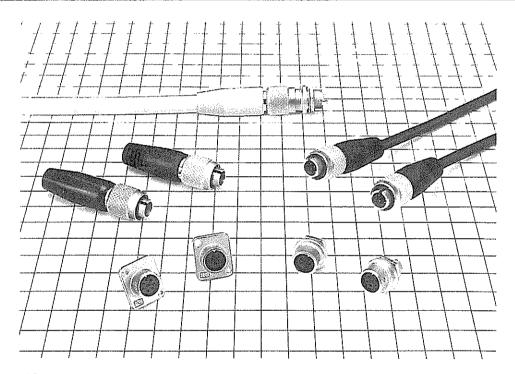
# HRS MXR Series

# MXR Type Connectors Miniature Push-Pull Connectors with Ground Function

#### **GENERAL**

MXR type connectors are miniature, lightweight, push-pull lock connectors with a ground function which has been developed for use with VTR camera and system camera interfaces.



#### **FEATURES**

- (1) The single action push-pull lock function allows quick connections and disconnections as well as high density mounting.
- (2) Verification of a secure engagement is afforded by a click sound which exemplifies the fine feel of this lock system.
- (3) Use of aluminum alloy for the shell has contributed to the lightweight design.
- (4) The metal portion of the shell forms part of the contacting structure as a measure toward FCC radiation requirements.
- (5) One of the conductors makes contact before the others in this sequenced design.
- (6) A simple tightening of the cable tube around the conductors permits the cable to be clamped, affording an increase in workability and a reduction in special tools.

### **APPLICATIONS**

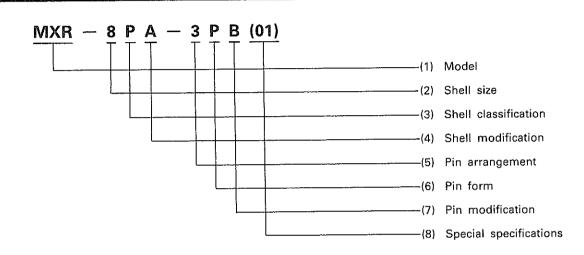
VTR cameras, system cameras, audio equipment, etc.

## **MATERIALS AND PROCESSING**

| Part Name   | Material        | Processing Nickel plating |  |
|-------------|-----------------|---------------------------|--|
| Shell       | Aluminum alloy  |                           |  |
| Insulation  | PBT resin*      | (Black)                   |  |
| Male pins   | Brass           | Gold plating              |  |
| Female pins | Phosphor bronze | Partial gold plating      |  |

\*UL94V-0

## STRUCTURE OF THE PRODUCT NUMBER



Indicates the MXR Series (1) Model

Indicates the shell outer diameter at the plug engagement portion Shell size

: Classified as follows Shell classification P: Plug

R: Receptacle

(4) Shell modification

: Each time there is a modification of form related to the shell, the indicator changes in the

sequence of A, B, D, E, etc.

Indicated by the number of pins: 3 or 8. (5) Pin arrangement

: Classified as follows (6) Pin form

P: Male contacts S: Female contacts

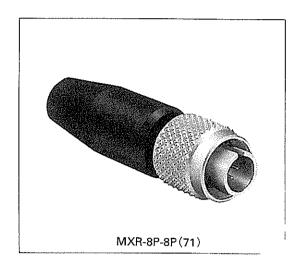
Each time a modification is made to the pin form, the indicator changes in the sequence of (7) Pin modification

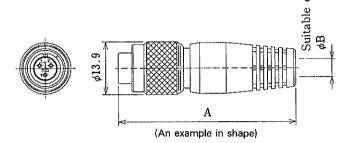
A, B, D, E, etc.

Each time there is a change in specifications other than the aforementioned, the indicator (8) Special specifications:

changes in the sequence of (01), (02), (03), etc.

