

Model RH-H RECTIFIER FOR HYBRID HOLDER



RH-H303A-C2

[Application]

A rectifier dedicated to hybrid holders.

- The employment of FET in the output circuit ensures high-speed and consistent demagnetization performance. These rectifiers also withstand frequent usage.
- A wide range of power source from 100 VAC to 220 VAC can be used.

Model	Type	Input	Output	Dimensions	Applicable Holder	Mass
RH-H303A	Type installed inside panel	Single-phase 100 VAC ~ 220 VAC, 50/60 Hz	0VDC ~ 24VDC 3A	W55(2.16) × D160(6.29) × H175(6.88)	KE-2HA-8HA	0.8kg/ 1.76 lb
RH-H303A-C2	Type housed in case			W175(6.88) × D100(3.93) × H190(7.48)		2.5kg/ 5.51 lb

※ For ON/OFF control, external control is required. Input signals are to be provided by the customer.

Model KR RECTIFIER FOR ELECTROMAGNETIC/PERMANENT ELECTROMAGNETIC HOLDER

Dedicated to electromagnetic/permanent electromagnetic holders



KR-T101A-6/24

[Application]

A standard type to rectify an input from an AC power source to DC and output it to electromagnetic holders.

[Features]

- This model comes in various output voltages and output currents selectable according to required capacities.
- Compact design for installation inside the control panel.
- Since a power cord is equipped as a standard accessory, it can be used simply by connecting an electromagnet.
- Since external control terminals are provided as a standard accessory, it can be used for automatic operation also.

Model	Input		Output		Dimensions			Reverse Excitation Circuit	Applicable Holder	Mass	
	Voltage	Fuse	Voltage	Current	Width	Depth	Height				
KR-T101A-6/24	Single-phase 100 VAC, 50/60 Hz	1A	6/24 VDC	1A	155 (6.10)	140 (5.51)	95 (3.74)	—	KE-1B—4B KE-2R—4RA KE-2D—4E KEP-3C—9C,K5	KE-K310A KE-K515A KE-V306—312	3kg/6.61 lb
KR-N101A		1A	90 VDC	1A	100 (3.93)	106 (4.17)	77 (3.03)		KE-5B—9B KE-5E,6E	KE-M KE-V510—830	1kg/2.20 lb
KR-N103A		3A		3A							

※ Power cable (2 m) and plug included.

Electromagnetic Holders and Applicable Rectifiers and Controllable Number of Holders

All holders connected in parallel.

Electromagnetic holder KE-B Series

(Unit: units)

Rectifier	Holder	KE-1B	KE-2B	KE-3B	KE-4B	KE-5B	KE-6B	KE-7B	KE-8B	KE-9B
KR-T101A-6 / 24		4	11	4	3					
RH-M303A-6 / 24,-C1,-C2		15	38	14	11	—	—	—	—	—
RH-M105B-24			64	23	18					
KR-N101A						6	4	4	3	2
KR-N103A						20	12	12	9	7
RH-M102C						15	9	9	6	5
RH-M105B						37	23	22	17	12
RH-M205B										

Thin electromagnetic holder KE-D/E Series

Rectifier	Holder	KE-2D	KE-3E	KE-4E	KE-5E	KE-6E
KR-T101A-6 / 24		20	9	6		
RH-M303A-6 / 24,-C1,-C2		67	30	22	—	—
RH-M105B-24		112	52	37		
KR-N101A					18	12
KR-N103A					54	36
RH-M102C					40	27
RH-M105B					102	69
RH-M205B						

Auto release type electromagnetic holder KE-R Series

Rectifier	Holder	KE-2R	KE-3RA	KE-4RA
KR-T101A-6 / 24		20	9	6
RH-M303A-6 / 24,-C1,-C2		67	30	22
RH-M105B-24		112	52	37

