

Model **KE-D·E** THIN ELECTROMAGNETIC HOLDER



Rectifier required additionally

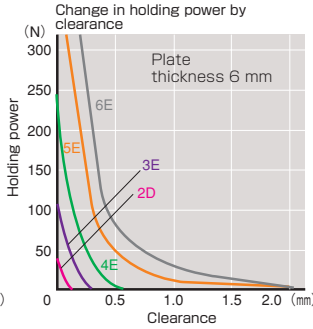
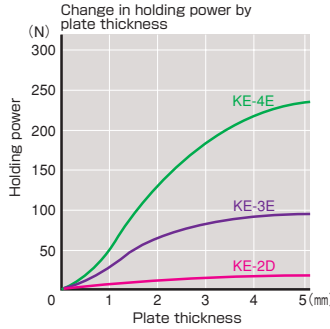
[Application]

Thin electromagnetic holders suitable for a robotic hand as they provide vertical motion in a certain range in limited space.

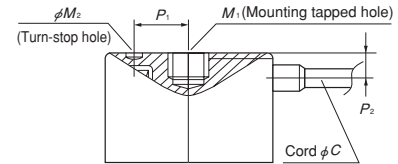
[Features]

- Special cables that have specially high durability against bending and vibration are used. (Employed in all models except for KE-2D.)
- Usable continuously.
- Finished by plating.

A type of cord on the top face spec. (KE-E-U) is also available.



⟨KE-3-6E⟩



Precautions for use

Rust and scratches on the attractive face affect the holding power adversely. Repair it periodically. When used continuously, the holder will become very hot. Exercise caution.

Model	Nominal Size	Max. Holding Power	Mounting Hole			Power Cord		Voltage	Current	Working Rate	Applicable Rectifier	Mass
			M <sub>1</sub>	M <sub>2</sub>	P <sub>1</sub>	C	P <sub>2</sub>					
KE-2D	φ20 (0.78) × 25 (0.98)	18N (1.8kgf)	M4 (0.15) × 0.7 (0.02) Depth 8 (0.31)	φ2.1 (0.08) Depth 2.5 (0.09)	7.5 (0.29)	—	—	24 VDC	0.04A	100% ED	KR-T101-6/24 RH-M303A-6/24, -C1, -C2 RH-M105B-24	30g/0.06 lb
KE-3E	φ30 (1.18) × 25 (0.98)	80N ( 8kgf)	M6 (0.23) × 1.0 (0.03) Depth 12 (0.47)	φ4 (0.15) Depth 2 (0.07)	10 (0.39)	φ3.5 (0.13)	7.5 (0.29)	0.09A	100g/0.22 lb			
KE-4E	φ40 (1.57) × 25 (0.98)	220N ( 22kgf)	M8 (0.31) × 1.25 (0.04) Depth 15 (0.59)	φ4 (0.15) Depth 2.5 (0.09)	15 (0.59)		8 (0.31)	0.12A	190g/0.42 lb			
KE-5E	φ50 (1.96) × 30 (1.18)	490N ( 50kgf)	M8 (0.31) × 1.25 (0.04) Depth 15 (0.59)	φ5 (0.19) Depth 3 (0.11)	18 (0.70)	9.5 (0.37)	90 VDC	0.05A	380g/0.83 lb			
KE-6E	φ60 (2.36) × 30 (1.18)	880N ( 90kgf)		φ5 (0.19) Depth 4 (0.15)	20 (0.78)	11 (0.43)	0.07A	500g/1.10 lb				

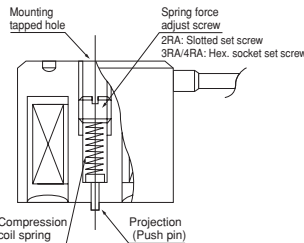
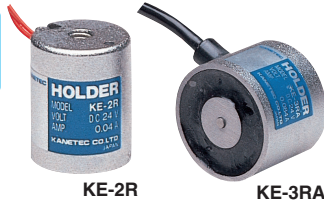
※ Cord length 0.3 m (0.2 m lead for KE-2D only)

※ The max. holding power is based on a test piece of SS400, 10 mm thick, ground surface held on the whole area.

