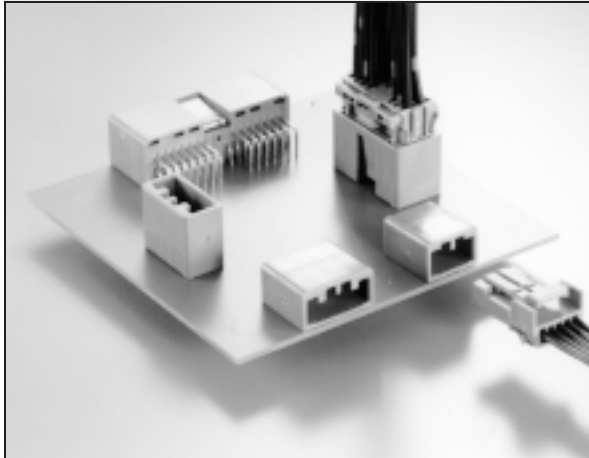


# IL-AG5 SERIES AUTOMOTIVE CONNECTORS

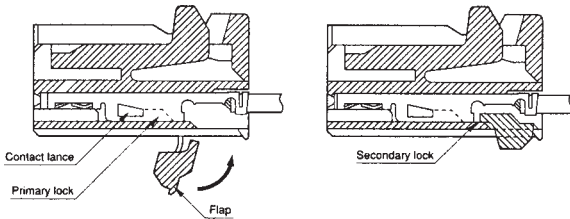
## 025 Crimp Contacts, PCB-to-Cable/Cable-to-Cable Applications



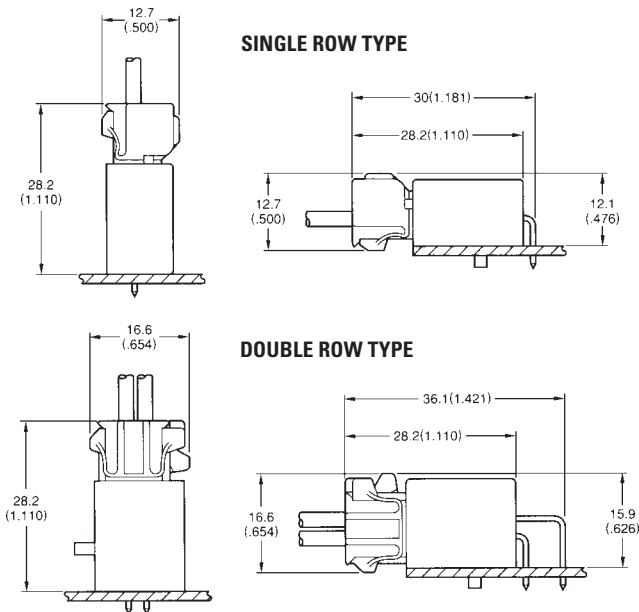
### FEATURES

- Designed for automotive instrument panel applications
- Mechanical lock assures positive mating
- Unique housing configuration helps prevent mismatching
- Double locking mechanism prevents dislodging of contacts

Connector Profile (Ref.)



- Polarized version is available (Single row, 5 and 6 contacts only)
- Highly reliable socket contacts
- Simplified crimp-type termination



### GENERAL SPECIFICATIONS

|                                 |   |
|---------------------------------|---|
| Number of Contacts              | 5, 6, 7, 10 (single row)<br>14, 16, 18, 22, 30 (double row) |
| Contact Spacing                 | 2.5mm (.098")   |
| Current Rating                  | 3 Amps  |
| Dielectric Withstanding Voltage | 1000 VAC r.m.s. (for one minute)                            |
| Insulation Resistance           | 100 megohms min.  |
| Contact Resistance              | 10 milliohms max.   |
| Applicable PCB Thickness        | 1.6 to 2.4mm (.063" to .094")                               |
| Operating Temperature           | -40°C to +85°C  |