Rectangular thin electromagnetic holder KE-K Series

Rectifier	Holder	KE-K310A	KE-K315A	KE-K510A	KE-K515A
KR-T101A-6 / 24		7	4	4	2
RH-M303A-6 / 24,-C1,-C2		24	13	15	9
RH-M105B-24		40	22	26	15

Permanent electromagnetic holder KEP-C Series

Rectifier	Holder	KEP-3C	KEP-4C	KEP-5C	KEP-7C	KEP-9C	KEP-K5
KR-T101A-6 / 24		1	1	1	1	1	1
RH-M303A-6 / 24,-C1,-C2		6	5	4	5	6	6

Hybrid holder KE-HA Series

Rectifier	Holder	KE-2HA	KE-3HA	KE-4HA	KE-5HA	KE-6HA	KE-8HA
RH-H303A		38	24	18	13	12	9
RH-H303A-C2							

Calculation of controllable number of units

$$\text{Controllable number of units} = \frac{\text{Output current of rectifier}}{\text{Current of electromagnetic holder}} \times \text{approx. 0.8 (figures below decimal point omitted)}$$

(Example)

$$\text{In the case of } \begin{cases} \text{KR-T101A-6/24} \\ \text{KE-2B} \end{cases} \quad \frac{1}{0.07} \times 0.8 \left(\begin{array}{l} \text{value 11.428} \\ \text{thus 11} \end{array} \right) \text{ Number of units} = 11$$

※ "×0.9" for RH-M and RH-H.

MAGNETIC HOLDERS

Model KM PERMANENT MAGNETIC HOLDER

List of permanent magnetic holders

Size	Height	OD "h" Tolerance	Plating	Painting	Peripheral Knurling	Stainless Steel Spec.	Heat-Resistance Spec.
φ 5	× 8	KM-0005					
	× 13		KM-0005L				
φ 7	× 8	KM-0007					
	× 13		KM-0007L				
φ 10	× 8		KM-0010H		KM-0010J	KM-0010H-SUS	
	× 15	KM-H001	KM-001				
	× 18		KM-T001				
φ 15	× 15	KM-H0015	KM-0015				
	× 18		KM-T0015				
φ 18	× 8		KM-0018H		KM-0018J	KM-0018H-SUS	
φ 20	× 15	KM-H002	KM-002				
	× 18		KM-T002				
φ 25	× 10		KM-0025H		KM-0025J	KM-0025H-SUS	
φ 26	× 25	KM-H0025		KM-025C			
	× 30		KM-T0025				
φ 30	× 25			KM-03C			
	× 33		KM-T003				
φ 40	× 30			KM-04C			KM-T004T
φ 50	× 40			KM-05C			KM-T005T
φ 70	× 40			KM-07C			
φ 80	× 45			KM-08C			
26 × 26	× 25			KM-025S			
26 × 60	× 25			KM-06S			

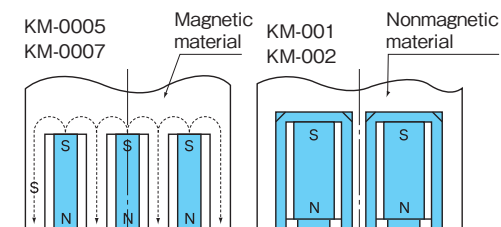
[Application]

Can be used to hold down drawings, rules and paper patterns. The holders with a tapped hole on the back can be used widely by installing them on jigs. Can be incorporated in press dies. Can hold workpieces during wire cutting.

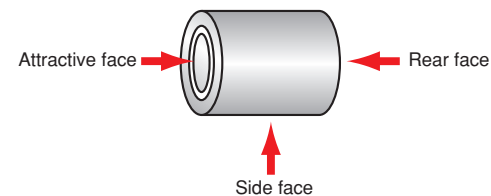
[Features]

- Six types of specifications; OD tolerance, plating, painting, peripheral knurling, stainless steel spec. and heat-resistance spec. are available for selection according to applications.
- By matching the OD "h" tolerance, the holders can be incorporated in dies.
- A tapped hole on the back makes the holders useful in various applications.

