



# Transportation

Socket Housing: **IL-AG5-#S- S3C1** Contacts: IL-AG5-C1-5000 (socket)  
 Pin housing: **IL-AG5-#P- S3C1** IL-AG5-PC1-5000 (pin)  
**IL-AG5-#P- S3L2**  
 S: single row  
 D: double row  
 L: right angle  
 T: straight  
 Hand tool: CT150-1-AG5  
 Semi auto: 3502-AG5-2  
 Automatic: 350-AG5-3B

Socket housing: **MX1900#S51** Contacts: MX19S10K451 (socket)  
 Pin housing: **MX1900#P51** MX19P10K451 (pin)  
 Dummy pin: MX19000XD1  
 1: Black  
 2: Gray  
 Hand Tool: CT150-4C-MX19  
 Semi auto: 3502-MX19-2B

Socket housing: **MX23A##SF1** Contacts: M23S05K351  
 Pin header: **MX23A##NF1** Dummy pin: M120-55780  
 1: Standard  
 2: Reverse  
 Hand tool: CT160-3B-MX23  
 Semi auto: 350-MX23-2

Socket housing: **MX340##SF1** Pin header: **MX340##UF1**  
 U: Straight  
 N: Angled  
 1: 3-24 pos  
 2: 28-40 pos

| Contacts   | Hand Tool    | Semi auto   | Automatic    |
|------------|--------------|-------------|--------------|
| M34S75C4F1 | CT150-2-MX34 | 350-MX34D-2 | 350-MX34B-3B |
| M34S75C4F2 | CT150-1-MX34 | 350-MX34D-2 | 350-MX34B-3B |
| M34S75C4F3 | N/A          | 350-MX34C-2 | 350-MX34C-3B |
| M34S75C4F4 | N/A          | 350-MX34C-2 | 350-MX34C-3B |

Board Mounting Receptacle: **MX39004NQ1**

USB Harness: **MX45004S0008397 (150mm)**

Socket housing: **MX3600#SQ3** Contacts: M36S08K4Q3 (socket)  
 Pin housing: **MX3600#PQ3** M36P08K4Q3 (pin)  
 Front cap: **MX36004XF3**  
 Semi auto: 350-MX36-2  
 Automatic: 350-MX36-3B

Socket housing: **MX37004SP3** Contacts: Socket M37S07K4P3 Pin M37P75C4P3  
 Pin housing: **MX37004PP3** Semi Auto: 350-MX37S-2 350-MX37P-2  
 Automatic: 350-MX37S-3B 350-MX37S-3B

Socket housing: **MX44####SF1** Contacts: M44S05K4F1  
 Pin header: **MX44####NF1**  
 Retainer: **MX44####XR1**  
 Wire seal: **MX44000XP1**  
 Wire O.D.  
 1: 1.4-1.5mm  
 2: 1.6-1.7mm

Socket housing: **MX31 ### SG A**  
 31, 34, 35 pos  
 Modification code  
 Pin header: **MX31 ### N F D**  
 70, 104, 135 pos  
 Modification code  
 F: All Sn plated contacts  
 Q: Selective gold plated contacts

| Contacts                | Wire (AWG) | Semi Auto   | Automatic    |
|-------------------------|------------|-------------|--------------|
| M31S07K4FA (Sn, signal) | #22-20     | 350-MX31A-2 | 350-MX31A-3B |
| M31S07K4QA (Au, signal) | #22-20     | 350-MX31A-2 | 350-MX31A-3B |
| M31S07K4FB (Sn, signal) | #24        | 350-MX31A-2 | 350-MX31A-3B |
| M31S05K3FA (Sn, power)  | #18-16     | 350-MX31B-2 | 350-MX31B-3B |
| M31S05K4FA (Sn, power)  | #22-18     | 350-MX31B-2 | 350-MX31B-3B |
| M31S05K4QA (Au, power)  | #22-18     | 350-MX31B-2 | 350-MX31B-3B |

