



(1,27 mm) .050"

SFM, SFML SERIES

SFM-110-02-L-D-A

SFML-125-T2-L-D-LC



SFM-125-02-L-SH

SFML-115-T2-L-D-LC



**SPECIFICATIONS**

For complete specifications and recommended PCB layouts see [www.samtec.com?SFM](http://www.samtec.com?SFM) or [www.samtec.com?SFML](http://www.samtec.com?SFML)

**Insulator Material:** Black Liquid Crystal Polymer  
**Contact Material:** Tiger Eye™= BeCu  
 Tiger Eye™ LITE= Phosphor Bronze  
**Plating:** Au or Sn over 50µ" (1,27 µm) Ni



**Voltage Rating:** 250 VAC mated with TFM  
**Operating Temp Range:** -55°C to +125°C  
**Contact Resistance:** 15 mΩ  
**Insertion Depth:** (3,05 mm) .120" to (4,06 mm) .160"  
**Wiping Distance:** (0,38 mm) .015"  
**Normal Force:** Standard= 132 g (1,29 N) avg.; LIF= 90 g (0,88 N) avg.  
**Insertion Force (SFM):** (Single contact only) Standard= 2.5 oz (0,69 N) avg.; LITE= 2.0 oz (0,56 N) avg.; LIF= 1.4 oz (0,39 N) avg.  
**Withdrawal Force (SFM):** (Single contact only) Standard= 2.0 oz (0,56 N) avg.; LITE= 1.5 oz (0,42 N) avg.; LIF= 1.0 oz (0,28 N) avg.  
**Insertion Force (SFML):** (Single contact only) 2.5 oz (0,69 N) avg.  
**Unmating Force (SFML):** Withdrawal force per contact (Single contact only)= 1.5 oz (0,42 N) average; Incremental unmatting force with friction locks: 10-20 pins/row (One Lock) increases withdrawal force by 4 x average; 25 & 30 pins/row (Two Locks) increases withdrawal force by 3 x average; 35-50 pins/row (Three Locks) increases withdrawal force by 1.7 x average

**Max Cycles:** 10,000 with 30µ" (0,76 µm) Au (Call Samtec for E.L.P. plating option)  
**RoHS Compliant:** Yes

**Processing:** Lead-Free Solderable: Yes  
**SMT Lead Coplanarity:** (0,10 mm) .004" max (05-25) (0,15 mm) .006" max (30-50)

**Note:** Some sizes, styles and options are non-standard, non-returnable.

**SFM Mates with:** TFM, TFSD, TFSS, FTS, FW, FTSH

**SFML Mates with:** TFML, TFSD (-XL option), TFSDT (-XL option)



Low insertion force Tiger Eye™ contacts available

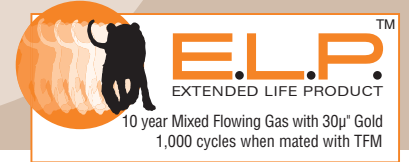
(1,27 mm x 1,27 mm) .050" x .050" micro pitch

Locking feature increases unmatting force (SFML)

Choice of SMT or through-hole tails

| CURRENT RATING (PER CONTACT) |         |
|------------------------------|---------|
| AMBIENT TEMP                 | TFM/SFM |
| 20°C                         | 5A      |
| 40°C                         | 4.5A    |
| 60°C                         | 3.9A    |
| 95°C                         | 2.6A    |

6 POSITIONS (2x3) POWERED



|                   |          |                         |                   |
|-------------------|----------|-------------------------|-------------------|
| <b>TYPE STRIP</b> | <b>1</b> | <b>NO. PINS PER ROW</b> | <b>LEAD STYLE</b> |
|-------------------|----------|-------------------------|-------------------|

**SFM**  
= Standard

**SFML**  
= Locking

**04**  
(SFM only)

**05, 07, 10, 15, 20, 25, 30, 35, 40, 45, 50**  
(Call Samtec or see SFMC Series for more sizes)

(Surface Mount)

