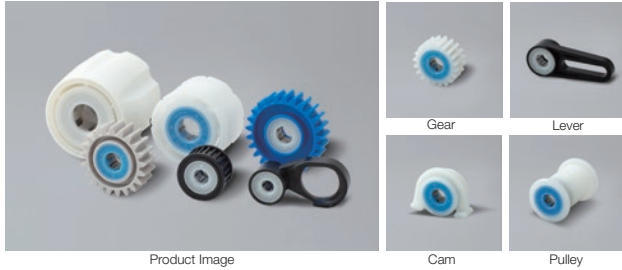




The TCM type clutches must be sold in combination with customized housings. (The clutch elements cannot be sold separately.)



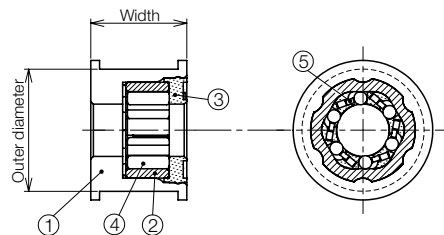
Features

- Various shapes of housings such as gears, pulleys, levers, cams, etc. can be manufactured.
- Shafts with wide tolerances can be used, which can be expected to reduce the cost of shafts.
- No clutch disengagement over time due to snap-fit fixation of housing and clutch.
- Locking direction can be identified by the color of the retainer.
- Maintenance-free products that do not require additional lubrication.
- Custom torque limiters with one-way clutches can also be manufactured.

Standard specifications

Application Shaft [mm]	Allowable Torque [N·m] (lbf·in)	Free Torque [mN·m] (lbf·in)	Backlash [°]	Locking Direction (Shaft fixed)	Model No.
Φ3 ⁰ _{-0.025}	0.08 (0.71)	2.94 [≥] (0.026) [≥]	5.0 [≥]	CCW	TCM-310-B
				CW	TCM-310-RB
Φ4 ⁰ _{-0.03}	0.18 (1.59)	2.94 [≥] (0.026) [≥]	5.0 [≥]	CCW	TCM-412-6-B
				CW	TCM-412-6-RB
Φ5 ⁰ _{-0.03}	0.29 (2.57)	2.94 [≥] (0.026) [≥]	5.0 [≥]	CCW	TCM-513-B
				CW	TCM-513-RB
Φ6 ⁰ _{-0.03}	0.34 (3.01)	3.92 [≥] (0.035) [≥]	2.5 [≥]	CCW	TCM-613-B-No.14
				CW	TCM-613-RB-No.14
				CCW	TCM-614-AB
				CW	TCM-614-ARB
				CCW	TCM-616-AB
				CW	TCM-616-ARB
Φ6.35 ⁰ _{-0.03}	0.59 (5.22)	2.94 [≥] (0.026) [≥]	2.5 [≥]	CCW	TCM-6.35-B
				CW	TCM-6.35-RB
Φ8 ⁰ _{-0.036}	0.64 (5.66)	2.94 [≥] (0.026) [≥]	2.5 [≥]	CCW	TCM-816-AB
				CW	TCM-816-ARB
				CCW	TCM-818-AB
				CW	TCM-818-ARB
Φ10 ⁰ _{-0.036}	0.98 (8.67)	2.94 [≥] (0.026) [≥]	2.5 [≥]	CCW	TCM-1022-AB
				CW	TCM-1022-ARB

Components



Components and materials

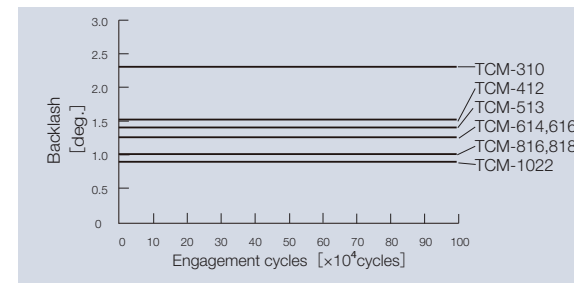
① Housing	Plastic (POM) /recommendation
② Outer sleeve	Iron-based sintering
③ Retainer	Plastic (POM)
④ Needle	Bearing steel
⑤ Spring	Stainless steel

