



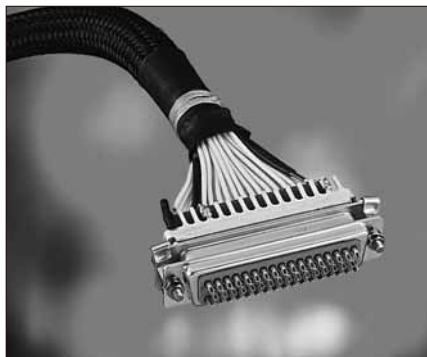
D*M-NMB

Applications

Satellite
Launcher
Space station
Shuttle hardware
Probe

Standards

D*M-NMB



Standard density D-Sub, Non Removable Contacts (Space Grade)

D*M-NMB non-magnetic connectors use the same components as the 3401/001 ESA/SCC and S311-P-10 GSFC connectors. However they are manufactured in accordance full ESA or NASA, MIL-DTL-24308. Consequently no traceability information can be delivered for these items. They are available with solder buckets, straight spills, 90° spills, wire wrap contacts and mixed layouts with coaxial and power contacts. This version is suitable for Engineering Models as well as Flight Models.

Part Number / Ordering information

| | | | | | | | | | | |
|---|----------|----------|----------|----------|-----------|----------|------------|----------|------------|------------|
| Series : D*M (contact # 20) | D | B | M | F | 25 | P | 511 | U | NMB | *** |
| Shell Size E = 9 cts ; A = 15 cts ; B = 25 cts ; C = 37 cts ; D = 50 cts | | | | | | | | | | |
| Mounting Nothing : standard mount F : float mount O : UNC 4-40 clinch nut L : M3 clinch nut | | | | | | | | | | |
| Contact Layout Code (see below 11) | | | | | | | | | | |
| Contact Type P : Pin (male) S : Socket (female) | | | | | | | | | | |
| Contact Termination Code (see page 21) | | | | | | | | | | |
| Nothing : delivered without bracket but with bar U : delivered with bracket & bar, but without clinch nut (*) | | | | | | | | | | |
| Residual Magnetism and Shell Plating NMB : ≤ 200 gamma maximum residual magnetism : shell plated 1.27 micron gold mini over copper (conform to GSFC) | | | | | | | | | | |
| Special Modification | | | | | | | | | | |

(*) **Note** : Code U only used for the 5**, 8** & 7** series.

Contact layouts

Contact layouts are indicated by the codes specified hereafter :

| Shell size | Code | Nb cts # 20 | Nb cts # 8 |
|------------|-------------|-------------|------------|
| E | 09 | 9 | 0 |
| | 5W1 | 4 | 1 |
| A | 15 | 15 | 0 |
| | 3W3 | 0 | 3 |
| | 3WK3 | 0 | 3 |
| | 7W2 | 5 | 2 |
| | 11W1 | 10 | 1 |
| | 25 | 25 | 0 |
| B | 5W5 | 0 | 5 |
| | 9W4 | 5 | 4 |
| | 13W3 | 10 | 3 |
| | 17W2 | 15 | 2 |
| | | | |

| Shell size | Code | Nb cts # 20 | Nb cts # 8 |
|------------|--------------|-------------|------------|
| C | 37 | 37 | 0 |
| | 8W8 | 0 | 8 |
| | 17W5 | 12 | 5 |
| | 21WA4 | 17 | 4 |
| | 25W3 | 22 | 3 |
| | 27W2 | 25 | 2 |
| D | 50 | 50 | 0 |
| | 24W7 | 17 | 7 |
| | 36W4 | 32 | 4 |

See layouts p. 11

Note : Mixed layout are not available in 90° spills



Contact termination code

Contact terminations are indicated as follows :