**-02**  
= Tiger Eye™ Contact

**-L2**  
= Low Insertion Force Tiger Eye™ Contact

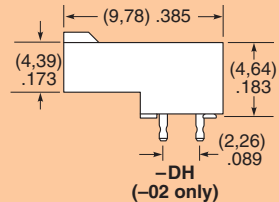
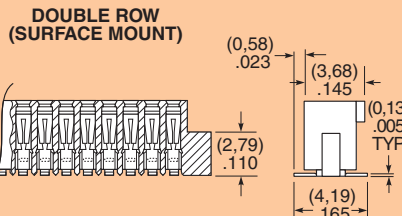
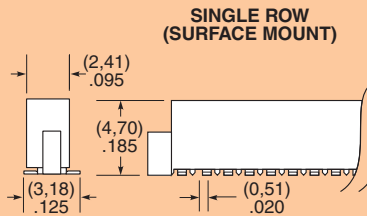
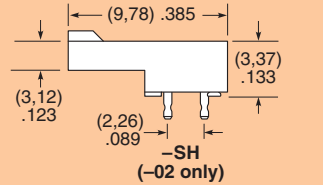
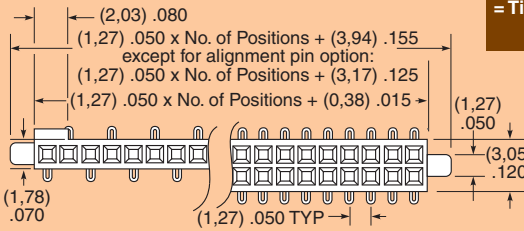
**-T2**  
= Tiger Eye™ LITE Contact (Phosphor Bronze)

(Through-hole)

**-01, -03**  
= Tiger Eye™ Contact

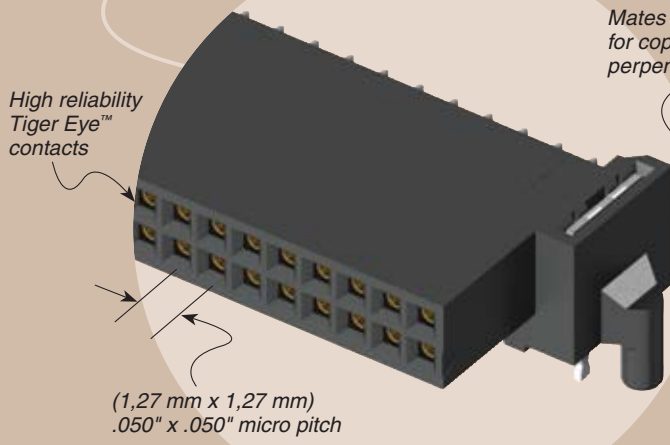
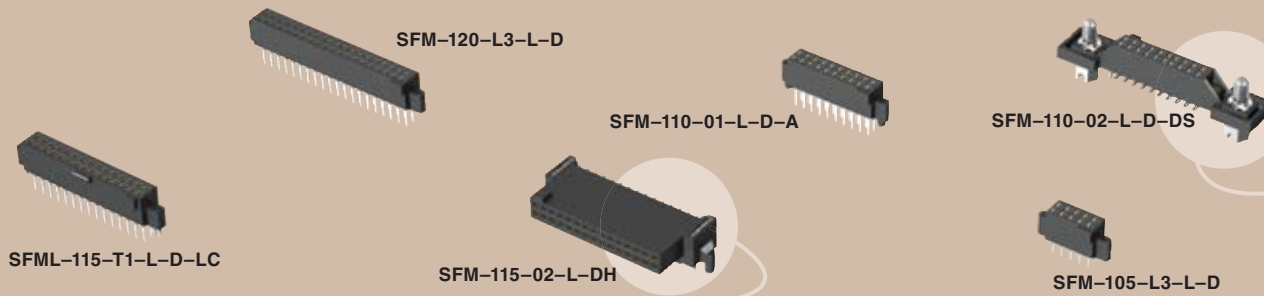
**-L1, -L3**  
= Low Insertion Force Tiger Eye™ Contact

**-T1**  
= Tiger Eye™ LITE Contact (Phosphor Bronze)

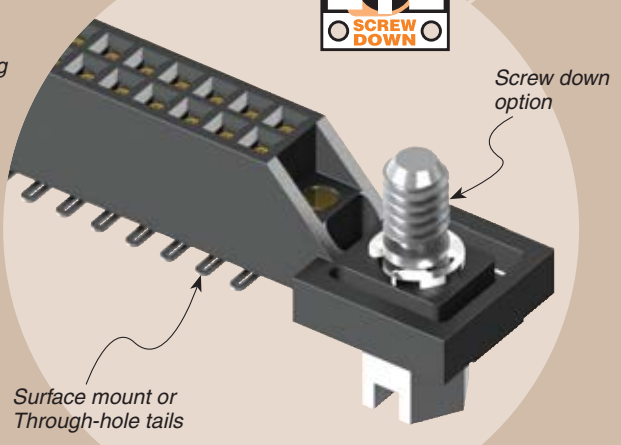


Due to technical progress, all designs, specifications and components are subject to change without notice.

