

# AMPSEAL 16 CONTACTS

AMPSEAL 16 use the HDSF size 16 Contact System. The contacts are round, Stamped & Formed contacts with dual beam sockets. AMPSEAL 16 can also use Solid Contact System.

## HDSF 16 Contact Performance Specifications

### Durability

SAE J2030 6.11. 50 cycles. See note.

### Current Rating

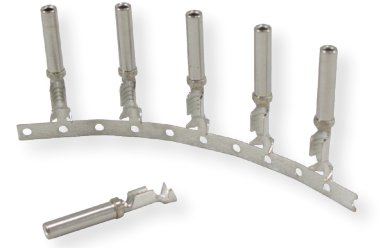
Up to 13 amps, consult TE product document 108-2184.

### Contact Retention

IEC 512-8, Test 51a. Apply axial load of 111 N to contacts at a maximum rate of 10 N per second (or 50mm per minute) and hold for 10 seconds. Contacts shall not dislodge.

The following TE Connectivity document numbers may be helpful:

- [108-2422](#) (Product Specification)
- [114-13045](#) (Application Specification)



## Crimp Tensile Strength

| USCAR 21 @ 50mm/min |                  |
|---------------------|------------------|
| Wire Gauge          | Tensile Strength |
| 18 AWG              | 90 N Min         |
| 16 AWG              | 120 N Min        |
| 14 AWG              | 180 N Min        |

## Voltage Drop

| Wire Size | Test Current Amps | Voltage Drop (millivolts max) |
|-----------|-------------------|-------------------------------|
| 18        | 8                 | 100                           |
| 16        | 10                | 100                           |
| 14        | 13                | 100                           |

Note: Shall meet visual requirements, show no physical damage, and meet requirements of additional tests as specified in the Product Qualification and Requalification Test Sequence in Figure 3 of TE product document 108-2184. USCAR is a trademark.

## Sealing Plugs

Open cavities provide pathways for contaminants to enter the connectors. To maintain seal integrity, any unused cavity must be filled with the appropriate size sealing plug.



| Color  | Part Number | Contact Size | Wire Gauge Range | Description                                                        |
|--------|-------------|--------------|------------------|--------------------------------------------------------------------|
| Yellow | 776363-1    | Size 16      | 16-20 AWG        | PBT, used with AMPSEAL 16 (standard and reduced diameter cavities) |