Embedded in a jig (Example)



Names of faces



Upper limit of working temperature

The holding power drops as body temperature rises. The following types are available. The original holding power returns to the original level when the temperature drops to normal temperature.

■ Type A (Alnico magnet used)

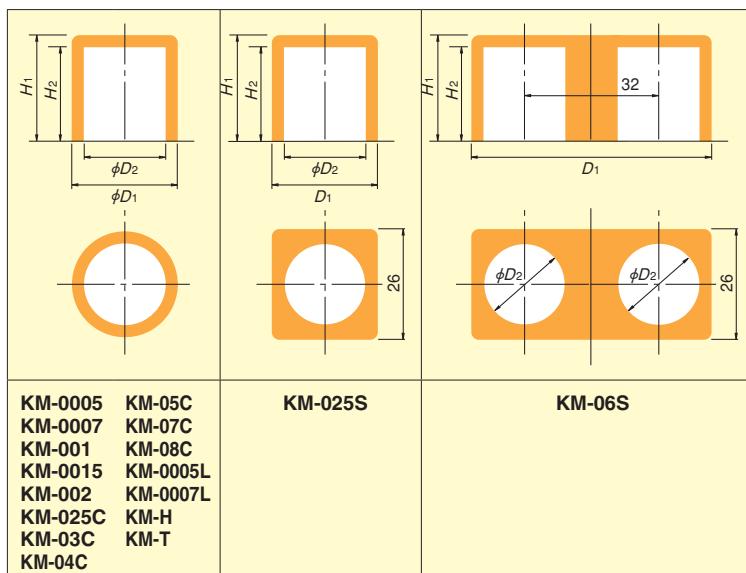
Superior in terms of temperature. The holding power as high as 85% can be maintained at 350°C when the holding power at 20°C is 100%. This type can be used up to 400°C intermittently for a short period of time.

■ Type B (Samarium-cobalt type rare earth magnet used)

The holding power drops to about 95% at 100°C and to about 85% at 200°C when the holding power at 20°C is 100%. For continuous use, the upper limit is 150°C and for intermittent use for a short period of time, this type may be used up to 200°C.

■ Type C (Neodymium rare earth magnet used)

The holding power drops to about 85% at 50°C and to about 70% at 100°C when the holding power at 20°C is 100%. The upper limit for continuous use is 100°C.



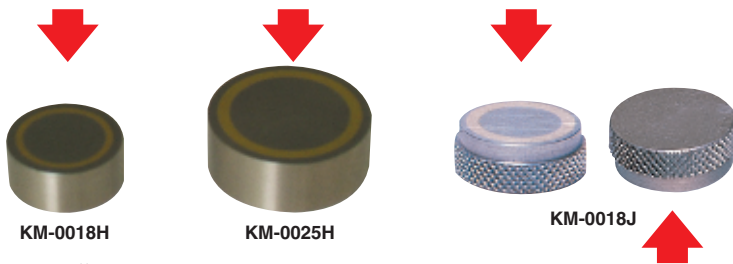
* The holding power may drop when the holder is worked on additionally. In particular, additional work in the radial direction has large influence on the holding power and therefore, must be limited to a minimum necessary scope.

area.....Additionally workable.

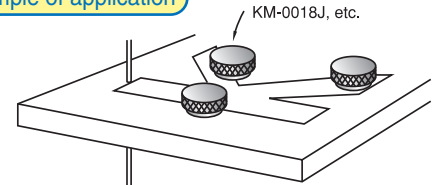
↑ indicates the attractive face.



↑ indicates the attractive face.



An example of application



These holders can be used to hold pieces cut out by wire cutting to prevent them from moving or falling from the securing area.

