

IMA INTEGRATED MOTOR ACTUATOR

The IMA is a compact, durable, high force rod-style actuator with an IP65 rating. The IMA integrates a servo motor into a ball or roller screw-driven actuator to provide efficient high force in a compact lightweight design envelope. Our patented design allows for easy re-lubrication without disassembly for extremely long service life. Built-to-order in stroke lengths up to 450 mm (18") with your choice of screw technology.

Tolomatic™... MAXIMUM DURABILITY
EXCELLENCE IN MOTION

ENDURANCE TECHNOLOGYSM

A Tolomatic Design Principle

HIGH POSITIONAL ACCURACY

SCREW ACCURACY

Roller Nut $\pm 0.0004"/ft.$ $\pm 0.0102mm/300mm$
Ball Nut $\pm 0.002"/ft.$ $\pm 0.051mm/300mm$

REPLACEABLE ROD WIPER

- Prevents contaminants from entering the actuator for extended life

GREASE PORT

- Screw re-lubrication system provides extended screw service life
- Convenient lubrication without disassembly (IMA22 is lubed for life and does not include grease port)

INTEGRAL MOUNTING

- Four metric threaded holes on front face are available for direct mounting or addition of customized options

THREADED ROD END

- Zinc plated alloy steel construction for corrosion resistance
- Provides a common interface to multiple rod end options

THRUST TUBE

- Steel thrust tube supports extremely high force capabilities
- Salt bath nitride treatment provides excellent corrosion resistance, surface hardness and is very resistant to adherence of weld slag, water and other potential contaminant

MULTIPLE SCREW TECHNOLOGIES

YOU CAN CHOOSE:

- Ball screws offer efficiency at a cost effective price
- Roller screws provide the highest force and life ratings available



INTERNAL BUMPERS

- Bumpers protect the screw and nut assembly from damage at end of stroke

LIGHTWEIGHT ALUMINUM DESIGN

- Black anodized extrusion design is optimized for rigidity and strength

SMOOTH BODY DESIGN

- Eliminates potential contaminant collection points



Modifications:

- Contact Tolomatic for stainless steel, manual override or food grade versions of the IMA (See the white paint IMA on the next page)

ROBOT & DRIVE/CONTROLLER COMPATIBILITY

• Compatible feedback, connector(s) and wiring to match the following robot & drive/controller manufacturers:

- | | | |
|-------------------------|------------------------------------|--------------------------|
| • ABB Robot* | • Nidec/Control Techniques FM & NT | • Nachi Robot* |
| • Aerotech BM* | • Fanuc Robot* | • Omron* |
| • Allen Bradley MP & VP | • Kawasaki Robot* | • Parker MPP* |
| • B&R 8LS* | • Kollmorgen AKM* | • Schneider Electric SH* |
| • Baldor BSM | • Kuka Robot* | • SEW CMP* |
| • Beckhoff AM8* | • Lenze MCA | • Siemens 1F* |
| • Bosch Rexroth MSK | • Motoman / Yaskawa Robot* | • Stober* |

*Consult Tolomatic for lead time

- Tolomatic standard connector, wiring and flying lead cable can be used to integrate with servo drive manufacturers such as:
 - AMC
 - Copley
 - Elmo
 - + Others

- STAGGERED CONNECTORS for convenient installation

HIGH RESOLUTION FEEDBACK

YOU CAN CHOOSE:

- Incremental encoder
- Multi-turn absolute encoder, Hiperface, Hiperface DSL, EnDat 2.2
- Resolver

HIGH FORCE ANGULAR CONTACT BEARINGS

- Provides complete support of screw and protects the feedback device from linear forces

MULTIPLE MOTOR WINDINGS

YOU CAN CHOOSE:

- 230V or 460V rated windings potted directly into actuator housing
- Skewed motor windings provide minimal torque ripple for smooth linear motion
- Integral thermal switch for over temperature protection
- 1 stack motor (MV21-230V & MV41-460V) available for the IMA22 & IMA33, allows strokes between 3 and 6" providing the force needed for many applications in a more compact, lighter weight packages

OPTIONS

MOUNTING

- Front Face - Standard
- Side Mounting Holes, 2 sides & bottom (no photo)
- Mounting Plates
- Rear Clevis
- Front Flange
- Trunnion, Rear or Front

ROD END

- Internal Thread - Standard
- External Threads
- Clevis
- Spherical Eye
- Alignment Coupler

BRAKE

- 24V Spring held / electronically released

CABLES

- Signal Cable (5 & 10 m)
- Power Cable (5 & 10 m)

- IP67 • For protection against water and dust ingress

ARO

- Anti-Rotate