Vertical Roller Servo Arms





KSHVAR Overhead – Overhead rail mounted



KSHVAAR floor – Floor mounted

Vertical roller Servo arms, models: KSHVAR / KSHVAAR – 750 / 1000-2301

The Knight **KSHVAR** (overhead rail trolley mounted) and **KSHVAAR** (floor mounted) are **Intelligent Assist Devices (IAD)** that let the operator reach beyond the area directly below the rail system and position loads precisely along the "Z" (vertical) axis with high speed and outstanding reliability. The system allows non-linear overhead motion within a flexible reach envelope at each workstation.

Knight Servo Hoist technology becomes an extension of the operator's natural movement, significantly improving accuracy, responsiveness and repeatability, which raises safety, productivity and overall quality. Key benefits: eliminates non-value-added motion, shortens response time and minimizes the inertia effects of heavy

loads.

* The overhead trolley is not included and is sold separately. Contact FULLSHARP for advice.

Overhead rail trolley mounted series (KSHVAR): KSHVAR750-2301 | KSHVAR1000-2301

Floor mounted series (KSHVAAR): KSHVAAR750-2301 | KSHVAAR1000-2301

See custom Servo applications in the Knight Global Photo Gallery.

General specifications

Mechanical

- Speed: up to 131 ft/min [40 m/min]
- Floor pedestal height: 2.4 m – 3.0 m
- Safety factor: 125%
- Fail Safe Brake
- Heavy Duty Roller Chain
- Chain length: 365 cm – 609 cm
- Sealed Worm Gearbox
- Class H5 – continuous duty cycle

Electrical

- 24 VDC, 2A supply – industrial standard for custom tooling (grippers, vacuum cups, switches, sensors, lights...)
- Illuminated Run/Stop button
- 240 VAC, single phase, 50/60 Hz
- Load cell & handle load sensing
- I/O capability:
- Status LED indicators – green & blue push buttons
- Fault LED indicator, twist-to-release Run/Stop button

Specifications – KSHVAR Series (Overhead rail trolley mounted)

Model	Capacity lbs. [kg]	Max Speed fpm. [mpm]	Voltage / Phase
KSHVAR750-2301	750 lbs. [340 kg]	131.24 fpm. [40.0 mpm]	240V / 1 phase
KSHVAR1000-2301	1,000 lbs. [453 kg]	65.62 fpm. [20.0 mpm]	240V / 1 phase

Specifications – KSHVAAR Series (Floor mounted)

Model	Capacity lbs. [kg]	Max Speed fpm. [mpm]	Voltage / Phase
KSHVAAR750-2301	750 lbs. [340 kg]	131.24 fpm. [40.0 mpm]	240V / 1 phase
KSHVAAR1000-2301	1,000 lbs. [453 kg]	65.62 fpm. [20.0 mpm]	240V / 1 phase

Accessories

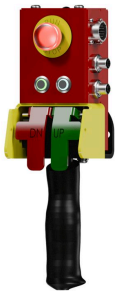
Servo controls



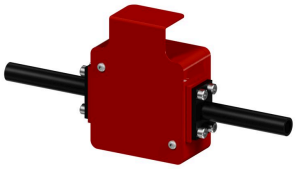
Inline handle with trigger KLCA1000 Weight: 6.81 kg | Capacity: 750–2,000 lbs Integrated LMM & OCI module; 750 lb programmable load cell; Illuminated Float/Lift & Run-Stop buttons; Up to 4 M12 4-pin ports



LMM + OCI module KLCA1002 For use with pendant / fixture handles Programmable load sensing; Ethernet programming port; Up to 3 M12 4-pin I/O ports; Includes KSAA1004 shackle



2-speed handle + OCI KCA1033 Weight: 2.29 kg 2-speed control; 9-pin D-Sub programming port; Illuminated Float/Lift & Run-Stop buttons; Optional trigger configuration



Fixture-mounted load cell handle KCA1071 Weight: 4.96 kg 500 lbs amplified load cell; No buttons to press – just hold the handle; Response force < 0.68 kg; 8-pin M12 cable included



Wireless remote control KCA1004 / 1005 / 1006 FCC Part-15 & CE compliant Signal range: 900 ft [300 m]; 62 programmable channels; AA batteries > 100 hours; 1004: 4 buttons | 1005: 6 buttons | 1006: 8 buttons



Fixture mounted OCI KCA1014 / KCA1015 Weight: 1.59 kg / 3.1 kg Mounts directly on the fixture; Illuminated LIFT, FLOAT & RUN-STOP buttons; KCA1014: rear cable | KCA1015: side cable



2-speed handle (non-prog.) EPDA9600 Weight: 1.13 kg 2 thumb levers – 4 switches; Half travel = speed 1 | Full travel = speed 2; IP67 | UL Listed, CE Approved



2-speed handle + trigger EPDTA9600 Weight: 1.27 kg 2 thumb levers + 1 trigger; 5 switches in total; IP67 | UL Listed, CE Approved

