

## Pneumatic pressure and electric signal coupling

# CJ2

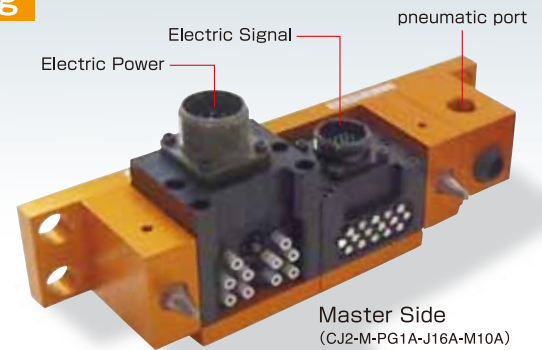
Couple Joint is a device used to easily and simultaneously connect and disconnect pneumatics and electric signals. Now electric signal lines and pneumatic fittings can be changed with the touch of the hand, shortening the traditional manual set-up times. The modules incorporate the same designs as the BL Quick-Change, with proven reliability and durability.

### Abundant utilities

Up to three modules can be selected for various applications to exchange dies or jigs in stamping and welding processes. Self-sealing pneumatic ports are also available.

### Floating function $\pm 1\text{mm}$

Couple Joint has a floating function for position compliance and gap adjustment between the master side and tool side.



3Modules Type



## Specifications

|   |   |   |
|---|---|---|
| Outer dimension and weight                | 3 modules (with pneumatic port)                               | 244x91x109 mm, 2.9kg  |
|   | (without pneumatic port)                                      | 269x91x109 mm, 3.2kg  |
|   | 2 modules (with pneumatic port)                               | 183x91x109 mm, 2.1kg  |
|   | (without pneumatic port)                                      | 208x91x109 mm, 2.4kg  |
|   | 1 module (with pneumatic port)                                | 122x91x109 mm, 1.3kg  |
|   | (without pneumatic port)                                      | 147x91x109 mm, 1.4kg  |
| Connection utilities                      | Electric signals MAX.5A DC/AC 200V with contact probes        | 5Ax16 ※1 ※2 Master side JMR 2116M-D<br>Tool side JMR 2116F-D        |
|   | Electric signals MAX.13A DC250V/AC 200V with plug-in contacts | 13Ax10 ※1 ※3 Master side D/MS3102A18-1P<br>Tool side D/MS3102A18-1S |
|   | Pneumatic ports (with or without self sealing valve)          | Rc3/8   |
| Allowable temperature and humidity ranges | 0 ~ 55°C, 0 ~ 95% (non-condensing)                            |   |

