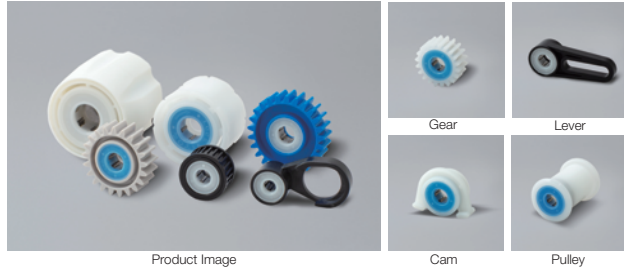




The TCM type clutches must be sold in combination with customized housings. (The clutch elements cannot be sold separately.)



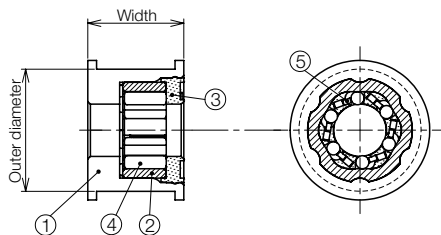
Features

- 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
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
Φ6.35 ⁰ _{-0.03}	0.59 (5.22)	2.94 [≥] (0.026) [≥]	2.5 [≥]	CCW	TCM-616-AB
				CW	TCM-616-ARB
Φ8 ⁰ _{-0.036}	0.64 (5.66)	2.94 [≥] (0.026) [≥]	2.5 [≥]	CCW	TCM-635-B
				CW	TCM-635-RB
Φ10 ⁰ _{-0.036}	0.78 (6.90)	2.94 [≥] (0.026) [≥]	2.5 [≥]	CCW	TCM-816-AB
				CW	TCM-816-ARB
Φ10 ⁰ _{-0.036}	0.98 (8.67)	2.94 [≥] (0.026) [≥]	2.5 [≥]	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

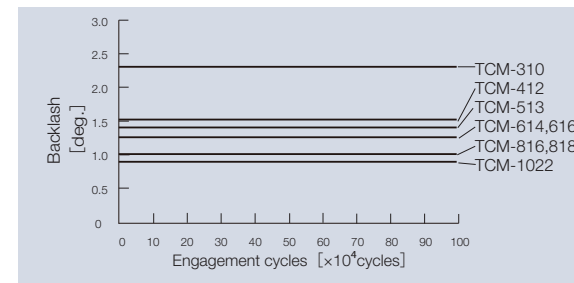
① Housing	Plastic (POM) /recommendation
② Outer sleeve	Iron-based sintering
③ Retainer	Plastic (POM)
④ Needle	Bearing steel
⑤ Spring	Stainless steel

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 [≤]	8.5 [≤]	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.