### APPLICABLE WIRE (Stranded)

|                              |                              |                     |
|------------------------------|------------------------------|---------------------|
| Wire Type (JIS)              | AV, AVS, AVSS                | AVS, AVSS           |
| AWG No.                      | #22 to #20                   | #18                 |
| Conductor Cross Section Area | 0.3 to 0.5mm <sup>2</sup>    | 0.85mm <sup>2</sup> |
| Insulation Outer Dia.        | 1.4 to 2.4mm (.055 to .094") |                     |

### MATERIALS AND FINISHES

|                |  |
|----------------|--|
| Description    | Materials/Finishes   |
| Insulator      | PBT, Yellow (Green or Light Blue for polarized version)                        |
| Pin Contact    | Brass/Tin Plating<br>Cable plug pin contact: Highly conductive<br>Copper alloy |
| Socket Contact | Phosphor Bronze /Tin Plating   |

Note: The standard finish of contacts is tin plating.  
Gold plating is available as an option. Consult JAE for details.

### ORDERING INFORMATION IL-AG5 - \*\* \* \* - \* 3 \* \* \* - \*\*

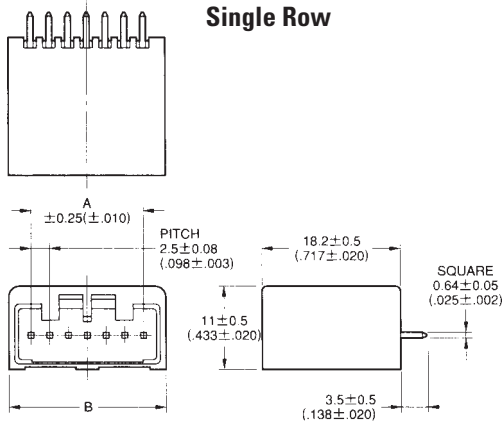
|                                       |  |
|---------------------------------------|--|
| Series                                | IL-AG5   |
| No. of Contacts                       | 3  |
| Single Row                            | 5, 6, 7, 10  |
| Double Row                            | 14, 16, 18, 22, 30   |
| Contact Type                          | S - Socket   |
| Modification Code                     | K - Polarized version, 5 and 6 contacts only<br>Blank - Standard type  |
| Contact Layout                        | S - Single Row    D - Double Row                                       |
| Contact Pitch                         | 3 - 2.5mm (.098")  |
| Termination                           | T - Straight Through Hole    L - Right Angle Through Hole<br>C - Crimp |
| Applicable PCB Thickness (pin header) | 2 - 1.6mm (.063")  |
| Applicable Wire Size (Housing)        | 1 - AWG #18 to #22, Stranded   |
| Modification Code A                   |  |
| Insulator Color                       | LB - Light Blue    Blank - Green                                       |

Dimensions and specifications subject to change without notice.

# IL-AG5 SERIES AUTOMOTIVE CONNECTORS

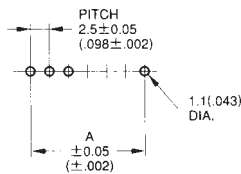
## 025 Crimp Contacts, PCB-to-Cable/Cable-to-Cable Applications

### STRAIGHT PIN HEADER



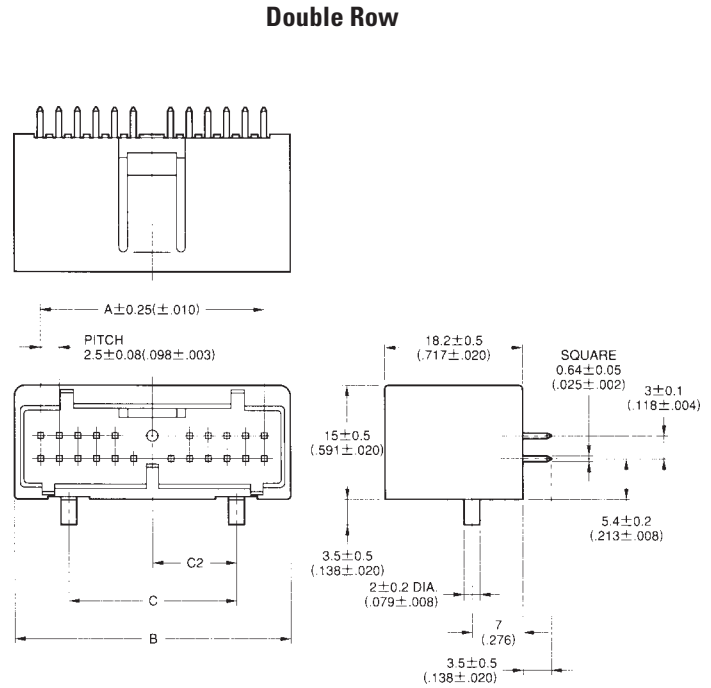
Note: Configuration of mating area differs slightly depending on the number of contacts.

