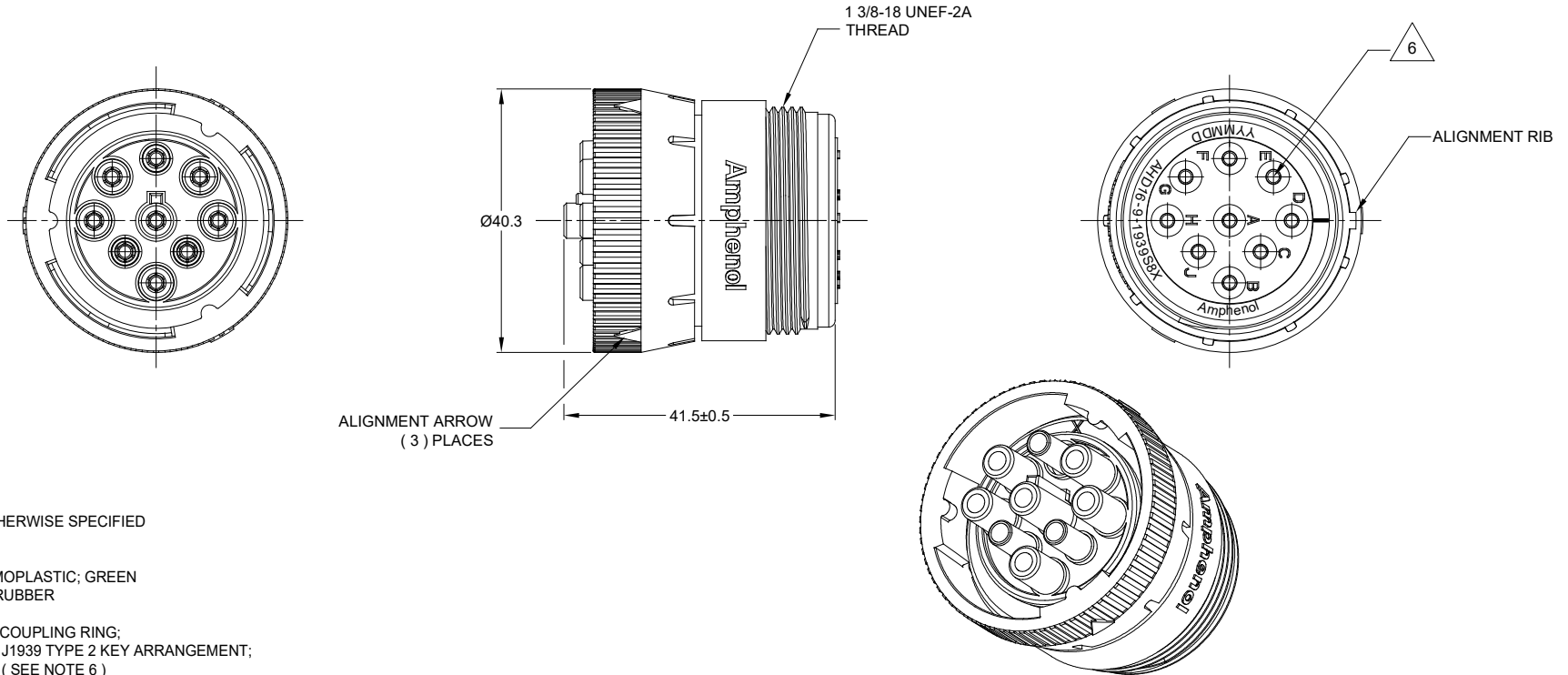


| REVISIONS |        |                        |          |        |       |
|-----------|--------|------------------------|----------|--------|-------|
| REV       | ECO    | DESCRIPTION            | DATE     | BY     | APPR  |
| A2        |        | RELEASE NEW DWG FORMAT | 04DEC13  | DRP    |       |
| A3        | C0754S | UPDATE DRAWING         | 01NOV17  | JONY   | TOMMY |
| A4        | --     | UPDATE DRAWING         | 07JAN/20 | ROOKIE | TOMMY |