[WWW.SAMTEC.COM](http://WWW.SAMTEC.COM)



Mates with TFM for coplanar and perpendicular mating



### COST-SAVING APPLICATIONS

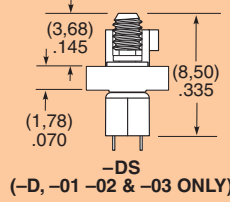
See SFC Series for lower cost plating options.

#### PLATING OPTION

**-L**  
= 10µ" (0,25 µm) Gold on contact, Matte Tin on tail  
(Call Samtec for E.L.P. plating option)

Note: Other Gold plating options available. Contact Samtec.

| LEAD STYLE    | A              | B              |
|---------------|----------------|----------------|
| -01, -L1, -T1 | (3,05)<br>.120 | (0,51)<br>.020 |
| -03, -L3      | (1,91)<br>.075 | (0,41)<br>.016 |



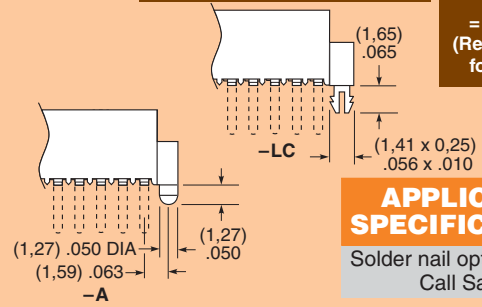
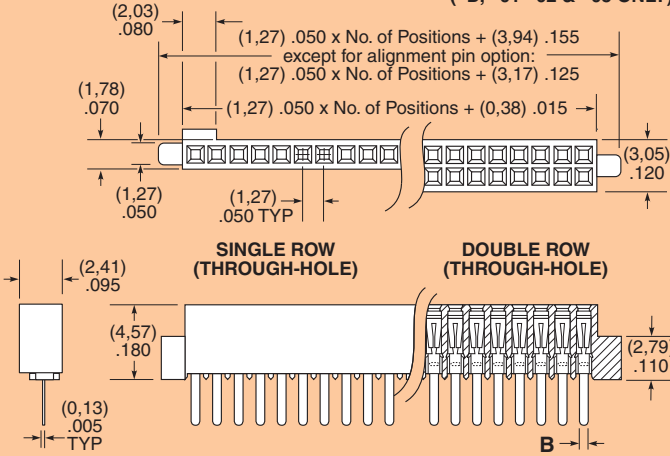
#### ROW OPTION

- S**  
= Single Row (SFM only)
- D**  
= Double Row
- SH**  
= Single Horizontal (05 thru 30 positions only) (SFM only) (Lead style -02 only)
- DH**  
= Double Horizontal (05 thru 30 positions only) (SFM only) (Lead style -02 only)

#### OPTION

- Specify only **-A**, **-LC** or **-DS** (Not available with **-DH**, **-SH**)
- A**  
= Alignment Pin (Available with all Lead Styles)
- LC**  
= Locking Clip (Available with all lead styles) (Manual placement required)
- DS**  
= Dual Screw Down for (1,60mm) .062" PCB (05 thru 40 positions only) (Lead styles -01, -02 & -03 only) (Requires **-D** row option) (Not available with SFML) (Mates with TFM-DS option)

- Specify only **-K** or **-P** (Lead styles -02, -L2, -T2 only)
- K**  
= Polyimide film Pick & Place Pad (Not available with **-DH**, **-SH**)
- P**  
= Plastic Pick & Place Pad (Not available with **-DH**, **-SH**)
- Specify **-TR** last (Lead styles -02, -L2, -T2 only)
- TR**  
= Tape & Reel (Required callout for **-DH**, **-SH**)



#### APPLICATION SPECIFIC OPTION

Solder nail option available. Call Samtec.

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