

**PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION**

**Part Number:** [0906631149](#)  
**Status:** **Active**  
**Description:** 2.54mm (.100") Pitch QF-50™ Vertical, MIL Keying with Latch/Eject Levers, Shrouded Header, 14 Circuits

**Documents:**

[3D Model](#) [Product Specification PS-99020-0015 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

CSA LR19980  
 UL E29179

**General**

Product Family Ribbon Cable / Wire Trap Connectors  
 Series [90663](#)  
 Comments Eject Levers  
 Component Type PCB Header  
 Glow-Wire Compliant No  
 Product Name QF-50™

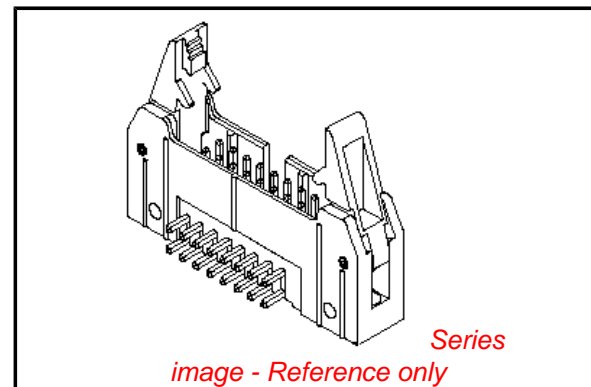
**Physical**

Circuits (Loaded) 14  
 Color - Resin Black  
 Durability (mating cycles max) 300  
 Entry Angle Vertical  
 Flammability 94V-0  
 Lock to Mating Part None  
 Material - Metal Brass  
 Material - Resin Polyester  
 Number of Rows 2  
 PCB Locator No  
 PCB Retention None  
 PCB Thickness Recommended (in) 0.063 In  
 PCB Thickness Recommended (mm) 1.60 mm  
 Packaging Type Tray  
 Pitch - Mating Interface (in) 0.100 In  
 Pitch - Mating Interface (mm) 2.54 mm  
 Pitch - Term. Interface (in) 0.100 In  
 Pitch - Term. Interface (mm) 2.54 mm  
 Plating min: Termination (µin) 118  
 Plating min: Termination (µm) 3  
 Polarized to PCB No  
 Shrouded Fully  
 Stackable No  
 Surface Mount Compatible (SMC) No  
 Temperature Range - Operating -25°C to +85°C  
 Termination Interface: Style Through Hole  
 Wire Insulation Diameter N/A  
 Wire Size AWG N/A  
 Wire/Cable Type Ribbon Cable

**Electrical**

Current - Maximum per Contact 1A  
 Voltage - Maximum 250V AC/DC

**Solder Process Data**



**EU RoHS**

**ELV and RoHS  
Compliant**  
**REACH SVHC**  
 Not Reviewed  
**Halogen-Free  
Status**  
**Not Reviewed**

**China RoHS**



**Need more information on product  
environmental compliance?**

Email [productcompliance@molex.com](mailto:productcompliance@molex.com)  
 For a multiple part number RoHS Certificate of Compliance, [click here](#)

Please visit the [Contact Us](#) section for any non-product compliance questions.

**Search Parts in this Series**

[90663Series](#)

**Mates With**

Lead-free Process Capability

Wave Capable (TH only)