NOTES: UNLESS OTHERWISE SPECIFIED

- MATERIAL:  
HOUSING: THERMOPLASTIC; GREEN  
SEAL: SILICONE RUBBER
- MODIFICATIONS: COUPLING RING;  
J1939 TYPE 2 KEY ARRANGEMENT;  
(SEE NOTE 6)
- SPECIFICATIONS:  
3.1 CURRENT RATING: 13 AMPS  
3.2 OPERATING TEMPERATURE: -55°C TO +125°C.  
3.3 DIELECTRIC WITHSTANDING VOLTAGE: LESS THAN 2 MILLIAMPS CURRENT LEAKAGE @ 1500 VOLTS AC.  
3.4 INSULATION RESISTANCE: 1000 MEGOHM MIN @ 25°C.  
3.5 MOISTURE RESISTANCE: IP67 ( MATED CONDITION ).  
3.6 MATING CYCLE DURABILITY: 100 CYCLES  
3.7 RoHS COMPLIANT
- MATING PART: AHD10-9-1939P\* AND  
AHD17-9-1939P\*.(\*=ALL MODIFICATION)
- ALL DIMENSIONS ARE FOR REFERENCE USE ONLY.

△ CONTACT SIZE AND WIRE RANGE:

| PART NUMBER     | SEAL TYPE | CONTACT SIZE | MIN. INSUL O.D.      | MAX. INSUL O.D.      | TYPICAL WIRE RANGE |
|-----------------|-----------|--------------|----------------------|----------------------|--------------------|
| AHD16-9-1939S80 | STANDARD  | 16           | 2.54 mm<br>(.100 in) | 3.81 mm<br>(.150 in) | 14 - 20 AWG        |
| AHD16-9-1939S8R | REDUCED   | 16           | 1.35 mm<br>(.053 in) | 3.05 mm<br>(.120 in) | 14 - 20 AWG        |

| SEE NOTES                             |  | PART NUMBER                                                                                                                                                                                                                                                          |  | DESCRIPTION     |  | ITEM     |
|---------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------|--|----------|
| QUANTITY                              |  |                                                                                                                                                                                                                                                                      |  |                 |  |          |
| MATERIALS LIST                        |  |                                                                                                                                                                                                                                                                      |  |                 |  |          |
| UNLESS OTHERWISE SPECIFIED            |  | SIGNATURES                                                                                                                                                                                                                                                           |  | DATE            |  |          |
| 1) All dimensions are in metric (mm). |  | DRAWN: ROOKIE                                                                                                                                                                                                                                                        |  | 07/JAN/20       |  |          |
| 2) Tolerances are as follows:         |  | CHECKED: ORION                                                                                                                                                                                                                                                       |  | 07/JAN/20       |  |          |
| 1 PL DEC ±0.30                        |  | ENGINEER:                                                                                                                                                                                                                                                            |  |                 |  |          |
| 2 PL DEC ±0.15                        |  | APPROVAL: TOMMY                                                                                                                                                                                                                                                      |  | 07/JAN/20       |  |          |
| 3 PL DEC ±0.08                        |  | CUSTOMER:                                                                                                                                                                                                                                                            |  |                 |  |          |
| 3) Note reference = △                 |  | THIS DRAWING IS SUPPLIED FOR INFORMATION ONLY. DESIGN FEATURES, SPECIFICATIONS AND PERFORMANCE DATA SHOWN HEREON ARE THE PROPERTY OF THE AMPHENOL CORPORATION. NO RIGHTS OF REPRODUCTION ARE IMPLIED. ALL DIMENSIONS ARE SUBJECT TO NORMAL MANUFACTURING VARIATIONS. |  |                 |  |          |
| MATERIAL SPECIFICATIONS:              |  | SIZE                                                                                                                                                                                                                                                                 |  | TYPE            |  | REVISION |
| PROCESS SPECIFICATIONS:               |  | B C-                                                                                                                                                                                                                                                                 |  | AHD16-9-1939S8X |  | A4       |
| NEXT ASSY:                            |  | SCALE: NONE                                                                                                                                                                                                                                                          |  | SHEET 1 OF 1    |  |          |