## Plug

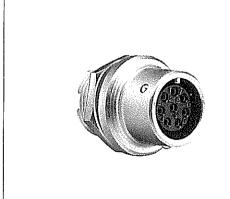




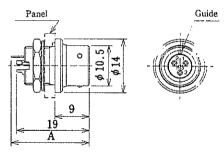
| HRS No.       | Part No.         | A  | φΒ | Weight | Bussing | Remarks                | RoHS |
|---------------|------------------|----|----|--------|---------|------------------------|------|
| 127-0003-6-71 | MXR-8PA-3PB (71) | 47 | 5  | 8g     | Black   | Sequenced construction |      |
| 127-0004-9-71 | MXR-8PA-4PB(71)  | 47 | 5  | 8g     | Black   | Sequenced construction | 1    |
| 127-0005-1-71 | MXR-8PA-6PB (71) | 47 | 5  | 8g     | Black   | Sequenced construction | 0    |
| 127-0002-3-71 | MXR-8P-8P(71)    | 50 | 8  | 9g     | Black   |                        | ĺ    |
| 127-0002-3-72 | MXR-8P-8P(72)    | 50 | 8  | 9g     | White   |                        | İ    |

# Receptacle (to be tightened with nut)

### (To be soldered)



MXR-8RA-8S (71)

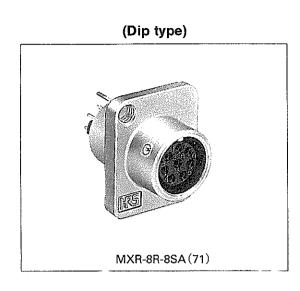


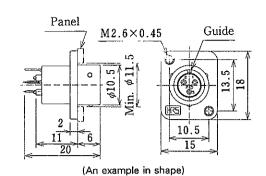
(An example in shape)

| HRS No.       | Part No.        | Weight | Α    | Remarks | RoHS   |
|---------------|-----------------|--------|------|---------|--------|
| 127-0121-2-71 | MXR-8RA-3S (71) | 3.5g   | 19.3 |         | 1      |
| 127-0122-5-71 | MXR-8RA-4S (71) | 3.5g   | 19.3 |         | -      |
| 127-0123-8-71 | MXR-8RA-6S (71) | 3.5g   | 19.3 |         | $\neg$ |
| 127-0124-0-71 | MXR-8RA-8S (71) | 3.5g   | 20.4 |         |        |

127-0102-8-71

## Receptacle (Flange type)



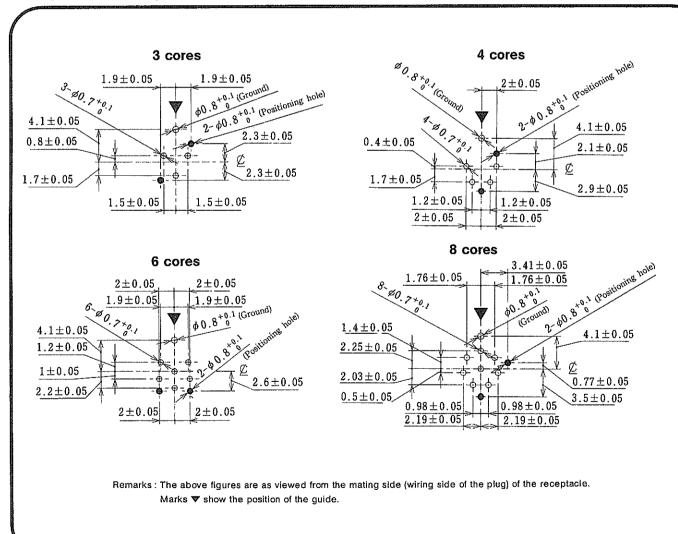


| HRS No.       | Part No.        | Weight | Remarks                   | RoHS |
|---------------|-----------------|--------|---------------------------|------|
| 127-0101-5-71 | MXR-8R-3SA (71) | 3.5g   | with gold-plated contacts | İ    |
| 127-0103-0-71 | MXR-8R-4SA (71) | 3.5g   | with gold-plated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

