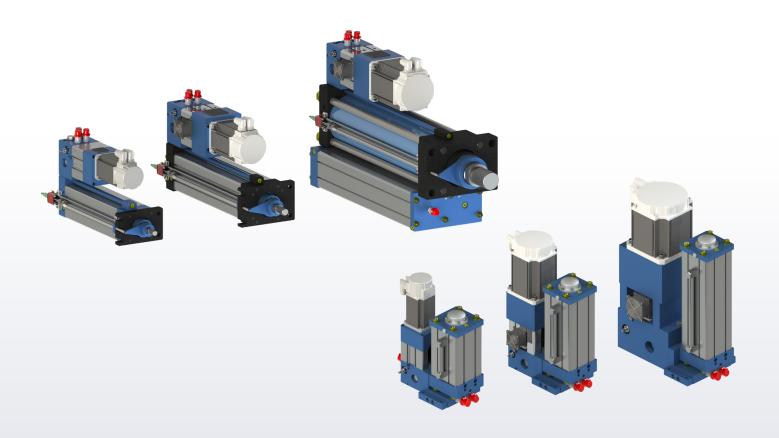


HYBRID LINEAR ACTUATORS AND COMPACT SERVO POWER UNITS



INNOVATIVE ACTUATION SOLUTIONS FOR EVERY APPLICATION

PRECISE CONTROL, ENERGY EFFICIENT, ROBUST, LOW MAINTENANCE

WIDE RANGE OF AVAILABLE FEATURES

STANDARD FEATURES

- High-Precision Servo Motor
- Precise Displacement, **Bi-Directional Pump**
- Manifold with Integral Valving
- Minimal Hydraulic Fluid
- Heavy-Duty Rod / Cylinder with Patent-Pending Rod Compensation
- Temperature Sensor
- Servo Drive / Motion Controller

OPTIONAL FEATURES

- Standard or High-Resolution Position Sensor - External or Internal Mounting
- Pressure Sensor for Force Measurement and Control
- Load Cell Interface
- Food Grade Fluid
- IP67, IP68, IP69k packaging
- Explosion Proof: Class 1 Div 1 / Div II

FLEXIBLE CONFIGURATIONS TO FIT YOUR MACHINE



Parallel Standard



Parallel with Spacer Block



90° Centered



Parallel Inverted



Inline



90° **Behind Power** Unit

ACTUATOR MOUNTING OPTIONS

Rod End



Clevis



Spherical Ball **Joint**



Rod Eye



Parker Style 55



Threaded Male Standard



Threaded Female Standard Threaded Male SI Threaded Female SI





Rear Flange Plate



Side Feet



Trunnion

Actuator Mount



Front Flange Plate



Clevis, 0 Degree Clevis, 90 Degree (0 Degree Position Shown)



Rod Eye Bracket, O Degree Rod Eye Bracket, 90 Degree (0 Degree Position Shown)

CALCULATE YOUR PROJECT ROI



KYNTRONICS ACTUATORS COMBINE THE BEST FEATURES OF SCREW-TYPE EMAS AND HYDRAULIC CYLINDERS WHILE ELIMINATING THEIR SHORTCOMINGS



- Power on Demand
- Ease of Control
- Fieldbus
- Diagnostics
- Easy to Reconfigure





- Shock Tolerance
- High Force Density
- Fluid Characteristics
- Ingress Protection
- Cost Effective

HYBRID ACTUATORS ELIMINATES



EMA SHORTCOMINGS

- Side Loading
- Shock Loading
- Limited Life
- Metal to Metal Wear
- Ingress Protection
- Limited Force & Stroke



HYDRAULIC SHORTCOMINGS

- Leaks / High Maintenance
- Network Integration
- High Energy Consumption
- Difficult to Reconfigure
- Control Challenges





KYNTRONICS ACTUATORS ARE...