**Material Info**

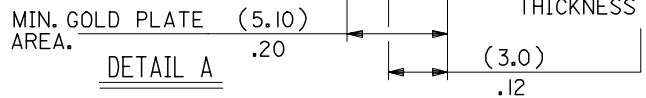
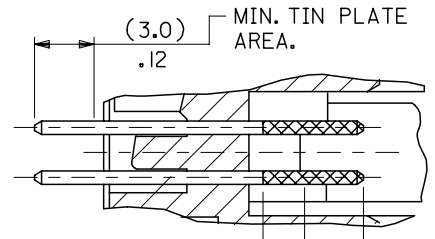
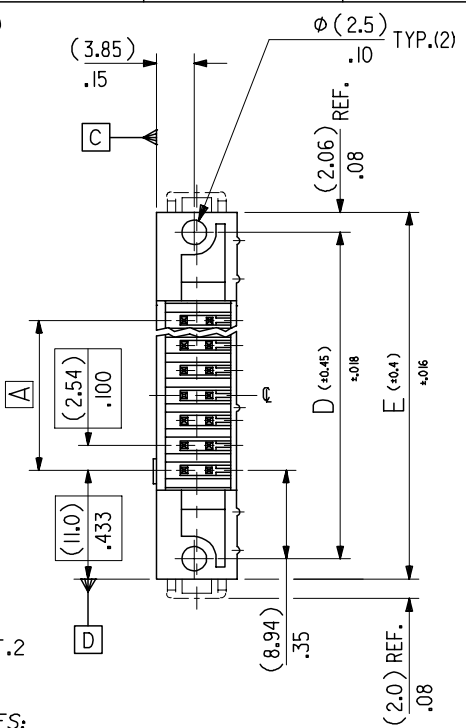
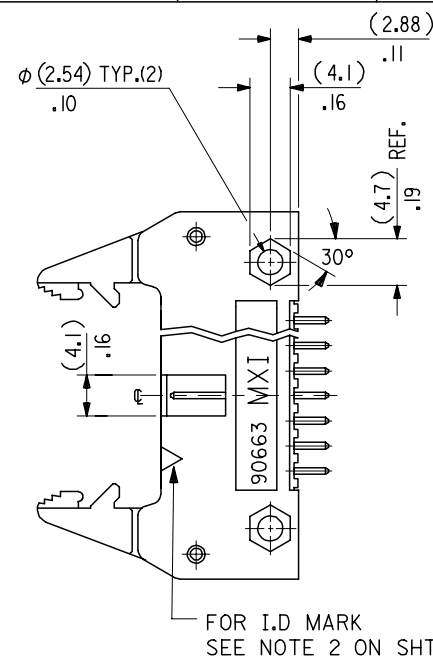
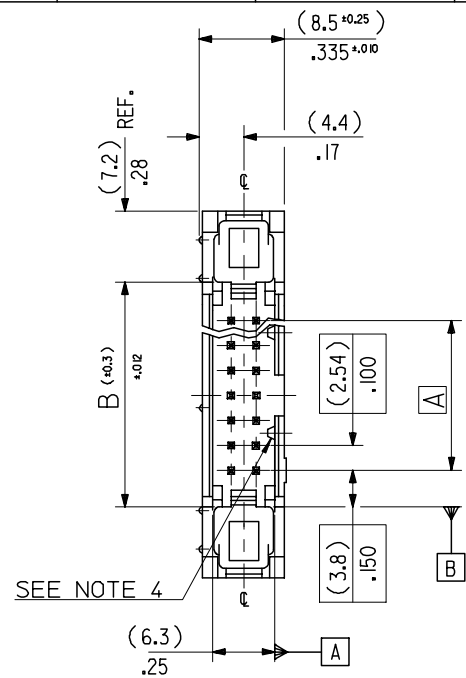
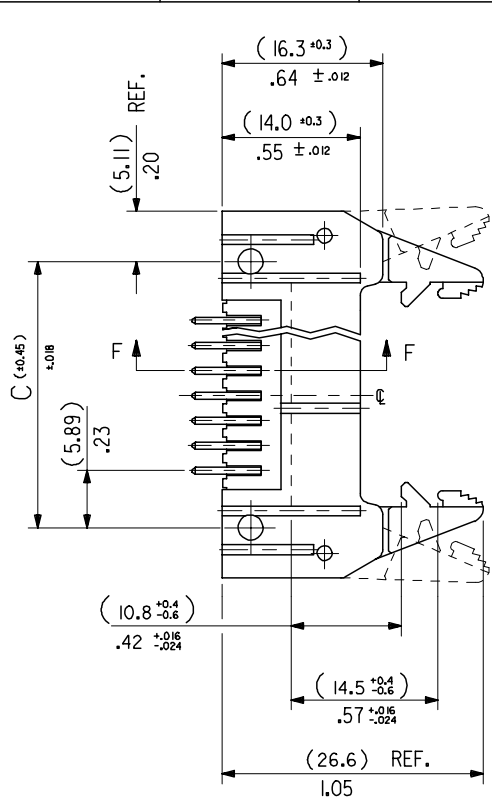
**Reference - Drawing Numbers**

