



**THE DATASHEET OF
TFM-105-02-S-D-WT-K-TR**



RUGGED TIGER EYE™ SYSTEMS

(1.27 mm) .050" PITCH

MAX
3.7
A m p s

8
G b p s

FEATURES & BENEFITS

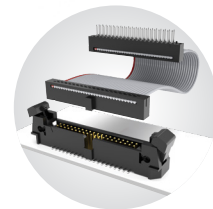
- Screw down, locking clip, friction latching and weld tab ruggedizing options
- Shrouded, polarized and keyed
- Surface mount or through-hole tails
- High-density, four row design (FOLC/MOLC Series)
- Discrete wire assemblies available in single or double row, 28 and 30 AWG PVC or *Teflon™ Fluoropolymer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

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

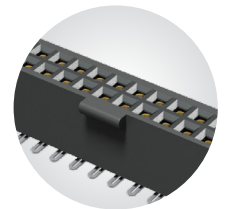
KEY SPECIFICATIONS

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/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)

(1.27 mm) .050" • SMT/THROUGH-HOLE HEADER

SERIES	1	NO. PINS PER ROW	LEAD STYLE	PLATING OPTION	ROW OPTION	OPTIONS
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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 μm (0.38 μm)
Gold on post, Matte Tin on tail (Call Samtec for E.L.P.™ 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)

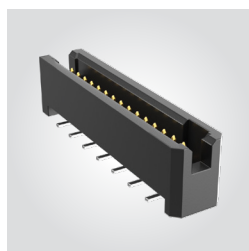
Specify -TR or -FR last (Not available with -DS)

-TR
= Tape & Reel

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

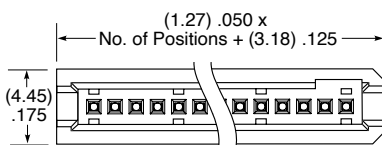
TFM

Board Mates: SFM, SFMC
Cable Mates: SFSD, SFSS

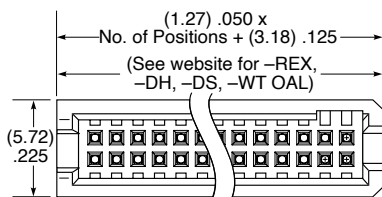


TFML

Board Mates: SFML
Cable Mates: SFSD, TFSD (-T end option)



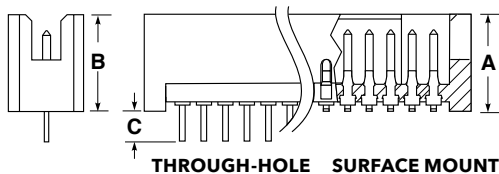
SINGLE ROW



DOUBLE ROW

MATED HEIGHTS*		
LEAD STYLE (SMT)		MATED HEIGHT*
TFM	SFM	
-02	-02	(6.35) .250
-12		(8.13) .320
-22		(9.91) .390
-32		(11.81) .465
LEAD STYLE (T/H)		MATED HEIGHT*
TFM	SFM	
-01	-01	(5.97) .235
-03		(5.97) .235
-11		(7.75) .305
-13		(7.75) .305
-21		(9.53) .375
-23		(9.53) .375
-31		(11.43) .450

*Processing conditions will affect mated height.



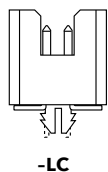
THROUGH-HOLE SURFACE MOUNT

LEAD STYLE (SMT)	A
-02	(5.72) .225
-12*	(7.49) .295
-22*	(9.27) .365
-32*	(11.18) .440

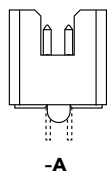
* N/A with 07, -DH or -S row option

LEAD STYLE (T/H)	B	C
-01	(5.59) .220	(1.97) .078
-03*	(5.59) .220	(2.77) .109
-11*	(7.37) .290	(1.97) .078
-13*	(7.37) .290	(2.77) .109
-21*	(9.14) .360	(1.97) .078
-23*	(9.14) .360	(2.77) .109
-31*	(11.05) .435	(1.97) .078

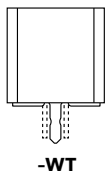
* Not Available with 07 or -S row option



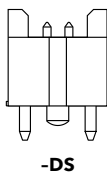
-LC



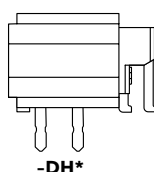
-A



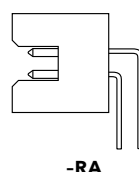
-WT



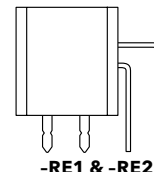
-DS



-DH*



-RA



-RE1 & -RE2

Notes:

Severe Environment Testing qualified (TFM); aligns with MIL-DTL-55302. Visit samtec.com/set

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

View complete specifications at: samtec.com?TFM & samtec.com?TFML

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- ⊖ [View TFM-105-02-S-D-WT-K-TR on WIN SOURCE](#)
- ⊖ [Samtec Inc. Information](#)

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