Energy Efficient - using Power on Demand



Safe and Reliable -No Hoses, No Leaks



Rugged and Durable -Tolerates Shock and Side Loads



Low Maintenance - No Metal-to-Metal Wear



Precise - with Servo Control of Position, Force and Speed



Configurable - Closed System, can be oriented in any direction

ACTUATORS AND COMPACT SERVO POWER UNITS THAT SAVE ENERGY, ARE LOW MAINTENANCE, ROBUST, AND PRECISE

HYBRID LINEAR ACTUATOR (SHA)



SHA ACTUATOR TOTAL SOLUTION

- Actuator Complete with Motor, Controller & Software
- Hybrid Design of Electro-Mechanical and Hydraulic Actuation





SHA ACTUATOR ONLY

- Mounts to Most Any Brand Motor
- Hybrid Design of Electro-Mechanical and Hydraulic Actuation







Up to 150,000 lb. (667 kN) of Force





Up to 120 in - (3,048mm) Stroke Length



HYBRID COMPACT SERVO POWER UNIT (SPU)



SERVO POWER UNIT TOTAL SOLUTION

- Servo Power Unit Complete with Motor, Controller & Software
- Replaces Inefficient Hydraulic Power Units
- Operates Either Linear or Rotary Actuators





SERVO POWER UNIT ONLY

- Mounts to Most Any Brand Motor
- Replaces Inefficient Hydraulic Power Units
- Operates Either Linear or Rotary Actuators



PRODUCT RANGE



Up to 3,000 PSI (207 Bar)



Up to 11.98 GPM (45.35 LPM)



TOTAL SOLUTION PACKAGE

COMPLETE WITH ACTUATOR, MOTOR, CONTROLS, CABLES AND FACTORY ASSISTANCE

Our 'Total Solution' controls package includes an array of hardware options and comprehensive software capabilities that make it easy to implement various control modes, control processes with "pass/fail" determinations, log data for analysis and interface with common fieldbus options.



Single Drive on Panel / Backplate



Single Drive Enclosure

TOTAL SOLUTION OPTION FOR HYBRID ACTUATORS AND COMPACT SERVO POWER UNITS

TOTAL SOLUTION CONTROLS TO SIMPLIFY THE INSTALLATION

- Drive mounted, wired, programmed, and fully tested
- AC or DC

- Standard control software (for easy installation)
- Support & Documentation





TOTAL SOLUTION — CONNECTIVITY

Connects with most any PLC / Controller



ETHERNET IP **INTERFACE**

- Implicit Messages
- Explicit Messages

FIELDBUS OPTIONS

- Ethernet TCP/IP
- Ethernet IP
- EtherCAT
- Modbus TCP
- Modbus RTU
- Profinet
- Analog/Digital
- Other Consult Factory

CANopen

POSITION FEEDBACK

0-10Vdc or SSI

FORCE FEEDBACK (PSI)

■ 0-10Vdc

SOLENOID LOCKING

24Vdc

STO

Single or Dual

HMI PACKAGE



- Diagnostics
- Setup
- Tuning
- Indexing & Sequencing setup (16 indexes)
- Jogging / Start / Stop Operation
- Quality Signature Checks -(go-no go)
- Data Logging to USB

ROCKWELL AUTOMATION CONTROL OPTION



- AOI for easy setup & control
- Simple integration with Kinetix Drives
- Standard AB motor mounting
- Sample programs



through installation and beyond.