OD "h" tolerance specification

Model	Dimensions			Holding Power	Surface Treatment	Mounting Tapped Hole	Workable Range				Upper Limit of Working Temp.	Tapping	Mass
	OD × Height	"h" tolerance	Height tolerance				D ₁	D ₂	H ₁	H ₂			
KM-0005	φ5 (0.19) h7 (0.27) × 8 (0.31)	$-\frac{0}{-0.012}$	0 -0.1	0.3N (0.03kgf)	None	None	5 (0.19)	4.5 (0.17)	—	—	Type B	Not allowed.	1.5g/0.003 lb
KM-0007	φ7 (0.27) h7 (0.27) × 8 (0.31)	$-\frac{0}{-0.015}$		0.4N (0.04kgf)			7 (0.27)	6.5 (0.25)	—	—			2.5g/0.005 lb
KM-H001	φ10 (0.39) h9 (0.35) × 15 (0.59)	$-\frac{0}{-0.036}$		8N (0.8kgf)			10 (0.39)	9.5 (0.37)	—	—	Type A	Prepared hole up to 3.0 deep on the rear face allowed.	11g/0.024 lb
KM-H0015	φ15 (0.59) h9 (0.35) × 15 (0.59)	$-\frac{0}{-0.043}$		20N (2kgf)			15 (0.59)	14 (0.55)	15 (0.59)	12 (0.47)			20g/0.044 lb
KM-H002	φ20 (0.78) h9 (0.35) × 15 (0.59)	$-\frac{0}{-0.052}$		40N (4kgf)			20 (0.78)	18 (0.70)	—	—			40g/0.088 lb
KM-H0025	φ26 (1.02) h9 (0.35) × 25 (0.98)	$-\frac{0}{-0.052}$		100N (10kgf)			26 (1.02)	24 (0.94)	25 (0.98)	21 (0.82)		Prepared hole up to 4.0 deep on the rear face allowed.	100g/0.222 lb

※The holding power is based on a test piece of SS400, 10 mm thick, ground surface. ※The holding power may drop when the holder is worked on additionally. In particular, additional work in the radial direction has large influence on the holding power and therefore, must be limited to a minimum necessary scope.

Plating specification

Model	OD × Height	Holding Power	Surface Treatment	Mounting Tapped Hole	Workable Range				Upper Limit of WorkingTemp.	Tapping	Mass	
					D ₁	D ₂	H ₁	H ₂				
KM-0005L	φ5 (0.19) × 13 (0.51)	1.8N (0.18kgf)	Nickle plating	None	—	—	13 (0.51)	12 (0.47)	Type A	Not allowed.	2g/0.004 lb	
KM-0007L	φ7 (0.27) × 13 (0.51)	4N (0.4kgf)			7 (0.27)	6.5 (0.25)	—	—	Type A		3.8g/0.008 lb	
KM-0010H	φ10 (0.39) × 8 (0.31)	3N (0.3kgf)			—	—	—	—	Type B		5g/0.011 lb	
KM-001	φ10 (0.39) × 15 (0.59)	8N (0.8kgf)		M5 (0.19) Depth5 (0.19) pitch0.8 (0.03)	10 (0.39)	9.5 (0.37)	15 (0.59)	12 (0.47)	Type A	Prepared hole up to 3.0 deep on the rear face allowed.	11g/0.024 lb	
KM-T001	φ10 (0.39) × 18 (0.70)			—	—	18 (0.70)	—			Provided.	12g/0.026 lb	
KM-0015	φ15 (0.59) × 15 (0.59)	20N (2kgf)		None	15 (0.59)	14 (0.55)	15 (0.59)	12 (0.47)	Type A	Prepared hole up to 3.0 deep on the rear face allowed.	20g/0.044 lb	
KM-T0015	φ15 (0.59) × 18 (0.70)	M5 (0.19) Depth5 (0.19) pitch0.8 (0.03)		—	—	18 (0.70)	—			Provided.	23g/0.051 lb	
KM-0018H	φ18 (0.70) × 8 (0.31)	50N (5kgf)		None	—	—	—	12 (0.47)	Type B	Not allowed.	16g/0.035 lb	
KM-002	φ20 (0.78) × 15 (0.59)	40N (4kgf)			20 (0.78)	18 (0.70)	15 (0.59)		Type A	Prepared hole up to 3.0 deep on the rear face allowed.	40g/0.088 lb	
KM-T002	φ20 (0.78) × 18 (0.70)	M5 (0.19) Depth5 (0.19) pitch0.8 (0.03)		—	—	18 (0.70)	—	Type B	Provided.	45g/0.100 lb		
KM-0025H	φ25 (0.98) × 10 (0.39)	90N (9kgf)		None	—	—	—	12 (0.47)	Type B	Not allowed.	38g/0.083 lb	
KM-T0025	φ26 (1.02) × 30 (1.18)	100N (10kgf)		M6 (0.23) Depth10 (0.39) pitch1.0 (0.03)	26 (1.02)	24 (0.94)	30 (1.18)		21 (0.82)	Type A	Provided.	120g/0.266 lb
KM-T003	φ30 (1.18) × 33 (1.29)	150N (15kgf)		M6 (0.23) Depth8 (0.31) pitch1.0 (0.03)	30 (1.18)	27 (1.06)	33 (1.29)		28 (1.10)			180g/0.400 lb