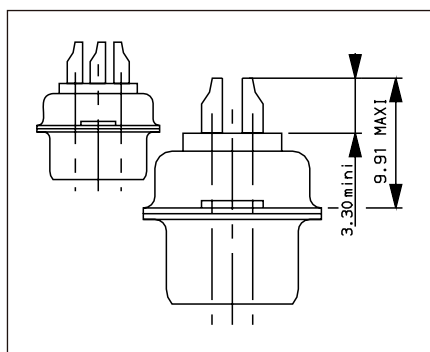
| Contact termination code for D*M-NMB | | |
|--------------------------------------|-----------------|--|
| Code for Ø 0,63 | Code for Ø 0,76 | Contact type |
| 011 | | Solder bucket |
| 311 | 211 | Straight spills |
| 411 | | Wire wrap, 3 wraps |
| | 711 | 90° spills, 2.84 mm pitch & US Footprint (2) |
| 511 | 2A0N | 90° spills, without bracket, 2.54 mm pitch & European Footprint (1) |
| 811 | 2B0N | 90° spills, without bracket, 2.84 mm pitch & European Footprint (1) |
| 1A9N | 2A9N | 90° spills, with bracket, 2.54 mm pitch, M3 clinch nuts & European Footprint (1) |
| 1B9N | 2B9N | 90° spills, with bracket, 2.84 mm pitch, M3 clinch nuts & European Footprint (1) |
| | 2AUN | 90° spills, with bracket, 2.54 mm pitch & European Footprint (1) |
| | 2BUN | 90° spills, with bracket, 2.84 mm pitch & European Footprint (1) |
| 1A7N | 2A7N | 90° spills, with bracket, 2.54 mm pitch, # 4-40 clinch nuts & European Footprint (1) |
| 1B7N | 2B7N | 90° spills, with bracket, 2.84 mm pitch, # 4-40 clinch nuts & European Footprint (1) |
| | 2B7S | 90° spills, with bracket, 2.84 mm pitch, # 4-40 clinch nuts & US Footprint (2) |
| | 2B9S | 90° spills, with bracket, 2.84 mm pitch, M3 clinch nuts & US Footprint (2) |

(1) **European Footprint** : Distance from rear of flange to first row \Rightarrow 9.40 mm (.37 inch)
 (2) **US Footprint** : Distance from rear of flange to first row \Rightarrow 7.19 mm (.283 inch)

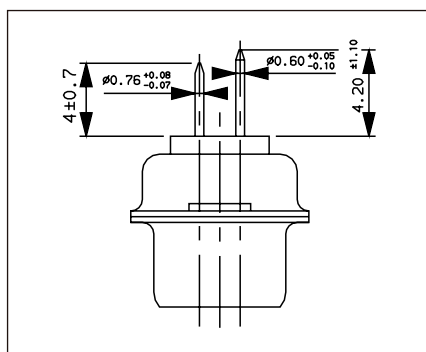
Dimensions for termination code (in mm)

