

# Backlash-free torque limiter

( Safety coupling )

Torque up to 3200 Nm, opening 75 mm


## BMA



**BMOOM**  
Torque Limiter

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# BMA – Backlash-free torque limiter: description



- Precise adjustment is performed by the balance nut.
- The torque limiter is equipped with a scale meter, which is convenient for torque adjustment.
- Re-reset at equal intervals or 360°.
- No maintenance required.
- It can be equipped with a micro mechanical switch/proximity switch to stop the motor drive.
- This type of equipment can only be equipped with holes.
- Assemble the drive components, which are directly supported by ball bearings.
- On demand
- ▲ Assembly of complete transmission components (sprockets, pulleys, gears...).
- It can be connected through 8 holes, and the component can be used in common with other products on the market. It can be equipped with a connecting flange to connect with the most common intermittent drive unit.
- Custom re-engagement stage 30°, 45°, 60°, 90°, ...





The gapless torque limiter has high technology content and high accuracy. It provides backlash-free motion transmission through a highly sensitive response action, which can be released instantly after reaching the set release torque.


■ main application

- Bottle blowing machines, canning machines,
- labeling machines and other packaging
- machinery. CNC tool machinery, indexing table.
- Director, powertrain.
- Servo motor, guide rail.

■ Advantages and features

- In the case of overload, protect the product.
- When the transmission is overloaded, the indexing device is protected.
- In the event of a collision, protect the mechanical operating unit.
- In the event of a collision or limit stop, protect the slide rail or servo motor.

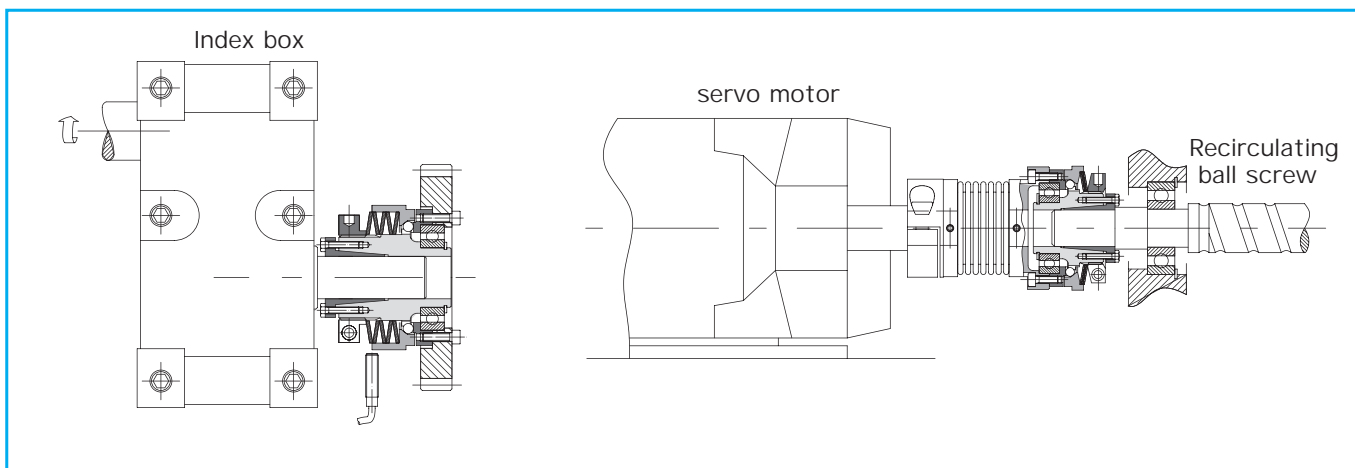
	BMA : Keyway connection.	0.62-3200 Nm Maximum opening 75 mm	9 pages
	BMA4.0: Expansion sleeve connection.	0.62-3200 Nm Maximum opening 50 mm	10 pages
	... + G: Through the flexible coupling connection, higher compensation conditions can be accepted.	0,62-3200 Nm Maximum opening 95mm	11 pages
	BMA/PR-V: Suitable for direct connection between the motor and the hollow shaft reducer.	0,62-3200 Nm Maximum opening 95mm	12 pages