Product Specification  
Sales Drawing

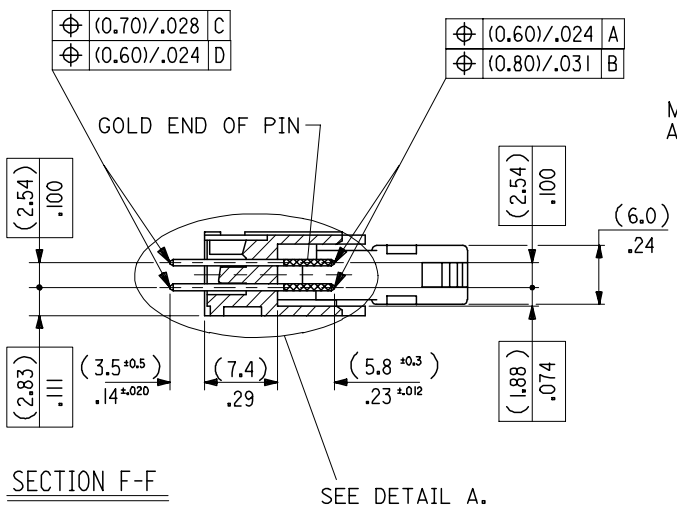
PS-99020-0015  
SDA-90663E

This document was generated on 03/16/2010

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- NOTES:**
- FOR MATERIAL SPECIFICATION SEE NOTE 1. ON SHEET 2.
  - FOR RECOMMENDED P.C.B. HOLE PATTERN, PART No's AND UNSTATED DIMENSIONS SEE SHEET 2.
  - PRODUCT SPEC.No.: PS-99020-0015.
  - THIS RIB IS NOT PRESENT ON 10 & 14 CKT PARTS.



|   |                               |  |        |                 |              |                    |                          |
|---|-------------------------------|--|--------|-----------------|--------------|--------------------|--------------------------|
| ADDED SHT 9<br>EC NO: E2007-0243<br>DRWN: DNASZKI, EMI CZ 2007/01/10<br>CHKD: J. DENNEHY 2007/01/22<br>APPR: DENNEHY 2007/01/23 | QUALITY SYMBOLS<br>▽=0<br>∇=0 | GENERAL TOLERANCES (UNLESS SPECIFIED)                |        | DIMENSION STYLE | SCALE        | DESIGN UNITS       | THIRD ANGLE PROJECTION   |
|   |                               | mm   | INCH   | MM/IN           | 2:1          | METRIC             |                          |
| G   | DESCRIPTION                   | 4 PLACES   | ± ---  | ± ---           | DRAWN BY     | DATE               | TITLE                    |
|   |                               | 3 PLACES   | ± ---  | ±.008           | POB          | 1990/08/03         | QF50 SRD HDR<br>VT W/ELV |
| REV   | DESCRIPTION                   | 2 PLACES   | ± 0.20 | ±.008           | CHECKED BY   | DATE               |                          |
|   |                               | 1 PLACE  | ± 0.20 | ± ---           | JDENNEHY     | 2004/11/24         |                          |
|   |                               | ANGULAR ± 2 °  |        | APPROVED BY     | DATE         | MOLEX INCORPORATED |                          |
|   |                               | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |        | MATERIAL NO.    | DOCUMENT NO. | SHEET NO.          |                          |
|   |                               |  |        | SEE SHEET 2     | SDA-90663E   | 1 OF 9             |                          |
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION   |                               |  |        |                 |              |                    |                          |

