

# RJ45 Connectors

**Interconnect Solutions Worldwide**



## **RJ45 Connectors**

**D38999 Derived Cat5e / Cat6 & Cat6a RJ45  
Connector Assemblies for Harsh Environments**

**NCAGE Code U5792    [www.polamco.com](http://www.polamco.com)**



# RJ45 Connectors

## D38999 Derived Cat5e / Cat6 & Cat6a RJ45 Connector Assemblies for Harsh Environments

### PC4B0002

- [Cat 5e Box Mount Feedthrough Receptacle](#)

### PC4F0002

- [Cat 5e Jam Nut Feedthrough Receptacle](#)

### PC4D0002

- [Cat 5e Free Plug](#)

### PC4D000291

- [Cat 5e Free Plug \(91 Series with Spring Screen Termination\)](#)

### PC4B0029

- [Cat6 Jam Nut Feedthrough Receptacle](#)

### PC4F0020

- [Cat6 Jam Nut Feedthrough Receptacle](#)

### PC4D0024

- [Cat6 Plug Connector Assembly](#)

### PC4B0022

- [Cat6a Box Mount Feedthrough Receptacle](#)

### PC4F0014

- [Cat6a Jam Nut Feedthrough Receptacle](#)

### PC4D0018 & PC4D0018\*\*

- [Cat6a Free Plug](#)

### PC4D0023

- [Cat6a Field Plug Connector Assembly](#)

### [RJ45 Cat5 Tooling Options](#)

### [RJ45 Cat6 & Cat6a Tooling Options](#)

### [Connector Modifications](#)

### Performance

- Cat 5e per ISO/IEC 11801
- Cat 6 1Gb with enhanced grounding option
- Cat 6a 10Gb with enhanced grounding option
- D38999 shell size 19
- Sealed to IP68 for fluid and dust laden environments
- High levels of shock, vibration and mechanical impact protection
- Fully enclosed Aluminium, Marine Bronze and Stainless Steel shells for superior mechanical strength
- Positive cordset retention >100N axial force
- Optional external screen termination features on cable plug
- Isolated RJ-to-shell grounding option



The Polamco high speed RJ45 connector system incorporates a MIL-DTL-38999 series III derived metal shell with full 360 degree EMC and mechanical protection and has been designed to meet the requirements of high speed data connections where reliability through environmental sealing and enhanced mechanical protection and EMC performance are required.

### MATERIAL DESCRIPTION

|    |                                          |
|----|------------------------------------------|
| 1  | ALUMINIUM ALLOY 6262 / 6082              |
| 2  | NICKEL ALUMINIUM BRONZE DGS 1043/NES 833 |
| 3  | BRASS CZ 121                             |
| 4  | STAINLESS STEEL 303 S31                  |
| 44 | STAINLESS STEEL 304                      |
| 46 | STAINLESS STEEL 316                      |
| 5  | H.D.H.C COPPER CA 104                    |
| 6  | STAINLESS STEEL NUT / ALUMINIUM BODY     |
| 7  | BLACK ACETAL                             |
| 73 | PEEK GL30                                |
| 74 | ULTEM 2300 (30% GLASS FILLED)            |

**NOTE: PLEASE CONTACT SALES OFFICE FOR MATERIALS NOT LISTED ABOVE**

| PLATING CODE | PLATING DESCRIPTION                                                                                | ROHS COMPLIANT                   | ENVIRONMENT PROTECTION/ CONDUCTIVITY                                                                                                     |
|--------------|----------------------------------------------------------------------------------------------------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| A            | CADMIUM, OLIVE DRAB (5-10 MICRONS)<br>QQ-P-416, TYPE II, CLASS 3 OVER<br>ELECTROLESS NICKEL        | YES<br>(SUBJECT TO<br>EXEMPTION) | CONDUCTIVE 500 HRS SALT SPRAY. EXEMPTION<br>APPLICABLE FOR AEROSPACE / MILITARY APPLICATIONS.<br>SEE ROHS WEBSITES FOR MORE INFORMATION. |
| AB           | ANODISE BLUE TO DEF 03-25                                                                          | YES                              | NON CONDUCTIVE                                                                                                                           |
| AR           | ANODISE RED TO DEF 03-25                                                                           | YES                              | NON CONDUCTIVE                                                                                                                           |
| B            | CADMIUM, OLIVE DRAB (5-10 MICRONS)<br>QQ-P-416, TYPE II, CLASS 3 OVER<br>ELECTROLESS NICKEL        | YES<br>(SUBJECT TO<br>EXEMPTION) | CONDUCTIVE 500 HRS SALT SPRAY. EXEMPTION<br>APPLICABLE FOR AEROSPACE / MILITARY APPLICATIONS.<br>SEE ROHS WEBSITES FOR MORE INFORMATION. |
| C            | ELECTROLESS NICKEL, AMS-C-26074,<br>CLASS 4, GRADE B                                               | YES                              | CONDUCTIVE                                                                                                                               |
| CHP          | ELECTROLESS NICKEL, HIGH PHOSPHOR<br>(9% - 14%), 22 MICRONS MINIMUM, BSEN<br>ISO 4527:2003         | YES                              | CONDUCTIVE                                                                                                                               |
| D            | BLACK ANODISE HARD PER MIL-A-8625,<br>TYPE III, CLASS 2                                            | YES                              | NON CONDUCTIVE                                                                                                                           |
| F            | 30-50 MICRONS BRIGHT ELECTROLESS<br>NICKEL TO MIL-C-26074D, CLASS 4,<br>GRADE C                    | YES                              | CONDUCTIVE 500 HRS SALT SPRAY                                                                                                            |
| G            | BLACK ANODISE, SULPHURIC,<br>PER MIL-A-8625, TYPE II, CLASS 2                                      | YES                              | NON CONDUCTIVE                                                                                                                           |
| H            | CADMIUM GOLD, PER QQ-P-416, TYPE II,<br>CLASS 3                                                    | YES<br>(SUBJECT TO<br>EXEMPTION) | CONDUCTIVE. EXEMPTION APPLICABLE FOR AEROSPACE /<br>MILITARY APPLICATIONS. SEE ROHS WEBSITES FOR MORE<br>INFORMATION.                    |
| HA           | HARD ANODISE, GREY, 30-50 MICRONS                                                                  | YES                              | NON CONDUCTIVE                                                                                                                           |
| J            | PASSIVATE, PER QQ-P-35 OR MI-S-5002                                                                | YES                              | ROHS COMPLIANT                                                                                                                           |
| K            | CHROMIC ANODISING, DEF 151, TYPE II                                                                | NO                               | NON CONDUCTIVE                                                                                                                           |
| L            | ALOCROM 1200                                                                                       | NO                               | CONDUCTIVE                                                                                                                               |
| LR           | IRIDITE CONVERSION ROHS COMPLIANT<br>VERSION OF ALOCROM 1200, CLEAR/<br>IRIDESCENT, ALUMINIUM ONLY | YES                              | CONDUCTIVE                                                                                                                               |