Stainless steel version "BMA/BSP" on request (new)

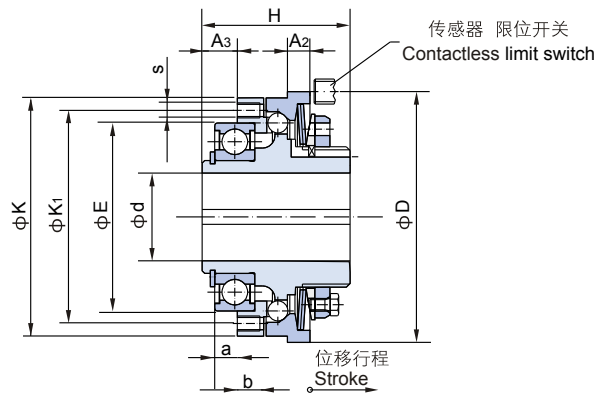
- This model has no gaps.
- The external dimensions are the same as those of the standard model.
- It is made of stainless steel, and the stainless steel has high resistance after proper heat treatment. High corrosion resistance.
- Suitable for working in food and/or pharmaceutical conditions.
- Torque range 0.62 -3200 Nm; maximum opening: ø75 mm

■ Assembly example



## ... BMAVersion with cut-out and keyway: technical data

- No gaps.
- The torque is adjusted by the scale, the operation is very simple.
- Large torque adjustment range.
- The response time is very short.
- It can be equipped with an elongated center body, which can be connected with various drive components: /ML. Torque range: 0.62- 3200Nm; maximum opening:  $\varnothing 75$  mm.



Dimensions ■

specification	D	E	K	d H7	K <sub>1</sub>	H	A <sub>2</sub>	A <sub>3</sub>	a	b	s
		h6		maximum							
0	45	30	40	11	35	24	6,5	4.5	2	4	6xM3
1	70	47	65	20	56	40	7	8	5	6	8xM4
2	85	62	80	25	71	48	8	11	7	7	8xM5
3	100	75	95	35	85	59	9	14	9	9	8xM6
4	115	90	110	40	100	64	10	16	10	10	8xM6
5	135	100	130	50	116	75	12	18	10	12	8xM8
6	171	130	166	65	150	115	16	21	12	15	8xM10
7	220	145	220	75	165	140	37	44	14	22	8xM12

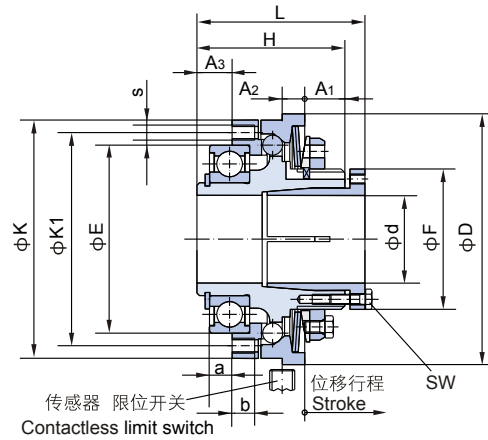
Technical details ■

specification	Torque[Nm]				Overload stroke [mm]	inertia[kgm <sup>2</sup> ]		Maximum speed [Rpm]	weight [Kg]
	T1	T2	T3	T4		Flange side	Nut side		
0	0.62-1.3	1.3-2.6	2-3.8		0,8	0,000025	0,000043	4000	0.17
1	5 – 12.5	10-25	20-50	25-62.5	1.2	0,000093	0,000205	4000	0.63
2	10-25	20-50	40-100	50-125	1.5	0,000234	0,000505	3000	1.02
3	20-50	40-100	80-200	100-250	1.8	0,000643	0,001302	2500	1.75
4	40-100	80-200	160-400	200-500	2.0	0,001306	0,002630	2000	2.55
5	70-175	140-350	280-700	380-875	2.2	0,002649	0,006329	1200	4.07
6	120-300	240-600	480-1200	600-1500	2.5	0,006690	0,028443	800	10.06
7	300-600	600-1200	1200-2400	1800-3200	2.8	0,007178	0,03595	400	13.05

### Description

- Assembly tolerance: can be processed as required.
- Weight is related to hole formation; inertia refers to the maximum diameter of the torque limiter hole.
- Can be equipped with micro mechanical switch or proximity switch.