※The holding power is based on a test piece of SS400, 10 mm thick, ground surface. ※The holding power may drop when the holder is worked on additionally. In particular, additional work in the radial direction has large influence on the holding power and therefore, must be limited to a minimum necessary scope.

Peripheral knurling specification

Model	OD × Height	Holding Power	Surface Treatment	Mounting Tapped Hole	Upper Limit of Working Temp.	Feature	Mass
KM-0010J	φ10 (0.39) × 8 (0.31)	3N (0.3kgf)	Nickel plating	None	Type B	Peripheral knurling	5g/0.011 lb
KM-0018J	φ18 (0.70) × 8 (0.31)	50N (5kgf)					16g/0.035 lb
KM-0025J	φ25 (0.98) × 10 (0.39)	90N (9kgf)					38g/0.083 lb

※The holding power is based on a test piece of SS400, 10 mm thick, ground surface.

First in the industry! Stainless steel to resist rusting.

↑ indicates the attractive face.



Working up to 0.5 mm allowed on the attractive face.



Comparison in pure water (Left: Made of stainless steel)

Stainless steel specification

Model	OD × Height	Holding Power	Surface Treatment	Mounting Tapped Hole	Upper Limit of Working Temp.	Tapping	Mass
KM-0010H-SUS	φ10 (0.39) × 8 (0.31)	3N (0.3kgf)	None	None	Type B	Not allowed.	5g/0.011 lb
KM-0018H-SUS	φ18 (0.70) × 8 (0.31)	50N (5kgf)					16g/0.035 lb
KM-0025H-SUS	φ25 (0.98) × 10 (0.39)	90N (9kgf)					38g/0.083 lb

※The holding power is based on a test piece of SS400, 10 mm thick, ground surface.