| PLATING CODE | PLATING DESCRIPTION                                                                                                                                                       | ROHS COMPLIANT             | ENVIRONMENT PROTECTION/ CONDUCTIVITY                                                                                               |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| LV           | 5 MICRONS SILVER AND BLACKEN TO DEF 03-9                                                                                                                                  | YES                        | CONDUCTIVE                                                                                                                         |
| M            | BRIGHT CADMIUM OVER NICKEL QQ-P-416, TYPE II, CLASS 3                                                                                                                     | YES (SUBJECT TO EXEMPTION) | CONDUCTIVE 500 HRS SALT SPRAY. EXEMPTION APPLICABLE FOR AEROSPACE / MILITARY APPLICATIONS. SEE ROHS WEBSITES FOR MORE INFORMATION. |
| P            | HEAVY NICKEL TO PLATING SPECIFICATION CP07 (500 HOUR SALT SPRAY FINISH)                                                                                                   | YES                        | CONDUCTIVE 500 HRS SALT SPRAY                                                                                                      |
| R            | CADMIUM, OLIVE DRAB (5-10 MICRONS) QQ-P-416, TYPE II, CLASS 3 OVER ELECTROLESS NICKEL (2.5 - 7.5 MICRONS) REAR OF BACKSHELL TO HAVE SELECTIVE ELECTROLESS PLATING C-PLATE | YES (SUBJECT TO EXEMPTION) | CONDUCTIVE 500 HRS SALT SPRAY. EXEMPTION APPLICABLE FOR AEROSPACE / MILITARY APPLICATIONS. SEE ROHS WEBSITES FOR MORE INFORMATION. |
| T            | TIN PLATE (COPPER) TO DEF 03-8                                                                                                                                            | YES                        | CONDUCTIVE                                                                                                                         |
| TN           | NICKEL/PTFE                                                                                                                                                               | YES                        | CONDUCTIVE 500 HRS SALT SPRAY                                                                                                      |
| U            | UNPLATED CLEAN FINISH NOT SHOT BLASTED                                                                                                                                    | YES                        |                                                                                                                                    |
| V            | SILVER PLATE 5 MICRONS TO DEF 03-9                                                                                                                                        | YES                        | CONDUCTIVE                                                                                                                         |
| Y            | YELLOW CHROMATE OVER CADMIUM QQ-P-416, TYPE II, CLASS 2                                                                                                                   | NO                         | CONDUCTIVE                                                                                                                         |
| Z            | SHOT BLAST FOR NON-REFLECTIVE FINISH                                                                                                                                      | YES                        |                                                                                                                                    |
| ZB           | ZINC COBALT, OLIVE DRAB (5-10 MICRONS) OVER ELECTROLESS NICKEL (2.5 - 7.5 MICRONS)                                                                                        | YES                        | CONDUCTIVE 350 HRS SALT SPRAY.                                                                                                     |
| ZBC          | ZB-NUT (ZINC COBALT OLIVE DRAB OVER ELECTROLESS NICKEL)                                                                                                                   | YES                        | CONDUCTIVE 350 HRS SALT SPRAY. ZB.                                                                                                 |
|              | C-FOLLOWER (ELECTROLESS NICKEL) - 91 SERIES ONLY                                                                                                                          |                            |                                                                                                                                    |
| ZBBC         | ZB-NUT (ZINC COBALT OLIVE DRAB OVER ELECTROLESS NICKEL)                                                                                                                   | YES                        | CONDUCTIVE 350 HRS SALT SPRAY.                                                                                                     |
|              | ZB-FOLLOWER (ZINC COBALT OLIVE DRAB OVER ELECTROLESS NICKEL)                                                                                                              |                            |                                                                                                                                    |
|              | WITH C MASKED AREA (ELECTROLESS NICKEL - SEE ABOVE) - 91 SERIES ONLY                                                                                                      |                            |                                                                                                                                    |
| ZK           | ZINC COBALT BLACK PASSIVATE (5 - 10 MICRONS) OVER ELECTROLESS NICKEL (2.5 - 7.5 MICRONS)                                                                                  | YES                        | CONDUCTIVE 350 HRS SALT SPRAY.                                                                                                     |
| ZN           | ZINC NICKEL BLACK PASSIVATE (5-12 MICRONS) OVER ELECTROLESS NICKEL (8-12 MICRONS), ASTM B 841 CLASS 1                                                                     | NO                         | ROHS COMPLIANT VARIANT UNDER DEVELOPMENT, SUBJECT TO TESTING SHOULD BE AVAILABLE FIRST QUARTER 2011                                |
| ZNB          | ELECTROLESS NICKEL 8-12 MICRONS/ ZINC NICKEL 5-12/PURE ZINC/OLIVE DRAB PASSIVATION, ASTM B 841 CLASS 1                                                                    | NO                         | CONDUCTIVE (NOT ROHS COMPLIANT, UNTESTED 500 HRS SALT SPRAY FINISH)                                                                |
| ZNY          | ELECTROLESS NICKEL 8-12 MICRONS/ ZINC NICKEL 5-12 MICRONS/YELLOW PASSIVATION, ASTM B 841 CLASS 1                                                                          | NO                         | CONDUCTIVE (NOT ROHS COMPLIANT, UNTESTED 500 HRS SALT SPRAY FINISH)                                                                |
| ZY           | ZINC COBALT YELLOW CHROMATE (7.5 - 12.5 MICRONS) OVER ELECTROLESS NICKEL (2.5 - 7.5 MICRONS)                                                                              | NO                         | CONDUCTIVE 500 HRS SALT SPRAY                                                                                                      |

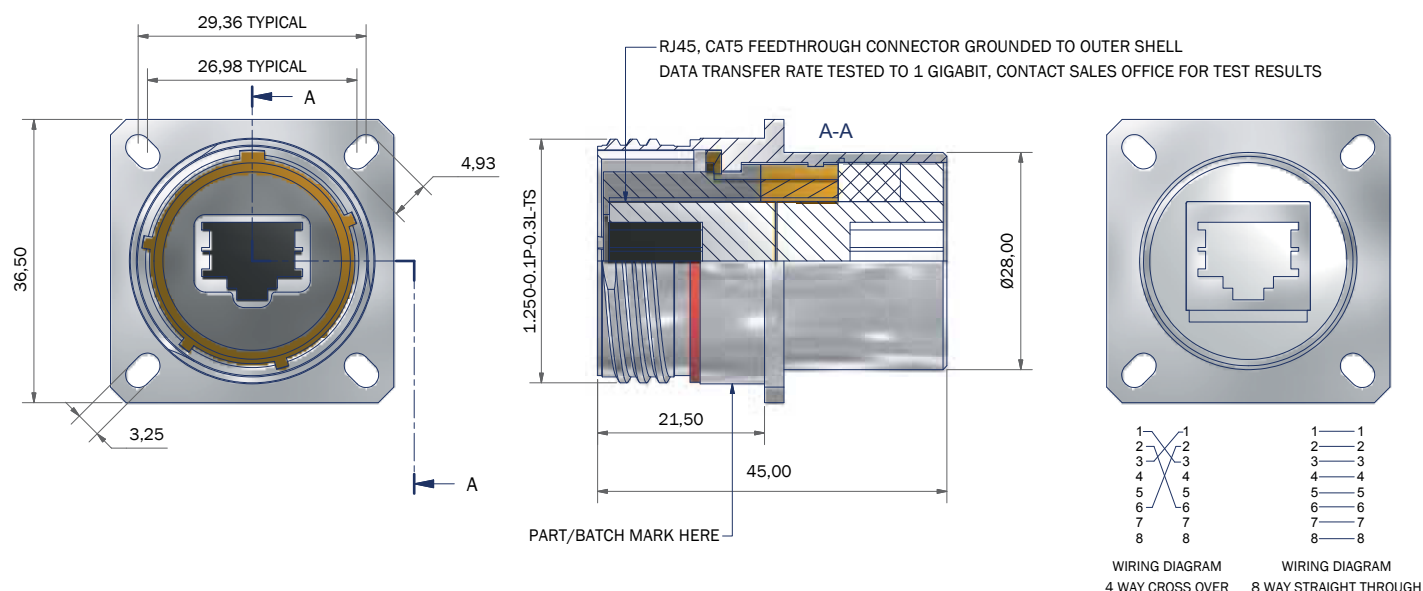
# RJ45 Cat5 Connectors

## PC4B0002 - Box Mount Feedthrough Receptacle



Connector Modifications: See Page 19

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**NOTES**  
GENERALLY TO THE REQUIREMENTS OF  
MIL-DTL-38999

**MATERIALS**  
RJ45  
CONTACTS 30μ Au/Ni  
SHIELDING - NICKEL PLATED BRASS  
BODY - PA, UL94V-0  
PCB - FR4, UL94V-0

SEAL - SILICONE MS749ECR TO BS6853 CAT 1  
INSULATOR - PPS GL40 UL94  
POTTING - QSIL 550 UL94V-0

**PERFORMANCE**  
CURRENT RATING FOR POWER CONTACTS 2.1  
AMPS @ 70 °C  
VOLTAGE RATING 50V DC / 35V AC  
TEMPERATURE -40 °C TO +120 °C

### EXAMPLE PART NUMBER: PC4B0002-C-19N-1-C

|            |                                       |
|------------|---------------------------------------|
| PC4B0002 = | POLAMCO SERIES                        |
| C =        | RJ45 STYLE                            |
|            | A = 4 WAY                             |
|            | B = 4 WAY + 2 POWER CONTACTS          |
|            | C = 8 WAY (STANDARD)                  |
|            | D = 8 WAY + 2 POWER CONTACTS          |
| 19 =       | SHELL SIZE                            |
| N =        | KEY ARRANGEMENT                       |
| 1 =        | MATERIAL (ALUMINIUM ALLOY) SEE PAGE 3 |
| C =        | PLATING: SEE PAGES 3 - 4              |