## ... BMA4.0 Version with cut-out and expansion sleeve: technical data



### ■ Dimensions

specification	D	F	E h6	K	d H7 maximum	K <sub>1</sub>	L	H	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>	a	b	s	SW
1	70	38	47	65	20	56	47	40	12	7	8	5	6	8xM4	7
2	85	44	62	80	25	71	56	48	13.5	8	11	7	7	8xM5	7
3	100	56	75	95	35	85	67	59	16	9	14	9	9	8xM6	7
4	115	70	90	110	40	100	73	64	17	10	16	10	10	8xM6	8
5	135	84	100	130	50	116	86	75	20.5	12	18	10	12	8xM8	10
6	171	100	130	166	65	150	130	115	46	16	21	12	15	8xM10	13
7	220	123	145	220	75	165	138	140	50.5	37	44	14	22	8xM12	15

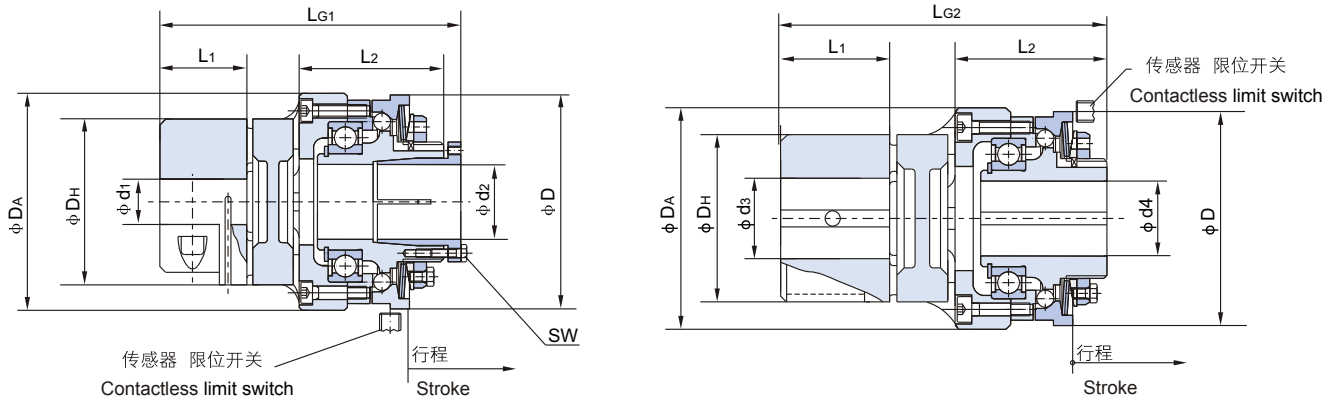
### ■ Technical details

specification	Torque [Nm]				stroke [mm]	inertia [kgm <sup>2</sup> ]		Maximum speed [Rpm]	weight [kg]
	T1	T2	T3	T4		Flange side	Nut side		
0	0.62-1.3	1.3-2.6	2-3.8		0,8	0,000025	0,000049	4000	0.26
1	5 - 12.5	10-25	20-50	25-62.5	1.2	0,000093	0,000211	4000	0.68
2	10-25	20-50	40-100	50-125	1.5	0,000234	0,000531	3000	1.14
3	25-50	40-100	80-200	100-250	1.8	0.000643	0,001388	2500	1.98
4	40-100	80-200	160-400	200-500	2.0	0,001306	0,002846	2000	2.88
5	70-175	140-350	280-700	380-875	2.2	0,002649	0,006858	1200	4.59
6	120-300	240-600	480-1200	600-1500	2.5	0.006690	0,029432	800	8.81
7	300-600	600-1200	1200-2400	1800-3200	2,8	0,007178	0,03961	400	13.98

### ■ Description

- Assembly tolerance: According to customer requirements.
- The weight is related to the hole formation.
- It can be a micro mechanical switch or proximity switch.