Male & Female Connectors

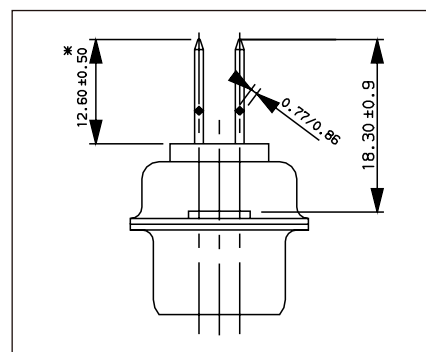
011



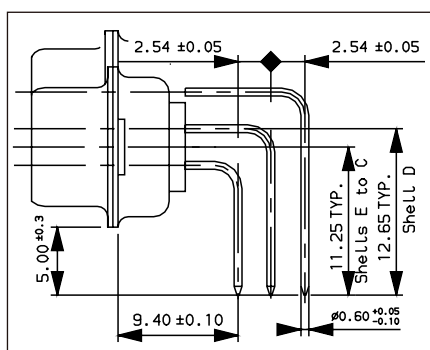
211 & 311



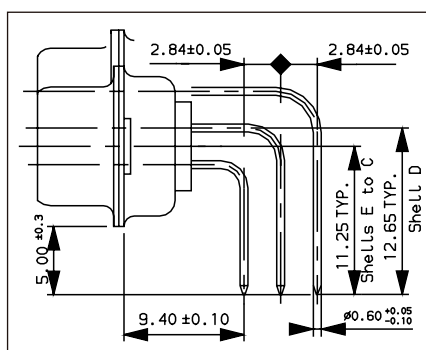
411



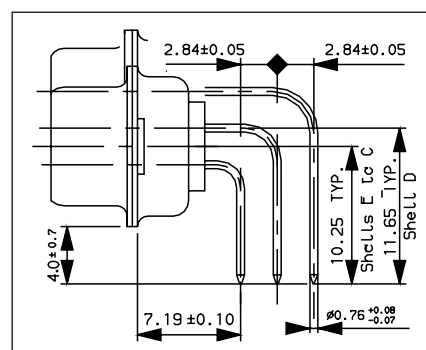
511



811



711



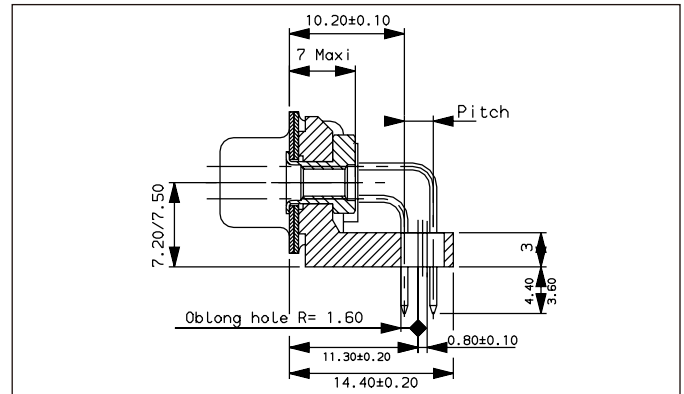
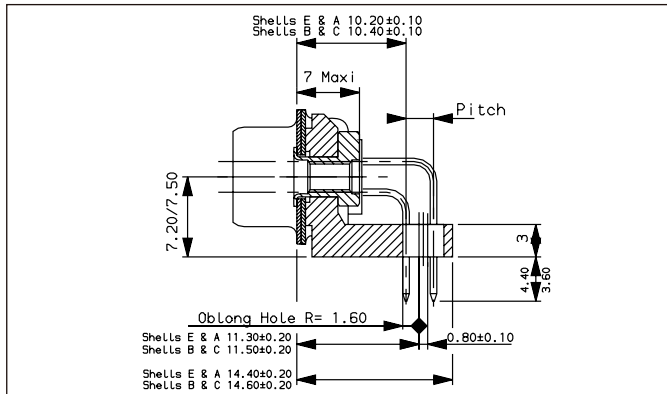
(*) The dimension is the length of the square part of the contact.



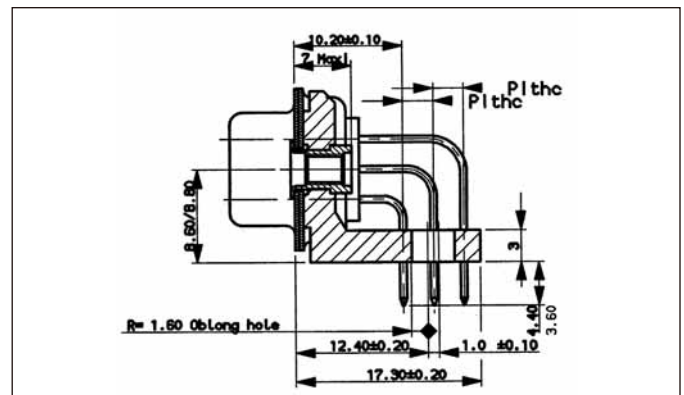
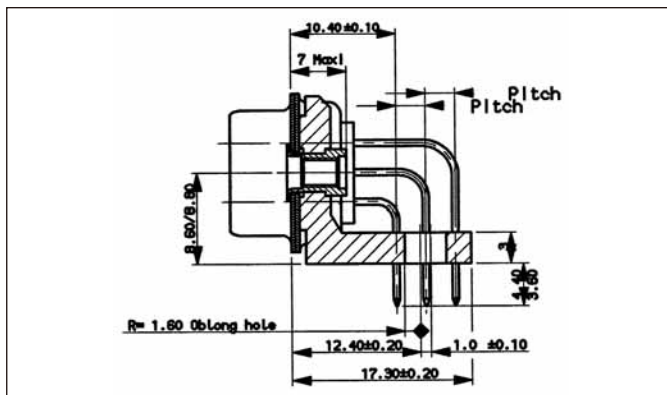
Male connectors

Female connectors

90° spills with bracket - European footprint (shell size E to C)