PART NUMBER FOR UNGROUNDED VERSION: PC4B0002-C-U-19N-1-C

PART NUMBER AND BATCH CODE WILL BE MARKED ON THE ASSEMBLY UNLESS OTHERWISE SPECIFIED

Tel: +44 (0)845 017 1545

DRAWING NOT TO SCALE  
DIMENSIONS IN MM

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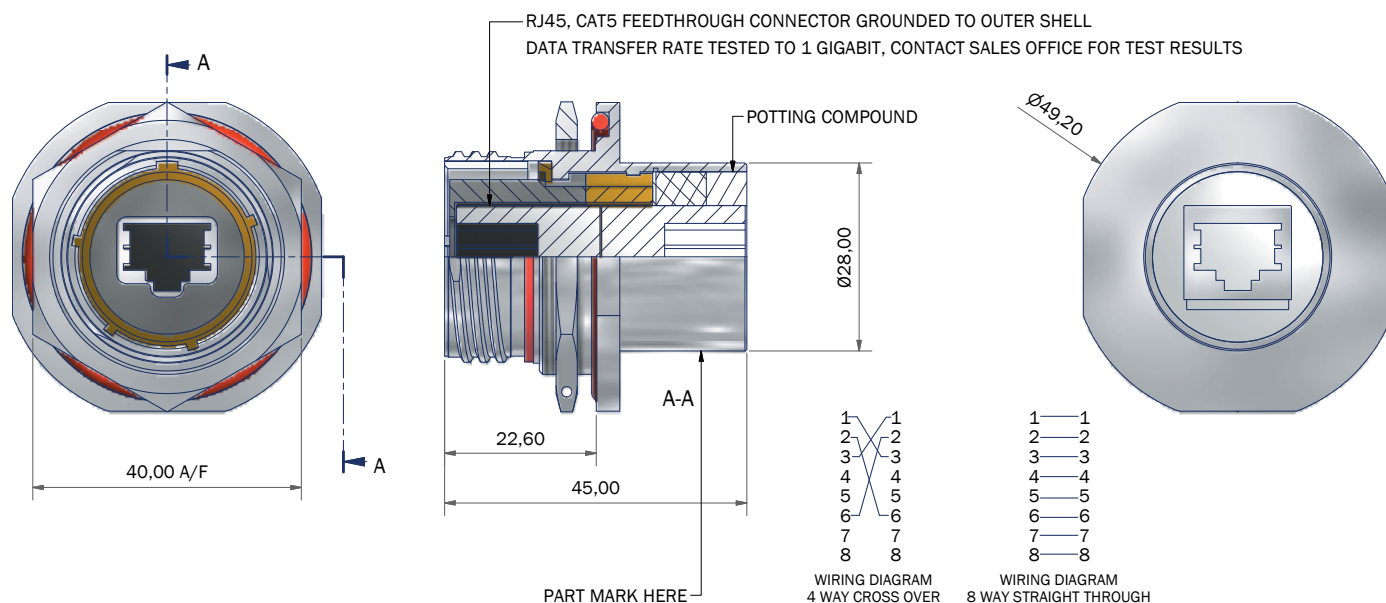
# RJ45 Cat5 Connectors

## PC4F0002 - Feedthrough Jam Nut Receptacle



Connector Modifications: See Page 19

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### NOTES

GENERALLY TO THE REQUIREMENTS OF  
MIL-DTL-38999

SEAL - SILICONE MS749ECR TO BS6853 CAT 1

INSULATOR - PPS GL40 UL94

POTTING - QSIL 550 UL94V-0

### MATERIALS

RJ45  
CONTACTS 30μ Au/Ni  
SHIELDING - NICKEL PLATED BRASS  
BODY - PA, UL94V-0  
PCB - FR4, UL94V-0

### PERFORMANCE

CURRENT RATING FOR POWER CONTACTS 2.1  
AMPS @ 70 °C  
VOLTAGE RATING 50V DC / 35V AC  
TEMPERATURE -40 °C TO +120 °C

### EXAMPLE PART NUMBER: PC4F0002-C-19N-1-C

|            |                                       |
|------------|---------------------------------------|
| PC4F0002 = | POLAMCO SERIES                        |
| C =        | RJ45 STYLE                            |
|            | A = 4 WAY                             |
|            | B = 4 WAY + 2 POWER CONTACTS          |
|            | C = 8 WAY (STANDARD)                  |
|            | D = 8 WAY + 2 POWER CONTACTS          |
| 19 =       | SHELL SIZE                            |
| N =        | KEY ARRANGEMENT                       |
| 1 =        | MATERIAL (ALUMINIUM ALLOY) SEE PAGE 3 |
| C =        | PLATING: SEE PAGES 3 - 4              |

PART NUMBER FOR UNGROUNDED VERSION: PC4F0002-C-U-19N-1-C

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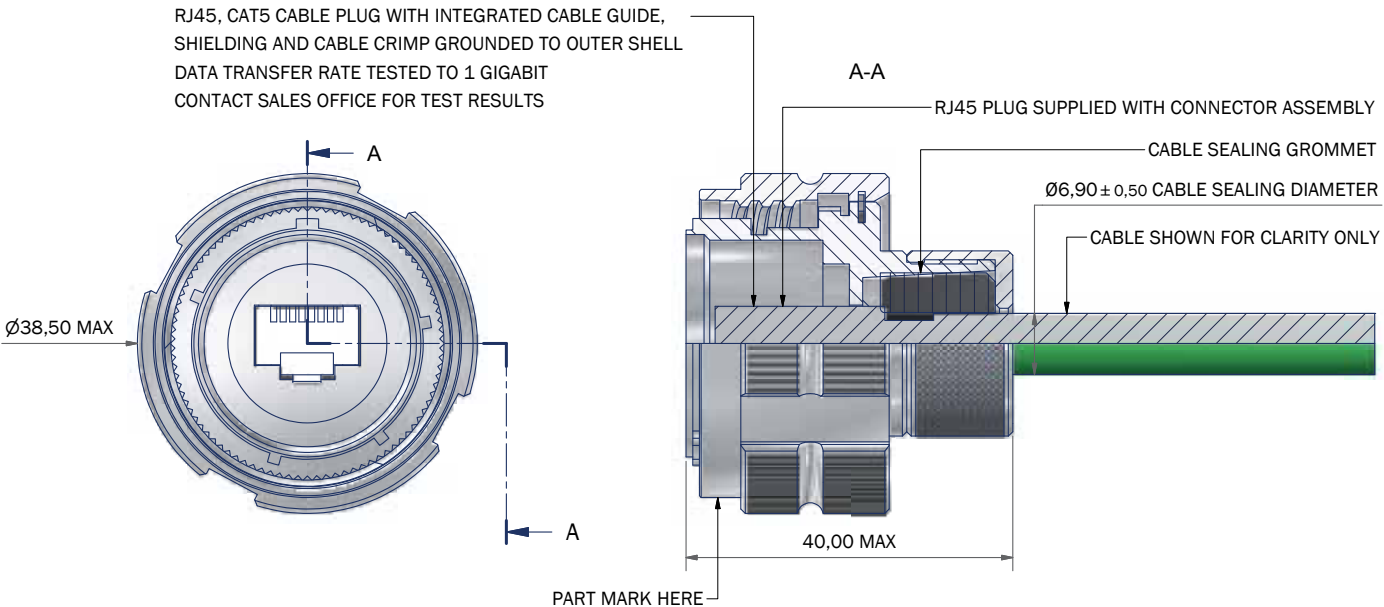
# RJ45 Cat5 Connectors

## PC4D0002 - Plug Connector Assembly



RJ45 Cat5 Tooling Options: See Page 17  
Connector Modifications: See Page 19

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**NOTES**  
GENERALLY TO THE REQUIREMENTS OF  
MIL-DTL-38999

**MATERIALS**  
RJ45  
CONTACTS 30µ Au/Ni  
SHIELDING - NICKEL PLATED BRASS  
BODY - PA, UL94V-0

SEAL - SILICONE MS749ECR TO BS6853 CAT 1

**PERFORMANCE**  
CURRENT RATING FOR POWER CONTACTS 2.1  
AMPS @ 70 °C  
VOLTAGE RATING 50V DC / 35V AC  
TEMPERATURE -40 °C TO +120 °C

| EXAMPLE PART NUMBER: PC4D0002-C-19N-1-C |                                       |
|-----------------------------------------|---------------------------------------|
| PC4D0002 =                              | POLAMCO SERIES                        |
| C =                                     | RJ45 STYLE                            |
|                                         | A = 4 WAY 4 x 24AWG                   |
|                                         | B = 4 + 2 WAY 4 x 24AWG + 2 x 22AWG   |
|                                         | C = 8 WAY 8 x 26 AWG (STANDARD)       |
|                                         | D = 8 + 2 WAY 8 x 26AWG + 2 x 23AWG   |
| 19 =                                    | SHELL SIZE                            |
| N =                                     | KEY ARRANGEMENT                       |
| 1 =                                     | MATERIAL (ALUMINIUM ALLOY) SEE PAGE 3 |
| C =                                     | PLATING: SEE PAGES 3 - 4              |