| Series                | IL-AG5                                                                                                                                             | MX19                                                                                                                                                     | MX23A                                                                                                              | MX31                                                                                                                                                                 | MX34                                                                                                                                                              | MX36                                                                                                                                                                   | MX37                                                                                                                                                                       | MX39/MX45                                                                           | MX44                                                                                                                                         |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Photo                 |                                                                   |                                                                         |                                   |                                                                                    |                                                                                |                                                                                     |                                                                                         |  |                                                           |
| Pitch                 | 2.5mm                                                                                                                                              | 2.5mm                                                                                                                                                    | 2.5mm                                                                                                              | Signal: 2.2mm<br>Power: 3.2mm                                                                                                                                        | 2.2mm                                                                                                                                                             | 2.5mm                                                                                                                                                                  | 2.2mm                                                                                                                                                                      | 2.2mm                                                                               | 3.5mm                                                                                                                                        |
| Wire Size             | AWG #22-18<br><br>AV,AVS,AVSS:<br>0.3 to 0.5mm <sup>2</sup><br>AVS, AVSS:<br>0.85mm <sup>2</sup>                                                   | AWG #22-20<br><br>CAVS:<br>0.3 to 0.5mm <sup>2</sup><br>AVSS: 0.5mm <sup>2</sup>                                                                         | AWG #22-16<br><br>AVSS, AVS: 0.5 to<br>1.25mm <sup>2</sup>                                                         | Signal:<br>AWG #22-20<br>Power:<br>AWG #22-16<br><br>Signal:<br>AVS, AVSS, AVX<br>0.3 to 0.5mm <sup>2</sup><br>Power:<br>AVS, AVSS AVX<br>0.3 to 1.25mm <sup>2</sup> | AWG #22-20<br><br>AVSS: 0.3, 0.5mm <sup>2</sup><br>CHFUS: 0.22 to<br>0.35mm <sup>2</sup> , 0.5 to<br>0.75mm <sup>2</sup><br>CAN SD: 0.35mm <sup>2</sup>           | AWG #20<br><br>AVSS 0.5, AVSS<br>0.5F, AVSSX 0.5f,<br>TVSSX 0.5f                                                                                                       | AWG #20<br><br>AVSS 0.5, AVSS<br>0.5F, AVSSX 0.5f,<br>TVSSX 0.5f                                                                                                           | AWG #28<br>Twin Ax                                                                  | AWG #22-20<br><br>AVSS 0.3 to<br>0.5mm <sup>2</sup>                                                                                          |
| Pin Count             | 1 row: 4,5,6,<br>7,10<br>2 rows: 14,16,<br>18,22,30                                                                                                | 2, 4                                                                                                                                                     | 12, 18, 26, 34,<br>36,40                                                                                           | Pin:<br>70,98,104,135<br>Socket:<br>31,34,35                                                                                                                         | 3,5,7,12,16,20,<br>24,28,32,36,40                                                                                                                                 | 2, 4                                                                                                                                                                   | 4                                                                                                                                                                          | 4                                                                                   | 2, 4, 6                                                                                                                                      |
| Current Rating        | 3A                                                                                                                                                 | 5A                                                                                                                                                       | 3A                                                                                                                 | Signal: 2.2A<br>Power: 5.7A                                                                                                                                          | 3A                                                                                                                                                                | 3A                                                                                                                                                                     | 3A                                                                                                                                                                         | 500mA                                                                               | 3A                                                                                                                                           |
| Operating Temperature | -40 ~ +85 °C                                                                                                                                       | -40 ~ +85 °C                                                                                                                                             | -40 ~ +125 °C                                                                                                      | -40 ~ +85 °C                                                                                                                                                         | -40 ~ +85 °C                                                                                                                                                      | -40 ~ +105 °C                                                                                                                                                          | -40 ~ +105 °C                                                                                                                                                              | -40 ~ +85 °C                                                                        | -40 ~ +125 °C                                                                                                                                |
| Application           | Cable to Cable/<br>Board to Cable                                                                                                                  | Cable to Cable                                                                                                                                           | Board to Cable                                                                                                     | Board to Cable                                                                                                                                                       | Board to Cable                                                                                                                                                    | Cable to Cable                                                                                                                                                         | Cable to Cable                                                                                                                                                             | Cable to Cable/<br>Board to Cable                                                   | Board to Cable                                                                                                                               |
| Features              | Mechanical lock system enabling complete mating. Secondary lock mechanism to ensure correct terminal retention. Simplified crimp type termination. | Waterproof. Mechanical lock system. Grommet seal. Terminals have low insertion force and stress dispersion. Rear cover protects the grommet from damage. | Waterproof. Low profile. Available in reverse mount type. Retainer detects incomplete insertion of socket contact. | Mechanical lock system with audible click. Socket side contact designed with secondary lock. Simplified crimp type termination.                                      | Lightweight. Mating and unmating force less than 80N. Closed box socket contact increases mechanical strength. Preset retainer allows easy wire harness assembly. | Waterproof. Spring separates connectors if not correctly mated. Shorting contact eliminates static discharge. Retainer detects incomplete insertion of socket contact. | Mechanical complete mating method. Spring separates connector if not correctly mated. Shorting contact eliminates static discharge. Retainer detects incomplete insertion. | USB 2.0 compatible. Sold as a complete harness with USB standard receptacle.        | Single contact waterproof. Compact size. Improved vibration resistance by vibration absorption function of rubber. Secondary lock mechanism. |