## ... + /GEquipped with claw coupling: technical data



Dimensions ■

specification	d 1 (H8)	d 2 (H8)	d 3 (H7)	d 4 (H7)	D <sub>A</sub>	D <sub>H</sub>	D	L <sub>G1</sub>	L <sub>G2</sub>	L <sub>1</sub>	L <sub>2</sub>
	maximum	maximum	maximum	maximum							
1	28	20	28	20	70	55	70	102	95	30	47
2	35	25	38	25	85	65	85	120	112	35	57
3	45	35	45	35	100	80	100	146	138	45	69
4	45	45	55	40	115	95	115	159	150	50	74
5	55	55	60	50	135	105	135	182	171	56	87
6	80	65	80	65	175	135	171	255	240	75	130

Technical details ■

specification	Torque[Nm]				stroke [mm]	Maximum speed [Rpm]
	T1	T2	T3	T4		
1	5-12.5	10-25	20-50	25-62.5	1.2	4000
2	10-25	20-50	40-100	50-125	1.5	3000
3	20-50	40-100	80-200	100-250	1.8	2500
4	40-100	80-200	160-400	200-500	2.0	2000
5	70-175	140-350	280-700	380-875	2.2	1200
6	120-300	240-600	480-1200	600-1500	2.5	800

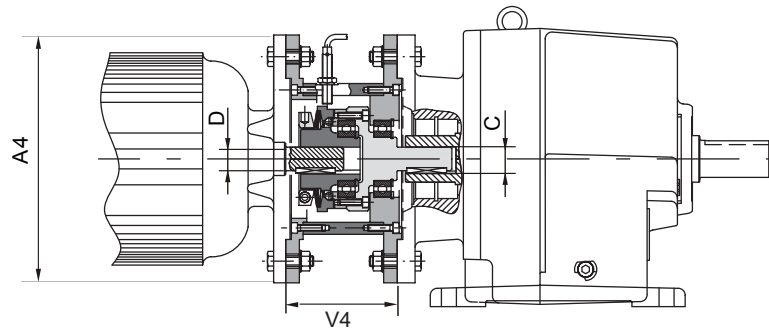
### ■ Description

- If the inner hole of the coupling end needs to be enlarged, the standard torque limiter can be equipped with a larger coupling.
- Assembly tolerance: can be processed according to customer requirements.
- The weight is only related to the hole formation, and the inertia only needs to refer to the coupling with the largest opening.
- Can be equipped with micro mechanical switch or proximity switch.

