

# Tip Connection Joints

## Threaded Type

**Tip Connection Joints – Threaded Type**

Type		Material	Surface Treatment	Hardness
Threaded	Threaded, F Configurable			
TCMJ	TCMJF	1045 Carbon Steel or Equivalent	Hard Chrome Plating Plating Thickness: 3µm or more	750 HV min.
TCMSA	TCMSAF	O1 Tool Steel Equivalent	—	53–58 HRC min.
TCMJS	TCMJSF	304 Stainless Steel	—	—

**Threaded**

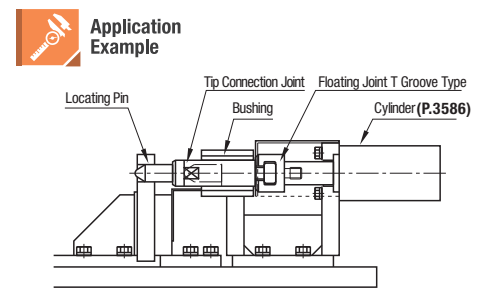
**Threaded, F Configurable**

Part Number	Type	L Specify in 1 mm Increment	M (Coarse) Selection				*Selection only for F Configurable 1 mm Increment		h	D <sub>1</sub>	D <sub>2</sub>	T	W	ℓ <sub>1</sub>	Thread Details			
			3	4	5	6	F	B							M (Coarse)	Pitch	F Standard	(g) Standard
TCMJ TCMSA TCMJS	Threaded	8	10–100	3	4	5	6	4=ℓ <sub>1</sub> ≤Mx5	4	4	7	4	7	5	3	0.5	5.6	2
		10	10–100	4	5	6	8								4	0.7	6.8	2.5
		12	15–150	5	6	8	10								5	1.0	9.7	
TCMJF TCMSAF TCMJSF	Threaded, L Configurable	16	15–150	6	8	10	12	When M=8 & 10 ℓ <sub>1</sub> ≤F-3	5	6	10	5	10	7	6	1.25	12.6	3
		20	20–200	8	10	12	14								6	1.5	15	
		25	25–200	10	12	14	16								20	2.0	20.8	4
		25	25–200	10	12	14	16								20	2.5	28	

**Part Number Example**  
 Part Number - L - M - F - B  
 TCMJ10 - 80 - M6  
 TCMSAF20 - 200 - M16 - F45 - B35

**Part Number Example**  
 Part Number - L - M - F - B - (PMC)  
 TCMJS16 - 55 - M10 - PMC

Alterations	Code	Spec.										
	PMC	Changes the thread to fine thread. ⚠ Alteration is available for M10, 14, 16 and 20 only. Ordering Code: PMC										
		<table border="1"> <thead> <tr> <th>M</th> <th>Pitch</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>1.25</td> </tr> <tr> <td>14</td> <td>1.5</td> </tr> <tr> <td>16</td> <td>1.5</td> </tr> <tr> <td>20</td> <td>1.5</td> </tr> </tbody> </table>	M	Pitch	10	1.25	14	1.5	16	1.5	20	1.5
M	Pitch											
10	1.25											
14	1.5											
16	1.5											
20	1.5											



M	Available Types																	
	Threaded						Threaded, L Configurable						Tapped					
	TCMJ	TCMSA	TCMJS	TCMJF	TCMSAF	TCMJSF	TCJ	TCJSA	TCJS	TCMJ	TCMSA	TCMJS	TCMJF	TCMSAF	TCMJSF	TCJ	TCJSA	TCJS
8	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
10	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
12	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
16	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
20	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
25	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

# Floating Connectors

## Miniature / Screw-In / Flange Mounting Type

**Floating Connectors – Miniature Type**

**FLCM Standard Type**

	Material	Accessories
Main Body	Refer to P.3634	Hex Nut
Thread	304 Stainless Steel	(Trivalent Bright Chromate)