1N≒0.1kgf

Model **KE-R** AUTO RELEASE TYPE ELECTROMAGNETIC HOLDER

Rectifier required additionally



[Application]

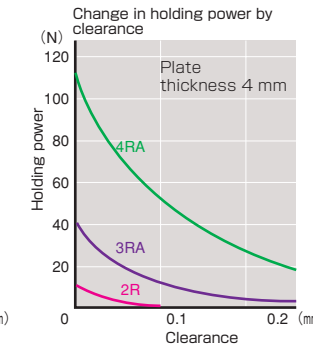
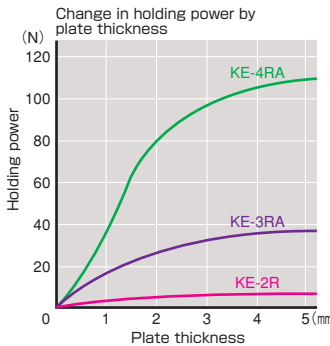
Suitable as a hand of industrial robots for transportation of press workpieces that are small and light to make them difficult to be released by their own weight only.

[Features]

- Special cables that have specially high durability against bending and vibration are used. (Employed in all models except for KE-2R.)
- The workpiece is released quickly by the spring force of the projection in the center of the attractive face. The spring force can be adjusted according to workpiece conditions.
- The workpiece can be attracted and released smoothly.
- Finished by plating.
- Usable continuously.

※ Use these holders for workpieces whose surface where the holder comes in contact is not rough or has no holes. These holders are not suitable either for thin sheets that may be deformed by the pressing force.

A type of cord on the top face spec. (KE-RA-U) is also available.



Precautions for use

Rust and scratches on the attractive face affect the holding power adversely. Repair it periodically. When used continuously, the holder will become very hot. Exercise caution.

Model	Nominal Size	Max. Holding Power	Center Tapped Hole on Back	Voltage	Current	Working Rate	Applicable Rectifier	Mass
KE-3RA	φ30 (1.18) × 25 (0.98)	40N ( 4kgf)	M6 (0.23) × 1.0 (0.03) Depth 6 (0.23)	0.09A	100g/0.22 lb			
KE-4RA	φ40 (1.57) × 25 (0.98)	100N (10kgf)	M6 (0.23) × 1.0 (0.03) Depth 7.5 (0.29)	0.12A	200g/0.44 lb			

※ The projection is provided in the center of the attractive face; φ2 φ max. length 1mm for KE-2R and φ2.5 φ max. length 1 mm for KE-3RA and 4RA.

※ Cord length 0.3 m (0.2 m lead for KE-2R only)

※ The max. holding power is based on a test piece of SS400, 10 mm thick, ground surface held on the whole area.

※ Allowable temperature: The electromagnetic holders KE, permanent electromagnetic holders KEP and hybrid holders KE-H must be used under the conditions of ambient temperature 40°C or below and temperature of workpieces to hold 50°C or below. For higher temperature, please contact us.

※ The holding power of KE-B, KE-E (D) and KE-RA (R) on various thickness of steel plates and the holding power relative to various clearance are as shown by the graphs.

※ The max. holding power is the power that can be obtained under the most favorable conditions including materials, shapes and finishes of workpieces to hold. Therefore, for practical use, choose a suitable model in consideration of a large drop in the holding power depending on situations. Generally, the lifting capacity drops to a half or below of the holding power obtained from the graphs. If you plan to use holders in

particular situations such as for workpieces having holes or grooves on the attractive face to disable the utilization of the whole area or where big acceleration (G) will be applied to workpieces to be held and transported, please contact us.

※ The electromagnetic holders have residual magnetism even after they are powered off. If the mass of the workpiece is greater than the residual holding power, the workpiece will come off, but if not, it is usually necessary to use a rectifier equipped with a reduction-of-magnetization function by reverse excitation, except for the holders equipped with the automatic release function.

※ The electromagnetic holders are not of drip-proof construction. If drip-proof holders are required, please contact us.

※ If you want to use an uninterruptible power supply as a rectifier for electromagnetic holders, please consult with us in advance.

ELECTROMAGNETIC CHUCKS  
CHUCKS  
PERMANENT ELECTROMAGNETIC CHUCKS  
MAGNETIC CHUCKS  
CONTRACTORS  
PERMANENT ELECTROMAGNETIC CHUCKS  
MAGNETIC CHUCKS  
BLOCKS FOR MC  
VACUUM CHUCKS  
PROMELTA\* SYSTEM  
SINE BAR CHUCKS  
BLOCKS HOLDERS, MINI CHUCKS  
HOLDING TOOLS  
MEASURING TOOL HOLDERS  
MAGNETIC HOLDERS  
MAGNETIC TOOLS