|               |               |               |               |                |                         |                         |                         |                     |                 |
|---------------|---------------|---------------|---------------|----------------|-------------------------|-------------------------|-------------------------|---------------------|-----------------|
| (78.74)/3.100 | (86.34)/3.400 | (90.52)/3.564 | (96.62)/3.804 | (100.74)/3.966 | 90663-1641              | 90663-1642              | 90663-1643              |                     | 64              |
| (73.66)/2.900 | (81.26)/3.200 | (85.44)/3.364 | (91.54)/3.604 | (95.66)/3.766  | ↑ -1601                 | ↑ -1602                 | ↑ -1603                 |                     | 60              |
| (60.96)/2.400 | (68.56)/2.700 | (72.74)/2.864 | (78.84)/3.104 | (82.96)/3.266  | ↑ -1501                 | ↑ -1502                 | ↑ -1503                 | 90663-1509          | 50              |
| (48.26)/1.900 | (55.86)/2.200 | (60.04)/2.364 | (66.14)/2.604 | (70.26)/2.766  | ↑ -1401                 | ↑ -1402                 | ↑ -1403                 | ↑ -1409             | 40              |
| (40.64)/1.600 | (48.24)/1.900 | (52.42)/2.064 | (58.52)/2.304 | (62.64)/2.466  | ↑ -1341                 | ↑ -1342                 | ↑ -1343                 | ↑ -1349             | 34              |
| (35.56)/1.400 | (43.16)/1.700 | (47.34)/1.864 | (53.44)/2.104 | (57.56)/2.266  | ↑ -1301                 | ↑ -1302                 | ↑ -1303                 | ↑ -1309             | 30              |
| (30.48)/1.200 | (38.08)/1.500 | (42.26)/1.664 | (48.36)/1.904 | (52.48)/2.066  | ↑ -1261                 | ↑ -1262                 | ↑ -1263                 | ↑ -1269             | 26              |
| (22.86)/.900  | (30.46)/1.200 | (34.64)/1.364 | (40.74)/1.604 | (44.86)/1.766  | ↑ -1201                 | ↑ -1202                 | ↑ -1203                 | ↑ -1209             | 20              |
| (17.78)/.700  | (25.38)/1.000 | (29.56)/1.164 | (35.66)/1.404 | (39.78)/1.566  | ↑ -1161                 | ↑ -1162                 | ↑ -1163                 | ↑ -1169             | 16              |
| (15.24)/.600  | (22.84)/.900  | (27.02)/1.064 | (33.12)/1.304 | (37.24)/1.466  | ↑ -1141                 | ↑ -1142                 | ↑ -1143                 | ↑ -1149             | 14              |
| (10.16)/.400  | (17.76)/.700  | (21.94)/.864  | (28.04)/1.104 | (32.16)/1.266  | ↓ 90663-1101            | ↓ 90663-1102            | ↓ 90663-1103            | ↓ 90663-1109        | 10              |
| A             | B             | C             | D             | E              | ENG. NO.<br>GS1 PLATING | ENG. NO.<br>GS2 PLATING | ENG. NO.<br>GS3 PLATING | ENG. NO.<br>PRE TIN | NO. OF<br>CKTS. |

**NOTES**

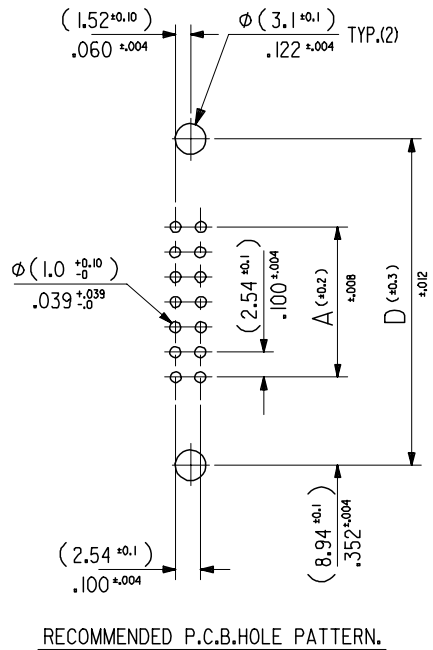
**1.MATERIAL**

HEADER : GLASS FILLED POLYESTER (UL 94V0), COLOUR - BLACK.  
 PINS : BRASS SIZE □ (0.635)/.025 .  
 LEVER : GLASS FILLED POLYESTER (UL 94V0), COLOUR - BLACK.