TITLE: PLUG, 9 POSITION, COUPLING RING, J1939AHD SERIES  
DWG NO: AHD16-9-1939S8X  
REV: A4  
SH: 1  
OF: 1

# AT, ATV, AHD, ARB, ARC, DuraMate™ and PanelMate™ Series

## Size 16 Contact & Tooling Options

### Contacts - Machined

| Part Number       | Type   | Style    | Contact Size | Amp | Wire Range (AWG) | Wire Range (mm <sup>2</sup> ) | Insulation OD (mm) | Plating       | Reel Size | Packaging |
|-------------------|--------|----------|--------------|-----|------------------|-------------------------------|--------------------|---------------|-----------|-----------|
| AT60-215-16141    | Pin    | Machined | Size 16      | 13A | 14AWG            | -                             | -                  | Nickel-Plated | -         | -         |
| AT60-215-1631     | Pin    | Machined | Size 16      | 13A | 14AWG            | -                             | -                  | Gold-Plated   | -         | -         |
| AT60-202-16NKIT   | Pin    | Machined | Size 16      | 13A | 16-20AWG         | -                             | -                  | Nickel-Plated | -         | -         |
| AT60-202-16141    | Pin    | Machined | Size 16      | 13A | 16-20AWG         | -                             | -                  | Nickel-Plated | -         | -         |
| AT60-202-1631     | Pin    | Machined | Size 16      | 13A | 16-20AWG         | -                             | -                  | Gold-Plated   | -         | -         |
| AT60-202-16141-22 | Pin    | Machined | Size 16      | 13A | 22-24AWG         | -                             | -                  | Nickel-Plated | -         | -         |
| AT60-202-1631-22  | Pin    | Machined | Size 16      | 13A | 22-24AWG         | -                             | -                  | Gold-Plated   | -         | -         |
| AT62-209-16141    | Socket | Machined | Size 16      | 13A | 14AWG            | -                             | -                  | Nickel-Plated | -         | -         |
| AT62-209-1631     | Socket | Machined | Size 16      | 13A | 14AWG            | -                             | -                  | Gold-Plated   | -         | -         |
| AT62-201-16NKIT   | Socket | Machined | Size 16      | 13A | 16-20AWG         | -                             | -                  | Nickel-Plated | -         | -         |
| AT62-201-16141    | Socket | Machined | Size 16      | 13A | 16-20AWG         | -                             | -                  | Nickel-Plated | -         | -         |
| AT62-201-1631     | Socket | Machined | Size 16      | 13A | 16-20AWG         | -                             | -                  | Gold-Plated   | -         | -         |
| AT62-201-16141-22 | Socket | Machined | Size 16      | 13A | 22-24AWG         | -                             | -                  | Nickel-Plated | -         | -         |
| AT62-201-1631-22  | Socket | Machined | Size 16      | 13A | 22-24AWG         | -                             | -                  | Gold-Plated   | -         | -         |

