



**THE DATASHEET OF  
SFM-120-02-S-D-TR**



# RUGGED TIGER EYE™ SYSTEMS

(1.27 mm) .050" PITCH

MAX  
**3.7**  
A m p s

**8**  
G b p s

## FEATURES & BENEFITS

- Screw down, locking clip, friction latching and weld tab ruggedizing options
- Shrouded, polarized and keyed
- Surface mount or through-hole tails
- High-density, four row design (FOLC/MOLC Series)
- Discrete wire assemblies available in single or double row, 28 and 30 AWG PVC or \*Teflon™ Fluoropolymer (See pages 238-239). Contact [asp@samtec.com](mailto:asp@samtec.com) for custom solutions.
- Cable components (ISDF/CC03) and tooling available: [samtec.com/tooling](http://samtec.com/tooling)
- Severe Environment Testing qualified (SFM/TFM); aligns with MIL-DTL-55302. Visit [samtec.com/set](http://samtec.com/set)

\*Teflon™ is a trademark of The Chemours Company FC, LLC used under license by Samtec.

## KEY SPECIFICATIONS

SERIES	STACK HEIGHTS	INSULATOR MATERIAL	CONTACT MATERIAL	PLATING	OPERATING TEMP RANGE	CURRENT RATING	VOLTAGE RATING	MAX. CYCLES	LEAD-FREE SOLDERABLE
SFM/TFM	6 to 12 mm	Black LCP	BeCu (SFM) Phosphor Bronze (TFM)	Au or Sn over 50 μ" (1.27 μm) Ni	-55 °C to +125 °C	3.7A per pin (2 pins powered)	275 VAC	10,000 with 30 μ" (0.76 μm) Au	Yes
SFC/TFM	6 to 12 mm	Black LCP	Phosphor Bronze	Au or Sn over 50 μ" (1.27 μm) Ni	-55 °C to +125 °C	3.1 A per pin (2 pins powered)	350 VAC	(Call Samtec for E.L.P.™ plating option)	Yes

**TIGER™  
EYE**  
CONTACT



IDC cable assemblies with rugged strain relief (FFSD/FFMD, FFTP/FMTP)



Locking for increased unmating force (SFML/TFML)

**(1.27 mm) .050" PITCH • SMT/THROUGH-HOLE SOCKET**

SERIES	1	NO. PINS PER ROW	LEAD STYLE	PLATING OPTION	ROW OPTION	OPTIONS
<b>SFM</b> = Standard		<b>03, 04, 06, 08</b> (SFM only)	(Surface Mount) (Through-hole) <b>-02</b> = Tiger Eye™ Contact (BeCu) <b>-L2</b> = Low Insertion Force Tiger Eye™ Contact (BeCu) <b>-T2</b> = Tiger Eye™ LITE Contact (Phosphor Bronze)	<b>-L</b> = 10 μ" (0.25 μm) Gold on contact, Matte Tin on tail (Call Samtec for E.L.P.™ plating option)	<b>-S</b> = Single Row (SFM only) <b>-D</b> = Double Row <b>-SH</b> = Single Horizontal (05 thru 30 positions only) (SFM only) (Lead style -02 only) <b>-DH</b> = Double Horizontal (05 thru 30 positions only) (SFM only) (Lead style -02 only)	Specify only -A, -LC or -DS (Not available with -DH, -SH) <b>-A</b> = Alignment Pin <b>-LC</b> = Locking Clip (Manual placement required) <b>-DS</b> = Dual Screw Down for (1.60 mm) .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) (Not available with -A, -LC, -K, -P, -XR) Specify only -K or -P (Lead styles -02, -L2, -T2 only) <b>-K</b> = Polyimide film Pick & Place Pad (Not available with -DH, -SH) <b>-P</b> = Plastic Pick & Place Pad (Not available with -DH, -SH) Specify -TR or -FR last; Required for -DH & -SH. (Lead styles -02, -L2 & -T2 only) <b>-TR</b> = Tape & Reel <b>-FR</b> = Full Reel Tape & Reel (must order max. quantity per reel; contact Samtec for quantity breaks)
<b>SFML</b> = Locking		<b>05, 07, 10, 15, 20, 25, 30, 35, 40, 45, 50</b> (Standard sizes)	<b>-01, -03</b> = Tiger Eye™ Contact (BeCu) <b>-L1, -L3</b> = Low Insertion Force Tiger Eye™ Contact (BeCu) <b>-T1</b> = Tiger Eye™ LITE Contact (Phosphor Bronze)			

**SFM**  
Board Mates:  
TFM  
Cable Mates:  
TFSD, TFSS

**SFML**  
Board Mates:  
TFML  
Cable Mates:  
TFSD



**SINGLE ROW**



**DOUBLE ROW**

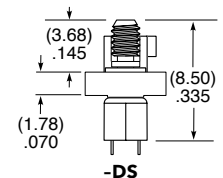
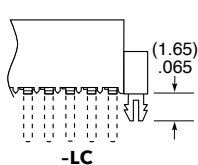
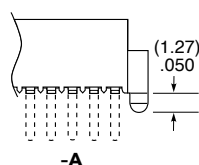
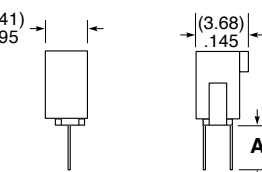
LEAD STYLE	A	B
-01, -L1, -T1	(3.05) .120	(0.51) .020
-03, -L3	(1.91) .075	(0.41) .016



**SURFACE MOUNT**



**THROUGH-HOLE**





**Notes:**  
Severe Environment Testing qualified (SFM); aligns with MIL-DTL-55302. Visit [samtec.com/set](http://samtec.com/set)

Some lengths, styles and options are non-standard, non-returnable.

View complete specifications at: [samtec.com?SFM](http://samtec.com?SFM) & [samtec.com?SFML](http://samtec.com?SFML)

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

-  [View SFM-120-02-S-D-TR on WIN SOURCE](#)
-  [Samtec Inc. Information](#)

## Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management