

## REFERENCE SPECIFICATIONS

- DIN-41612
- IEC-603-2

## PHYSICAL CHARACTERISTICS

- INSULATOR MATERIAL:
  - Polyester thermoplastic UL94V0 - Color grey
- CONTACT MATERIAL: -PHOSPHOR BRONZE : (FEMALE CONTACT)  
-PHOSPHOR BRONZE : (MALE CONTACT-SOLDER TAILS)

## ELECTRICAL CHARACTERISTICS

- CURRENT RATING : 1.5A at 20°C / 1A at 70°C 40A AT 20°C (power contact)
- MAXIMAL CURRENT: 2A
- CONTACT RESISTANCE ≤20mΩ ≤1mΩ under 10 A (power contact)
- VOLTAGE PROOF: contact/contact 1000 V eff (0.5 mA / 50 Hz)  
contact/ground 1550 V eff (0.5 mA / 50 Hz)
- INSULATION RESISTANCE: ≥10<sup>6</sup> MΩ
- CREEPAGE AND CLEARANCE DISTANCE: ≥1.2 mm
- WIPPING/PLUG IN DIRECTION: ≥1.8mm
- ALTERNATIF CURRENT V AC: 330 V
- DIRECT CURRENT V DC: 470 V

## MECHANICAL CHARACTERISTICS

- MATING FORCE : ≤ n x 0.94 N (n = NUMBER OF CTS) ≤ 10 N (power contact)
- UNMATING FORCE : ≥ n x 0.15 N (n = NUMBER OF CTS) ≤ 10 N (power contact)
- GAUGE RETENTION FORCE: ≥0.15 N  
THICKNESS GAUGE = 0.56 0/-0.02 - SURFACE ROUGHNESS: Ra = 0.25µm MAXI
- CONTACT RETENTION IN INSULATOR: ≥ 20 N according to IEC 512 test 6d

- VIBRATIONS: ≤ 1 µs according to IEC 512.4 test 6d  
≤ 40 ma according to DIN41640 teil 15 test 6d

|             |                  |
|-------------|------------------|
| DIN class 3 | (not applicable) |
| DIN class 2 | 10-500 HZ/5g     |
| DIN class 1 | 10-2000 HZ/20g   |

- SHOCK: ≤ 1 µs according to IEC 512 test 6c  
≤ 40 ma according to DIN 41640 teil 14 test 6c

## ENVIRONMENTAL CHARACTERISTICS

- CLIMATIC CATEGORY: TEMPERATURE RANGE -55°C TO +125°C  
DAMP HEAT STEADY STATE 56 DAYS Class 1  
21 DAYS Class 2  
(not applicable) Class 3
- ELECTRICAL LOAD AND TEMPERATURE: T = +70°C / I = 1A PER CTS - 1000 HRS

## PERFORMANCE LEVELS

TIN LEAD P/N : 8609 XXX XX XX 7XX XXX EX

Pure Tin P/N : 8609 XXX XX XX 7XX XX LF

| MECHANICAL ENDURANCE AND INDUSTRIAL ATMOSPHERE TEST <sup>(1)</sup> |                                      |                    |
|--------------------------------------------------------------------|--------------------------------------|--------------------|
|                                                                    |                                      | PERFORMANCE LEVELS |
| 4                                                                  | 50 OPERATIONS                        | DIN Class 3        |
| 5                                                                  | 200 OP. + TEST (1) 4 DAYS + 200 OP.  | DIN Class 2        |
| 6                                                                  | 250 OP. + TEST (1) 21 DAYS + 250 OP. | DIN Class 1        |

TEST <sup>(1)</sup> INDUSTRIAL ATMOSPHERE SO<sub>2</sub>

## METALLIZED HOLE DIMENSIONS

- P.C.B HOLE DEFINITION: FINISH HOLE: Ø 0.90 - 1.10

## CONTACT PLATING

- TIN LEAD VERSION:
  - MALE AND FEMALE CONTACTS:
    - GOLD OVER NICKEL or GOLD+PALLADIUM-NICKEL OVER NICKEL ON MATING SURFACES
    - TIN LEAD OVER NICKEL ON SOLDER TERMINATION
- LEAD FREE VERSION:




## NOTE RoHS INFORMATION

- The "LF" products meet European Union Directives and other country regulations as described in GS-22-008.
- The housing will withstand exposure to 260°C peak temperature for 3.5 seconds in a wave solder application with a 1.6mm minimum thick circuit board.
- Termination plating spec: 1.27µm Nickel mini, 2.5 to 7.5µm Pure Tin (matte)
- Packaging spec: see GS-14-920