PART NUMBER FOR UNGROUNDED VERSION: PC4D0002-C-U-19N-1-C

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# RJ45 Cat5 Connectors

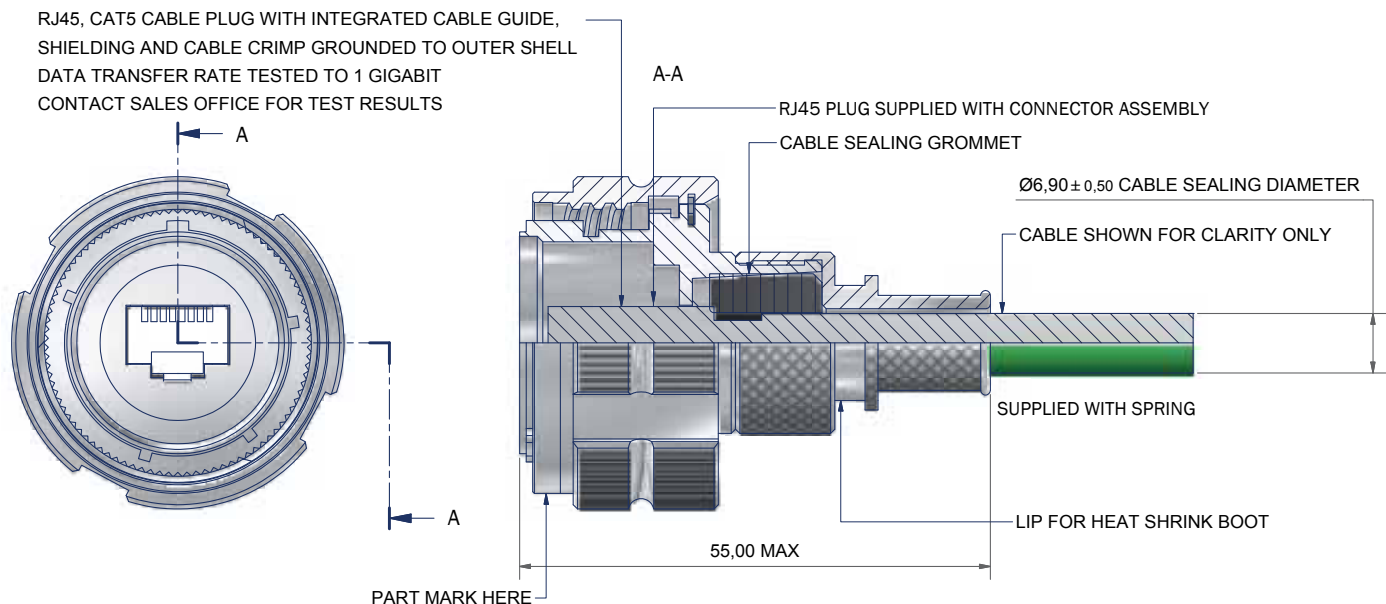
## PC4D000291

### Plug Connector Assembly for Double Screened Applications

RJ45 Cat5 Tooling Options: See Page 17  
Connector Modifications: See Page 19



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**NOTES**  
GENERALLY TO THE REQUIREMENTS OF  
MIL-DTL-38999

SEAL - SILICONE MS749ECR TO BS6853 CAT 1

**MATERIALS**  
RJ45  
CONTACTS 30µ Au/Ni  
SHIELDING - NICKEL PLATED BRASS  
BODY - PBT, UL94V-0

**PERFORMANCE**  
CURRENT RATING FOR POWER CONTACTS 2.1  
AMPS @ 70 °C  
VOLTAGE RATING 50V DC / 35V AC  
TEMPERATURE -40 °C TO +120 °C

| EXAMPLE PART NUMBER: PC4D000291-C-19N-1-C |                                                       |
|-------------------------------------------|-------------------------------------------------------|
| PC4D000291 =                              | POLAMCO SERIES                                        |
| C =                                       | RJ45 STYLE                                            |
|                                           | A = 4 DATA CONTACTS (4 x 24AWG)                       |
|                                           | B = 4 DATA + 2 POWER CONTACTS (4 x 24AWG + 2 x 22AWG) |
|                                           | C = 8 DATA CONTACTS (8 x 26 AWG + 2x23AWG)            |
|                                           | D = 8 + 2 WAY 8 x 26AWG + 2 x 23AWG                   |
| 19 =                                      | SHELL SIZE                                            |
| N =                                       | KEY ARRANGEMENT                                       |
| 1 =                                       | MATERIAL (ALUMINIUM ALLOY) SEE PAGE 3                 |
| C =                                       | PLATING: SEE PAGES 3 - 4                              |

PART NUMBER FOR UNGROUNDED VERSION: PC4D000291-C-U-19N-1-C

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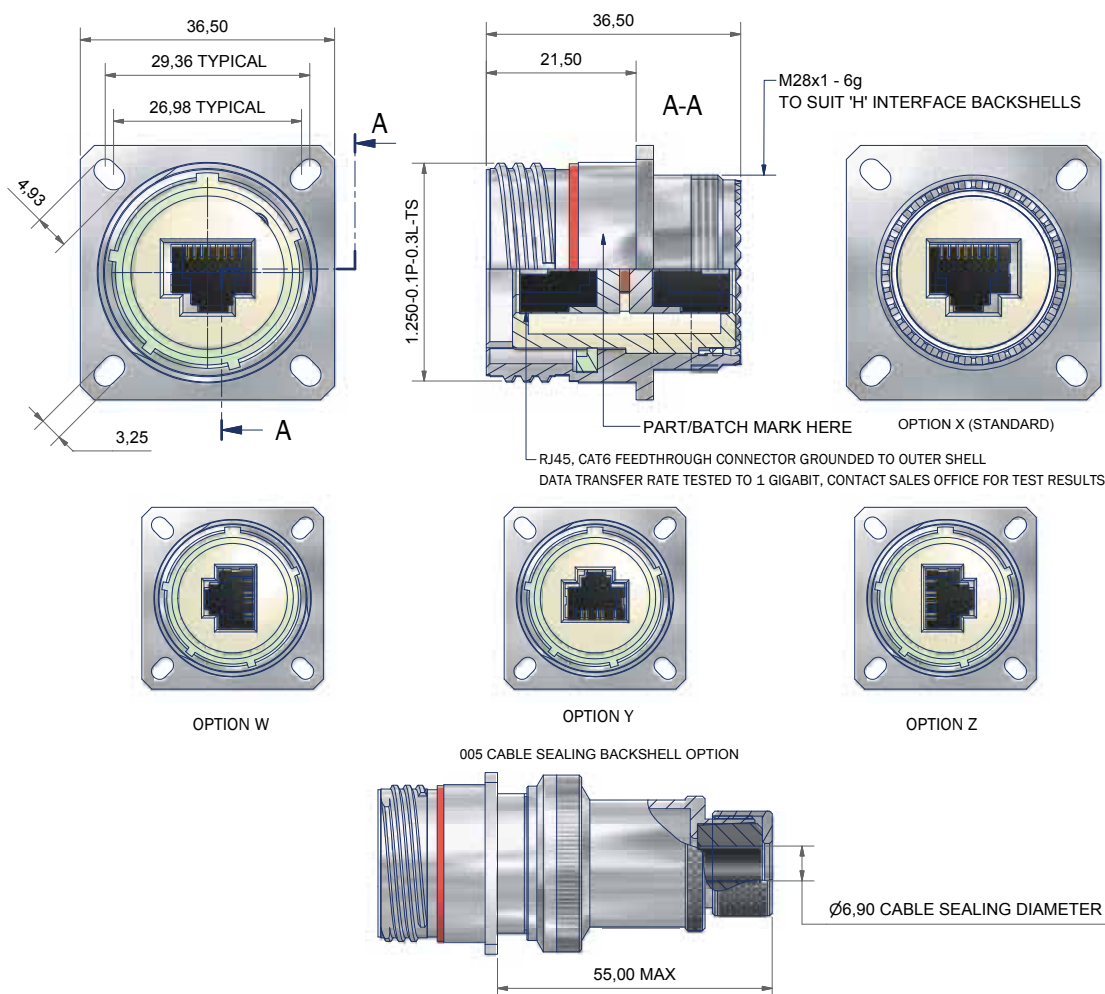
# RJ45 Cat6 Connectors

## PC4B0029 - Feedthrough Jam Nut Receptacle



Connector Modifications: See Page 19

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### NOTES

GENERALLY TO THE REQUIREMENTS OF  
MIL-DTL-38999 MATES WITH AMPHENOL RJFTV  
FINISH  
SEE PAGES 15 - 16  
MATERIALS  
RJ45  
CONTACTS COPPER WITH

### SELECTIVE GOLD PLATE

SHIELDING - NICKEL PLATED BRASS  
BODY - PA, UL94V-0PCB - FR4, UL94V-0  
SEAL - SILICONE ELASTOMER  
INSULATOR - PPS GL40 UL94,  
COLOUR BLACK  
POTTING - QSIL 550 UL94V-0

### PERFORMANCE

CURRENT RATING FOR POWER CONTACTS 2.1  
AMPS @ 70 °C  
VOLTAGE RATING 50V DC / 35V AC  
TEMPERATURE -40 °C TO +120 °C

### EXAMPLE PART NUMBER: PC4B0029-19NX-1-C-005

|            |                                       |
|------------|---------------------------------------|
| PC4B0029 = | POLAMCO SERIES                        |
| 19 =       | SHELL SIZE                            |
| N =        | ALTERNATE KEYING                      |
| X =        | INSERT ROTATION (w, x, y, z)          |
| 1 =        | MATERIAL (ALUMINIUM ALLOY) SEE PAGE 3 |
| C =        | PLATING: SEE PAGES 3 - 4              |
| 005 =      | CABLE SEALING BACKSHELL               |