General accessories



Replacement roller chain kit KSHD1021 Max load: 2,000 lbs [908 kg] KSHD1021-12: 12 ft [365.7 cm] long; KSHD1021-20: 20 ft [609.6 cm] long; Standard ANSI 50-2 double chain; Average tensile strength: 12,200 lbs [5,534 kg]



Roller chain wear gauge KSAA1063 Designed for Servo Arm chains Measures ANSI 50-2 double chain; Easy to use, high accuracy



Quick connect / quick release hook KSAA1001 / KSAA1002 Max load: 680–907 kg Quick release by release pin; KSAA1001: 16 mm | KSAA1002: 20 mm; Heat-treated alloy steel



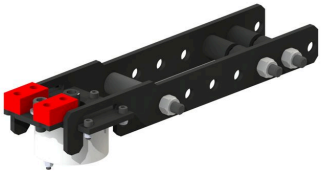
Shackle KSAA1004 Max load: 453 kg [1,000 lbs] 4140 steel body, heat treated to Rock C 38-42; Secured with 2 M6 steel pins; Mounts below the load cell



Swivel Hook shackle KSAA1007 Weight: 2.08 kg | Capacity: 453 kg Large connection hole for swivel hook; Includes KSAD1022 Swivel Hook; Heat-treated 4140 steel



Locking swivel hook KSAD1022 Weight: 0.72 kg | Capacity: 1,451 kg Grade 100 – 20% stronger than Grade 80; Self-locking under load; Anti-friction bearing, 360° swivel



Servo Hoist rail brake KSAA1011 Weight: 2.72 kg Locks the hoist from travelling on the rail; Pneumatic brake – front or rear mounting; Replaceable brake pads

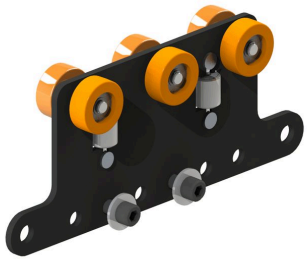
Load trolleys



Load trolley – RAD7510 rail KSAA1050 Max load: 1,134 kg | Weight: 4.31 kg High-impact glass-filled nylon wheels; Sealed double bearings, lubrication-free; –29°C to +120°C



Load trolley – RAD6110 rail KSAA1059 Max load: 725 kg | Weight: 3.45 kg High-impact glass-filled nylon wheels; Sealed double bearings, lubrication-free; –29°C to +120°C



Load trolley – RAD4110 rail KSAA1048 Max load: 408 kg | Weight: 2.04 kg High-impact glass-filled nylon wheels; Sealed double bearings, lubrication-free; –7°C to +120°C

Electrical cables



Coiled cable KCA1040 Made exclusively for Knight Global Wraps around the Servo Hoist chain; 19-pin Military Bayonet connector; Length: 2–20 ft



Straight cable KCA1041 Made exclusively for Knight Global Connects the handle to the Servo Hoist; 19-pin Military Bayonet connector; Length: 2–15 ft



4 & 8-pin micro switch cable CALL Contact FULLSHARP to order Grey PVC, 22 AWG, 4A, 300V; Straight or 90° right-angle connector; Length: 1–6 m

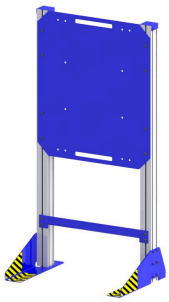
Electrical enclosures & disconnects



3KVA disconnect enclosure KCA1018
Converts 480VAC → 240VAC; Finger-safe 3KVA transformer; 15A primary & secondary breakers; For use with KSH250S–KSH1000S



5KVA disconnect enclosure KCA1055
Converts 480VAC → 240VAC; Finger-safe 5KVA transformer; 25A primary & secondary breakers; For dual/triple servo systems



Disconnect enclosure stand KCA1001
Holds the enclosure at an ergonomic height; Multiple height adjustments; M10×1.5 Nylock bolts

Technical documents

Catalogue

- Arms Brochure – Servo Arms PDF
- Servo Systems Brochure PDF
- Industry 4.0 Capabilities PDF

Specifications (Spec sheet / CAD)

- KSHVAAR Servo Arm – Spec Sheet / CAD PDF
- KSHVAR Servo Arm – Spec Sheet / CAD PDF

Installation guide

- KSHVAR Servo Roller Chain – Operating Manual PDF
- Eye Bolt Safety Cable – Installation Guide PDF
- Safety Cable – End Trucks, Hangers, Trolleys PDF
- Servo System Inspection Checklist PDF

Software

- Knight Servo Configuration Software ZIP

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Authorized distributor of Knight Global lifting equipment in Vietnam — VSIP Hai Phong
Contact FULLSHARP for a quotation and advice on the system configuration that fits your project.

Contact us for consultation and a quotation

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Specifications may vary with the ordered configuration. Please contact FullSharp for exact details.