

# MIC SERIES

## GIUNTI IN MINIATURA

### CARATTERISTICHE

- Da utilizzare con Magtrol TM, TMB, TMHS e nuovi I trasduttori di coppia in linea TS, così come i trasduttori HD, Dinamometri WB e PB e freni HB
- Elevata rigidità torsionale
- Bassa inerzia
- Peso ridotto
- Elevata velocità di rotazione
- Versione elettricamente isolata (disponibili su richiesta)
- Gamma di diametri: 2,38 ... 28 mm
- Versione con doppie viti di serraggio (disponibili su richiesta)



Fig. 1: MIC-5 | Double Element Miniature Couplings

### DESCRIZIONE

I giunti miniaturizzati MIC forniscono il complemento ideale a Trasduttori di coppia in linea TM / TMB / TMHS / TS di Magtrol, quando devono essere montati su un gruppo propulsore. Possono anche essere utilizzati con qualsiasi isteresi Magtrol (serie HD), correnti parassite (Serie WB), Dinamometro per freni a polvere (Serie PB) e Freno a isteresi (serie HB).

Gli innesti sono costituiti da uno (MIC-6) o due (MIC-5) disco pacchi, due mozzi di serraggio e un distanziale. Sono entrambi torsionali rigido e flessibile per compensare assiale e disallineamento angolare quando si collegano due estremità dell'albero. IL Anche il MIC-5 (accoppiamento a doppio elemento) fornisce la compensazione per disallineamento radiale.

Su richiesta, gli attacchi della Serie MIC sono disponibili nella versione elettrica versione isolata, adatta per temperature fino a 100 °C (125 °C massimo temperatura, a breve termine).

### CONFIGURAZIONE DEL SISTEMA:

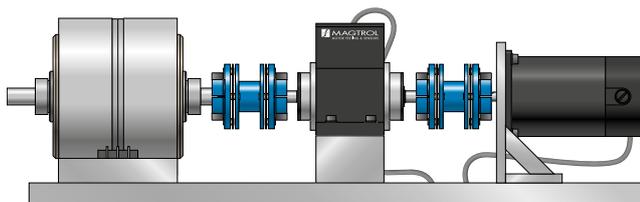


Fig. 2: **Supported installation**  
Mandatory for high speed applications; uses MIC-5 double-element couplings.

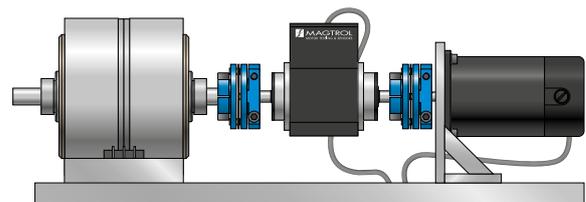


Fig. 3: **Suspended installation**  
For low speed applications only; uses MIC-6 single-element couplings to create a shorter drive train.

**SPECIFICHE**

MODEL	MIC-X-0018	MIC-X-0039	MIC-X-0156	MIC-X-0617	MIC-X-2470	MIC-X-3620
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**RATINGS**

Rated Torque	[N·m]	0.18	0.39	1.56	6.17	24.7 <sup>g)</sup>	36.2 <sup>g)</sup>
Maximum Torque	[N·m]	0.26	0.54	2.19	8.64	34.6 <sup>g)</sup>	50.7 <sup>g)</sup>
Maximum Speed <sup>a)</sup>	[rpm] or [min <sup>-1</sup> ]	50 000	50 000	50 000	45 000	35 000	30 000
Torsional Spring Rate <sup>b)</sup>	[N·m/rad] x 10 <sup>2</sup>	1.586	3.89	25.986	39.768	103.5	161.76

**MISALIGNMENT**

Axial <sup>b)</sup>	[mm]	0.4				0.8	
Radial <sup>c)</sup>	[mm]	0.36	0.48	0.49	0.41		0.36
Angular <sup>b)</sup>	[°]		2	1.5	1		0.7