ELECTROMAGNETIC
CHUCKS

CHUCK
CONTROLLERS

PERMANENT
ELECTROMAGNETIC CHUCKS

PERMANENT
ELECTROMAGNETIC CHUCKS

BLOCKS
FOR MC

VACUUM
CHUCKS

PROMELTA*
SYSTEM

SINE BAR
CHUCKS

BLOCKS, HOLDERS,
MINI CHUCKS

HOLDING
TOOLS

MEASURING
TOOL HOLDERS

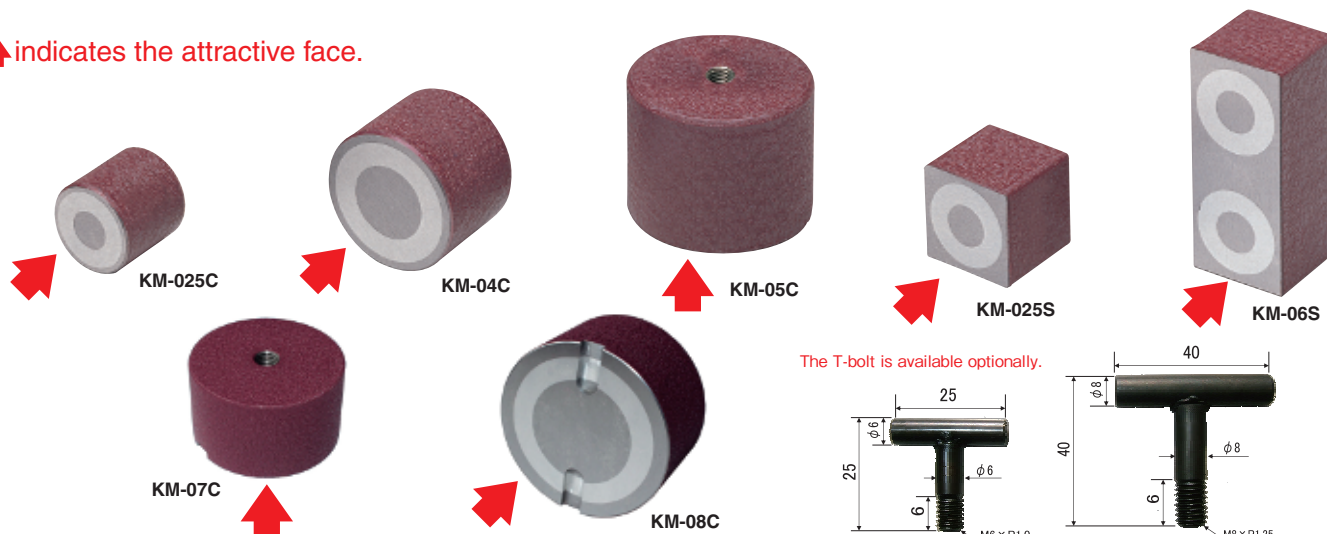
MAGNETIC
HOLDERS

MAGNETIC
TOOLS

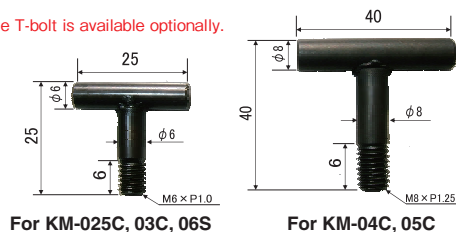
MAGNETIC HOLDERS

Model KM PERMANENT MAGNETIC HOLDER

↑ indicates the attractive face.



The T-bolt is available optionally.



For KM-025C, 03C, 06S

For KM-04C, 05C

Painting specification

Model	OD × Height	Holding Power	Surface Treatment	Mounting Tapped Hole	Workable Range				Upper Limit of Working Temp.	Tapping	Mass
					D ₁	D ₂	H ₁	H ₂			
KM-025C	φ26 (1.02) × 25 (0.98)	100N (10kgf)	Painting	M 6 (0.23), depth 8 (0.31) pitch 1.0 (0.03)	26 (1.02)	25 (0.98)	25 (0.98)	17 (0.66)	Type C (See page 79)	Provided.	90g/0.19 lb
KM-03C	φ30 (1.18) × 25 (0.98)	150N (15kgf)			30 (1.18)	27 (1.06)					121g/0.26 lb
KM-04C	φ40 (1.57) × 30 (1.18)	300N (30kgf)		M 8 (0.31), depth 12 (0.47) pitch 1.25 (0.04)	40 (1.57)	36 (1.41)	30 (1.18)	20 (0.78)			260g/0.57 lb
KM-05C	φ50 (1.96) × 40 (1.57)	500N (50kgf)			50 (1.96)	46 (1.81)					545g/1.20 lb
KM-07C	φ70 (2.75) × 40 (1.57)	700N (70kgf)		M12 (0.47), depth 15 (0.59) pitch 1.75 (0.06)	70 (2.75)	60 (2.36)	40 (1.57)	25 (0.98)			1000g/2.20 lb
KM-08C	φ80 (3.14) × 45 (1.77)	1000N (100kgf)		M12 (0.47), depth 18 (0.70) pitch 1.75 (0.06)	80 (3.14)	66 (2.59)	45 (1.77)	27 (1.06)			1600g/3.52 lb
KM-025S	26 (1.02) × 26 (1.02) × 25 (0.98)	100N (10kgf)	None	None	26 (1.02)				Type C (See page 79)	Prepared hole up to 11 deep on the rear face allowed.	118g/0.26 lb
KM-06S	26 (1.02) × 60 (2.36) × 25 (0.98)	200N (20kgf)		M6 (0.23), depth 10 (0.39) pitch 1.0 (0.03)	60 (2.36)	25 (0.98)	25 (0.98)	15 (0.59)		Provided	275g/0.60 lb

