

by A.S. Thomas, Inc.

Change the way you change over

Features

- 50, 75 & 100mm stroke
- 304 stainless steel stroke tube
- Optional 316L stainless steel stroke tube
- IP66/67 protection
- wireless operation
- replaceable nose adapter
- mix/match with linear actuators of different form factors
- mix/match with rotary actuators of different form factor
- secondary actuator may be driven with:
 - any ASTRRA master actuator
 - Dual Actuator Control Module
 - SixPack Actuator Control Module

Applications

- conveyor guide rails
- top cover height adjustment
- diverter gates
- box stops
- package labeler aligner

A. S. Thomas, Inc. introduces the third generation linear actuator in it's line of conveyor automation products. The *Compact Linear Actuator-3G* design incorporates several impressive technological improvements which enable a more powerful 100mm actuator to be enclosed in a form factor 1/2 the volume of the 2G *100mm* actuator. The more compact package allows deployment in tight areas which previously required special brackets. The new case also includes three mounting points which allows the integrator to physically position the actuator at several different reaches.

Designed to be used in washdown environments, the *Compact Linear Actuator-3G* series also employs a 304 stainless steel stroke tube to prevent deterioration from harsh chemical solvents often encountered in the food and dairy industries. The stroke tube is fitted with a replaceable nose adapter in case the user has non-standard connection points on his equipment.

As with the 2G actuator modules, the *Compact Linear Actuator-3G* comes standard with ASTRRA wireless technology dramatically reducing deployment costs of the system. The wireless capability serves to



simplify system changes and upgrades. System control is like-wise simplified because the operator interface may be placed anywhere on the facility floor.

As with the first generation actuators, the ASTRRA system provides the user with unmatched flexibility, control and reliability over pneumatic and mechanical adjustment systems. The actuators can be commanded to move to positions of 0.1mm resolution with repeatability of 0.05mm. Up to 120 pair of the *Compact Linear Actuator-3G* can be controlled by a single Segment Coordinator. In the event of a power failure, the actuators do not need to be homed or oriented. In fact, if the power failure occurred in the midst of a move one only need to re-issue the move command after power is restored and the system will resume the move from it's last position. During power off, the actuators will hold their physical position with no creep or slippage.

The *Compact Linear Actuator-3G* can be deployed alongside other ASTRRA products such as the *Rotary Inline-2G*, and the *SpeedSync* linear actuator. All can then be controlled by a common Segment Coordinator using ASTRRA Zone capability. As a result, all aspects of the packaging line – timing screws, rails, top-covers, labelers and cap air conveyors – can be changed over with a single push of a button from the users HMI, PLC or IPC.

Flexibility, reliability, extensibility and total system control are available to the user at prices competitive to alternative technologies. Contact an A. S. Thomas, Inc. representative to learn how ASTRRA can dramatically increase the productivity of your facility today.

Specifications

Actuator Specifications

Stroke	50 mm (2 in.)	nom.
	75 mm (3 in.)	nom.
	100 mm (4 in.)	nom.
Positioning		
command resolution	0.1mm (0.004")	
repeatability	+/-0.05mm (0.002")	
Thrust	500n (100lbs.)	typ.
Drive	Acme	
Drive speed	12mm/S	typ.
Protection	IP66/67	

Power requirements:

ASG current	75mA@24VDC	typ.
ASC current	75mA@24VDC	typ.
AACM:		
quiescent	80mA@24VDC	typ.
actuating	250mA@24VDC	typ.

Power Specifications

Power Supply:	
Input	85-264VAC 100-353VDC
Output	24VDC +/-2% 4.0Amps
conductor length	15M (50 ft.)max.

(power supply may be centered on a 30M (100 ft.) run with 25pairs)

Optional Accessories

20mm nose adapter
custom nose adapters

Network Specifications

No. of Lines (WPANs)	>1000
No. of Segments/Line	31
No. of AACMs/Segment	120

Protocol:

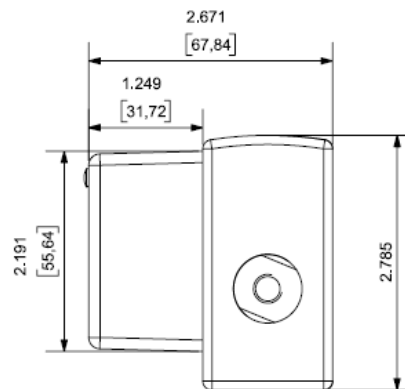
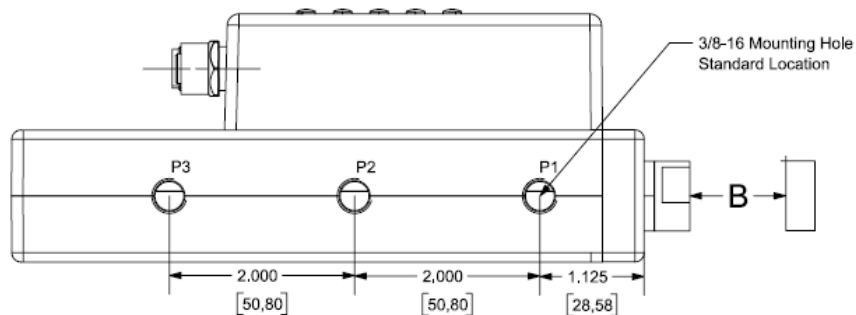
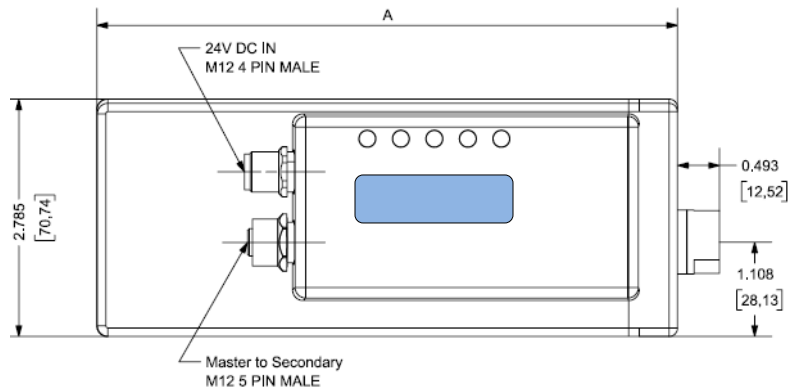
PHY & MAC	IEEE 802.15.4
NWK	Modified MiWi

(deterministic address allocation)

APL	ASTRRAnet
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Transceiver

Tx Power	17 dBm	typ.
Rx Sensitivity	-100 dBm	typ.
Range	500m	typ.



Actuator Dimensions

Model	Length (A)	Stroke (B)	Tolerance
AA-050CLP-3G	4.87" (123.82mm)	1.97" (50mm)	±0.079" (±2mm)
AA-075CLP-3G	5.84" (148.82mm)	2.95" (75mm)	±0.079" (±2mm)
AA-100CLP-3G	6.83" (173.82mm)	3.94" (100mm)	±0.079" (±2mm)



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