# ORDERING INFORMATION

## HDSF 16 STAMPED & FORMED CONTACTS FOR AMPSEAL 16 CONNECTORS



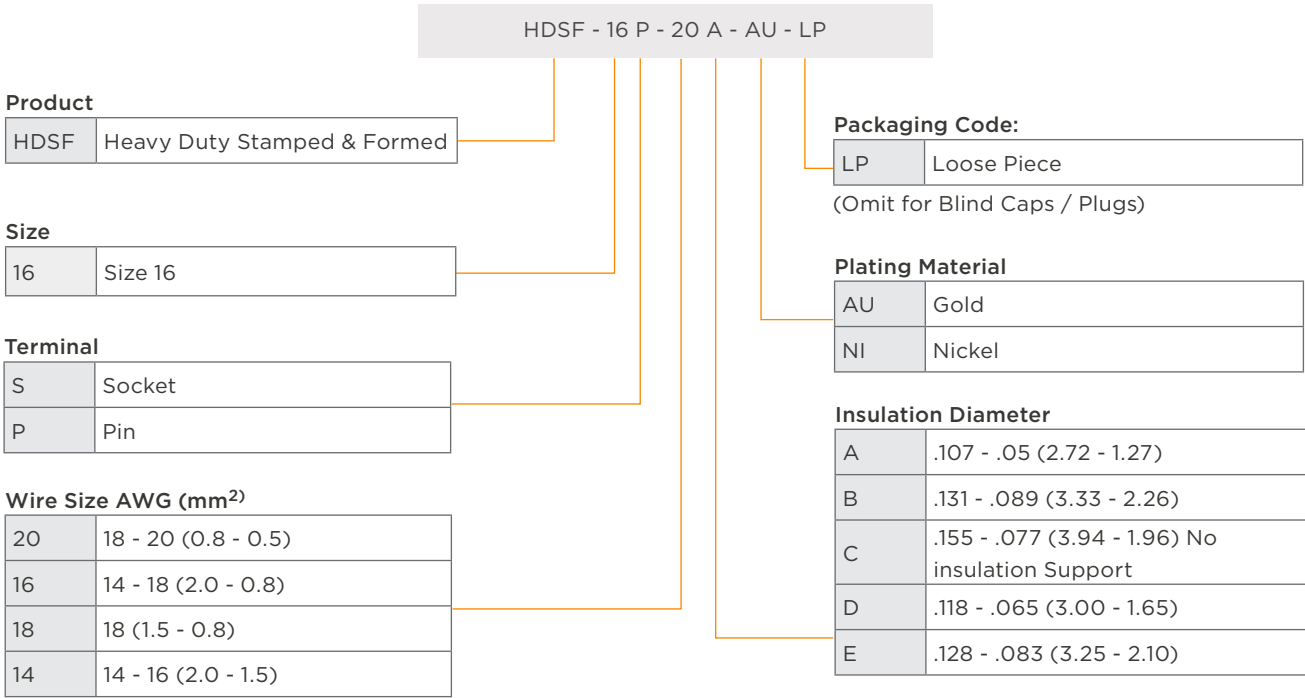
| Pin Part Numbers |                 |                |                    |                                     |                             |                               |        |
|------------------|-----------------|----------------|--------------------|-------------------------------------|-----------------------------|-------------------------------|--------|
| Strip Form       |                 | Loose Piece    |                    | Wire Size<br>AWG (mm <sup>2</sup> ) | Insulation<br>Diameter (mm) | Wire<br>Insulation<br>Support | Finish |
| Part<br>Number   | ALIAS           | Part<br>Number | ALIAS              |                                     |                             |                               |        |
| 1924463-1        | HDSF-16P-20A-AU | 1924579-1      | HDSF-16P-20A-AU-LP | 18 - 20<br>(0.8 - 0.5)              | .107-.05<br>(2.72-1.27)     | Yes                           | AU     |
| 1924463-3        | HDSF-16P-20A-NI | 1924579-3      | HDSF-16P-20A-NI-LP | 18 - 20<br>(0.8 - 0.5)              | .107-.05<br>(2.72-1.27)     | Yes                           | NI     |
| 776349-1         | HDSF-16P-20B-AU | -              | -                  | 18 - 20<br>(0.8 - 0.5)              | .131-.089<br>(3.33-2.26)    | Yes                           | AU     |
| 776349-3         | HDSF-16P-20B-NI | -              | -                  | 18 - 20<br>(0.8 - 0.5)              | .131-.089<br>(3.33-2.26)    | Yes                           | NI     |
| 638078-1         | HDSF-16P-16B-AU | 776300-1       | HDSF-16P-16B-AU-LP | 14 - 18<br>(2.0 - 0.8)              | .131-.089<br>(3.33-2.26)    | Yes                           | AU     |
| 638078-3         | HDSF-16P-16B-NI | 776300-2       | HDSF-16P-16B-NI-LP | 14 - 18<br>(2.0 - 0.8)              | .131-.089<br>(3.33-2.26)    | Yes                           | NI     |
| 638112-1         | HDSF-16P-16C-AU | 776298-1       | HDSF-16P-16C-AU-LP | 14 - 18<br>(2.0 - 0.8)              | .155-.077<br>(3.94-1.96)    | No                            | AU     |
| 638112-3         | HDSF-16P-16C-NI | 776298-2       | HDSF-16P-16C-NI-LP | 14 - 18<br>(2.0 - 0.8)              | .155-.077<br>(3.94-1.96)    | No                            | NI     |
| 2098250-1        | HDSF-16P-18D-AU | -              | -                  | 18<br>(1.5 - 0.8)                   | .118-.065<br>(3.00-1.65)    | Yes                           | AU     |
| 2098250-3        | HDSF-16P-18D-NI | -              | -                  | 18<br>(1.5 - 0.8)                   | .118-.065<br>(3.00-1.65)    | Yes                           | NI     |
| 2098252-1        | HDSF-16P-14E-AU | -              | -                  | 14 - 16<br>(2.0 - 1.5)              | .128-.083<br>(3.25-2.10)    | Yes                           | AU     |
| 2098252-3        | HDSF-16P-14E-NI | -              | -                  | 14 - 16<br>(2.0 - 1.5)              | .128-.083<br>(3.25-2.10)    | Yes                           | NI     |