PART NUMBER FOR UNGROUNDED VERSION: PC4B0029-19NX-1-C-U

PART NUMBER AND BATCH CODE WILL BE MARKED ON THE ASSEMBLY UNLESS OTHERWISE SPECIFIED

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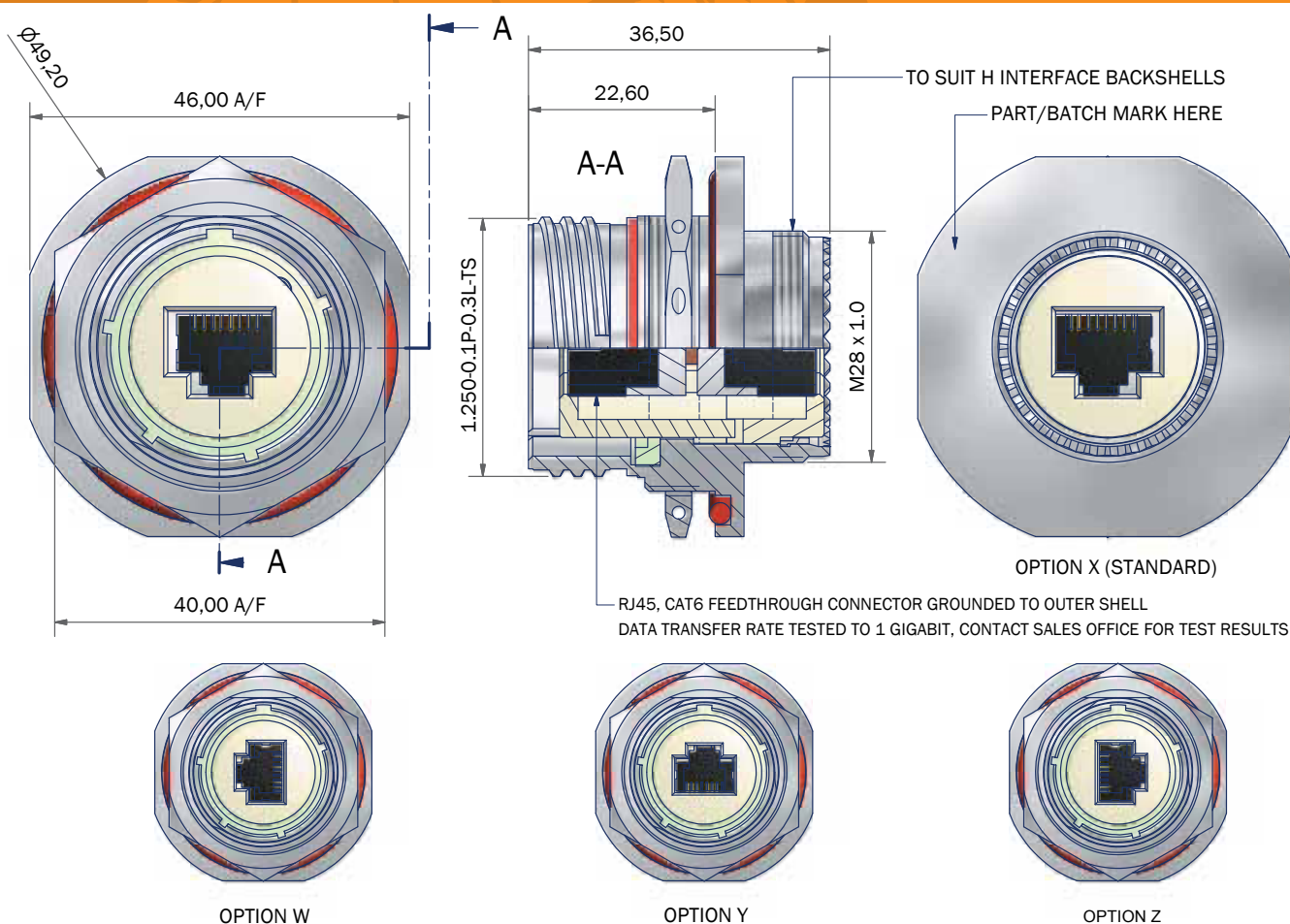
# RJ45 Cat6 Connectors

## PC4F0020 - Feedthrough Jam Nut Receptacle



Connector Modifications: See Page 19

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### NOTES

GENERALLY TO THE REQUIREMENTS OF  
MIL-DTL-38999 MATES WITH AMPHENOL RJFTV

### FINISH

SEE PAGES 15 - 16

### MATERIALS

RJ45

CONTACTS COPPER WITH SELECTIVE GOLD PLATE

SHIELDING - NICKEL PLATED BRASS

BODY - PA, UL94V-0

PCB - FR4, UL94V-0

SEAL - SILICONE ELASTOMER

INSULATOR - PPS GL40 UL94, COLOUR BLACK

POTTING - QSIL 550 UL94V-0

### PERFORMANCE

VOLTAGE RATING 50V DC / 35V AC

TEMPERATURE -40°C TO +120°C

### EXAMPLE PART NUMBER: PC4F0020-19NX-1-C

|            |                                       |
|------------|---------------------------------------|
| PC4F0020 = | POLAMCO SERIES                        |
| 19 =       | SHELL SIZE                            |
| N=         | ALTERNATE KEYING                      |
| X=         | INSERT ROTATION (w, x, y, z)          |
| 1 =        | MATERIAL (ALUMINIUM ALLOY) SEE PAGE 3 |
| C =        | PLATING: SEE PAGES 3 - 4              |

PART NUMBER FOR UNGROUNDED VERSION: PC4F0020-19NX-1-C-U

PART NUMBER AND BATCH CODE WILL BE MARKED ON THE ASSEMBLY UNLESS OTHERWISE SPECIFIED

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# RJ45 Cat6 Connectors

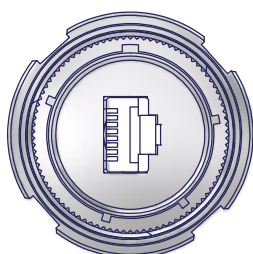
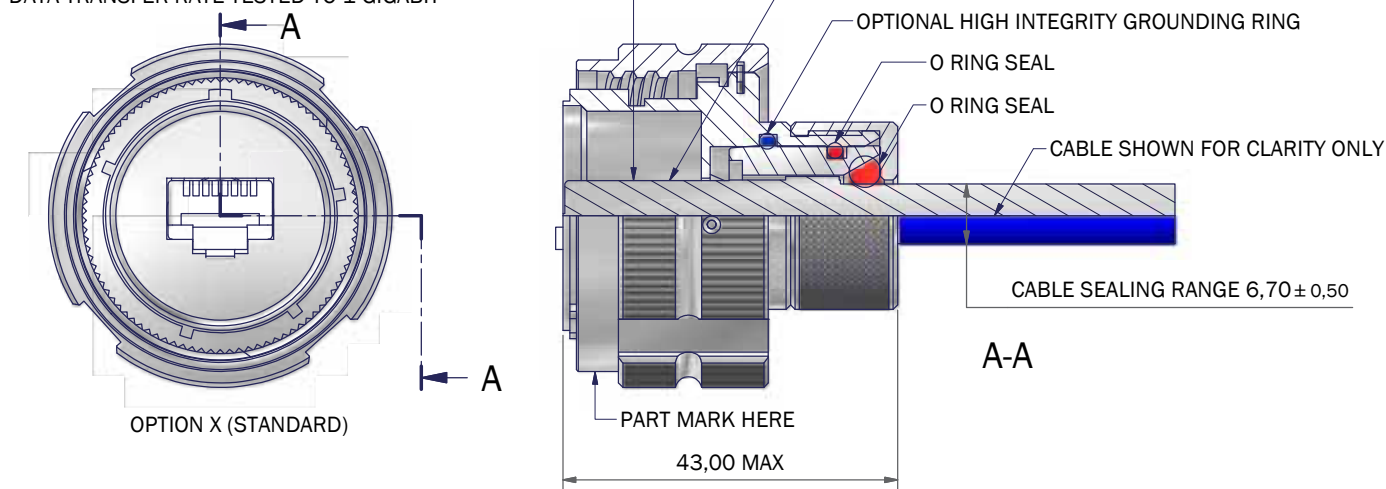
## PC4D0024 - Plug Connector Assembly



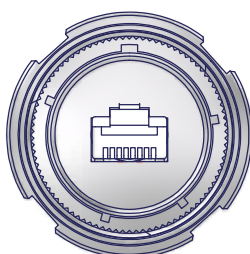
Connector Modifications: See Page 19

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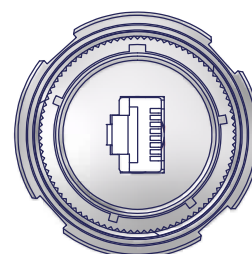
RJ45, CAT6 CABLE PLUG WITH INTEGRATED CABLE GUIDE, SHIELDING AND CABLE CRIMP GROUNDED TO OUTER SHELL FOR USE WITH AWG24/26 CABLE  
DATA TRANSFER RATE TESTED TO 1 GIGABIT



OPTION W



OPTION Y



OPTION Z

### NOTES

GENERALLY TO THE REQUIREMENTS OF  
MIL-DTL-38999 MATES WITH AMPHENOL RJ45TV

FINISH  
SEE PAGES 15 - 16

### MATERIALS

RJ45

CONTACTS COPPER WITH SELECTIVE GOLD PLATE

SHIELDING - NICKEL PLATED BRASS

BODY - PA, UL94V-0

SEAL - SILICONE ELASTOMER

### PERFORMANCE

VOLTAGE RATING 50V DC / 35V AC

TEMPERATURE -40 °C TO +120 °C

### EXAMPLE PART NUMBER: PC4D0024-19NX-1-C-H

|            |                                              |
|------------|----------------------------------------------|
| PC4D0024 = | POLAMCO SERIES                               |
| 19 =       | SHELL SIZE                                   |
| N =        | ALTERNATE KEYING                             |
| X =        | INSERT ROTATION (w, x, y, z)                 |
| 1 =        | MATERIAL (ALUMINIUM ALLOY) SEE PAGE 3        |
| C =        | PLATING: SEE PAGES 3 - 4                     |
| H =        | HIGH INTEGRITY GROUNDING (OMIT FOR STANDARD) |