# BMA/PR-V- Backlash-free torque limiter with over-flange: technical data



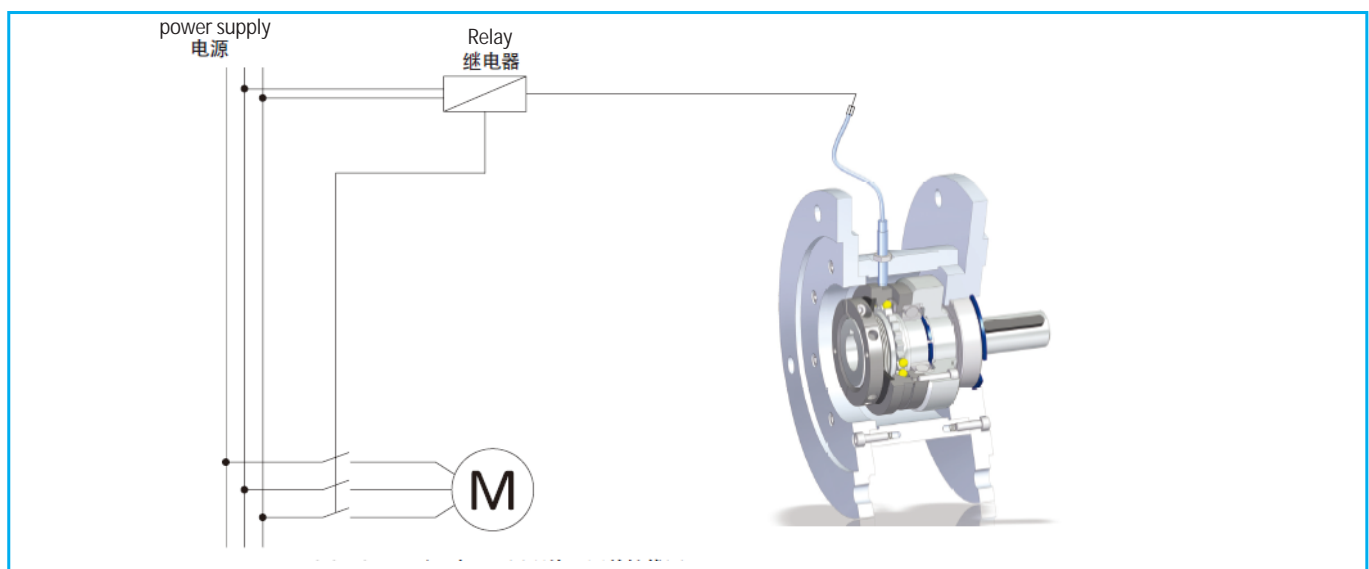
- ⦿ It is suitable for installation between gearboxes, motors and hollow shaft reducers.
- ⦿ Adjust the torque according to the scale, which is convenient to adjust.
- ⦿ Reset after overload can be reset at 15°, 30°, 60°, etc. upon request.
- ⦿ Equipped with a connecting flange, it is a complete solution for IEC motors.
- ⦿ Can be equipped with sensors, output signals after overload.
- ⦿ Torque range: 0.62-3200 Nm; maximum opening/shaft:  $\varnothing 75$  mm.



## Technical details

specification	Torque[Nm]				stroke [mm]	Maximum speed [Rpm]	A4	V4	DH7-Ch7
	T1	T2	T3	T4					
0	0.62-1.3	1.3-2.6	2-3.8		0,8	4000	According to working conditions		
1	5 – 12.5	10-25	20-50	25-62.5	1.2	4000			
2	10-25	20-50	40-100	50-125	1.5	3000			
3	25-50	40-100	80-200	100-250	1.8	2500			
4	40-100	80-200	160-400	200-500	2.0	2000			
5	70-175	140-350	280-700	380-875	2.2	1200			
6	120-300	240-600	480-1200	600-1500	2.5	800			
7	300-600	600-1200	1200-2400	1800-3200	2,8	400			

## Assembly example

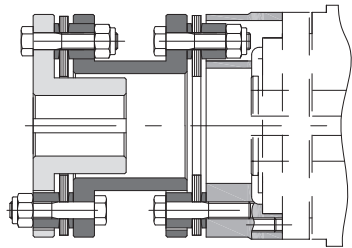


## Description

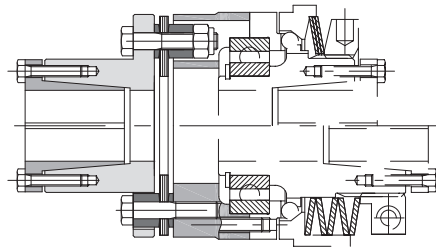
- Please contact our company for specific over-flange dimensions.
- The weight refers to the prefabricated hole of the torque limiter.

# BMA -Backlash-free torque limiter: additional information

Other couplings on request ■



Model BMA is equipped with dual flexible torsional rigid metal disc coupling/SR when it is required to be equipped with torsional strength and compatibility with radial non-coincidence.



For model BMA, when the torsional strength function is required, a single A flexible disc coupling/R.

Order example ■