## HDSF 16 STAMPED &amp; FORMED CONTACTS FOR AMPSEAL 16 CONNECTORS (CON'T)



| Socket Part Numbers |                 |                |                    |                                     |                             |                               |        |
|---------------------|-----------------|----------------|--------------------|-------------------------------------|-----------------------------|-------------------------------|--------|
| Strip Form          |                 | Loose Piece    |                    | Wire Size<br>AWG (mm <sup>2</sup> ) | Insulation<br>Diameter (mm) | Wire<br>Insulation<br>Support | Finish |
| Part<br>Number      | ALIAS           | Part<br>Number | ALIAS              |                                     |                             |                               |        |
| 1924464-1           | HDSF-16S-20A-AU | 1924580-1      | HDSF-16P-20A-AU-LP | 18 - 20<br>(0.8 - 0.5)              | .107-.05<br>(2.72-1.27)     | Yes                           | AU     |
| 1924464-2           | HDSF-16S-20A-NI | 1924580-2      | HDSF-16P-20A-NI-LP | 18 - 20<br>(0.8 - 0.5)              | .107-.05<br>(2.72-1.27)     | Yes                           | NI     |
| 776493-1            | HDSF-16S-20B-AU | -              | -                  | 18 - 20<br>(0.8 - 0.5)              | .131-.089<br>(3.33-2.26)    | Yes                           | AU     |
| 776493-2            | HDSF-16S-20B-NI | -              | -                  | 18 - 20<br>(0.8 - 0.5)              | .131-.089<br>(3.33-2.26)    | Yes                           | NI     |
| 776492-1            | HDSF-16S-16B-AU | 776299-1       | HDSF-16P-16B-AU-LP | 14 - 18<br>(2.0 - 0.8)              | .131-.089<br>(3.33-2.26)    | Yes                           | AU     |
| 776492-2            | HDSF-16S-16B-NI | 776299-2       | HDSF-16P-16B-NI-LP | 14 - 18<br>(2.0 - 0.8)              | .131-.089<br>(3.33-2.26)    | Yes                           | NI     |
| 776491-1            | HDSF-16S-16C-AU | 776297-1       | HDSF-16P-16C-AU-LP | 14 - 18<br>(2.0 - 0.8)              | .155-.077<br>(3.94-1.96)    | No                            | AU     |
| 776491-2            | HDSF-16S-16C-NI | 776297-2       | HDSF-16P-16C-NI-LP | 14 - 18<br>(2.0 - 0.8)              | .155-.077<br>(3.94-1.96)    | No                            | NI     |
| 2098251-1           | HDSF-16S-18D-AU | -              | -                  | 18<br>(1.5 - 0.8)                   | .118-.065<br>(3.00-1.65)    | Yes                           | AU     |
| 2098251-2           | HDSF-16S-18D-NI | -              | -                  | 18<br>(1.5 - 0.8)                   | .118-.065<br>(3.00-1.65)    | Yes                           | NI     |
| 2098253-1           | HDSF-16S-14E-AU | -              | -                  | 14 - 16<br>(2.0 - 1.5)              | .128-.083<br>(3.25-2.10)    | Yes                           | AU     |
| 2098253-2           | HDSF-16S-14E-NI | -              | -                  | 14 - 16<br>(2.0 - 1.5)              | .128-.083<br>(3.25-2.10)    | Yes                           | NI     |