PRODUCT SPECIFICATIONS

HYBRID LINEAR ACTUATORS (SHA)

Model	Bore Size in (mm)	Rod Size in (mm)	Maximum Extend Force* lbf (kN)	Maximum Retract Force ¹ lbf (kN)	Maximum Extend Speed in/s (mm/s)	Maximum Retract Speed in/s (mm/s)	Maximum Stroke² in (mm)
SHA10	1.00 (25.40)	0.63 (15.88)	2,356 (10.48)	1,426 (6.34)	34.50 (876.30)	56.69 (1,439.93)	60.00 (1524.00)
SHA15	1.50 (38.10)	1.00 (25.40)	5,301 (23.58)	2,945 (13.10)	15.40 (391.16)	27.64 (702.06)	60.00 (1524.00)
SHA20	2.00 (50.80)	1.00 (25.40)	9,425 (41.92)	7,069 (31.44)	8.60 (21844)	11.51 (292.35)	60.00 (1524.00)
SHA25	2.50 (63.50)	1.38 (35.05)	14,726 (65.50)	10,272 (45.69)	5.50 (139.70)	7.92 (201.17)	60.00 (1524.00)
SHA32	3.25 (82.55)	1.38 (35.05)	24,887 (110.70)	20,433 (90.89)	3.30 (83.82)	3.98 (101.09)	60.00 (1524.00)
SHA40	4.00 (101.60)	2.00 (50.80)	37,699 (167.69)	28,274 (125.77)	2.20 (55.88)	2.88 (73.15)	60.00 (1524.00)
SHA50	5.00 (127.00)	3.00 (76.20)	58,905 (262.02)	37,699 (167.69)	1.40 (35.56)	2.16 (54.86)	60.00 (1524.00)
SHA60	6.00 (152.40)	3.50 (88.90)	84,823 (377.31)	55,960 (248.92)	1.00 (25.40)	1.45 (36.83)	60.00 (1524.00)
SHA80	8.00 (203.20)	4.00 (101.60)	150,796 (670.77)	113,097 (503.08)	0.50 (12.70)	0.72 (18.29)	60.00 (1524.00)

¹ Maximum force only in extend

COMPACT SERVO POWER UNITS (SPU)

		* *							
Model	Manifold Size	Maximum Pressure PSI (bar)	Maximum Flow GPM (LPM)	**Required Torque (Nm)					
SPU02	Small	3000 (207)	0.17 (0.64)	1.09					
SPU05	Small	3000 (207)	0.40 (1.51)	2.55					
SPU07	Small	3000 (207)	0.66 (2.50)	4.19					
SPU11	Small	3000 (207)	1.06 (4.01)	6.75					
SPU13	Small	2598 (179)	1.63 (6.17)	10.39					
SPU21	Medium	3000 (207)	1.85 (7.00)	11.85					
SPU23	Medium	3000 (207)	2.23 (8.44)	14.22					
SPU27	Medium	3000 (207)	2.97 (11.24)	18.96					
SPU31	Medium	3000 (207)	4.17 (15.79)	26.66					
SPU34	Medium	3000 (207)	5.38 (20.37)	34.37					
SPU36	Medium	2531 (175)	7.05 (26.69)	38.00					
Servo Power Unit Product Specifications - Requires Customer-Supplied Motor & Drive									
*SPU45	Large	3000 (207)	5.99 (22.67)	38.29					
*SPU47	Large	3000 (207)	7.70 (29.15)	49.23					
*SPU49	Large	3000 (207)	10.27 (38.88)	65.63					
*SPU51	Large	3000 (207)	11.98 (45.35)	76.60					

NOTES:

- * Not offered as a Total Solution customer supplied motor & drive configuration only.
- ** Torque Information for customersupplied motor & drive instances.
- Consult factory as needed for additional models.
- For additional information on the operational performance of Servo Power Units, email sales@kyntronics.com to speak with an engineer.

Kyntronics



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ABOUT KYNTRONICS

Established in 2013, Kyntronics specializes in designing and manufacturing advanced actuators and actuation systems to meet the growing demands of automation, precision, and sustainability. Headquartered in the USA, we are committed to delivering innovative actuation solutions that combine mechanics, electronics and software with world-class support. Ready to transform your motion control system? Contact our team today at sales@kyntronics.com to learn how Kyntronics can help you achieve precision, efficiency, and reliability in your next project!







² Longer strokes up to 120in (3048mm) available. Contact Kyntronics