Housing design

Inner Diameter [mm]	Outer Diameter [mm]	Width [mm]	Model No.
Φ3 ^{+0.08} _{+0.02}	Φ10 [≤]	8 [≤]	TCM-310-B
			TCM-310-RB
Φ4 ^{+0.08} _{+0.02}	Φ12 [≤]	8.5 [≤]	TCM-412-6-B
			TCM-412-6-RB
Φ5 ^{+0.08} _{+0.02}	Φ13 [≤]	8.5 [≤]	TCM-513-B
			TCM-613-B-No.14
			TCM-613-RB-No.14
Φ6 ^{+0.08} _{+0.02}	Φ14 [≤]	8.5 [≤]	TCM-614-AB
			TCM-614-ARB
			TCM-616-AB
Φ6.35 ^{+0.08} _{+0.02}	Φ15 [≤]	10 [≤]	TCM-616-ARB
			TCM-635-B
			TCM-635-RB
Φ8 ^{+0.08} _{+0.02}	Φ16 [≤]	8.5 [≤]	TCM-816-AB
			TCM-816-ARB
Φ8 ^{+0.08} _{+0.02}	Φ18 [≤]	8.5 [≤]	TCM-818-AB
			TCM-818-ARB
Φ10 ^{+0.08} _{+0.02}	Φ22 [≤]	8.5 [≤]	TCM-1022-AB
			TCM-1022-ARB

Product specifications

Durability



- Engagement cycles : 240 times / min
- Oscillation angle : 30°
- Radial load : 9.8N (1kgf)
- Shaft material : Carbon tool steel
- Shaft tolerance : Same as the application shaft
- Surface hardness : 700Hv_{0.1} or more

Operation temperature

0 ~60°C (32~140°F)

Recommended shaft

Material	Bearing steel • stainless steel • carbon tool steel
Surface hardness	600 ~ 800Hv _{0.1} Effective hardening layer 0.1 mm or more Plating deprecated
Shaft Diameter	Refer to the standard specifications

Recommended shaft specifications are published on the web.





The TCJ type clutches can also be sold in combination with customized housings.

Features

- Can be press-fitted into housings of various shapes such as gears, pulleys, levers, cams, etc.
- Shafts with wide tolerances can be used, which can be expected to reduce the cost of shafts.
- No need to prepare bearings (built-in sintered bearings)
- Compact, high-torque, usable in high-temperature environments. (Permissible upper temperature limit: 140°C / 284°F.)
- Maintenance-free products that do not require additional lubrication.



Product image

※ 1
The inserted direction determines the locking direction.



Locking direction CCW

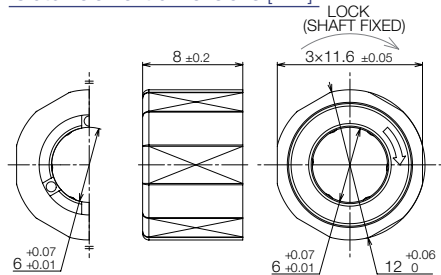


Locking direction CW

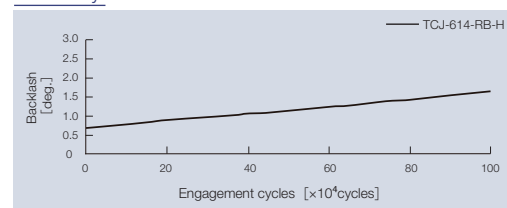
Standard specifications

Application shaft [mm]	Allowable torque [N·m] (lb·in)	Free torque [mN·m] (lb·in)	Backlash [°]	Locking direction (Shaft Fixed)	Product name
Φ6 ⁰ / _{-0.03}	0.78(6.90)	2.94 (0.026) or less	2.5 or less	※ 1	TCJ-614-RB-H

Clutch element dimensions [mm]



Durability



Engagement cycles : 240 times / min
Oscillation angle : 30°
Radial load : 9.8N (1kgf)
Shaft material : Carbon tool steel
Shaft tolerance : Same as the application shaft
Surface hardness : 700Hv 0.1 or more