※1 The plugs must be provided by user

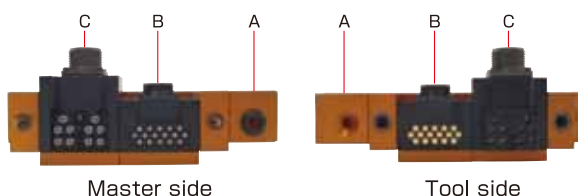
※2 Max.30.4A per connector

※3 Max57.2A per connector

## Model Selection

|             |   |  |   |                        |      |                         |         |                                     |         |   |         |   |  |            |  |         |                        |         |                         |  |            |  |         |                        |         |                         |
|-------------|---|--|---|------------------------|------|-------------------------|---------|-------------------------------------|---------|---|---------|---|--|------------|--|---------|------------------------|---------|-------------------------|--|------------|--|---------|------------------------|---------|-------------------------|
| Master side | <b>CJ2 -M-</b>  | Module 1 (A)   | Module 2 (B)  | Module 3 (C)           |      |                         |         |                                     |         |   |         |   |  |            |  |         |                        |         |                         |  |            |  |         |                        |         |                         |
| Tool side   | <b>CJ2 -T-</b>  | Module 1 (A)   | Module 2 (B)  | Module 3 (C)           |      |                         |         |                                     |         |   |         |   |  |            |  |         |                        |         |                         |  |            |  |         |                        |         |                         |
|             |   | <table border="1"> <tr><td>J16A</td><td>Electric signals 5A×16</td></tr> <tr><td>M10A</td><td>Electric signals 13A×10</td></tr> <tr><td>PG1A *2</td><td>Pneumatic port Rubber bushing Rc3/8</td></tr> <tr><td>PS1A *2</td><td>Pneumatic port, self-sealing valve (both master and tool sides) Rc3/8</td></tr> <tr><td>PF1A *2</td><td>Pneumatic port, self-sealing valve (master side only) Rc3/8</td></tr> </table> | J16A  | Electric signals 5A×16 | M10A | Electric signals 13A×10 | PG1A *2 | Pneumatic port Rubber bushing Rc3/8 | PS1A *2 | Pneumatic port, self-sealing valve (both master and tool sides) Rc3/8 | PF1A *2 | Pneumatic port, self-sealing valve (master side only) Rc3/8 | <table border="1"> <tr><td>No options</td><td></td></tr> <tr><td>J16A *1</td><td>Electric signals 5A×16</td></tr> <tr><td>M10A *2</td><td>Electric signals 13A×10</td></tr> </table> | No options |  | J16A *1 | Electric signals 5A×16 | M10A *2 | Electric signals 13A×10 | <table border="1"> <tr><td>No options</td><td></td></tr> <tr><td>J16A *1</td><td>Electric signals 5A×16</td></tr> <tr><td>M10A *2</td><td>Electric signals 13A×10</td></tr> </table> | No options |  | J16A *1 | Electric signals 5A×16 | M10A *2 | Electric signals 13A×10 |
| J16A        | Electric signals 5A×16  |  |   |                        |      |                         |         |                                     |         |   |         |   |  |            |  |         |                        |         |                         |  |            |  |         |                        |         |                         |
| M10A        | Electric signals 13A×10   |  |   |                        |      |                         |         |                                     |         |   |         |   |  |            |  |         |                        |         |                         |  |            |  |         |                        |         |                         |
| PG1A *2     | Pneumatic port Rubber bushing Rc3/8                                   |  |   |                        |      |                         |         |                                     |         |   |         |   |  |            |  |         |                        |         |                         |  |            |  |         |                        |         |                         |
| PS1A *2     | Pneumatic port, self-sealing valve (both master and tool sides) Rc3/8 |  |   |                        |      |                         |         |                                     |         |   |         |   |  |            |  |         |                        |         |                         |  |            |  |         |                        |         |                         |
| PF1A *2     | Pneumatic port, self-sealing valve (master side only) Rc3/8           |  |   |                        |      |                         |         |                                     |         |   |         |   |  |            |  |         |                        |         |                         |  |            |  |         |                        |         |                         |
| No options  |   |  |   |                        |      |                         |         |                                     |         |   |         |   |  |            |  |         |                        |         |                         |  |            |  |         |                        |         |                         |
| J16A *1     | Electric signals 5A×16  |  |   |                        |      |                         |         |                                     |         |   |         |   |  |            |  |         |                        |         |                         |  |            |  |         |                        |         |                         |
| M10A *2     | Electric signals 13A×10   |  |   |                        |      |                         |         |                                     |         |   |         |   |  |            |  |         |                        |         |                         |  |            |  |         |                        |         |                         |
| No options  |   |  |   |                        |      |                         |         |                                     |         |   |         |   |  |            |  |         |                        |         |                         |  |            |  |         |                        |         |                         |
| J16A *1     | Electric signals 5A×16  |  |   |                        |      |                         |         |                                     |         |   |         |   |  |            |  |         |                        |         |                         |  |            |  |         |                        |         |                         |
| M10A *2     | Electric signals 13A×10   |  |   |                        |      |                         |         |                                     |         |   |         |   |  |            |  |         |                        |         |                         |  |            |  |         |                        |         |                         |
|             |   |  | <p>*1 Max.30.4A per connector<br/>*2 Max.57.2A per connector<br/>*3 Only one pneumatic port can be installed, regardless of the number of modules</p> |                        |      |                         |         |                                     |         |   |         |   |  |            |  |         |                        |         |                         |  |            |  |         |                        |         |                         |

### Example of position of 3modules



※ Select the modules order from A→B→C

※ Combination of master modules and tool modules must be the same.