## IMPORTANT:

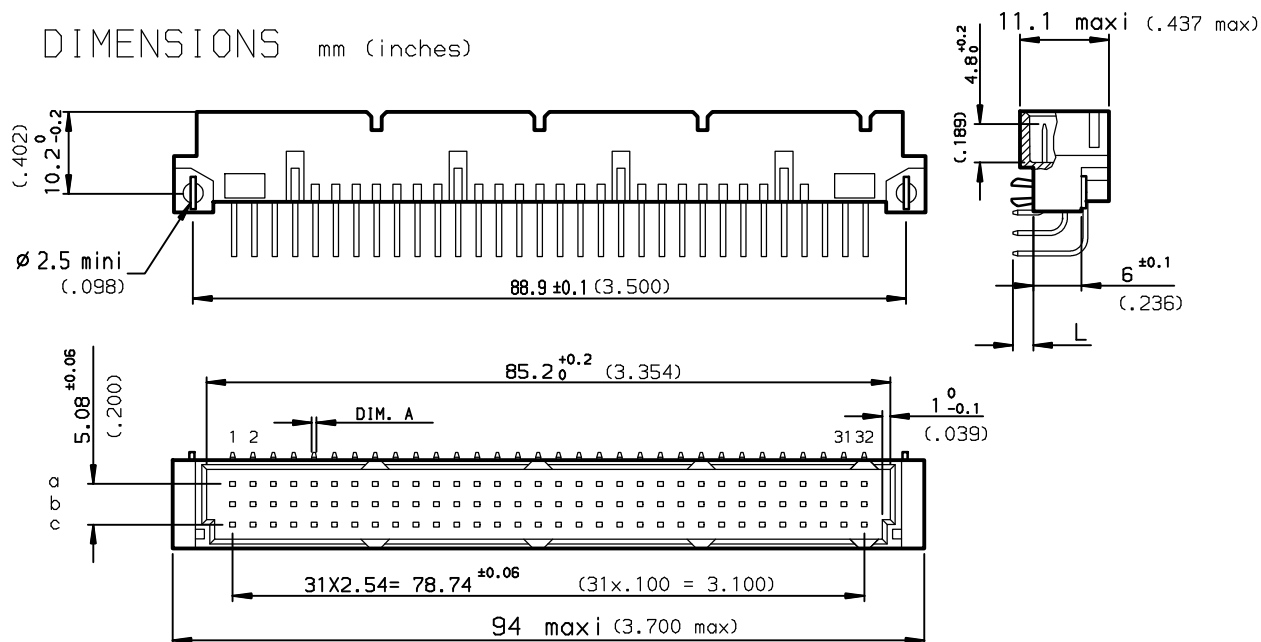
- For the right angled versions, like the current leaded versions, it's recommended to use high temperature adhesive or metallic device, to protect the nearest plastic part in contact with of the solder wave, to avoid any visual plastic deterioration.

European Views

|                                                                                       |          |            |                                                              |           |                                   |          |                                                                                                     |               |                                                                                             |          |
|---------------------------------------------------------------------------------------|----------|------------|--------------------------------------------------------------|-----------|-----------------------------------|----------|-----------------------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------------|----------|
| www.fciconnect.com                                                                    |          |            | surface<br>ISO 1302 ✓                                        |           | tolerance std<br>ISO 406 ISO 1101 |          | projection<br> |               | mm<br> |          |
| TOLERANCES UNLESS OTHERWISE SPECIFIED                                                 |          |            |                                                              |           |                                   |          |                                                                                                     |               |                                                                                             |          |
| Dr                                                                                    | GOISNARD | 2005/04/07 | ANGULAR<br>LINEAR                                            |           | 0.X                               | ±0.1     | size<br>A3                                                                                          | Scale<br>1    |                                                                                             |          |
| Eng                                                                                   | TARON    | 2005/04/07 |                                                              |           | 0.XX                              | ±0.1     |                                                                                                     |               |                                                                                             |          |
| Chr                                                                                   | LEGARE   | 2005/04/07 |                                                              | 0.XX' ±2' | 0.XXX                             | ±0.1     |                                                                                                     | ECN LS07-0211 |                                                                                             |          |
| Appr                                                                                  | LEGARE   | 2005/04/07 | Product family                                               |           |                                   | DIN 8609 |                                                                                                     | Spec ref -    |                                                                                             |          |
|  |          |            | title<br>DIN 41612 STB CONNECTORS<br>GENERAL CHARACTERISTICS |           |                                   |          | dwg no<br>C-8609-0000A                                                                              |               |                                                                                             | Rev<br>F |
| catalog no                                                                            |          |            | -                                                            |           |                                   |          | CUSTOMER                                                                                            |               | sheet 1 of 1                                                                                |          |

| rev | ecn no    | dr  | date       |
|-----|-----------|-----|------------|
| A   | LS05-0039 | LGO | 2005/04/07 |
| B   | LS05-0070 | LGO | 2005/09/13 |
| C   | LS06-0097 | LGO | 2006/07/11 |
| D   | LS06-0142 | LGO | 2006/09/18 |
| E   | LS06-0201 | HLE | 2006/11/29 |
| F   | LS07-0211 | HLE | 2007/08/16 |
| -   | -         | -   | -          |