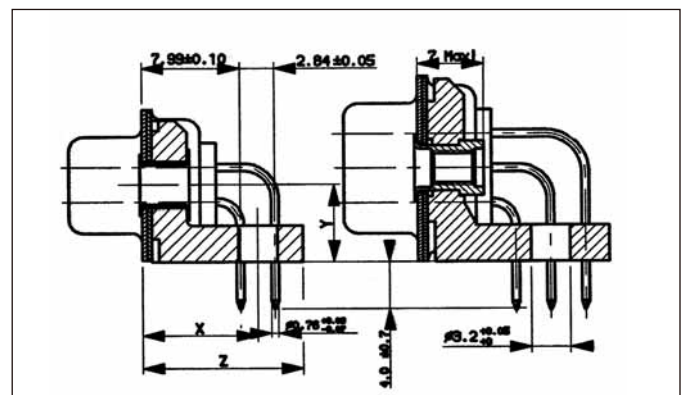
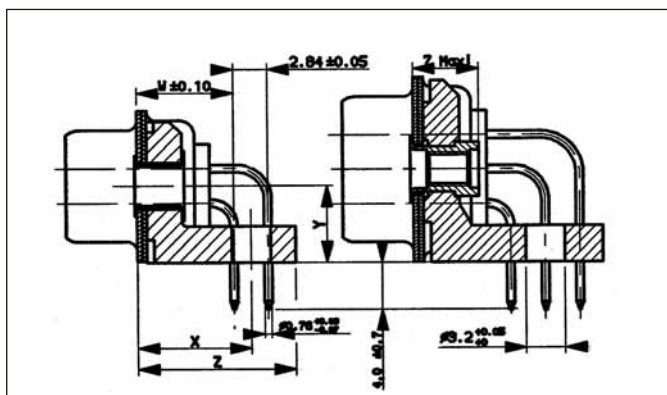


90° spills with bracket - European footprint (shell size D)



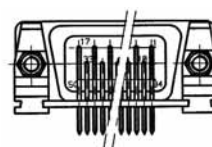
For the pitch :
 ⇒ 2,54 mm for **1A9N, 2A9N, 1A7N & 2A7N**
 ⇒ 2,84 mm for **1B9N, 2B9N, 1B7N & 2B7N**

90° spills with bracket - US footprint (711U, 2B7S & 2B9S)



| Shell size | W | X | | Y | Z | |
|------------|--------------|---------------|---------------|--------------|---------------|---------------|
| E & A | 7,99 .315 | 9,28 .365 | 9,60 .378 | 6,34 .250 | 12,94 .509 | 13,16 .518 |
| B & C | 8,19 .322 | 9,48 .373 | 9,80 .386 | 6,34 .250 | 13,14 .517 | 13,36 .526 |
| D | 8,19 .322 | 10,87 .428 | 11,19 .441 | 7,67 .302 | 15,63 .615 | 15,85 .624 |

| Shell size | X | | Y | Z | |
|------------|---------------|---------------|--------------|---------------|---------------|
| E to C | 9,28 .365 | 9,60 .378 | 6,34 .250 | 12,94 .509 | 13,16 .518 |
| D | 10,67 .420 | 10,99 .433 | 7,67 .302 | 15,43 .607 | 15,65 .616 |



8630-NMB (Crimp)



Applications

Satellite
Launcher
Space station
Shuttle hardware
Probe

Standards

8630-NMB



Standard density D-Sub Removable Contacts (Space Grade)

8630-NMB non-magnetic connectors use the same components as the ESA/SCC 3401 001 01B and S-311-P-4/09 GSFC.

However they are manufactured in accordance with ESA NASA, MIL-DTL-24308. Consequently no traceability information can be delivered for these items. They are used with removable crimp contacts. This version is suitable for Engineering Models as well as Flight Models.