**2.COLOUR IDENTIFICATION MARK FOR PLATING OPTIONS.**

90663-1\*\*1, (1um)/.039uin MIN. NICKEL UNDERPLATE. CONTACT AREA  
 GS1 PLATING (0.1um)/.004uin MIN. GOLD. SOLDER AREA (3um)/.118uin MIN.  
 TIN. COLOUR MARK: YELLOW.  
 90663-1\*\*2, (1um)/.039uin MIN. NICKEL UNDERPLATE. CONTACT AREA  
 GS2 PLATING (0.76um)/.030uin MIN. GOLD. SOLDER AREA (3um)/.118uin MIN.  
 TIN. COLOUR MARK: BROWN.  
 90663-1\*\*3, (1um)/.039uin MIN. NICKEL UNDERPLATE. CONTACT AREA  
 GS3 PLATING (0.25um)/.010uin MIN. GOLD. SOLDER AREA (3um)/.118uin MIN.  
 TIN. COLOUR MARK: BLUE.  
 90663-1\*\*9, (0.5-1um)/.020-.040uin NICKEL UNDER (1.0-3.0um)/.039-.118uin TIN.  
 PRE-TIN COLOUR MARK: BLACK, (NO MARK).

**3. RECOMMENDED PCB THICKNESS 1.6mm**



RECOMMENDED P.C.B.HOLE PATTERN.

| ADDED NOTE 3<br>EC NO: E2008-0129<br>DRWN: OBYRNES 2007/09/13<br>CHKD: 2007/09/13<br>APPR: EOMAHONY 2007/09/14 | QUALITY SYMBOLS<br>▽=0<br>▽=0 | GENERAL TOLERANCES (UNLESS SPECIFIED)   | DIMENSION STYLE<br>MM/IN | SCALE<br>2:1               | DESIGN UNITS<br>METRIC | THIRD ANGLE PROJECTION  |       |       |          |       |        |          |        |        |         |        |       |               |  |  |                 |
|--|-------------------------------|---|--------------------------|----------------------------|------------------------|---|-------|-------|----------|-------|--------|----------|--------|--------|---------|--------|-------|---------------|--|--|-----------------|
|  |                               | <table border="1"> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> <tr> <td>4 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>3 PLACES</td> <td>± ---</td> <td>± .008</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.20</td> <td>± .008</td> </tr> <tr> <td>1 PLACE</td> <td>± 0.20</td> <td>± ---</td> </tr> <tr> <td colspan="3">ANGULAR ± 2 °</td> </tr> </table> |                          | mm                         | INCH                   | 4 PLACES  | ± --- | ± --- | 3 PLACES | ± --- | ± .008 | 2 PLACES | ± 0.20 | ± .008 | 1 PLACE | ± 0.20 | ± --- | ANGULAR ± 2 ° |  |  | DRAWN BY<br>POB |
|  | mm                            | INCH  |                          |                            |                        |   |       |       |          |       |        |          |        |        |         |        |       |               |  |  |                 |
| 4 PLACES   | ± ---                         | ± ---   |                          |                            |                        |   |       |       |          |       |        |          |        |        |         |        |       |               |  |  |                 |
| 3 PLACES   | ± ---                         | ± .008  |                          |                            |                        |   |       |       |          |       |        |          |        |        |         |        |       |               |  |  |                 |
| 2 PLACES   | ± 0.20                        | ± .008  |                          |                            |                        |   |       |       |          |       |        |          |        |        |         |        |       |               |  |  |                 |
| 1 PLACE  | ± 0.20                        | ± ---   |                          |                            |                        |   |       |       |          |       |        |          |        |        |         |        |       |               |  |  |                 |
| ANGULAR ± 2 °  |                               |   |                          |                            |                        |   |       |       |          |       |        |          |        |        |         |        |       |               |  |  |                 |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS   |                               | APPROVED BY<br>JDENNEHY   | DATE<br>2004/11/24       | MOLEX INCORPORATED         |                        | SHEET NO.<br>2 OF 9   |       |       |          |       |        |          |        |        |         |        |       |               |  |  |                 |
| SIZE<br>A3   |                               | SEE CHART   |                          | DOCUMENT NO.<br>SDA-90663E |                        | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |       |       |          |       |        |          |        |        |         |        |       |               |  |  |                 |