PCB Hole Pattern (Ref.)

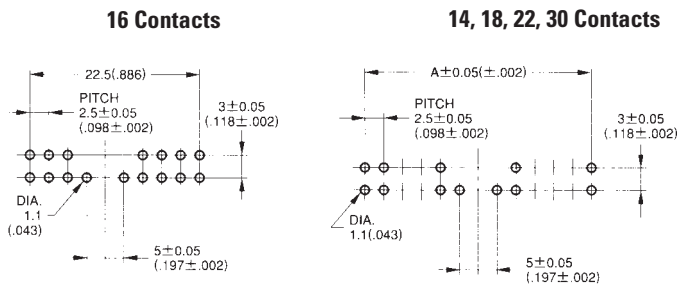


Configuration of Mating Area (Ref.)

| No. of Contacts | Standard | Polarized Version |
|-----------------|----------|-------------------|
| 5               |          |                   |
| 6               |          |                   |



PCB Hole Pattern (Ref.)



#### • Single Row

| No. of Contacts | Part Number     |                    | A<br>$\pm 0.25 (\pm .010)$ | B<br>$\pm 0.5 (\pm .020)$ |
|-----------------|-----------------|--------------------|----------------------------|---------------------------|
|                 | Standard        | Polarized Version  |                            |                           |
| 5               | IL-AG5- 5P-S3T2 | IL-AG5-5PK-S3T2-LB | 10.0 (.394)                | 15.8 ( .622)              |
| 6               | IL-AG5- 6P-S3T2 | IL-AG5-6PK-S3T2-LB | 12.5 (.492)                | 18.3 ( .720)              |
| 7               | IL-AG5- 7P-S3T2 | —                  | 15.0 (.591)                | 20.8 ( .819)              |
| 10              | IL-AG5-10P-S3T2 | —                  | 22.5 (.886)                | 28.3 (1.114)              |

#### • Double Row

| No. of Contacts | Part Number       | A                     | B                    | C                    | C2                   |
|-----------------|-------------------|-----------------------|----------------------|----------------------|----------------------|
|                 |                   | $\pm 0.25 (\pm .010)$ | $\pm 0.5 (\pm .020)$ | $\pm 0.2 (\pm .008)$ | $\pm 0.1 (\pm .004)$ |
| 14              | IL-AG5-14P-D3T2-A | 20.0 ( .787)          | 26.5 (1.043)         | 12.5 ( .492)         | 6.25 ( .246)         |
| 16              | IL-AG5-16P-D3T2-A | 22.5 ( .886)          | 29.0 (1.142)         | 15.0 ( .591)         | 8.75 ( .344)         |
| 18              | IL-AG5-18P-D3T2   | 25.0 ( .984)          | 31.5 (1.240)         | 17.5 ( .689)         | 8.75 ( .344)         |
| 22              | IL-AG5-22P-D3T2   | 30.0 (1.181)          | 36.5 (1.437)         | 22.5 ( .886)         | 11.25 ( .443)        |
| 30              | IL-AG5-30P-D3T2   | 40.0 (1.575)          | 46.5 (1.831)         | 30.0 (1.181)         | 15.00 ( .591)        |

Dimensions in mm (inches).