Part Number / Ordering information

| | | | | | | | | | | |
|---|------------|----------|----------|-----------|----------|----------|-----------|------------|----------|------------|
| Series : 8630 (standard density) # 20 contacts layouts | 863 | 0 | L | 25 | P | 0 | 11 | NMB | L | *** |
| Mounting style | | | | | | | | | | |
| 0 : standard mount | | | | | | | | | | |
| 1 : floating mount | | | | | | | | | | |
| Other mounting style | | | | | | | | | | |
| Nothing : standard or floating mount | | | | | | | | | | |
| O : UNC 4-40 clinch nuts | | | | | | | | | | |
| L : M3 clinch nuts | | | | | | | | | | |
| Contact layout Code | | | | | | | | | | |
| 09 cts - 15 cts - 25 cts - 37 cts - 50 cts | | | | | | | | | | |
| Contact Type | | | | | | | | | | |
| P : Pin | | | | | | | | | | |
| S : Socket | | | | | | | | | | |
| (*) | | | | | | | | | | |
| 0 : for wire # 20 to 24 | | | | | | | | | | |
| R : for wire # 26 to 28 | | | | | | | | | | |
| E : for wire # 18 | | | | | | | | | | |
| (*) Contact plating | | | | | | | | | | |
| 11 = 1.27 micron gold over copper | | | | | | | | | | |
| Note : to be indicated if connectors are ordered with contacts | | | | | | | | | | |
| (no «L» at the end of the P/N) | | | | | | | | | | |
| Residual magnetism | | | | | | | | | | |
| NMB : ≤ 200 gamma maximum residual magnetism ; shell plated 1.27 micron gold mini over copper | | | | | | | | | | |
| (conform to GSFC) | | | | | | | | | | |
| (*) | | | | | | | | | | |
| Without indication : connectors delivered with contacts for wire AWG 20-24 | | | | | | | | | | |
| L : connectors delivered without contacts | | | | | | | | | | |
| Special modifier | | | | | | | | | | |

(*) : The codes 0, 11 & L are not marked on the connector. They are only used for the P/N.

Special modifier

| Code | Characteristics |
|------|---|
| 601 | Grommet and compound, non outgassing |
| 604 | Grommet without compound non outgassing |

See layouts p. 17

8635-NMB (Spill)



Applications

Satellite
Launcher
Space station
Shuttle hardware
Probe

Standards

8635-NMB with Spill Contacts



High density D-Sub, Non Removable Contacts (Space Grade)

These 8635-NMB non-magnetic connectors use the same components as the ESA/SCC 3401 001 02B. However they are manufactured in accordance with ESA and NASA specification.

Consequently no traceability information can be delivered for these items. They are used with non removable contacts. This version is suitable for Engineering Models as well as Flight Models.

Part Number / Ordering information

| | | | | | | | |
|--|-------------|----------|-----------|----------|------------|------------|------------|
| Series : 8635 (high density) | 8635 | F | 26 | P | 0L3 | NMB | *** |
| # 22 contacts layouts | | | | | | | |
| Mounting style & Grommet | | | | | | | |
| Nothing : standard mount | | | | | | | |
| F : Floating mount | | | | | | | |
| O : UNC 4-40 clinch nuts | | | | | | | |
| L : M3 clinch nuts | | | | | | | |
| Contact layout | | | | | | | |
| 15 cts - 26 cts - 44 cts - 62 cts - 78 cts | | | | | | | |
| Contact Type | | | | | | | |
| P : Pin | | | | | | | |
| S : Socket | | | | | | | |
| Termination type (see below) | | | | | | | |
| Residual magnetism | | | | | | | |
| NMB : ≤ 200 gamma maximum residual magnetism ; shell plated 1.27 micron gold mini over copper | | | | | | | |
| Special modification | | | | | | | |

Contact termination code

| Termination type | |
|-----------------------|--|
| 1.27 mm shell plating | Contact type |
| 0L3 | Straight spills |
| 1CON | 90°, disposable drilled bar, 15 to 62 contacts, 1.98 pitch |
| 1DON | 90°, disposable drilled bar, 78 contacts (only D size), 2.08 pitch |
| 1CUN | 90°, with brackets, 15 to 62 contacts, 1.98 pitch (1) |
| 1DUN | 90°, with brackets, 78 contacts, 2.08 pitch (1) |
| 1C7N | 90°, with brackets and UNC 4-40 clinch nuts, 15 to 62 contacts, 1.98 pitch |
| 1D7N | 90°, with brackets and UNC 4-40 clinch nuts, 78 contacts, 2.08 pitch |
| 1C9N | 90°, with brackets and M3 clinch nuts, 15 to 62 contacts, 1.98 pitch |
| 1D9N | 90°, with brackets and M3 clinch nuts, 78 contacts, 2.08 pitch |

(1) : no ESA/SCC equivalent version.

See layouts p.18

8635-NMB (Crimp)



Applications

Satellite
Launcher
Space station
Shuttle hardware
Probe

Standards

8635-NMB with Crimp Contacts



High density D-Sub Removable Contacts (Space Grade)

These 8635-NMB non-magnetic connectors use the same components as the ESA/SCC 3401 002 02B and S311-P-4/07 GSFC connectors. However they are manufactured in accordance with ESA and NASA specification.