PART NUMBER FOR UNGROUNDED VERSION: PC4D0024-19NX-1-C-U

PART NUMBER AND BATCH CODE WILL BE MARKED ON THE ASSEMBLY UNLESS OTHERWISE SPECIFIED

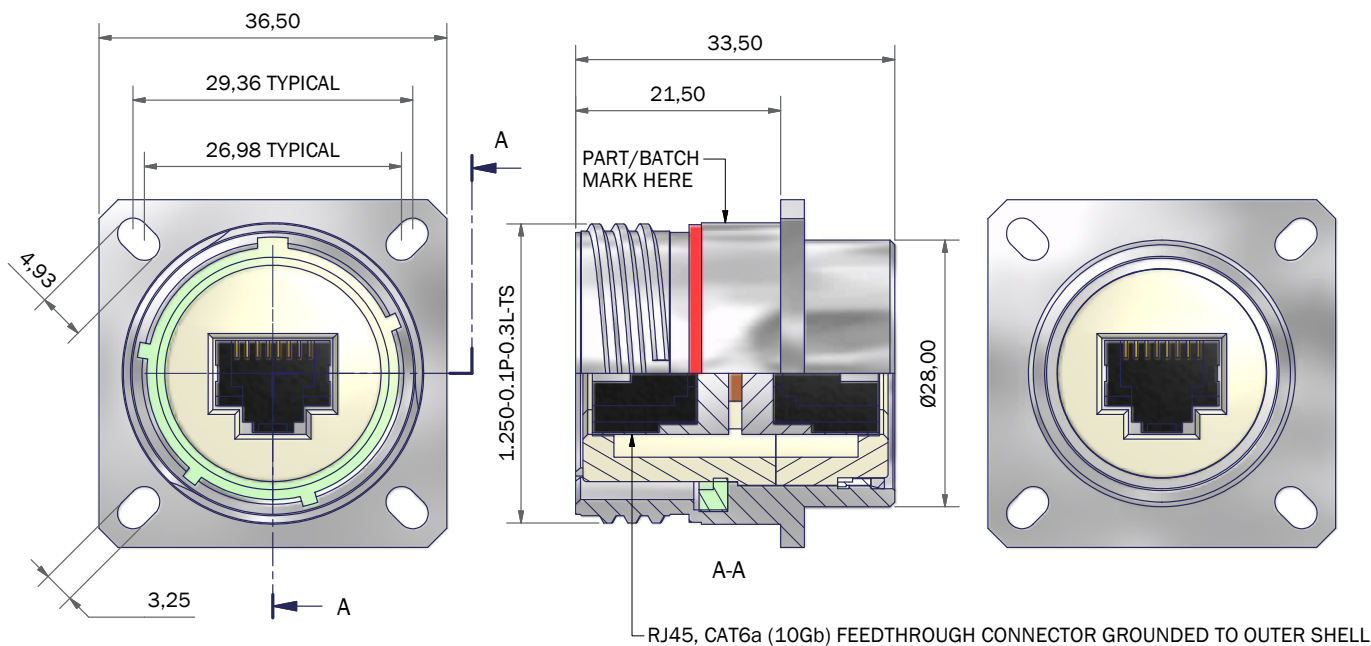
# RJ45 Cat6a Connectors

## PC4B0022 - Feedthrough Receptacle Assembly



Connector Modifications: See Page 19

**Interconnect Solutions Worldwide**



### NOTES

GENERALLY TO THE REQUIREMENTS OF  
MIL-DTL-38999

SEAL - SILICONE ELASTOMER

INSULATOR - PPS GL40 UL94, COLOUR BLACK

POTTING - QSIL 550 UL94V-0

### MATERIALS

RJ45

CONTACTS COPPER WITH SELECTIVE GOLD PLATE

SHIELDING - NICKEL PLATED BRASS

BODY - PBT, UL94V-0

PCB - FR4, UL94V-0

### PERFORMANCE

VOLTAGE RATING 50V DC / 35V AC

TEMPERATURE -40 °C TO +120 °C

### EXAMPLE PART NUMBER: PC4B0022-19N-1-C

|            |                                       |
|------------|---------------------------------------|
| PC4B0022 = | POLAMCO SERIES                        |
| 19 =       | SHELL SIZE                            |
| N =        | KEY ARRANGEMENT                       |
| 1 =        | MATERIAL (ALUMINIUM ALLOY) SEE PAGE 3 |
| C =        | PLATING: SEE PAGES 3 - 4              |

PART NUMBER FOR UNGROUNDED VERSION: PC4B0022-19N-1-C-U

PART NUMBER AND BATCH CODE WILL BE MARKED ON THE ASSEMBLY UNLESS OTHERWISE SPECIFIED

DRAWING NOT TO SCALE  
DIMENSIONS IN MM

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# RJ45 Cat6a Connectors

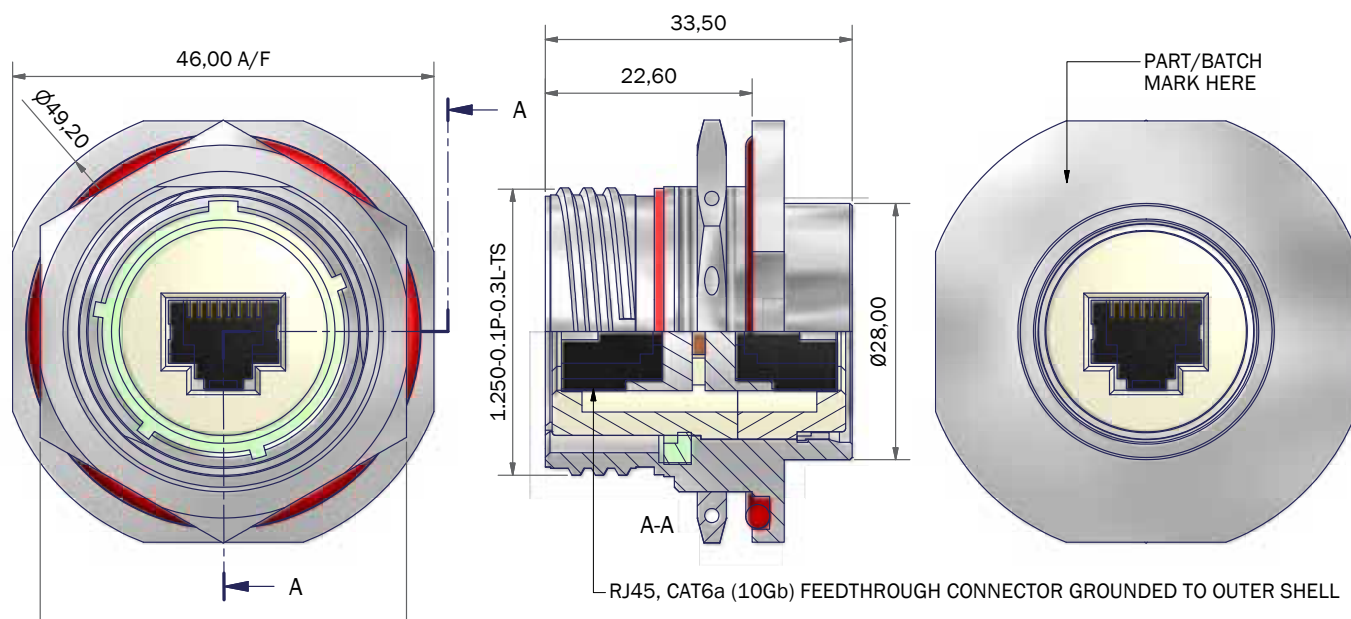
## PC4F0014 - Feedthrough Jam Nut Receptacle



Connector Modifications: See Page 19

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### NOTES

GENERALLY TO THE REQUIREMENTS OF  
MIL-DTL-38999

SEAL - SILICONE ELASTOMER

INSULATOR - PPS GL40 UL94, COLOUR BLACK

POTTING - QSIL 550 UL94V-0

### MATERIALS

RJ45

CONTACTS COPPER WITH SELECTIVE GOLD PLATE

SHIELDING - NICKEL PLATED BRASS

BODY - PBT, UL94V-0

PCB - FR4, UL94V-0

### PERFORMANCE

VOLTAGE RATING 50V DC / 35V AC

TEMPERATURE -40 °C TO +120 °C

### EXAMPLE PART NUMBER: PC4F0014-19N-1-C

|            |                                       |
|------------|---------------------------------------|
| PC4F0014 = | POLAMCO SERIES                        |
| 19 =       | SHELL SIZE                            |
| N =        | KEY ARRANGEMENT                       |
| 1 =        | MATERIAL (ALUMINIUM ALLOY) SEE PAGE 3 |
| C =        | PLATING: SEE PAGES 3 - 4              |