**MOMENT OF INERTIA**

MIC-5-xxxx <sup>d)</sup>	[kg·m <sup>2</sup> ] x 10 <sup>-6</sup>	- <sup>e)</sup>	2.33	14.01	37.99	104.28	203.55
MIC-6-xxxx <sup>d)</sup>	[kg·m <sup>2</sup> ] x 10 <sup>-6</sup>	- <sup>e)</sup>	1.83	11.10	28.56	78.61	159.40

**MECHANICAL CHARACTERISTICS**

Diameter Range <sup>f)</sup>	ø[mm]H7	2.38 - 7	3 - 10	4 - 14	6 - 18	8 - 24	7.5 - 28
Balancing Quality		G2.5 according to ISO 1940					
Weight max.	[g]	- <sup>e)</sup>	28	77	133	260	355

- a) The specified maximum speed may require specific balancing. By default, Magtrol delivers couplings without balancing.
- b) Axial and angular misalignments and torsional spring rate refer to single-element coupling (MIC-6-xxxx).
- c) Radial misalignments refer to double element coupling (MIC-5-xxxx).
- d) At maximum bore

- e) Value available on request.
- f) The standard versions are manufactured with integer values; the standard tolerance is H7. All diameters and tolerances are possible, within the defined max. range. Please contact our sales department.
- g) CAUTION: for small diameters, the torque can be reduced <40%. For more information, please contact our sales department.

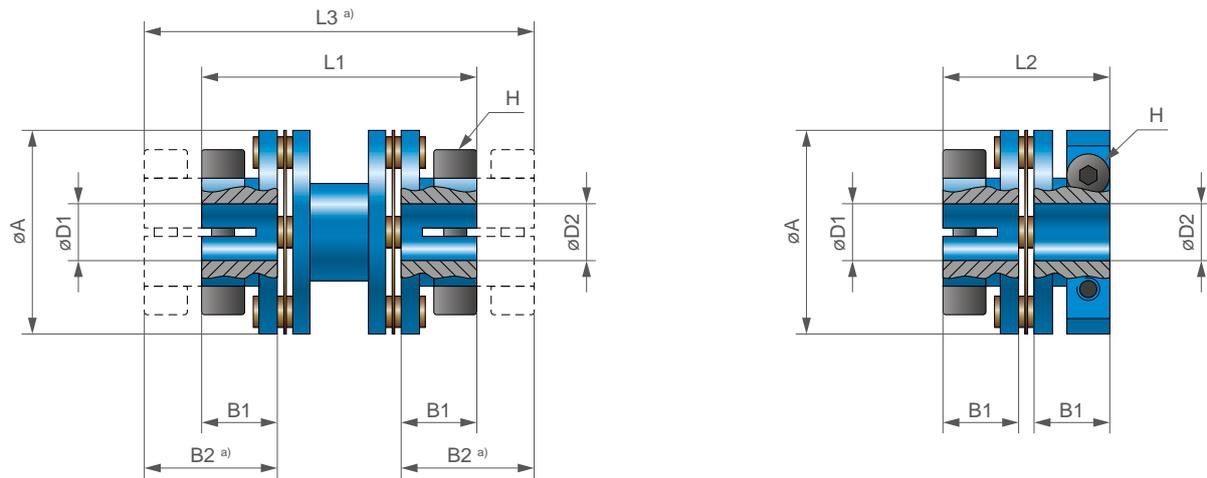
**TABELLA DI SELEZIONE**

Per garantire un margine di sicurezza sufficiente, Magtrol consiglia di dimensionare i giunti in base alla coppia massima supportata dal trasduttore di coppia. Si consiglia vivamente di proteggere tutte le parti rotanti della macchina secondo le norme sulla sicurezza delle macchine per evitare lesioni.

Per ulteriori informazioni potete rivolgervi alla nostra rete vendita che saprà fornirvi una consulenza personalizzata.

