial gold plating	————

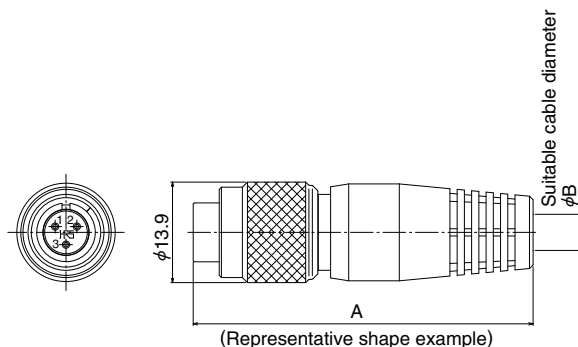
Product number structure

MXR - 8 P A - 3 P B ()**

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Series name : MXR Series
② Shell size : Indicates the outer shell diameter at the mating end.
③ Shell classification : Classified as follows P : Plug R : Receptacle
④ Shell modification : The letters A, B, C, D, E, etc. indicate modifications of the shell form.
⑤ Pin arrangement : Indicated by the number of pins
⑥ Pin form : Classified as follows P : Male contacts S : Female contacts
⑦ Pin modification : The letters A, B, C, D, E, etc. indicate modifications of the pin form.
⑧ Special specifications: A two-digit number is added to indicate other specifications, such as (01), (02), (03)...

Plug

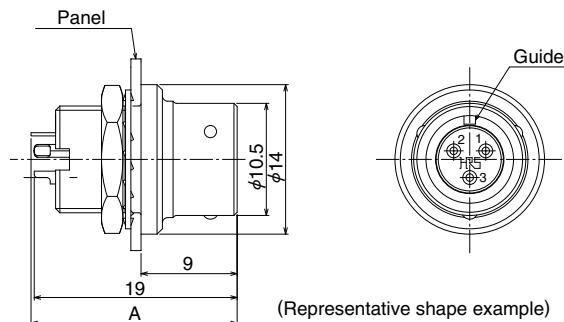


Part No	HRS No.	A	φB	Weight	Bushing	Remarks
MXR-8PA-3PB(71)	127-0003-6 71	47	5	8g	Black	Sequenced construction
MXR-8PA-4PB(71)	127-0004-9 71					
MXR-8PA-6PB(71)	127-0005-1 71					
MXR-8P-8P(71)	127-0002-3 71	50	8	9g	White	_____
MXR-8P-8P(72)	127-0002-3 72					_____

Note: Cable pull force, twisting strength and other characteristics may differ, depending on cable specifications and structure. Please evaluate under the actual conditions prior the use.

Receptacle (Secured with hex nut for mounting)

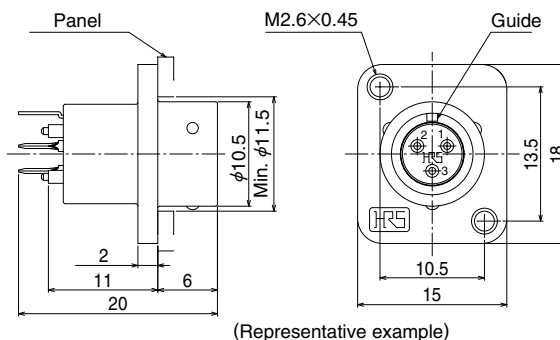
● Solder termination



Part No.	HRS No.	Weight	A	Remarks
MXR-8RA-3S(71)	127-0121-2 71	3.5g	19.3	_____
MXR-8RA-4S(71)	127-0122-5 71			_____
MXR-8RA-6S(71)	127-0123-8 71			_____
MXR-8RA-8S(71)	127-0124-0 71			_____
			20.4	

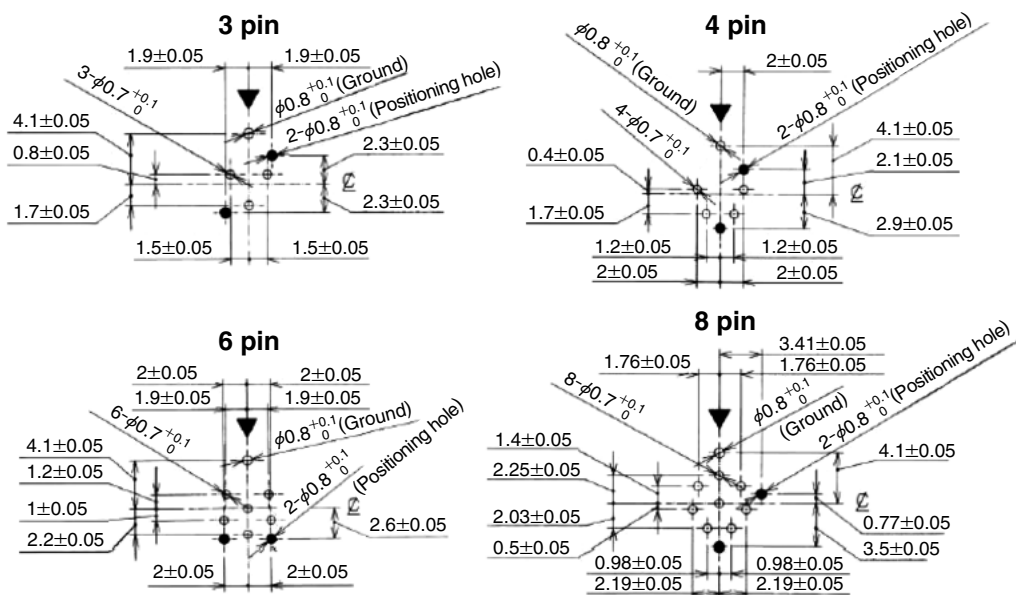
■ Receptacle (Flange type)