PART NUMBER FOR UNGROUNDED VERSION: PC4F0014-19N-1-C-U

# RJ45 Cat6a Connectors

## PC4D0018 - Plug Connector Assembly

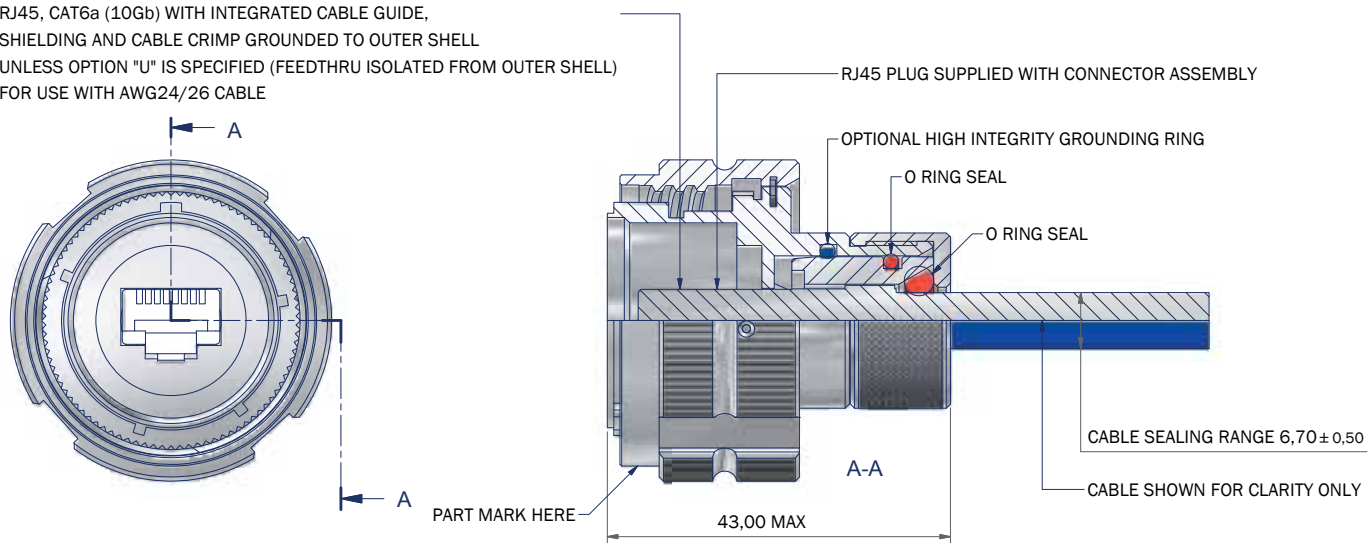
RJ45 Cat6 & Cat6a Tooling Options: See Page 18

Connector Modifications: See Page 19



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RJ45, CAT6a (10Gb) WITH INTEGRATED CABLE GUIDE, SHIELDING AND CABLE CRIMP GROUNDED TO OUTER SHELL UNLESS OPTION "U" IS SPECIFIED (FEEDTHRU ISOLATED FROM OUTER SHELL) FOR USE WITH AWG24/26 CABLE



### NOTES

GENERALLY TO THE REQUIREMENTS OF MIL-DTL-38999

### MATERIALS

RJ45  
CONTACTS COPPER WITH SELECTIVE GOLD PLATE  
SHIELDING - NICKEL PLATED BRASS  
BODY - PBT, UL94V-0  
SEAL - SILICONE

### PERFORMANCE

VOLTAGE RATING 50V DC / 35V AC  
TEMPERATURE -40°C TO +120°C

### EXAMPLE PART NUMBER: PC4D0018-19N-1-C-H

|            |                                              |
|------------|----------------------------------------------|
| PC4D0018 = | POLAMCO SERIES                               |
| 19 =       | SHELL SIZE                                   |
| N =        | KEY ARRANGEMENT                              |
| 1 =        | MATERIAL (ALUMINIUM ALLOY) SEE PAGE 3        |
| C =        | PLATING: SEE PAGES 3 - 4                     |
| H =        | HIGH INTEGRITY GROUNDING (OMIT FOR STANDARD) |

PART NUMBER FOR UNGROUNDED VERSION: PC4D0018-19N-1-C-U

PART NUMBER AND BATCH CODE WILL BE MARKED ON THE ASSEMBLY UNLESS OTHERWISE SPECIFIED

DRAWING NOT TO SCALE  
DIMENSIONS IN MM

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# RJ45 Cat6a Connectors

PC4D0018\*\*

## Plug Connector Assembly for Double Screened Applications

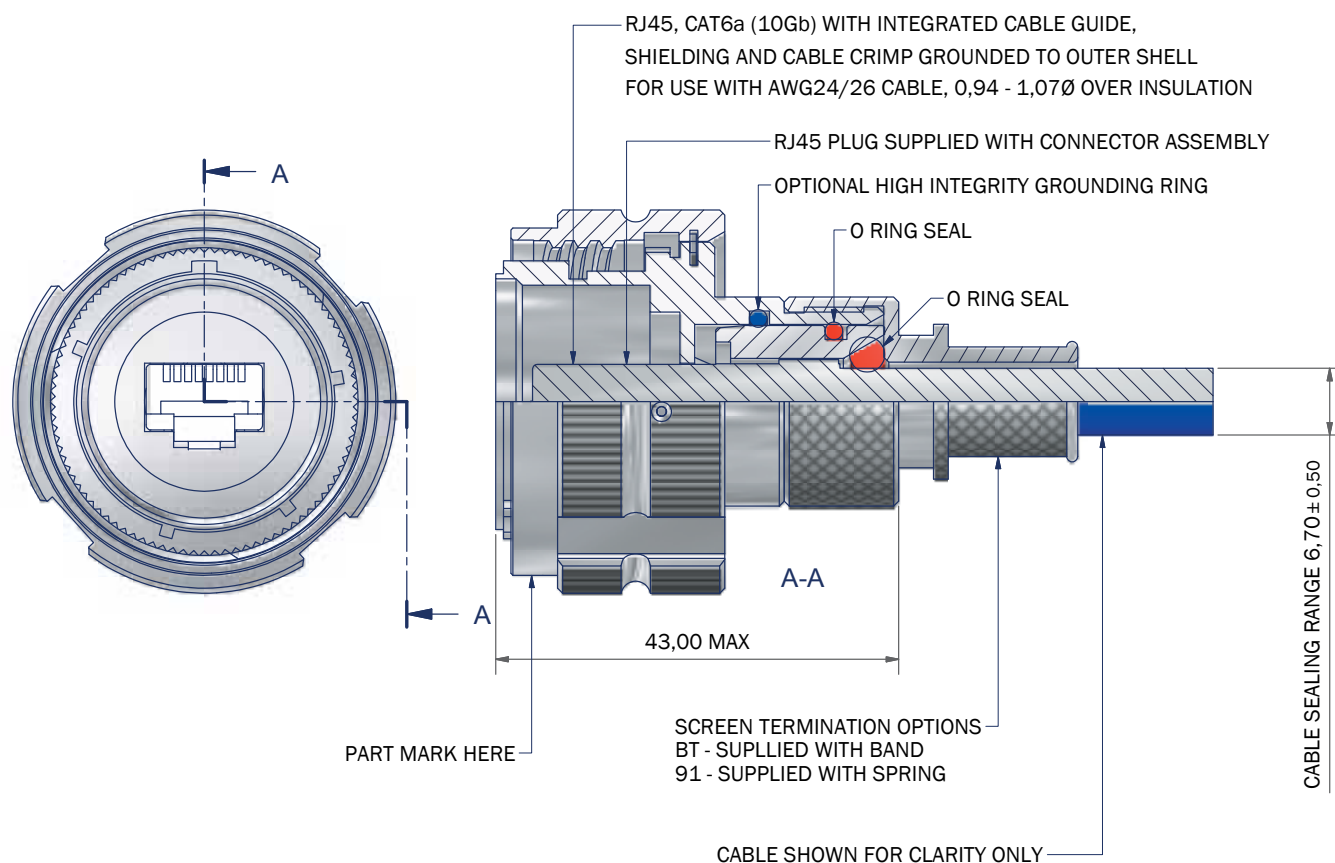
RJ45 Cat6 & Cat6a Tooling Options: See Page 18

Connector Modifications: See Page 19



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### NOTES

GENERALLY TO THE REQUIREMENTS OF  
MIL-DTL-38999  
PLATING: SEE PAGES 15 - 16  
MATERIALS: SEE PAGE 15

### RJ45

CONTACTS SELECTIVE GOLD PLATING  
SHIELDING - NICKEL PLATED BRASS  
BODY - PBT, UL94V-0  
SEAL - SILICONE

### PERFORMANCE

VOLTAGE RATING 50V DC / 35V AC  
TEMPERATURE -40°C TO +120°C

### EXAMPLE PART NUMBER PC4D0018BT-19N-1-C-H

|          |                                                  |
|----------|--------------------------------------------------|
| PC4D0018 | POLAMCO SERIES                                   |
| BT =     | BT - SUPPLIED WITH BAND, 91 SUPPLIED WITH SPRING |
| 19 =     | SHELL SIZE                                       |
| N =      | KEY ARRANGEMENT, OPTIONS N, A, B, C, D, E        |
| 1 =      | MATERIAL (ALUMINIUM ALLOY) SEE PAGE 3            |
| C =      | PLATING: SEE PAGES 3 - 4                         |
| H =      | HIGH INTEGRITY GROUNDING (OMIT FOR STANDARD)     |