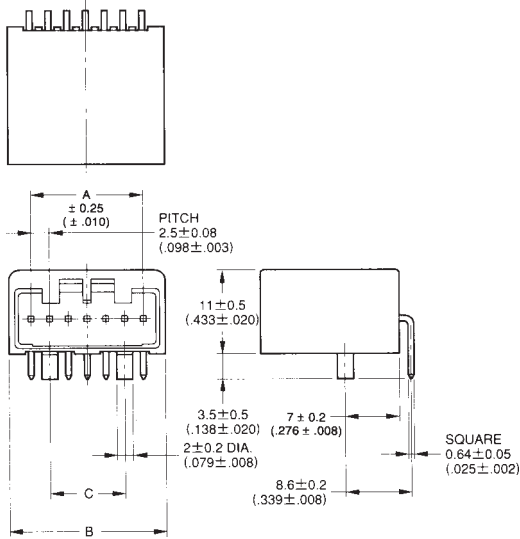


# IL-AG5 SERIES AUTOMOTIVE CONNECTORS

## 025 Crimp Contacts, PCB-to-Cable/Cable-to-Cable Applications

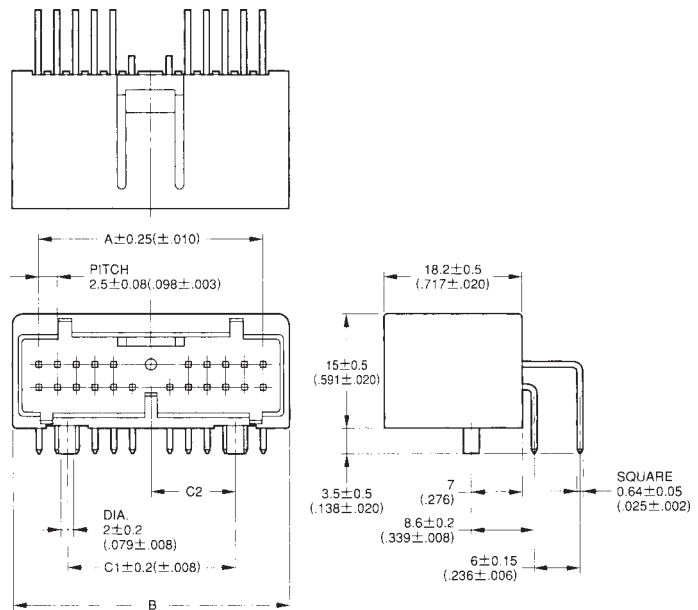
### RIGHT ANGLE PIN HEADER

#### Single Row



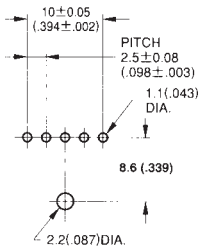
Note: Configuration of mating area slightly differs depending on the number of contacts.

