

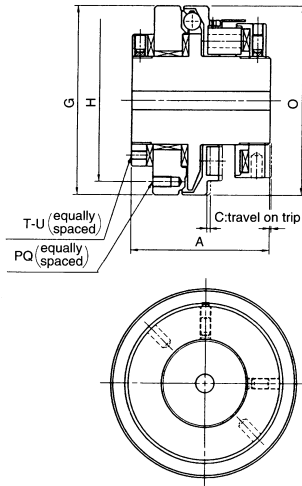
# TORQ/GARD

- Series : 4 series
- Torque Range : 0.15~110kgf·m



Good Design Product selected by  
Ministry of International Trade and Industry (Japan)

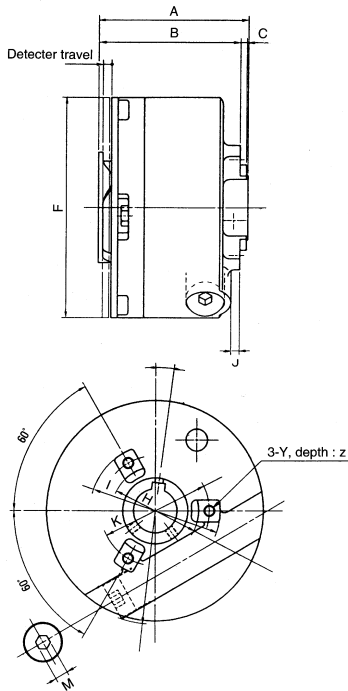
## TGX SERIES (Ball Detent Overload Clutch)



### Dimensions and ratings

(Dimensions in mm)

Size	Torque Range (N·m)	Max. Speed (r.p.m.)	Coil Spring Color×NO.	Rough Bore	Max. Bore	A	C	F Min. Point	G	H P.C.D	O	P	Q Tap Hole Size×Length	U Tap Hole Size×Length	Weight (kgf)	WR <sup>2</sup> (kgf·m <sup>2</sup> ) (×10 <sup>-2</sup> )
TGX10-L	1.7~6.4	1,400	yellow×3	7	15	53	1.4	+0.3	62	54	61.8	4	M4×6	M4×7	0.75	0.117
TGX10-M	5.4~15		red×3													
TGX10-H	11~29		red×6													
TGX20-L	6.5~24	1,100	yellow×6	8.5	25	64	1.6	+0.7	86	74	86	6	M5×8	M4×7	1.67	0.535
TGX20-M	13~34		red×3													
TGX20-H	25~68		red×6													
TGX35-L	23~68	800	red×5	12	35	68	2.0	-0.5	107	88	107	6	M6×7	M5×8	2.51	1.33
TGX35-M	43~98		green×5													
TGX35-H	87~196		green×10													
TGX50-L	45~118	600	red×5	18	55	92	2.6	+0.3	148	130	148	6	M8×13	—	7.03	7.32
TGX50-M	90~196		green×5													
TGX50-H	176~392		green×10													
TGX70-L	127~363	480	red×8	23	70	98	3.5	+1.0	185	164	185	6	M10×13	—	11.4	19.5
TGX70-M	265~510		green×8													
TGX70-H	392~784		green×12													



### Dimensions and ratings

(Dimensions in mm)

Size	Torque Range (N·m)	Max. Speed (r.p.m.)	Bore Rang	Stock Bore Size (1)	Semi-standard Bore Size (2)
TGM3	1.5~3.7	600	10~14	14	10, 12
TGM6	2.5~6.4	600	10~14	14	10, 12
TGM20	6.4~20	500	14~20	20	14, 16, 18
TGM60	20~69	300	20~30	30	20, 22, 25, 28
TGM200	69~225	200	28~50	50	30, 35, 40, 45
TGM400	225~451	150	38~60	—	60
TGM800	451~902	150	38~60	—	60

Size	A	B	C	F	H (h7)	I	J	K	M	X	Y	Z
TGM3	60	57	2	80	30	50	3	40	5	4	M4	8
TGM6	60	57	2	80	30	50	3	40	5	4	M4	8
TGM20	70	66	3	100	40	60	4	50	6	4	M5	10
TGM60	89	81	3	133	60	86	7	73	12	6	M6	13
TGM200	110	100	3	178	82	113	14	114	12	6	M10	19
TGM400	157	147	9	273	114	190	17	165	17	8	M12	28
TGM800	157	147	9	273	114	190	17	165	17	8	M12	28

### FEATURES

#### TGX Series

- High accuracy
- Zero backlash
- Automatic reset
- Single position
- Easy torque adjustment by torque meter