### Contacts - Stamped & Formed

|                 |        |     |         |     |          |                         |               |               |       |             |
|-----------------|--------|-----|---------|-----|----------|-------------------------|---------------|---------------|-------|-------------|
| AT60-14-0122    | Pin    | S&F | Size 16 | 13A | 14-18AWG | 2.0-0.75mm <sup>2</sup> | 2.40 - 3.81mm | Nickel-Plated | -     | -           |
| AT60-14-0122-LP | Pin    | S&F | Size 16 | 13A | 14-18AWG | 2.0-0.75mm <sup>2</sup> | 2.40 - 3.81mm | Nickel-Plated | -     | Loose Piece |
| AT60-14-0144    | Pin    | S&F | Size 16 | 13A | 14-18AWG | 2.0-0.75mm <sup>2</sup> | 2.40 - 3.81mm | Gold-Plated   | -     | -           |
| AT60-14-0144-LP | Pin    | S&F | Size 16 | 13A | 14-18AWG | 2.0-0.75mm <sup>2</sup> | 2.40 - 3.81mm | Gold-Plated   | -     | Loose Piece |
| AT60-16-0122    | Pin    | S&F | Size 16 | 13A | 16-18AWG | 1.5-0.75mm <sup>2</sup> | 1.91 - 3.55mm | Nickel-Plated | -     | -           |
| AT60-16-0122-LP | Pin    | S&F | Size 16 | 13A | 16-18AWG | 1.5-0.75mm <sup>2</sup> | 1.91 - 3.55mm | Nickel-Plated | -     | Loose Piece |
| AT60-16-0144    | Pin    | S&F | Size 16 | 13A | 16-18AWG | 1.5-0.75mm <sup>2</sup> | 1.91 - 3.55mm | Gold-Plated   | -     | -           |
| AT60-16-0144-LP | Pin    | S&F | Size 16 | 13A | 16-18AWG | 1.5-0.75mm <sup>2</sup> | 1.91 - 3.55mm | Gold-Plated   | -     | Loose Piece |
| AT60-16-0622    | Pin    | S&F | Size 16 | 13A | 16-20AWG | 1.0-0.5mm <sup>2</sup>  | 1.40 - 2.54mm | Nickel-Plated | -     | -           |
| AT60-16-0622-LP | Pin    | S&F | Size 16 | 13A | 16-20AWG | 1.0-0.5mm <sup>2</sup>  | 1.40 - 2.54mm | Nickel-Plated | -     | Loose Piece |
| AT60-16-0644    | Pin    | S&F | Size 16 | 13A | 16-20AWG | 1.0-0.5mm <sup>2</sup>  | 1.40 - 2.54mm | Gold-Plated   | -     | -           |
| AT60-16-0644-LP | Pin    | S&F | Size 16 | 13A | 16-20AWG | 1.0-0.5mm <sup>2</sup>  | 1.40 - 2.54mm | Gold-Plated   | -     | Loose Piece |
| AT60-16-0322    | Pin    | S&F | Size 16 | 13A | 20-22AWG | 0.5-0.35mm <sup>2</sup> | 1.31 - 1.50mm | Nickel-Plated | -     | -           |
| AT60-16-0344    | Pin    | S&F | Size 16 | 13A | 20-22AWG | 0.5-0.35mm <sup>2</sup> | 1.31 - 1.50mm | Gold-Plated   | -     | -           |
| AT60-16-0377    | Pin    | S&F | Size 16 | 13A | 20-22AWG | 0.5-0.35mm <sup>2</sup> | 1.31 - 1.50mm | Tin-Plated    | -     | -           |
| AT60-16-0822    | Pin    | S&F | Size 16 | 13A | 20-22AWG | 0.5-0.35mm <sup>2</sup> | 1.31 - 1.50mm | Nickel-Plated | 4,000 | -           |
| AT60-16-0844    | Pin    | S&F | Size 16 | 13A | 20-22AWG | 0.5-0.35mm <sup>2</sup> | 1.31 - 1.50mm | Gold-Plated   | 4,000 | -           |
| AT62-14-0122    | Socket | S&F | Size 16 | 13A | 14-18AWG | 2.0-0.75mm <sup>2</sup> | 2.40 - 3.81mm | Nickel-Plated | -     | -           |
| AT62-14-0122-LP | Socket | S&F | Size 16 | 13A | 14-18AWG | 2.0-0.75mm <sup>2</sup> | 2.40 - 3.81mm | Nickel-Plated | -     | Loose Piece |
| AT62-14-0144    | Socket | S&F | Size 16 | 13A | 14-18AWG | 2.0-0.75mm <sup>2</sup> | 2.40 - 3.81mm | Gold-Plated   | -     | -           |
| AT62-14-0144-LP | Socket | S&F | Size 16 | 13A | 14-18AWG | 2.0-0.75mm <sup>2</sup> | 2.40 - 3.81mm | Gold-Plated   | -     | Loose Piece |
| AT62-16-0122    | Socket | S&F | Size 16 | 13A | 16-18AWG | 1.5-0.75mm <sup>2</sup> | 1.91 - 3.55mm | Nickel-Plated | -     | -           |
| AT62-16-0122-LP | Socket | S&F | Size 16 | 13A | 16-18AWG | 1.5-0.75mm <sup>2</sup> | 1.91 - 3.55mm | Nickel-Plated | -     | Loose Piece |
| AT62-16-0144    | Socket | S&F | Size 16 | 13A | 16-18AWG | 1.5-0.75mm <sup>2</sup> | 1.91 - 3.55mm | Gold-Plated   | -     | -           |

# AT, ATV, AHD, ARB, ARC, DuraMate™ and PanelMate™ Series

## Size 16 Contact & Tooling Options, cont.

Contacts - Stamped & Formed, cont.

