CAT. No. MT009

Origin

Our Technologies Realize Your Dreams

Torque limiter C type

RoHS Compliant

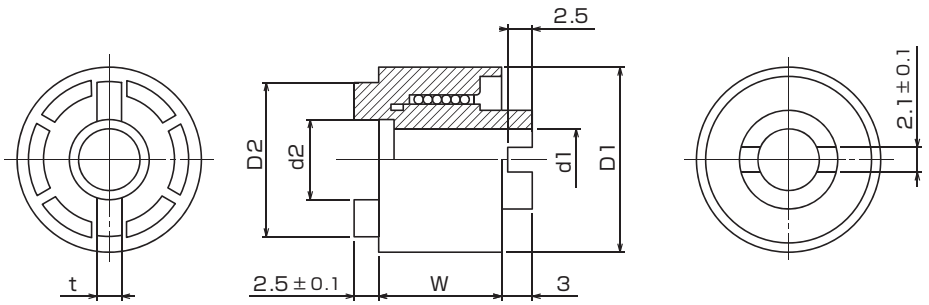
Torque limiters are also called slipping clutches, and are a mechanical component that is mainly used in the paper feed mechanisms of office equipment such as printers and photocopiers.
C-type torque limiters have a structure with a coil spring press fitted onto the outer circumference surface of an inner ring that uses the friction force between the two components to limit the torque transmitted from the input side (drive side) to the output side (follower side).

01 Specifications for the Standard Models

Naming and auxiliary symbols

Collective name	Bore	Nominal torque	Type
Torque limiter C type	**6–**	**500**	**B**
OTLC type	• **6**=Bore ϕ6 • **8**=Bore ϕ8	Example • **500**=500 gf·cm (49.0 mN·m) • **4000**=4000 gf·cm (392 mN·m)	Indicates shape and dimensions of torque limiter. • **A**=A type • **B**=B type • **C**=C type

Dimensions



Unit=mm

Nominal Number	Dimension						Allowable speed
				Joint Section			
	Bore $d_1{}^{+0.10}_{0}$	Outside dia. $D_1{}^{+0.10}_{-0.20}$	Width W_1	Bore $d_2{}^{+0.10}$	Outside dia. $D_2{}^{0}_{-0.2}$	Width $t{}^{0}_{-0.1}$	(rpm.)
OTLC6-□□□A	6	16	(10)	7	13	2.5	400
OTLC6-□□□□B	6	18	(12)	8.3	15	2.5	400
OTLC8-□□□□B	8	18	(12)	8.3	15	2.5	400
OTLC6-□□□□C	6	20	(15.5)	8.3	17	4	50
OTLC8-□□□□C	8	20	(15.5)	8.3	17	4	50

Note) ·The four squares shown above indicate a nominal torque value for the torque limiter in the unit of gf·cm.
·Three digits may be possible when a nominal torque value is 88.2mN·m(900gf·cm) or less.

Setting torque value according to type

Type	Unit	Torque setting range (Standard models)	Standard torque value
Type A (ϕ6 bore)	N·m	9.81 to 29.4 mN·m	4.90 mN·m Steps
	gf·cm	100 to 300 gf·cm	50 gf·cm Steps
Type B (ϕ6 or ϕ8 bore)	N·m	29.4 to 98.1 mN·m	9.81 mN·m Steps
	gf·cm	300 to 1000 gf·cm	100 gf·cm Steps
Type C (ϕ6 or ϕ8 bore)	N·m	98.1 to 392 mN·m	9.81 mN·m Steps
	gf·cm	1000 to 4000 gf·cm	100 gf·cm Steps

Note) ·Please consult us if your applications are outside of the range specified in the above table.

02 Features

1. Slips in both rotating directions
   Used for turning in both directions (clockwise and counter-clockwise). A one-direction type can also be supported, please consult us if you are planning to use it as such.
2. Compact size and light weight
   Outside diameter : ϕ16mm, weight : 5gw for OTLC Type A.
3. Wide torque setting range
   A standard setting torque of from 9.8 to 392mN·m (100 to 4000gf·cm) can be supported.
   Please consult us if you require other torque volumes.
4. Used under the wide range of environmental conditions.
   Operation condition : 0℃ to +60℃, 90%RH
5. Easy to fit
   Use the straight pin or dedicated spring pin as recommended by our company to prevent rotation.
   If you are using the straight pin, it does not need to be press fitted into the axle (shaft). (It can be free fitted.)
   The slot in the inner ring prevents the pin from falling out.

03 Reliability

Type	Torque control range on shipment	Torque fluctuation range of upto 1.0×10^6
All Types (Type A to Type C)	Within ±10% of nominal torque value	Within ±15% of nominal torque value

Note) ·Torque fluctuation range upto 1.0×10^6 rotations can only be applied when it is used within allowable speed and in ambient temperature.
·Please consult us if the total rotation exceeds 1.0×10^6 or operation temperature is lower or higher.

04 Operation Environment

Operation environment conditions	Operation environment
Temperature	0 to 60℃
Humidity	90%RH or less

Note) ·Please consult us if you use this product in the operation environment other than above.
·Since the operation environment described here is based on our experiences and testing data, it may not be applied to the products in same way under different circumstances. For this reason, we do not guarantee that the content of this catalogue will apply to your operation condition exactly in the same way. Please make final decision at one of your company premises before using this product.

05 Adaptable shaft

Items	Specifications of adaptable shaft
Outer diameter	OTLC6 Bore $\phi6\,{}^{0}_{-0.03}$ OTLC8 Bore $\phi8\,{}^{0}_{-0.03}$
Materials	Use steel products such as SUM, SUS and SUJ-2.

06 Cautions

Cares must be taken when mounting the Torque limiter since the torque may vary when unbalanced loads are applied in the radial and/or axial direction.

07 Before placing an order

When you place an order of Origin torque limiters, please fill the form, "Torque Limiter Spec Check List " attached separately.

Origin Co., Ltd.

http://www.origin.co.jp/eng

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Safety Warning	The data presented in this catalog are for general application purposes. Do not use this product in such a way that may be harmful to people or exceed its performance.
Safety Precaution	To avoid accidents and/or failures as well as to ensure safety , do not use this product exceeding the specifications noted in this catalog and ignoring the precautions.

*Specifications are subject to change without a notice for future development.

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