# ALIAS PART NUMBERING SYSTEM



# AMPSEAL 16 TOOLING

## AUTOMATED TOOLING FOR HDSF 16 CONTACTS



OCEAN end  
feed applicator



OCEAN side  
feed applicator

| Pin Strip Form                               | Socket Strip Form                         | Applicator P/N | Description                                                                             |
|----------------------------------------------|-------------------------------------------|----------------|-----------------------------------------------------------------------------------------|
| 1924463-1<br>1924463-3                       | 1924464-1<br>1924464-2                    | 2151962-1      | OCEAN end feed applicator with mechanical feed                                          |
|                                              |                                           | 2151962-2      | OCEAN end feed applicator with pneumatic feed                                           |
| 638078-1<br>638078-3<br>776349-1<br>776349-3 | 776492-1<br>776492-2<br>776493-1 776493-2 | 2151731-1      | OCEAN end feed applicator with mechanical feed                                          |
|                                              |                                           | 2151731-2      | OCEAN end feed applicator with pneumatic feed                                           |
| 638112-1<br>638112-3                         | 776491-1<br>776491-2                      | 2151239-1      | OCEAN end feed applicator with mechanical feed                                          |
|                                              |                                           | 2151239-2      | OCEAN end feed applicator with pneumatic feed                                           |
| 2098250-1<br>2098250-3                       | 2098251-1<br>2098251-2                    | 2151617-1      | OCEAN end feed applicator with mechanical feed                                          |
|                                              |                                           | 2151617-2      | OCEAN end feed applicator with pneumatic feed                                           |
| 2098252-1<br>2098252-3                       | 2098253-1<br>2098253-2                    | 1530207-1      | OCEAN side feed applicator that crops the terminal strip, for use in lead-maker         |
|                                              |                                           | 1530207-2      | OCEAN side feed applicator that crops the terminal strip, for use in bench press        |
|                                              |                                           | 1530207-6      | OCEAN side feed applicator that does not crop the terminal strip, for use in lead-maker |

Note: Applicators with additional feed styles are available, contact your representative

# HAND TOOLS FOR HDSF 16 CONTACTS



| Pin Strip Form                               | Pin Loose Piece        | Socket Strip Form                         | Socket Loose Piece     | Tool P/N  | Description                                    |
|----------------------------------------------|------------------------|-------------------------------------------|------------------------|-----------|------------------------------------------------|
| 1924463-1<br>1924463-3                       | 1924579-1<br>1924579-3 | 1924464-1<br>1924464-2                    | 1924580-1<br>1924580-2 | 2119118-1 | PRO-CRIMPER III hand tool and die set assembly |
| 638078-1<br>638078-3<br>776349-1<br>776349-3 | 776300-1<br>776300-2   | 776492-1<br>776492-2<br>776493-1 776493-2 | 776299-1<br>776299-2   | 91337-1   | PRO-CRIMPER III hand tool and die set assembly |
| 638112-1<br>638112-3                         | 776298-1<br>776298-2   | 776491-1<br>776491-2                      | 776297-1<br>776297-2   | 2217753-1 | CERTI-CRIMP II straight action hand tool       |

Note: Base PRO-CRIMPER III tool part number with -2 suffix is the part number for the die set, which can be ordered separately

## Extraction Tool for HDSF 16 Contacts

| Part Number | Description                                  |
|-------------|----------------------------------------------|
| 776106-1    | Contact extraction tool for HDSF 16 contacts |



# AMPSEAL 16 SOLID CONTACTS

The solid contacts are designed for use in heavy-duty applications and are available with either a nickel or gold plating finish.

## Solid Contacts



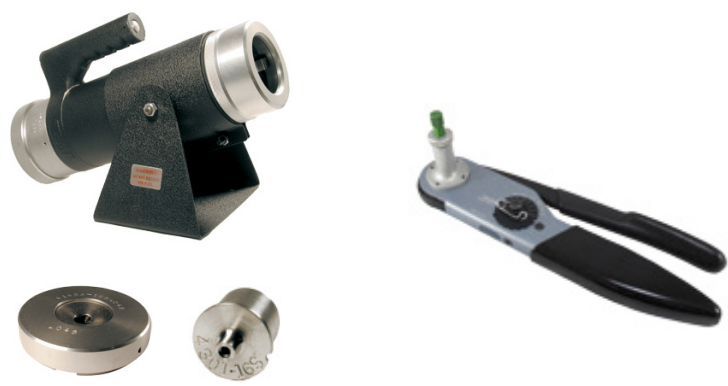
| Pin            | Socket         | Wire Size AWG (mm <sup>2</sup> ) | Finish |
|----------------|----------------|----------------------------------|--------|
| 0460-202-1631  | 0462-201-1631  | 16 - 20<br>(1.5 - 0.50)          | Gold   |
| 0460-202-16141 | 0462-201-16141 | 16 - 20<br>(1.5 - 0.50)          | Nickel |
| 0460-215-1631  | 0462-209-1631  | 14<br>(2.0)                      | Gold   |
| 0460-215-16141 | 0462-209-16141 | 14<br>(2.0)                      | Nickel |

## Solid Contacts Specifications - Product Documentation

- [114-151004](#) (Application Specification)
- [108-151004](#) (Product Specification)

# SOLID CONTACTS TOOLING

## Hand Tools for Solid Contacts



HDT-48-00

HDP-400