Part Number	Type	M-Pitch	ℓ	ℓ <sub>1</sub>	ℓ <sub>2</sub>	ℓ <sub>3</sub>	L	T	D	B	B <sub>1</sub>	B <sub>2</sub>	(C)	(C <sub>1</sub> )	(C <sub>2</sub> )	Allowable Misalignment U	Working Load kgf (N)	Mass (g)		
FLCM		3-0.5	4.5	8	8	3	12	1.8	11	11	5.5	5.5	12.7	6.4	6.4	0.5	~1.9 (19)	8		
		4-0.7	6	10	10	4	17	2.4	14	14	7	7	16.2	8.1	8.1				~5.4 (53)	9
		5-0.8	6	11	12.5	4	17	3.2	14	14	8	6	16.2	9.2	7				~12.3 (121)	21
		6-1.0	6	14	15.5	4	17	3.6	14	14	10	6	16.2	11.5	7				~12.3 (121)	22

⚠ Excessively (6 mm or more) tightening the screw (Tapped) might prevent the ball inside from moving.

**Floating Connectors – Screw-In Type**

**FLCT M8-M12**

**M14-M26**

	Material	Surface Treatment	Accessories (M14-M26 Only)
Main Body	Refer to P.3634	Trivalent Bright Chromate	Hex Nut (Trivalent Bright Chromate)
Thread	1018 Carbon Steel or Equivalent		
Mounting Part	(M8-M12) Low Carbon Steel (M22, 26) Cast Iron Class No.30 Equivalent	Manganese Phosphate Coating Treatment	

⚠ Thread for M8-M12 has no surface treatment.

Part Number	Type	M-Pitch	ℓ	ℓ <sub>1</sub>	ℓ <sub>2</sub>	ℓ <sub>3</sub>	L	D	B	B <sub>1</sub>	(C)	Allowable Misalignment U	Working Load kgf (N) For Push and Pull	Mass (kg)
FLCT		8-1.0	8	6			30	30	14	13	16.2	0.5	~60 (588)	0.12
		10-1.25	10	9	12	3	36	36	19	17	22	0.75	~120 (1177)	0.19
		12-1.5	10	9	12	3	36	36	19	19	22	0.75	~120 (1177)	0.20
		14-1.5	13	14			49	45	23	23	26.6	1	~540 (5296)	0.40
		16-1.5	13	14	24	6	59	45	23	23	26.6	1	~540 (5296)	0.40
		18-1.5	15	24			75	61	35	29	40.4	1.10	~780 (7644)	1.10
		22-1.5	22	31.5	32	11.5	84	69	41	35	47.3	1.5	~1380 (13524)	1.80
		26-1.5	22	33	42	15	84	69	41	35	47.3	1.5	~1380 (13524)	1.80

**Floating Connectors – Flange Mounting Type**

**FLCF M8-M12**

**M14-M26**

	Material	Surface Treatment
Main Body	Refer to P.3634	Trivalent Bright Chromate
Thread	1018 Carbon Steel or Equivalent	
Mounting Part	(M8-M12) Low Carbon Steel (M14-M26) Cast Iron Class No.30 Equivalent	Manganese Phosphate Coating Treatment

Part Number	Type	M-Pitch	ℓ	ℓ <sub>1</sub>	ℓ <sub>2</sub>	t	L	D	d	A	P	(Q)	B	(C)	Allowable Misalignment U	Working Load kgf (N) For Push and Pull	Mass (kg)	
FLCF		8-1.0	8	6	6		36.5	30	5.5		40	10	14	16.2	0.5	~60 (588)	0.14	
		10-1.25	10	9	7	3	43.5	36	6.5		48	14	19	22	0.75	~120 (1177)	0.20	
		12-1.5	10	9	7	3	43.5	36	6.5		48	14	19	22	0.75	~120 (1177)	0.20	
		14-1.5	13	14			54	49	7	60	43			23	26.6	1	~540 (5296)	0.54
		16-1.5	13	14			64	49	7	60	43			29	33.5	1	~540 (5296)	0.60
		18-1.5	15	24			78.5	61	9	76	55			35	40.4	1.10	~780 (7644)	1.10
		22-1.5	22	31.5			88	69	11	90	64			41	47.3	1.5	~1380 (13524)	1.80
		26-1.5	22	33			88	69	11	90	64			41	47.3	1.5	~1380 (13524)	1.80