3.5g with gold-plated contacts

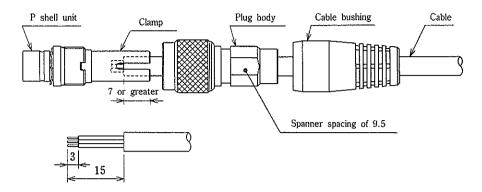
MXR-8R-8SA(71)

## Dip Post Arrangement Dimensions



## Outline of the Wiring Work

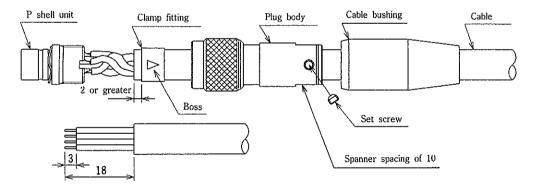
#### MXR-8PA-3PB



#### Work Procedure

- 1. Pass the cable bushing, plug body, and clamp over the cable in order and perform the 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 271 manufactured by Nihon Locktight K.K. is recommended.
- 5. Put the cable bushing over the clamp body to complete the job.

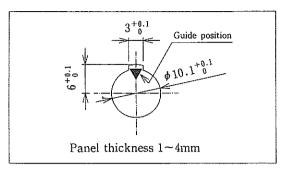
#### MXR-8P-8P

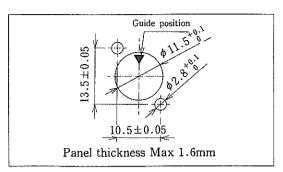


#### Work Procedure

- 1. Pass the cable bushing and plug body over the cable in order and perform the 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 271 manufactured by Nihon Locktight K.K. 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.

## Scale drawing of receptacle mounting holes





NOTES:

#### (Jam Nut Type)

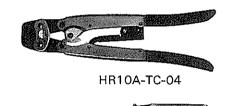
#### (Flange Type)

The diagram shows the view from the engagement side (i.e., plug wiring side) of the receptacle. Also note that the ▼ symbol indicates the guide position.

## Applicable Tools

| Туре                    | HRS No.    | Part No.    | Applicable Connectors |
|-------------------------|------------|-------------|-----------------------|
| Tightening jig          | 150-0092-3 | MXR-8P-T01  | All plug products     |
| Cable crimping tool     | 150-0058-5 | HR10A-TC-04 | MXR-8P-8P             |
| Hexagonal wrench driver | 150-0066-3 | PB205/1.27  | MXR-8P-8P             |





MXR-8P-T01

PB205/1.27

## Pin Arrangement and Major Ratings

| Number of poles       | 3                              | 4                     | 6                   | 8                                      |  |  |
|-----------------------|--------------------------------|-----------------------|---------------------|--|--|--|
| Pin arrangement       | ② (1)<br>③                     | (1) (4)<br>(2) (3)    | (1) (5) (2) (4) (3) | (2 <sup>1</sup> )7<br>(3 8 6)<br>(4 5) |  |  |
| Withstand voltage     |                                | 300 V AC for 1 minute |                     |  |  |  |
| Current capacity      | 2 A                            |                       |                     |  |  |  |
| Insulation resistance | 1000 MΩ or greater at 100 V DC |                       |                     |  |  |  |
| Contact resistance    | 20 mΩ or less at 1A DC         |                       |                     |  |  |  |
| Solder pot diameter   | 0.9 mm dia.                    |                       |                     |  |  |  |

#### NOTES:

- The diagram shows the view from the engagement side (i.e., plug wiring 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.

# **Mouser Electronics**

**Authorized Distributor** 

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## **Hirose Electric:**

<u>MXR-8P-8P(71)</u> <u>MXR-8P-8P(72)</u> <u>MXR-8PA-3PB(71)</u> <u>MXR-8PA-4PB(71)</u> <u>MXR-8PA-6PB(71)</u> <u>MXR-8R-3SA(71)</u> <u>MXR-8R-8SA(71)</u> <u>MXR-8R-4SA(71)</u> <u>MXR-8R-6SA(71)</u> <u>MXR-8RA-3S(71)</u> <u>MXR-8RA-4S(71)</u> <u>MXR-8RA-6S(71)</u> <u>MX</u>