		TORQUE TRANSDUCER STANDARD MODELS									
COUPLING	DIAMETER RANGE		TM 301	TM 302	TM/TMB/TMHS 303	TM/TMB/TMHS 304	TM/TMB/TMHS 305	TM/TMB/TMHS 306	TM/TMB/TMHS 307	TM/TMB/TMHS 308	TM/TMB/TMHS 309
		TS100	TS101	TS102	TS103	TS104	TS105	TS106	TS107		TS109
MIC-X-0018	2.38 - 7 mm	X									
MIC-X-0039	3 - 10 mm		X	X							
MIC-X-0156	4 - 14 mm		X	X	X						
MIC-X-0617	6 - 18 mm					X	X				
MIC-X-2470	8 - 24 mm							X	X	X <sup>a)</sup>	
MIC-X-3620	7.5 - 28 mm									X <sup>a)</sup>	X

- a) To avoid slipping on TM308 (20Nm / ø10mm / smooth shaft), Magtrol recommends the use of special couplings with double clamping screws on each side (please contact our sales representative)

**DIMENSIONI**

**MIC-5-xxxx**  
(Double-element coupling)

**MIC-6-xxxx**  
(Single-element coupling)

**NOTE:** Original dimensions are in metric units. Dimensions converted to imperial units have been rounded up to 3 decimal places.

MODEL	UNITS	øA	B1	B2 <sup>a)</sup>	øD1 or øD2 min - max <sup>b)</sup>	L1	L2	L3 <sup>a)</sup>	H	FASTENING TORQUE <sup>c)</sup>	WEIGHT
MIC-5-0018	mm	19.1	7	N/A	2.38 - 7	26	N/A	N/A	M2.5	N/D <sup>c)</sup>	- <sup>d)</sup>
	in	0.752	0.276		0.10 - 0.27	1.024					
MIC-6-0018	mm	19.1	7		2.38 - 7	N/A	15.6				- <sup>d)</sup>
	in	0.752	0.276		0.10 - 0.27						
MIC-5-0039	mm	25.4	9		3 - 10	34	N/A		M3	0.76 N·m	0.028 kg
	in	1	0.35		0.12 - 0.39	1.34					
MIC-6-0039	mm	25.4	9		3 - 10	N/A	20.2				0.022 kg
	in	1	0.35		0.12 - 0.39		0.79				
MIC-5-0156	mm	35.8	13.2		4 - 14	48.0	N/A		M4	3.05 N·m	0.077 kg
	in	1.409	0.520		0.16 - 0.55	1.890					
MIC-6-0156	mm	35.8	13.2		4 - 14	N/A	29.1				0.062 kg
	in	1.409	0.520		0.16 - 0.55		1.146				
MIC-5-0617	mm	44.5	13.4	6 - 18	54.0	N/A	M4	3.05 N·m	0.133 kg		
	in	1.752	0.528	0.24 - 0.71	2.126					0.293 lb	
MIC-6-0617	mm	44.5	13.4	6 - 18	N/A	30.4			0.100 kg		
	in	1.752	0.528	0.24 - 0.71		1.197				0.220 lb	
MIC-5-2470	mm	57.4	16.1	26.1	8 - 24	66.0	N/A	M5	6.05 N·m	0.260 kg	
	in	2.260	0.634	1.028	0.31 - 0.94	2.598					3.386
MIC-6-2470	mm	57.4	16.1	N/A	8 - 24	N/A	36.6			N/A	0.195 kg
	in	2.260	0.634		0.31 - 0.94		N/A				
MIC-5-3620	mm	64	18	28	7.5 - 28	71	N/A	M6	10.5 N·m	0.355 kg	
	in	2.519	0.708	1.102	0.29 - 1.10	2.795					3.583
MIC-6-3620	mm	64	18	N/A	7.5 - 28	N/A	41			N/A	0.278 kg
	in	2.519	0.708		0.29 - 1.10		N/A				

a) The MIC-5-2470 and MIC-5-3620 models are also available in a version with 4 clamping screws for higher torque transmission. (specifically recommended for TM308)

b) The standard versions are manufactured with integer values; the standard tolerance is H7. All diameters and tolerances are possible, within the defined max. range. Please contact our sales department.

c) For small range torque sensors (TM/TMB/TMHS 301, 302, 303), tightening of coupling should be done with caution, in order to not damage the measuring section of sensor.