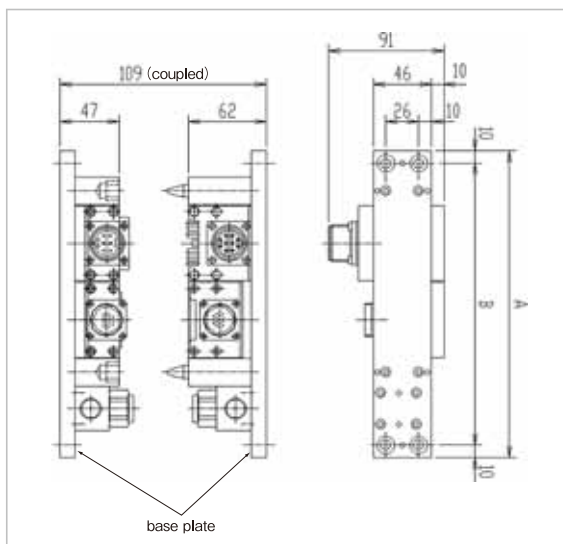
※ Above combinations are considered standard. If you want 2 or more pneumatic ports or want to fit a single module onto 2 or 3 module base plates, please contact us.



#### [Caution for connecting electric signals]

Electric signal modules, like a 16A, D15, D37 use a contact-probe method, the connecting surface is the touch point.  
Do not use a real-time connection like a wire-saving, servo-encoder.  
When using a real-time connection type, please use a plug-in method like M10A. Please contact us for further information.

## Dimensions



| Number of modules      |        | 3   | 2   | 1   |
|------------------------|--------|-----|-----|-----|
| With pneumatic port    | A type | 244 | 183 | 122 |
|                        | B type | 224 | 163 | 102 |
| Without pneumatic port | A type | 269 | 208 | 147 |
|                        | B type | 249 | 188 | 127 |



### [Notes on use]

- Please attach the equipment to the base plate when the master and tool side coupling surfaces are aligned.
- Make sure that force when coupled is within the following range for uniform base plate operation:  
Pneumatic port w/ self-sealing valve: 500N~2000N Pneumatic port w/o self-sealing valve: 250N~2000N
- Please keep lock/unlock speed at 30mm/s or less.
- Use a protective cover and/or compressed air to keep coupling surfaces clean if used in a dusty environment.

## Option Examples

### ■ 2-Module specification



**CJ2-M-PS1A-J16A**  
**CJ2-T-PS1A-J16A**

### ■ 1-Module specification



**CJ2-M-J16A**  
**CJ2-T-J16A**

### ■ Pneumatic port



Master side  
**PS1A**  
Self-sealing  
type



Tool side  
**PF1A**  
Self-sealing  
type



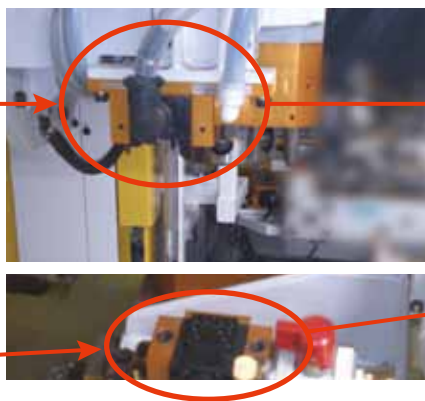
Master side  
**PG1A**  
Rubber  
bushing



Tool side  
**PG1A**  
Rubber  
bushing

※ Please refer "model selection" on the first page.

## Examples of Use



Couple joint  
(Master side)

Couple joint  
(Tool side)

Example of exchanging jigs(Combination use of Quick Change and Couple Joint)

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※ We reserve the right to make changes in specifications without notice.

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