



# THE DATASHEET OF TFM-120-02-S-D-A-P-TR

# RUGGED TIGER EYE™ SYSTEMS

(1.27 mm) .050" PITCH

MAX  
**3.7**  
A m p s

**8**  
G b p s

## FEATURES & BENEFITS

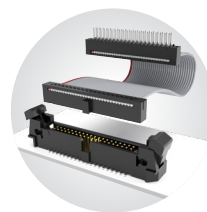
- Screw down, locking clip, friction latching and weld tab ruggedizing options
- Shrouded, polarized and keyed
- Surface mount or through-hole tails
- High-density, four row design (FOLC/MOLC Series)
- Discrete wire assemblies available in single or double row, 28 and 30 AWG PVC or \*Teflon™ Fluoropolymer (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.

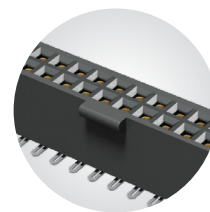
## KEY SPECIFICATIONS

| 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)<br>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/TFC | 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)

| SERIES | 1 | NO. PINS PER ROW | LEAD STYLE | PLATING OPTION | ROW OPTION | OPTIONS |
|--------|---|------------------|------------|----------------|------------|---------|
|--------|---|------------------|------------|----------------|------------|---------|

**TFM**  
= Standard

**TFML**  
= Locking  
(-01 & -02 lead style only)

**03, 04,  
06, 08**  
(TFM -01 & -02 only)

**05, 07,  
10, 15, 20,  
25, 30, 35,  
40, 45, 50**  
(Standard sizes)

**Specify LEAD STYLE from chart**

**-L**  
= 15  $\mu$ "  
(0.38  $\mu$ m)  
Gold on post,  
Matte Tin on tail  
(Call Samtec for E.L.P.<sup>™</sup> plating option)

**-S**  
= Single Row  
(TFM only)

**-D**  
= Double Row

**-DH\***  
= Double Horizontal  
(TFM lead style -02 only)  
(05 thru 50 positions only)  
(-TR or -FR option only available)

Specify only -RA, -RE1 or -RE2

**-RA**  
= Right-angle  
(Lead style -01 only)

**-RE1**  
= Right-angle  
Elevated for  
(1.60 mm) .062" PCB  
(Requires TFM lead style -01, -D row and -WT)

**-RE2**  
= Right-angle  
Elevated for  
(2.36 mm) .093" PCB  
(Requires TFM lead style -01, -D row and -WT)

Specify only -A, -LC, -DS or -WT  
Not available with -RA, -RE1 and -RE2 unless otherwise noted.

**-A**  
= Alignment Pin

**-LC**  
= Locking Clip  
(Manual Placement required)

**-DS**  
= Dual  
Screw Down for (1.60 mm) .062" PCB  
(05, 07, 10, 15, 20, 25, 30, 35, 40 positions only)  
(TFM lead styles -01 and -02 only)  
(Requires -D row option)  
(Mates with SFM-DS option and SFSD/SFSDT -SS and -DS option only)  
(Not available with -A, -LC, -WT, -K, -P, -XR)

**-WT**  
= Weld Tab  
(TFM lead styles -01 and -02 only)  
(Required callout for -RE1 & -RE2)  
(Mates to SFSS/SFSD -SR and -DR option only)  
(05, 07, 10, 15, 20, 25, 30, 35, 40, 45, 50 positions only)

SMT lead styles only  
Specify only -K or -P

**-K**  
= Polyimide Film  
Pick & Place Pad

**-P**  
= Plastic Pick & Place Pad  
(5 positions min.)  
(Not available with 5 position with -WT)

Specify -TR or -FR last  
(Not available with -DS)

**-TR**  
= Tape & Reel

**-FR**  
= Full Reel  
Tape & Reel  
(must order max. quantity per reel; contact Samtec for quantity breaks)

## TFM

Board Mates:

SFM, SFMC

Cable Mates:

SFSD, SFSS

## TFML

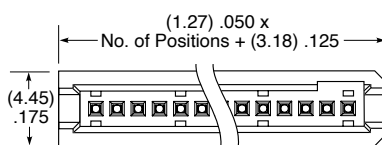
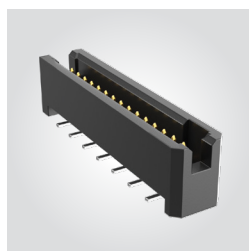
Board Mates:

SFML

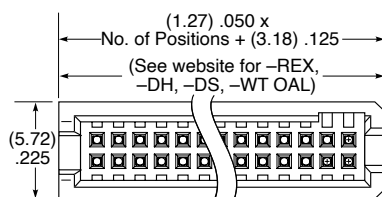
Cable Mates:

SFSD,

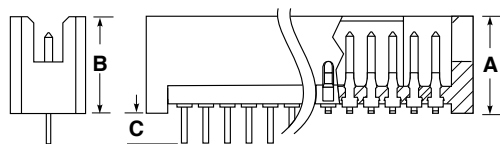
TFSD (-T end option)



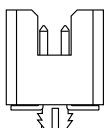
**SINGLE ROW**



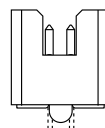
**DOUBLE ROW**



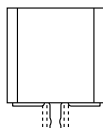
**THROUGH-HOLE SURFACE MOUNT**



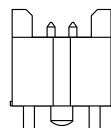
**-LC**



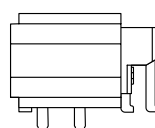
**-A**



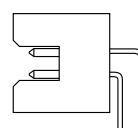
**-WT**



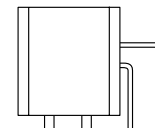
**-DS**



**-DH\***



**-RA**



**-RE1 & -RE2**

## Notes:

Severe Environment Testing qualified (TFM); 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?TFM](http://samtec.com?TFM) & [samtec.com?TFML](http://samtec.com?TFML)

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

Click below to explore more details on WIN SOURCE:

- ⊖ View [TFM-120-02-S-D-A-P-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
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