#### Double Row

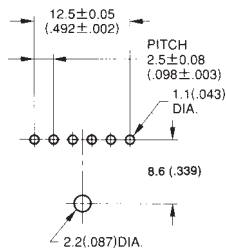


#### PCB Hole Pattern (Ref.)

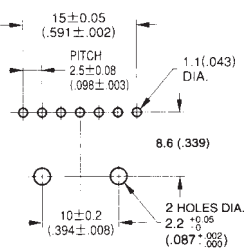
##### 5 Contacts



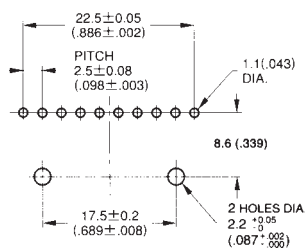
##### 6 Contacts



##### 7 Contacts

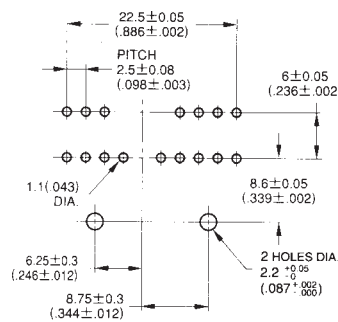


##### 10 Contacts

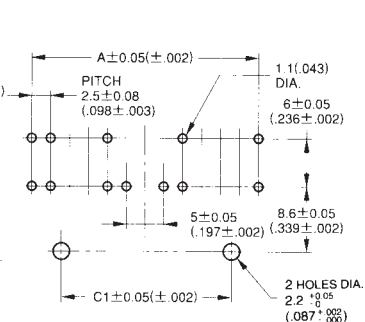


#### PCB Hole Pattern (Ref.)

##### 16 Contacts



##### 14, 18, 22, 30 Contacts



#### • Double Row

| No. of Contacts | Part Number       | A<br>± 0.25 (±.010) | B<br>± 0.5 (±.020) | C1<br>± 0.2 (±.008) | C2<br>± 0.1 (±.004) |
|-----------------|-------------------|---------------------|--------------------|---------------------|---------------------|
| 14              | IL-AG5-14P-D3L2-A | 20.0 (.787)         | 26.5 (1.043)       | 12.5 (.492)         | 6.25 (.246)         |
| 16              | IL-AG5-16P-D3L2-A | 22.5 (.886)         | 29.0 (1.142)       | 15.0 (.591)         | 8.75 (.344)         |
| 18              | IL-AG5-18P-D3L2   | 25.0 (.984)         | 31.5 (1.240)       | 17.5 (.689)         | 8.75 (.344)         |
| 22              | IL-AG5-22P-D3L2   | 30.0 (1.181)        | 36.5 (1.437)       | 22.5 (.886)         | 11.25 (.443)        |
| 30              | IL-AG5-30P-D3L2   | 40.0 (1.575)        | 46.5 (1.831)       | 30.0 (1.181)        | 15.00 (.591)        |

#### • Single Row

| No. of Contacts | Part Number     |                    | A<br>± 0.25 (±.010) | B<br>± 0.5 (±.020) | C<br>± 0.2 (±.008) |
|-----------------|-----------------|--------------------|---------------------|--------------------|--------------------|
|                 | Standard        | Polarized Version  |                     |                    |                    |
| 5               | IL-AG5- 5P-S3L2 | IL-AG5-5PK-S3L2-LB | 10.0 (.394)         | 15.8 (.622)        | —                  |
| 6               | IL-AG5- 6P-S3L2 | IL-AG5-6PK-S3L2-LB | 12.5 (.492)         | 18.3 (.720)        | —                  |
| 7               | IL-AG5- 7P-S3L2 | —                  | 15.0 (.591)         | 20.8 (.819)        | 10.0 (.394)        |
| 10              | IL-AG5-10P-S3L2 | —                  | 22.5 (.886)         | 28.3 (1.114)       | 17.5 (.689)        |

Note: Refer to Socket Housing information for configuration of mating area of polarized version.

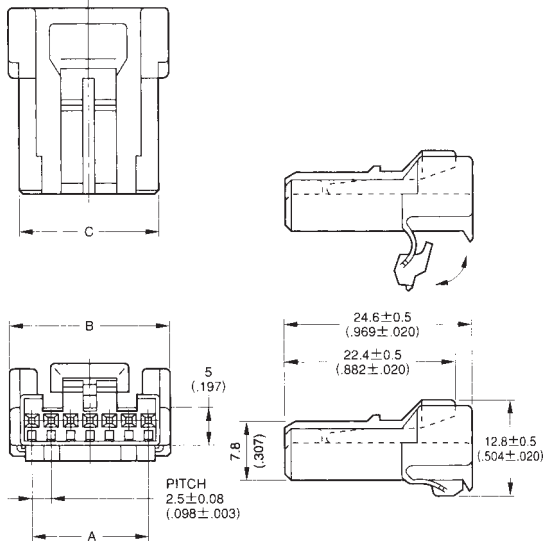
Dimensions in mm (inches).

