**EtherNet/IP Field Network Controllers**

**PCON-C/CG  ACON-C/CG**

PCON/ACONs are now available in EtherNet/IP-ready versions. International Standard Network allows high-speed communication with its peripheral devices.

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### Features

1. **High-speed and high-volume communication**
   
   Allows 100Mbps high-speed communication, and the communication cycle can be set to each communication group. By setting an appropriate communication cycle to each communication group, high-speed mass transfer is attained.

2. **Easy connection with peripherals**
   
   EtherNet/IP is a global open field network. It is specified by the ISO/IEC 61158 series and is incorporated by numerous manufactures. With EtherNet/IP, IAI product can communicate with many peripheral devices.

3. **Wire-saving**
   
   EtherNet/IP controllers input and output data to/from the master via an Ethernet cable. This not only reduces the number of wires, but also prevents mis-wiring and achieves greater ease of maintenance.

4. **Operate by Remote I/O mode (position table movements) or through Direct Control**
   
   When operating an actuator you can choose to communicate with the controller in a mode most suited for the application. 

   Remote I/O mode allows the selection of movements that have been predefined (varying positions, speeds, and other conditions) in the controller’s position data table, whereas with Direct Control, these values may be specified directly to controller from the host.

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EtherNet/IP is registered trademark of ODVA.
### System Configuration (Connection Example)

**Master**
- Ethernet cable (*
- Switching hub

**PCON-C/CG**
- RCP2 series/RCP3 series

**ACON-C/CG**
- RCA series/RCA2 series/RCL series

*Connect multiple controllers to one master via switching hub. The hub and Ethernet cables are provided by the customer.*

### EtherNet/IP Communication Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication protocol</td>
<td>Dedicated EtherNet/IP protocol (Note 3)</td>
</tr>
<tr>
<td>Communication speed (Note 4)</td>
<td>10BASE-T/100BASE-T (Auto-negotiation setting is recommended)</td>
</tr>
<tr>
<td>Communication period</td>
<td>Automatically set according to the master</td>
</tr>
<tr>
<td>Communication cable length</td>
<td>Not to exceed 100 m between the hub and each node</td>
</tr>
<tr>
<td>Settable node addresses</td>
<td>0.0.0.0~255.255.255 (Set 192.168.0.1 at shipment)</td>
</tr>
<tr>
<td>Communication cable</td>
<td>Straight cable of category 5e or above (Double-shield cable braided with aluminum tape is recommended)</td>
</tr>
<tr>
<td>Connectors</td>
<td>RJ45 connector x 1</td>
</tr>
<tr>
<td>Connection hub (Note 2)</td>
<td>Switching hub</td>
</tr>
</tbody>
</table>

(Note 1) Make sure the link setting of the EtherNet/IP unit matches the communication mode set for the connected switching hub. If not, the link becomes unstable and communication cannot be performed properly. It is recommended to enable auto negotiation to set the baud rate for ACON and PCON. For further detail on communication setting, please refer to the EtherNet/IP manual.

(Note 2) Build your network using a switching hub, without using a repeater hub. If a repeater hub is used, lag data link operation may become unstable. For details, refer to the operation manual for your master unit.

(Note 3) PCON/ACON EtherNet/IP products are compatible with CIP IMPLICIT messaging only (Remote I/O mode) and not CIP EXPLICIT messaging (Messaging mode). Therefore, our products are compatible with Allen Bradley Logic controllers (ControlLogix, CompactLogix, SoftLogix) based on RSLogix5000 only. Our products are not compatible with AB legacy products (MicroLogix, SLC500, Pico, or PLC5) based on RS5000 or other operating systems.

### External Dimensions – PCON-C/CG, ACON-C/CG

*PCON-C/CG controllers and ACON-C/CG controllers have the same dimensions.*

Example of industrial Ethernet connector VS-08-RJ45-5-0/IP20 (Phoenix Contact)

The versions of teaching tools supporting EtherNet/IP are listed below:
- PC software: V8.02.00.00 or later - CON-PT/PD/P6G: V1.20 or later
- CON-T/TG: V1.10 or later
- RCM-E/P: V2.20 or later

*If you are using any of these teaching tools of an earlier version, please contact IAI.*