*The holding power is based on a test piece of SS400, 10 mm thick, ground surface.

Model KM-T-T HEAT-RESISTANT PERMANENT MAGNETIC HOLDER

↑ indicates the attractive face.



A heat-resistant type introduced to permanent magnetic holders!

[Application]

Most suitable as a securing fixture in workplaces where heat is generated such as ship building and welding sites. These holders can also be used to hold down drawings, rulers and small parts.

[Features]

- Heat resistance up to 350°C
- The tapped hole provided on the back widens a scope of use by assembling these holders to fixtures.

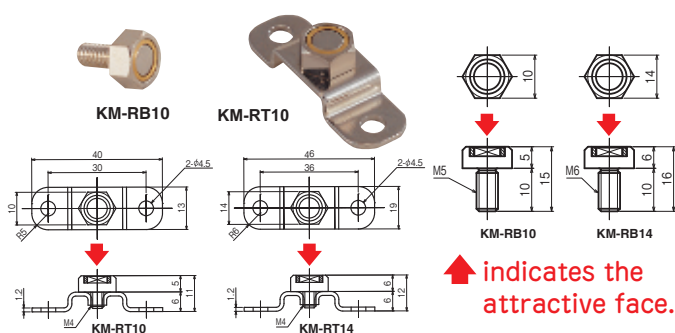
[mm (in)]

Model	OD × Height	Holding Power	Surface Treatment	Mounting Tapped Hole	Upper Limit of Working Temp.	Tapping	Mass
KM-T004T	φ40 (1.57) × 40 (1.57)	300N (30kgf)	Painting	M8 (0.31) depth 10 (0.39) pitch 1.25 (0.04)	Max. 350°C	Provided.	0.4kg/0.88 lb
KM-T005T	φ50 (1.96) × 45 (1.77)	500N (50kgf)					0.67kg/1.47 lb

*The holding power is based on a test piece of SS400, 10 mm thick, ground surface.

Model KM-RB HEXAGONAL PERMANENT MAGNETIC HOLDER (WITH MALE THREAD)

Model KM-RT HEXAGONAL PERMANENT MAGNETIC HOLDER (WITH PLATE)



[Application]

Used as a jig. Used for operations of conveying light weight workpieces in lines, etc.

[Features]

- The tip of the permanent magnetic holder is threaded, which enables the holder to be mounted in any place easily.
- When used in combination with the included plate, the holder can be mounted in places where a tapped hole cannot be made. (Model KM-RT)
- Since this holder has been nickel plated, it can be used under various circumstances.

Model	Holding Power	Mass	Model	Holding Power	Mass
KM-RB10	10N (1kgf)	5g/0.011 lb	KM-RT10	10N (1kgf)	10g/0.022 lb
KM-RB14	40N (4kgf)	10g/0.022 lb	KM-RT14	40N (4kgf)	18g/0.039 lb

*The holding power is based on a test piece of SS400, 10 mm thick, ground surface.