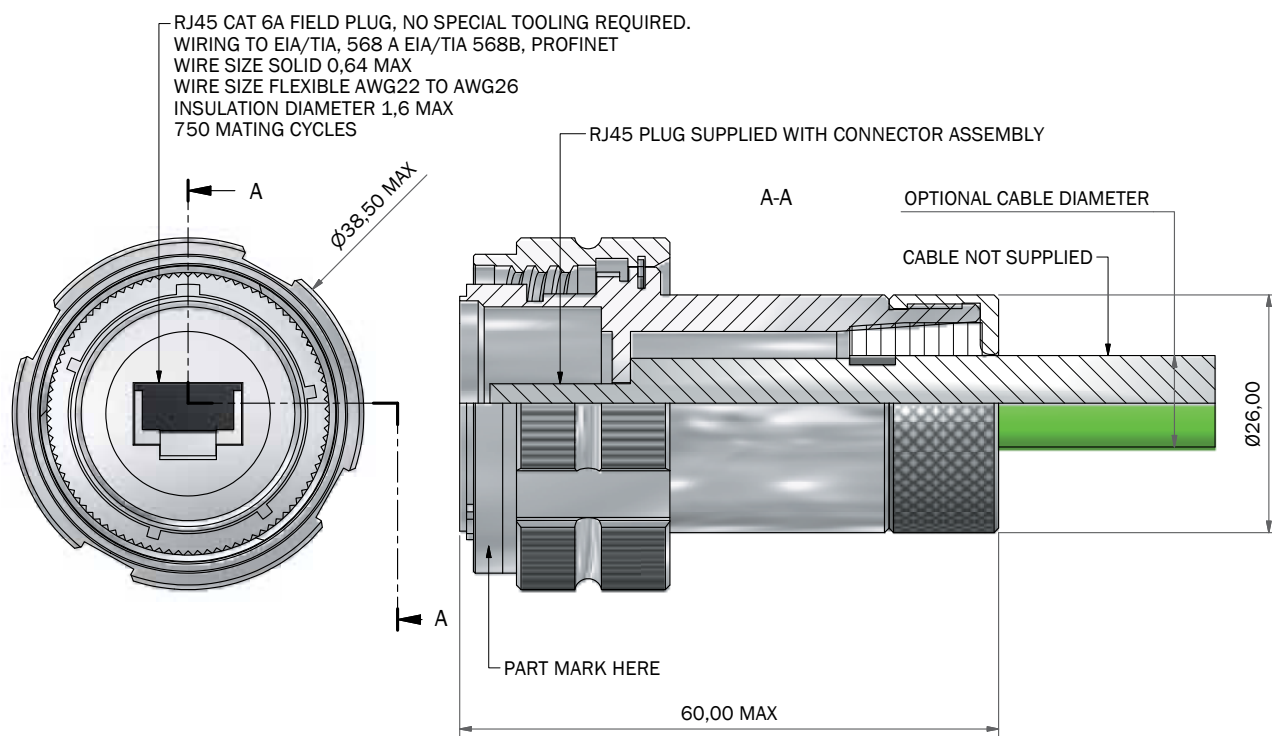
# RJ45 Cat6a Connectors

## PC4D0023 - Field Plug Connector Assembly (No Tooling Required)



Connector Modifications: See Page 19

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### NOTES

GENERALLY TO THE REQUIREMENTS OF  
MIL-DTL-38999

### FINISH

SEE PAGES 15 - 16

### MATERIALS

RJ45 PLUG  
CONTACTS COPPER WITH  
SELECTIVE GOLD PLATING  
HOUSING - ZINC DIECAST  
SEAL - SILICONE

### PERFORMANCE

TEMPERATURE -40°C TO +70°C

### EXAMPLE PART NUMBER PC4D0023-19N-1-C

|            |                                                   |
|------------|---------------------------------------------------|
| PC4D0023 = | POLAMCO SERIES                                    |
| 19 =       | SHELL SIZE                                        |
| 10 =       | CABLE DIAMETER IN MM +/-0,5 OPTIONS 06, 08 AND 10 |
| N =        | KEY ARRANGEMENT, OPTIONS N, A, B, C, D, E         |
| 1 =        | MATERIAL (ALUMINIUM ALLOY) SEE PAGE 3             |
| C =        | PLATING: SEE PAGES 3 - 4                          |

PART NUMBER FOR UNGROUNDED VERSION: PC4D0023-19N-1-C-U

PART NUMBER AND BATCH CODE WILL BE MARKED ON THE ASSEMBLY UNLESS OTHERWISE SPECIFIED

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# RJ45 Cat5 Connectors

## Plug Assembly Tooling



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### Crimp Tool

#### Features

1-step crimp tool crimps all contacts  
and fixes the square crimp in one action



### Part Number

Y-ConTool-11

### Cable Stripping Tool

#### Features

Cable stripping tool with adjustable blades



### Part Number

Y-ConTool-20

### Cable-to-Plug Assembly Tool

#### Features

Enables easy assembly when inserting  
the cable and insert into the plug



### Part Number

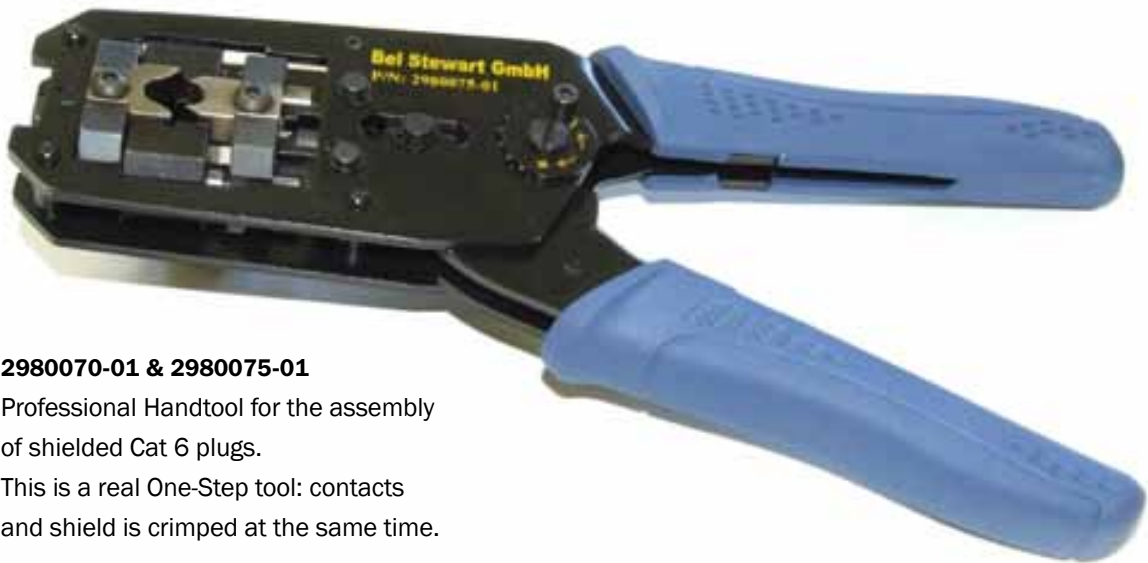
Y-ConTool-30

# RJ45 Cat6 & Cat6a Connectors

## Plug Assembly Tooling



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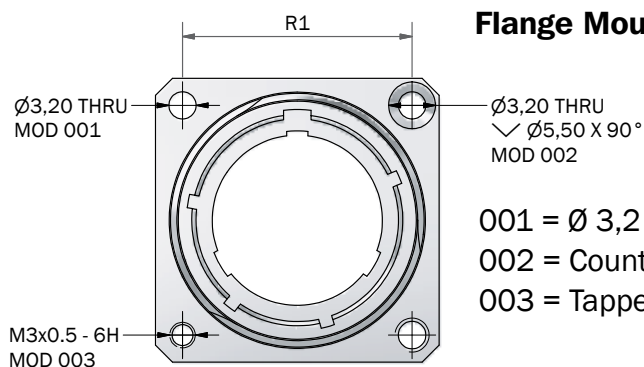


**2980070-01 & 2980075-01**  
Professional Handtool for the assembly  
of shielded Cat 6 plugs.  
This is a real One-Step tool: contacts  
and shield is crimped at the same time.

Contents ▶

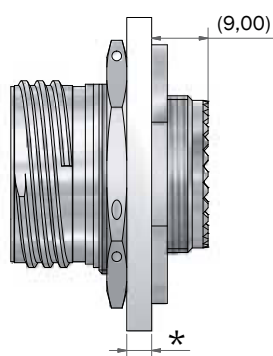


| PLUG               | PART NUMBER | OUTER CABLE Ø |
|--------------------|-------------|---------------|
| SS-39200-010 / 011 | 2980075-01  | MORE THAN 6MM |



### Flange Mount Options for PC420 Series

- 001 = Ø 3,2
- 002 = Countersunk
- 003 = Tapped M3

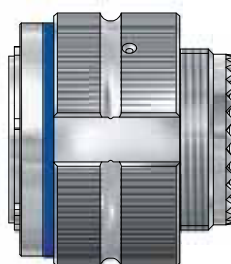


### Optional Panel Thickness for PC424 Series

Jam nut thread length increased to suit various panels wall section.

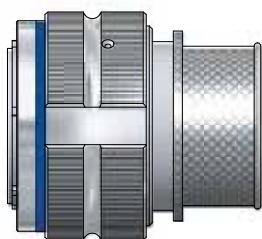
\*1,58 - 3,20 STANDARD PANEL THICKNESS

L = OPTIONAL PANEL THICKNESS



### Torque Differential Option for PC426 Series

The plug coupling nut incorporates a 2:1 torque differential for high vibration applications.



### Integral Backshells For PC420 / 24 / 26

Integral backshell options utilised where there is insufficient room to install a separate backshell options include, 91 & BT series.