#### TGM Series

- Sealed type
- Automatic reset
- Single position
- Durability

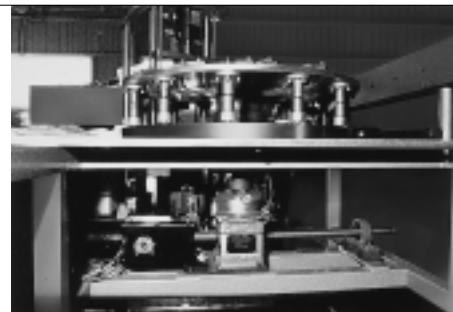
### APPLICATIONS

#### TGX Series

- NC machine tools
- NC lathes
- Indexers
- Servomotor drives

#### TGM Series

- Filter presses
- Food processing machines
- Packaging machines
- Textile machines

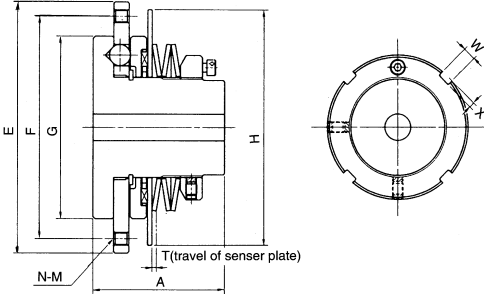


# TORQ/GARD



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## TGB SERIES (Ball Detent Overload Clutch)



### Dimensions and ratings

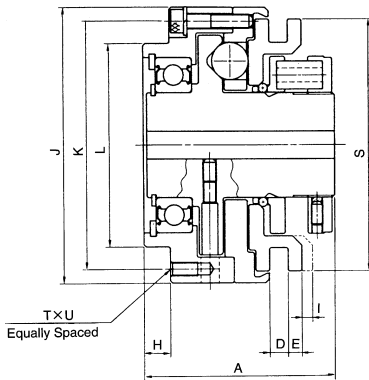
(Dimensions in mm)

Size	Torque Range (N-m)	Max. Speed (r.p.m.)	Color of Disc Spring	Rough Bore	Max. Bore	A	E (h7)	F P.C.D	G	H	M	N	T	W	X	Weight (kgf)	WR <sup>2</sup> (kgf·m <sup>2</sup> ×10 <sup>-2</sup> )
TGB20-H	9.8~44	700	orange	8	20	47	90	78	62	82	M5	4	1.8	5	2	0.9	0.23
TGB30-L	20~54	500	yellow	12	30	60	113	100	82	106	M6	6	2	6	2.5	2.0	0.79
TGB30-H	54~167		orange														
TGB50-L	69~147	300	yellow	22	50	81	160	142	122	150	M8	6	2.7	8	3.5	5.9	4.84
TGB50-M	137~412		blue														
TGB50-H	196~539		orange														
TGB70-H	294~1,080	160	orange	32	70	110	220	200	170	205	M10	6	3.3	—	—	17.0	25.2



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## TGZ SERIES (Ball Detent Overload Clutch)



### Dimensions and ratings

(Dimensions in mm)

Size	Torque Range (N-m)	Max. Speed (r.p.m.)	Color of Disc Spring	Rough Bore	Max. Bore	A	D	E	H	I	J	K
TGZ20-L	2.4~8.3	1800	yellow×3	8	20	74	8	6	11	4.1	96	86
TGZ20-M	4.1~16		blue×3									
TGZ20-H	8.2~31		blue×6									
TGZ30-L	5.9~21	1800	yellow×4	12	30	83.5	8	6	11.5	4.7	118	106
TGZ30-M	20~52		red×4									
TGZ30-H	39~108		red×6									
TGZ40-L	25~93	1800	blue×5	17	40	101	9	8	14	5.9	152	139
TGZ40-M	44~127		red×5									
TGZ40-H	88~245		red×10									
TGZ50-L	63~157	1800	red×5	22	50	114.5	10	9	16	7	178	162
TGZ50-M	127~304		red×10									
TGZ50-H	245~251		green×10									

Size	L (h7)	S	T	U	Weight (kgf)	WR <sup>2</sup> (kgf·m <sup>2</sup> ×10 <sup>-2</sup> )
TGZ20-L	72	88	4	M5×10	2.57	1.09
TGZ20-M						
TGZ20-H						
TGZ30-L	87	108	4	M6×12	4.17	2.78
TGZ30-M						
TGZ30-H						
TGZ40-L	114	141	6	M6×12	8.71	9.60
TGZ40-M						
TGZ40-H						
TGZ50-L	133	166	6	M8×16	13.7	21.2
TGZ50-M						
TGZ50-H						

### FEATURES

#### TGB Series

- Single position
- Automatic reset
- Easy adjustment by torque meter

#### TGZ Series

- Release type
- Manual reset
- On-Off clutch
- High speed application
- Single position

### APPLICATIONS

#### TGB Series

- Packaging machines
- Machining centers
- Conveyors
- Water gates

#### TGZ Series

- Agricultural machines
- Bottlers
- Transferring machines
- Printing presses