## DIMENSIONS mm (inches)






GENERAL CHARACTERISTICS AND ROHS INFORMATIONS:

SEE DRAWING C-8609-0000A

| TIN LEAD                  | LEAD FREE                |                                                                     |
|---------------------------|--------------------------|---------------------------------------------------------------------|
| 8609 396 71 13 755 000 E1 | 8609 396 71 13 755 E1 LF | Style C header, 96 Position, solder to board, class 2               |
| 8609 396 71 13 765 000 E1 | 8609 396 71 13 765 E1 LF | Style C header, 96 Position, solder to board, class 1               |
| 8609 396 71 13 H55 000 E1 | 8609 396 71 13 H55 E1 LF | Style C header, 96 Position, solder to board, class 2, fixing clips |
| 8609 464 71 13 755 000 E1 | 8609 464 71 13 755 E1 LF | Style C header, 64 Position, solder to board, class 2               |
| 8609 464 71 13 765 000 E1 | 8609 464 71 13 765 E1 LF | Style C header, 64 Position, solder to board, class 1               |
| 8609 464 71 13 H55 000 E1 | 8609 464 71 13 H55 E1 LF | Style C header, 64 Position, solder to board, class 2, fixing clips |
| TIN LEAD                  | LEAD FREE                |                                                                     |
| 8609 396 71 13 745 000 E1 | 8609 396 71 13 745 E1 LF | Style C header, 96 Position, solder to board, class 3               |
| 8609 396 71 13 H45 000 E1 | 8609 396 71 13 H45 E1 LF | Style C header, 96 Position, solder to board, class 3, fixing clips |
| 8609 396 71 13 H65 000 E1 | 8609 396 71 13 H65 E1 LF | Style C header, 96 Position, solder to board, class 1, fixing clips |
| 8609 464 71 13 745 000 E1 | 8609 464 71 13 745 E1 LF | Style C header, 64 Position, solder to board, class 3               |
| 8609 464 71 13 H45 000 E1 | 8609 464 71 13 H45 E1 LF | Style C header, 64 Position, solder to board, class 3, fixing clips |
| 8609 464 71 13 H65 000 E1 | 8609 464 71 13 H65 E1 LF | Style C header, 64 Position, solder to board, class 1, fixing clips |

Application specific part-numbers: See sheet 2

European Views

|                                                                                       |           |            |                                                       |        |                                   |          |                                                                                                     |              |                                                                                             |  |
|---------------------------------------------------------------------------------------|-----------|------------|-------------------------------------------------------|--------|-----------------------------------|----------|-----------------------------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------------------|--|
| www.fciconnect.com                                                                    |           |            | surface<br>ISO 1302                                   |        | tolerance std<br>ISO 406 ISO 1101 |          | projection<br> |              | mm<br> |  |
|                                                                                       |           |            | TOLERANCES UNLESS OTHERWISE SPECIFIED                 |        |                                   |          |                                                                                                     |              |                                                                                             |  |
| Dr                                                                                    | ROUILLARD | 1992/05/05 | ANGULAR                                               | LINEAR | 0.X                               | ±0.1     | size<br>A3                                                                                          | Scale<br>1:1 |                                                                                             |  |
| Eng                                                                                   | TARON     | 1992/05/05 |                                                       |        | 0.XX                              | ±0.1     |                                                                                                     |              |                                                                                             |  |
| Chr                                                                                   | LEGARE    | 1992/05/05 |                                                       |        | 0.XXX                             | ±0.1     |                                                                                                     |              |                                                                                             |  |
| Appr                                                                                  | LEGARE    | 1992/05/05 | Product family                                        |        |                                   | DIN 8609 |                                                                                                     | Spec ref -   |                                                                                             |  |
|  |           |            | title<br>RIGHT ANGLE HEADER - STYL<br>SOLDER TO BOARD |        |                                   |          | no<br>C-8609-0250-1                                                                                 |              | Rev.<br>F                                                                                   |  |
|                                                                                       |           |            | catalog no                                            |        |                                   |          | -                                                                                                   |              | CUSTOMER sheet 1 of 1                                                                       |  |

| rev | ecn no    | dr  | date       |
|-----|-----------|-----|------------|
| C   | -         | LEL | 2002/08/28 |
| D   | L505-001  | JTA | 2005/03/02 |
| E   | L505-0056 | LGO | 2005/06/21 |
| F   | L506-0097 | LGO | 2006/07/11 |
| -   | -         | -   | -          |
| -   | -         | -   | -          |
| -   | -         | -   | -          |