● Dip termination



Part No.	HRS No.	Weight	Remarks
MXR-8R-3SA(71)	127-0101-5 71	3.5g	with gold-plated contacts
MXR-8R-4SA(71)	127-0103-0 71		
MXR-8R-6SA(71)	127-0104-3 71		
MXR-8R-8SA(71)	127-0102-8 71		

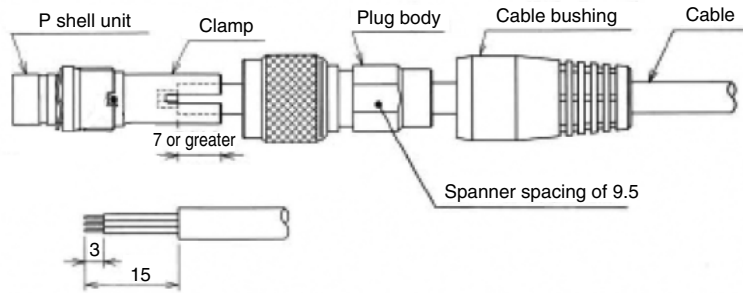
◆ Layout dimensions for dip post contacts



Remarks : Figures are views from the mating side of the receptacle.
 Marks ▼ show the position of the guide.

◆ Wiring and Assembly Procedure

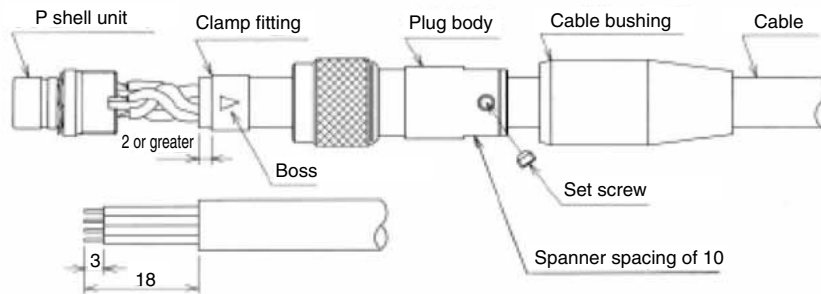
● MXR-8PA-3PB(71), MXR-8PA-4PB(71), MXR-8PA-6PB(71)



○ Work Procedure

1. Pass the cable through the components in this order: 1. cable bushing, 2. plug body, 3. clamp fitting. Then perform the cable end processing.
2. Solder the wires to the P shell unit.
3. Align the protruding portion of the clamp with the recessed portion of the P shell unit and mount.
4. Align the plug and cable sheath strip position, then tighten the plug body to the screw portion of the P shell unit with a torque of 1 N·m.
Note that to prevent loosening, an application of Locktight 263 manufactured by HENKEL JAPAN LTD. is recommended.
5. Put the cable bushing over the clamp body to complete the job.

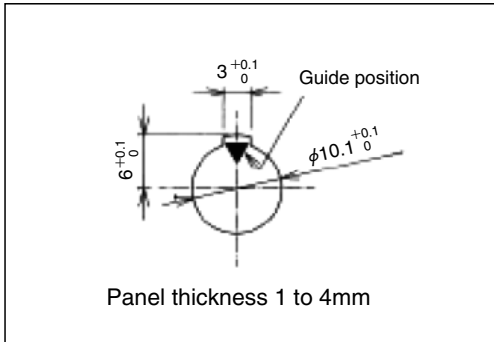
● MXR-8P-8P(71)