| Part Number     | Type   | Style | Contact Size | Amp | Wire Range (AWG) | Wire Range (mm <sup>2</sup> ) | Insulation OD (mm) | Plating       | Reel Size | Packaging   |
|-----------------|--------|-------|--------------|-----|------------------|-------------------------------|--------------------|---------------|-----------|-------------|
| AT62-16-0144-LP | Socket | S&F   | Size 16      | 13A | 16-18AWG         | 1.5-0.75mm <sup>2</sup>       | 1.91 - 3.55mm      | Gold-Plated   | -         | Loose Piece |
| AT62-16-0622    | Socket | S&F   | Size 16      | 13A | 16-20AWG         | 1.0-0.5mm <sup>2</sup>        | 1.40 - 2.54mm      | Nickel-Plated | -         | -           |
| AT62-16-0622-LP | Socket | S&F   | Size 16      | 13A | 16-20AWG         | 1.0-0.5mm <sup>2</sup>        | 1.40 - 2.54mm      | Nickel-Plated | -         | Loose Piece |
| AT62-16-0644    | Socket | S&F   | Size 16      | 13A | 18-20AWG         | 1.0-0.5mm <sup>2</sup>        | 1.40 - 2.54mm      | Gold-Plated   | -         | -           |
| AT62-16-0644-LP | Socket | S&F   | Size 16      | 13A | 18-20AWG         | 1.0-0.5mm <sup>2</sup>        | 1.40 - 2.54mm      | Gold-Plated   | -         | Loose Piece |
| AT62-16-0822    | Socket | S&F   | Size 16      | 13A | 20-22AWG         | 0.5-0.35mm <sup>2</sup>       | 1.31 - 1.50mm      | Nickel-Plated | 4,000     | -           |
| AT62-16-0844    | Socket | S&F   | Size 16      | 13A | 20-22AWG         | 0.5-0.35mm <sup>2</sup>       | 1.31 - 1.50mm      | Gold-Plated   | 4,000     | -           |

Tooling

| Part Number      | Tool Name                                      | Style     | Contact Size  | Wire Range (AWG) | Material      | Color   |
|------------------|------------------------------------------------|-----------|---------------|------------------|---------------|---------|
| AUTK-16          | Hand Crimp Tool                                | Machined  | Size 16       | -                | -             | -       |
| AUTK-100         | Universal Heavy Duty Contact Crimping Tool Kit | Machined  | Size 12/16/20 | 12-26AWG         | -             | -       |
| CA-5D12          | Universal Hand Crimp Tool                      | Machined  | Size 12/16/20 | 12-26AWG         | -             | -       |
| CA-5E12          | Pneumatic Crimp Tool                           | Machined  | Size 12/16/20 | 12-26AWG         | -             | -       |
| MFX-3950-G or K  | Crimp Die Press Applicator                     | S&F       | Size 16       | 18-20AWG         | -             | -       |
| MFX-3953-G or K  | Crimp Die Press Applicator                     | S&F       | Size 16       | 16-18AWG         | -             | -       |
| MFX-3975-G or K  | Crimp Die Press Applicator                     | S&F       | Size 16       | 14-16AWG         | -             | -       |
| MFX-3990         | Crimp Die                                      | S&F       | Size 16       | 20-22AWG         | -             | -       |
| ATT-16-00        | Hand Crimp Tool                                | S&F       | Size 16       | 14-16AWG         | -             | -       |
| ATT-16-01        | Hand Crimp Tool                                | S&F       | Size 16       | 18-20AWG         | -             | -       |
| ATT-1612-03      | Hand Crimp Tool                                | S&F       | Size 12/16    | 20-22AWG         | -             | -       |
| ATRT-100         | Contact and Wedgelock Extraction Tool          | Universal | Universal     | -                | Steel         | Silver  |
| AT11-310-1605    | Contact Extraction Tool                        | Universal | Size 16       | -                | Plastic       | Lt Blue |
| A114017          | Seal Plug                                      | Universal | Size 12/16    | -                | Thermoplastic | White   |
| A114017-SR       | Seal Plug                                      | Universal | Size 16       | -                | Thermoplastic | Black   |
| AT13-217-1605    | Locking Seal Plug                              | Universal | Size 16       | -                | Thermoplastic | Grey    |
| AT13-217-1605-SR | Locking Seal Plug                              | Universal | Size 16       | -                | Thermoplastic | Red     |