



# LSA-105

Linear Straight Actuator  
Multiple Locating Device Capable

## Rigid and Precise

The LSA-105 uses a ceramic Circle-D bearing system based on the, industry standard, LSA-85. Designed to accommodate ultra heavy loads, the LSA-105 uses a 50mm circle or round bearing to combat deflection and a larger “D” bearing block to counter rotation. The “D” shape has no square corners to bind. This technology combined with CNC precision results in RapStop™, a system integral to every unit. RapStop™ replaces external stops and RAP couplings while it maintains Z-Axis accuracy to  $\pm 0.050$  mm. Tested with over 3,000,000 cycles the LSA-105 demonstrated less deflection than any commercially available locating pin and complies with every auto maker’s requirements.

## Easy to Apply

The LSA-105 is symmetrical and has an extremely low profile to fit anywhere and stay out of the way of weld guns and other tooling. World standard sensors are employed to simplify controls integration. A bronze anti-weld slag wiper in a non-conductive mount requires no insulation option. The LSA-105 uses 100% NAMMS standard mounting patterns to assure easy design and assembly on the line. No orifices or other restrictions should be used in the application of Zaytran LSAs.

## Weld Immune

The LSA-105 uses the double bronze wiper that has protected tens of thousands of LSA units in automotive factories all over the globe. This system aggressively removes any weld slag from the heat treated shaft.

## Maintenance Free

The LSA-105 is guaranteed for the life of the tool (with design sign-off). There are no seals or plastic scrapers to change, no covers with pinch points, and no requirement to lubricate the unit.

**ZAYTRAN**  
AUTOMATION  
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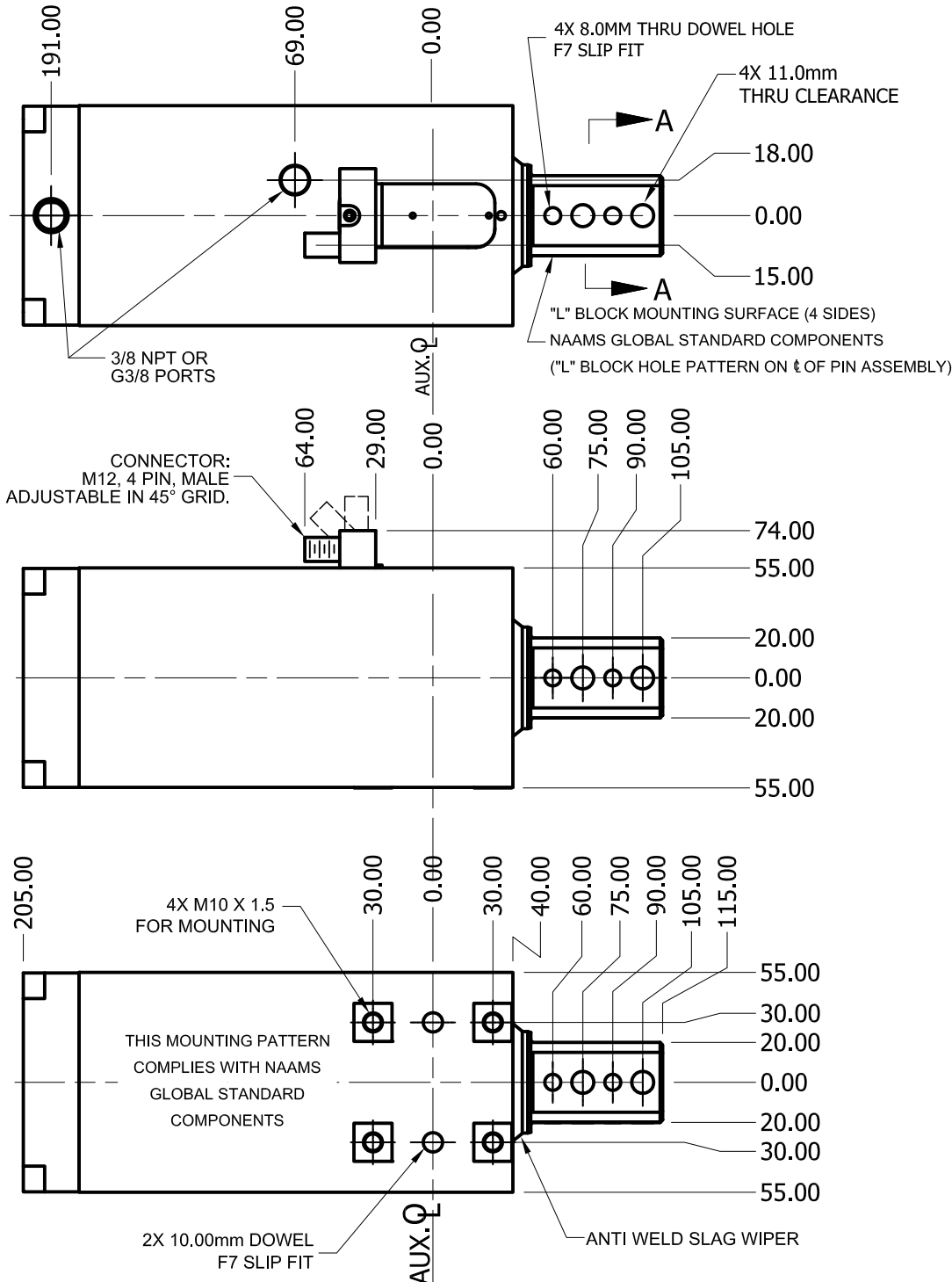
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# ZAYTRAN LSA-105

Model Nomenclature:  
LSA-105-XX-YY-ZZ-R

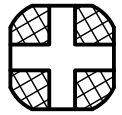
XX Ports: N (NPT) or G (G-Class)  
 YY Stroke: 25 (25mm) or 50 (50mm)  
 ZZ Sensing: SEN (P&F Sensing), SEN-TRK (Turck Sensing) or NS (No Sensing)  
 R Reverse: Blank (Retract is home position) or R (Extend is home position)  
 Example: LSA-105-N-50-SEN  
 LSA-105 with NPT Ports, 50mm of Stroke and P&F Sensing

Stroke: 25mm or 50mm  
 Rap: Not Required  
 Equivalent Bore Dia: 105mm  
 Max. Pressure: 8.2 bar (120 psi)  
 Actuation: Pneumatic  
 Extend Force @ 4.1 bar (60 psi): 370.5kg (817 lbs.)  
 Retract Force @ 4.1 bar (60 psi): 284.8kg (628 lbs.)  
 Assembly Weight: 9.9kg (21.9 lbs.)



Sensor Information			
Pin	Color	Function	-R Function
1	Brown	L+	L+
2	White	Extend	Retract
3	Blue	L-	L-
4	Black	Retract	Extend

Connector: M12, 4pin, male  
 Operating Voltage: 10V to 30V  
 Protection Degree: IP65  
 For use in direct and alternating field welding systems.



A-A  
SECTION VIEW OF OUTPUT SHAFT