Consequently no traceability information can be delivered for these items. They are used with removable crimp contacts. This version is suitable for Engineering Models as well as Flight Models.

Part Number / Ordering information

| | | | | | | | | | |
|--|-------------|----------|-----------|----------|----------|-----------|------------|----------|------------|
| Series : 8635 (high density) | 8635 | F | 26 | P | 0 | 11 | NMB | L | *** |
| # 22 contacts layouts | | | | | | | | | |
| Mounting style & Grommet | | | | | | | | | |
| Nothing : standard mount | | | | | | | | | |
| F : Float mount | | | | | | | | | |
| O : UNC 4-40 clinch nuts | | | | | | | | | |
| L : M3 clinch nuts | | | | | | | | | |
| Contact layout Code | | | | | | | | | |
| 15 cts - 26 cts - 44 cts - 62 cts - 78 cts | | | | | | | | | |
| Contact Type | | | | | | | | | |
| P : Pin | | | | | | | | | |
| S : Socket | | | | | | | | | |
| (*) 0 : for wire # 22 to 26 | | | | | | | | | |
| (*) Contact plating | | | | | | | | | |
| 11 : 1.27 micron gold over copper | | | | | | | | | |
| Note : to be modified if connectors are ordered with contacts (no «L» at the end of the P/N) | | | | | | | | | |
| Residual magnetism | | | | | | | | | |
| NMB : ≤ 200 Gamma maximum residual magnetism ; shell plated 1.27 micron gold mini over copper (conform to GSFC) | | | | | | | | | |
| (*) | | | | | | | | | |
| Without indication : connector delivered with contacts for wire AWG 22-26 | | | | | | | | | |
| L : connector delivered without contacts | | | | | | | | | |
| Special modification | | | | | | | | | |

(*) : The codes 011 & L are not marked on the connector. They are only used for the P/N.

Special modifier

| Code | Characteristics |
|------------|---|
| 601 | Grommet and compound, non outgassing |
| 604 | Grommet, without compound, non outgassing |

See layouts p. 18



D*BMA-NMB

Applications

Satellite
Launcher
Space station
Shuttle hardware
Probe

Standards

D*BMA-NMB



D-Sub savers (Space Grade)

D*BMA-NMB savers connectors are derived from ESA/SCC 3401 020 savers.

However they are manufactured in accordance with ESA.

Consequently no traceability information can be delivered for these items. They are used with removable crimp contacts.

This version is suitable for Engineering Models as well as Flight Models.

Part Number / Ordering information

• Standard density with removable contacts # 20

| | | | | | | | | |
|---|----------|----------|------------|-----------|-----------|------------|------------|----------|
| Series : D*BMA | D | B | BMA | 25 | PS | 011 | NMB | L |
| Shell size E = 9 cts - A = 15 cts - B = 25 cts - C = 37 cts - D = 50 cts | | | | | | | | |
| Contact layout Code 09 cts - 15 cts - 25 cts - 37 cts - 50 cts | | | | | | | | |
| Contact Type PS : Pin - Socket | | | | | | | | |
| Contact plating 011 : 1.27 micron gold over copper | | | | | | | | |
| Residual magnetism NMB : ≤ 200 Gamma maximum residual magnetism, shell plated 1.27 micron gold mini over copper | | | | | | | | |
| Without indication : connectors delivered with contacts L : connectors delivered without contacts | | | | | | | | |

• High density with removable contacts # 22

| | | | | | | | | |
|---|----------|----------|------------|-----------|-----------|------------|------------|----------|
| Series : D*BMA | D | B | BMA | 44 | PS | 011 | NMB | L |
| Shell size E = 15 cts - A = 26 cts - B = 44 cts - C = 62 cts - D = 78 cts | | | | | | | | |
| Contact layout Code 15 cts - 26 cts - 44 cts - 62 cts - 78 cts | | | | | | | | |
| Contact Type PS : Pin - Socket | | | | | | | | |
| Contact plating 011 : 1.27 micron gold over copper | | | | | | | | |
| Residual magnetism NMB : ≤ 200 Gamma maximum residual magnetism, shell plated 1.27 micron gold mini over copper | | | | | | | | |
| Without indication : connectors delivered with contacts L : connectors delivered without contacts | | | | | | | | |

(*) : The codes 011 & L are not marked on the connector. They are only used for the P/N.

See contact layouts for saver connectors p.17 for standard density and p.18 for high density.

Mouser Electronics

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