Components and materials

Outer sleeve	Hardened steel
Retainer	Super engineering plastic
Needle	Bearing steel
Spring	Stainless steel
Cap	Copper sintering

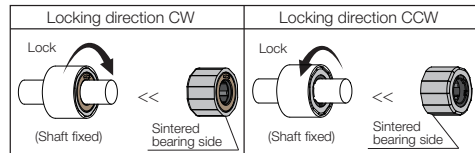
Operation temperature

0-140°C (32-284°F)

Recommended shaft

Material	Bearing steel · stainless steel · carbon tool steel
Surface hardness	600 ~ 800Hv 0.1 Effective hardening layer 0.1 mm or more Plating deprecated
Shaft Diameter	Refer to the standard specifications

Recommended shaft specification



Housing design [mm]

※Material: POM recommended.

Outer diameter	Φ14 ≤
Width	8 ≤
Inner diameter	Φ6 ^{+0.08} / _{+0.02}

(When the housing has an inner diameter, a minimum width of 9 is required.)

Assembly

Can be offered in combination with housing.



Clutch element

Combination with housing

TOK, Inc.

1-17-12, Azusawa, Itabashi, Tokyo, 174-8501, Japan
Tel +81-3-3969-1584 Web tok-inc.com/en

CAD data download



The TCK type clutches can also be sold in combination with customized housings.

Features

- Can be press-fitted into housings of various shapes such as gears, pulleys, levers, cams, etc.
- Shafts with wide tolerances can be used, which can be expected to reduce the cost of shafts.
- Maintenance-free products that do not require additional lubrication.
- Compact design.



Product image



TCK-614-B-C

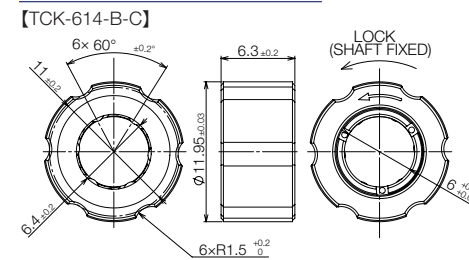


TCK-614-RB-C

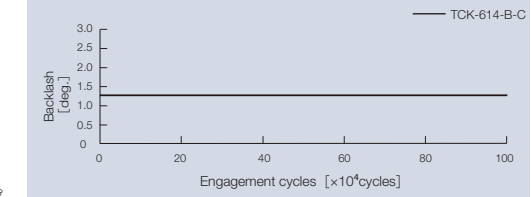
Standard specifications

Application shaft [mm]	Allowable torque [N·m] (lb·in)	Free torque [mN·m] (lb·in)	Backlash [°]	Locking direction (Shaft Fixed)	Product name
Φ6 ⁰ / _{-0.03}	0.59 (5.22)	2.94 (0.026) or less	2.5 or less	CCW	TCK-614-B-C
				CW	TCK-614-RB-C

Clutch element dimensions [mm]



Durability



Engagement cycles : 240 times / min
Oscillation angle : 30°
Radial load : 9.8N (1kgf)
Shaft material : Carbon tool steel
Shaft tolerance : Same as the application shaft
Surface hardness : 700Hv 0.1 or more

Components and materials

Outer sleeve	Iron-based sintering
Retainer	Super engineering plastic
Needle	Bearing steel
Spring	Stainless steel
Cap	Stainless steel

Housing design [mm]

※Material: POM recommended.

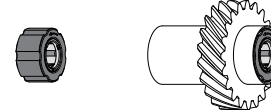
Outer diameter	Φ14 ≤
Width	7.3 ≤
Inner diameter	Φ6 ^{+0.08} / _{+0.02}

Operation temperature

0-60°C (32-140°F)

Assembly

Can be offered in combination with housing.



Clutch element

Combination with housing

Recommended shaft

Material	Bearing steel · stainless steel · carbon tool steel
Surface hardness	600 ~ 800Hv 0.1 Effective hardening layer 0.1 mm or more Plating deprecated
Shaft Diameter	Refer to the standard specifications

Recommended shaft specification



CAD data download



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