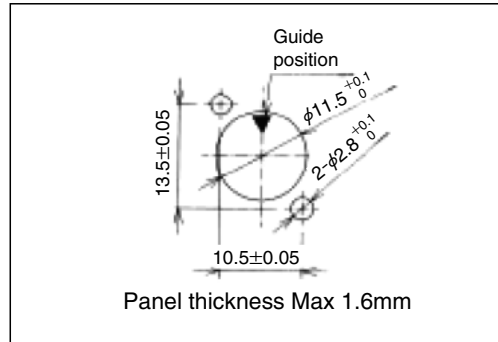
○ Work Procedure

1. Pass the cable through the components in this order: 1. cable bushing, 2. plug body. Then perform the cable end processing.
2. Solder the wires to the P shell unit.
3. Fasten the clamp fitting to the cable with the cable crimping tool (HR10A-TC-04).
4. Tighten the clamp body to the screw portion of the P shell unit with a torque of 1 N·m.
Note that to prevent loosening, an application of Locktight 263 manufactured by HENKEL JAPAN LTD. is recommended.
5. Tighten the set screw so that the tip falls into one of the two bosses of the clamp fitting.
Note that a tightening torque of 0.3 N·m. is specified.
6. Put the cable bushing over the clamp body to complete the job.

◆ Dimensions for receptacle mounting holes



(Jam Nut Type)



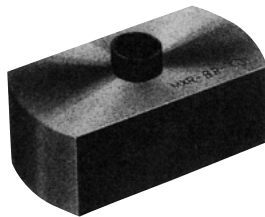
(Flange Type)

NOTES :

- Above figures are views from the mating side of the receptacle.
Also note that the ▼ symbol indicates the guide position.

◆ Applicable Tools

Type	Part No.	HRS No.	Applicable Connectors
Tightening jig	MXR-8P-T01	150-0092-3	All plug products
Cable crimping tool	HR10A-TC-04	150-0058-5	MXR-8P-8P



MXR-8P-T01



HR10A-TC-04

◆ Pin arrangement and electrical specifications

Number of contacts	3	4	6	8
Pin arrangement				
Withstanding voltage	300 V AC for 1 minute			
Current capacity	2 A			
Insulation resistance	1,000 MΩ or greater at 100 V DC			
Contact resistance	20 mΩ or less at 1A DC			
Solder pot diameter	0.9 mm dia.			

NOTES :

- Above figures are views from the mating side of the receptacle.
Also note that the ▼ symbol indicates the guide position.
- The withstand voltage value indicates the test voltage.
The connector should normally be used at less than 50 V AC or 70 V DC.

USA:

HIROSE ELECTRIC (U.S.A.), INC. HEADQUARTERS
 2688 Westhills Court, Simi Valley, CA 93065-6235
 Phone : +1-805-522-7958
 Fax : +1-805-522-3217
<http://www.hirose.com/us/>

USA:

HIROSE ELECTRIC (U.S.A.), INC. SAN JOSE OFFICE
 3255 Scott Boulevard, Building 7, Suite 101
 Santa Clara, CA 95054
 Phone : +1-408-253-9640
 Fax : +1-408-253-9641
<http://www.hirose.com/us/>

USA:

HIROSE ELECTRIC (U.S.A.), INC. CHICAGO OFFICE
 580 Waters Edge Lane, Suite 205 Lombard IL
 60148
 Phone : +1-630-282-6701
 Mail : inquiries@hirose.com
<http://www.hirose.com/us/>

USA:

HIROSE ELECTRIC (U.S.A.), INC. DETROIT OFFICE (AUTOMOTIVE)
 Laurel Office Park III 17197 Laurel Park Drive
 Suite 253 Livonia, MI 48154
 Phone : +1-734-542-9963
 Fax : +1-734-542-9964
<http://www.hirose.com/us/>

THE NETHERLANDS:

HIROSE ELECTRIC EUROPE B.V.
 Hogehillweg #8 1101 CC Amsterdam Z-0
 Phone : +31-20-6557460
 Fax : +31-20-6557469
<http://www.hirose.com/eu/>

GERMANY:

HIROSE ELECTRIC EUROPE B.V. GERMAN BRANCH
 Herzog-Carl-Strasse 4 D-73760 Ostfildern
 (Scharnhäuser Park)
 Phone : +49-711-4560-02-1
 Fax : +49-711-4560-02-299
<http://www.hirose.com/eu/>

GERMANY:

HIROSE ELECTRIC EUROPE B.V. NUERNBERG OFFICE
 Muggenhofer Str. 136 90429 Nuernberg
 Phone : +49-911 32 68 89 63
 Fax : +49-911 32 68 89 69
<http://www.hirose.com/eu/>

GERMANY:

HIROSE ELECTRIC EUROPE B.V. HANOVER OFFICE
 Bayernstr. 3, Haus C 30855 Langenhagen, Germany
 Phone : +49-511 97 82 61 30
 Fax : +49-511 97 82 61 35
<http://www.hirose.com/eu/>

FRANCE:

HIROSE ELECTRIC EUROPE B.V. PARIS OFFICE
 Regus La Garenne Colombes, Place de La Belgique,
 71 Boulevard National La Garenne Colombes, 92250, France
 Phone : +33 (0) 1 7082 3170
 Fax : +33 (1) 7082 3101
<http://www.hirose.com/eu/>

UNITED KINGDOM:

HIROSE ELECTRIC EUROPE BV (UK BRANCH)
 4 Newton Court, Kelvin Drive, Knowlhill,
 Milton Keynes, MK5 8NH
 Phone : +44-1908 202050
 Fax : +44-1908 202058
<http://www.hirose.com/eu/>

CHINA:

HIROSE ELECTRIC (SHANGHAI) CO., LTD.
 1601, Henderson Metropolitan, NO.300, East Nanjing
 Road, Huangpu District, Shanghai, China 200001
 Phone : +86-21-6391-3355
 Fax : +86-21-6391-3335
<http://www.hirose.com/cn/>

CHINA:

HIROSE ELECTRIC (SHANGHAI) CO.,LTD. BEIJING BRANCH
 A1001, Ocean International Center, Building 56# East 4th
 Ring Middle Road, ChaoYang District, Beijing, 100025
 Phone : +86-10-5165-9332
 Fax : +86-10-5908-1381
<http://www.hirose.com/cn/>

CHINA:

HIROSE ELECTRIC TECHNOLOGIES (SHENZHEN) CO., LTD.
 Room 09-13, 19/F, Office Tower Shun Hing Square, Di Wang Commercial Centre,
 5002 Shen Nan Dong Road, Shenzhen City, Guangdong Province, 518008
 Phone : +86-755-8207-0851
 Fax : +86-755-8207-0873
<http://www.hirose.com/cn/>

HONG KONG:

HIROSE ELECTRIC HONGKONG TRADING CO., LTD.
 Room 1001, West Wing, Tsim Sha Tsui Centre, 66
 Mody Road, Tsim Sha Tsui East, Kowloon, Hong Kong
 Phone : +852-2803-5338
 Fax : +852-2591-6560
<http://www.hirose.com/hk/>

TAIWAN:

HIROSE ELECTRIC TAIWAN CO., LTD.
 103 8F, No.87, Zhengzhou Rd., Taipei
 Phone : +886-2-2555-7377
 Fax : +886-2-2555-7350
<http://www.hirose.com/cn/>

KOREA:

HIROSE KOREA CO., LTD.
 1261-10, Jeoungwhang-Dong, Shihung-City,
 Kyunggi-Do 429-450
 Phone : +82-31-496-7000,7124
 Fax : +82-31-496-7100
<http://www.hirose.co.kr/>

SINGAPORE:

HIROSE ELECTRIC SINGAPORE PTE. LTD.
 10 Anson Road #26-1, International Plaza
 079903, Singapore
 Phone : +65-6324-6113
 Fax : +65-6324-6123
<http://www.hirose.com/sg/>

INDIA:

HIROSE ELECTRIC SINGAPORE PTE. LTD. DELHI LIAISON OFFICE
 Office NO.519, Regus-Green Boulevard, Level5, Tower C,
 Sec62, Plot B-9A, Block B, Noida, 201301, Uttar Pradesh, India
 Phone : +91-12-660-8018
 Fax : +91-120-4804949
<http://www.hirose.com/sg/>

INDIA:

HIROSE ELECTRIC SINGAPORE PTE. LTD. BANGALORE LIAISON OFFICE
 Unit No.03, Ground Floor, Explorer Building International Tech
 Park Whitefield Road, Bangalore 560066 Karnataka, India
 Phone : +91-80-4120 1907
 Fax : +91-80-4120 9908
<http://www.hirose.com/sg/>

MALAYSIA:

HIROSE ELECTRIC SINGAPORE PTE. LTD.
 1-10-07, Suntech @ Penang Cybercity (1164), Lintang
 Mayang Pasir 3,11950, Bayan Baru, Penang, Malaysia.
 Phone : +604-619-2564
 Fax : +604-619-2574
<http://www.hirose.com/sg/>

THAILAND:

HIROSE ELECTRIC SINGAPORE PTE. LTD. BANGKOK OFFICE (REPRESENTATIVE OFFICE)
 Unit 4703, 47th FL., 1 Empire Tower, South Sathorn
 Road, Yannawa, Sathorn, Bangkok 10120 Thailand
 Phone : +66-2-686-1255
 Fax : +66-2-686-3433
<http://www.hirose.com/sg/>



HIROSE ELECTRIC CO.,LTD.

2-6-3,Nakagawa Chuoh,Tsuzuki-Ku,Yokohama-Shi 224-8540,JAPAN
 TEL: +81-45-620-3526 Fax: +81-45-591-3726
<http://www.hirose.com>
<http://www.hirose-connectors.com>