# IL-AG5 SERIES AUTOMOTIVE CONNECTORS

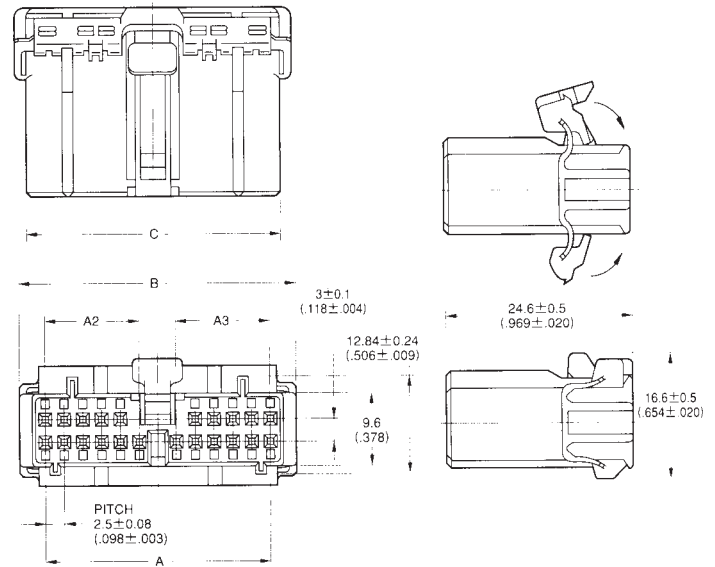
## 025 Crimp Contacts, PCB-to-Cable/Cable-to-Cable Applications

### SOCKET HOUSING

#### Single Row



#### Double Row



#### Configuration of Mating Area (Ref.)

| No. of Contacts | Standard | Polarized Version |
|-----------------|----------|-------------------|
| 5               |          |                   |
| 6               |          |                   |

#### • Single Row

| No. of Contacts | Part Number     |                    | A<br>± 0.25 (± .010) | B<br>± 0.5 (± .020) | C<br>+0.14 (+.006)<br>-0.25 (-.010) |
|-----------------|-----------------|--------------------|----------------------|---------------------|-------------------------------------|
|                 | Standard        | Polarized Version  |                      |                     |                                     |
| 5               | IL-AG5- 5S-S3C1 | IL-AG5-5SK-S3C1-LB | 10.0 (.394)          | 16.1 (.634)         | 13.1 (.516)                         |
| 6               | IL-AG5- 6S-S3C1 | IL-AG5-6SK-S3C1-LB | 12.5 (.492)          | 18.6 (.732)         | 15.6 (.614)                         |
| 7               | IL-AG5- 7S-S3C1 | —                  | 15.0 (.591)          | 21.1 (.831)         | 18.1 (.713)                         |
| 10              | IL-AG5-10S-S3C1 | —                  | 22.5 (.886)          | 28.6 (1.126)        | 25.6 (1.008)                        |

#### • Double Row

| No. of Contacts | Part Number       | A<br>± 0.25 (± .010) | A2<br>± 0.1 (± .004) | A3<br>± 0.1 (± .004) | B<br>± 0.5 (± .020) | C<br>+0.14 (+.006)<br>-0.25 (-.010) |
|-----------------|-------------------|----------------------|----------------------|----------------------|---------------------|-------------------------------------|
|                 |                   |                      |                      |                      |                     |                                     |
| 16              | IL-AG5-16S-D3C1-A | 22.5 (.886)          | 10.0 (.394)          | 7.5 (.295)           | 29.2 (1.150)        | 26.2 (1.031)                        |
| 18              | IL-AG5-18S-D3C1   | 25.0 (.984)          | 10.0 (.394)          | 10.0 (.394)          | 31.7 (1.248)        | 28.7 (1.130)                        |
| 22              | IL-AG5-22S-D3C1   | 30.0 (1.181)         | 12.5 (.492)          | 12.5 (.492)          | 36.7 (1.445)        | 33.7 (1.327)                        |
| 30              | IL-AG5-30S-D3C1   | 40.0 (1.575)         | 17.5 (.689)          | 17.5 (.689)          | 46.7 (1.839)        | 43.7 (1.720)                        |

Dimensions in mm (inches).