



INVENTRA
SURVEILLANCE SYSTEMS

MES01 – Ultra Compact Electromechanical Mast System

The World's Most Compact and Lightweight Motorized Mast
for Unmanned Ground Vehicles



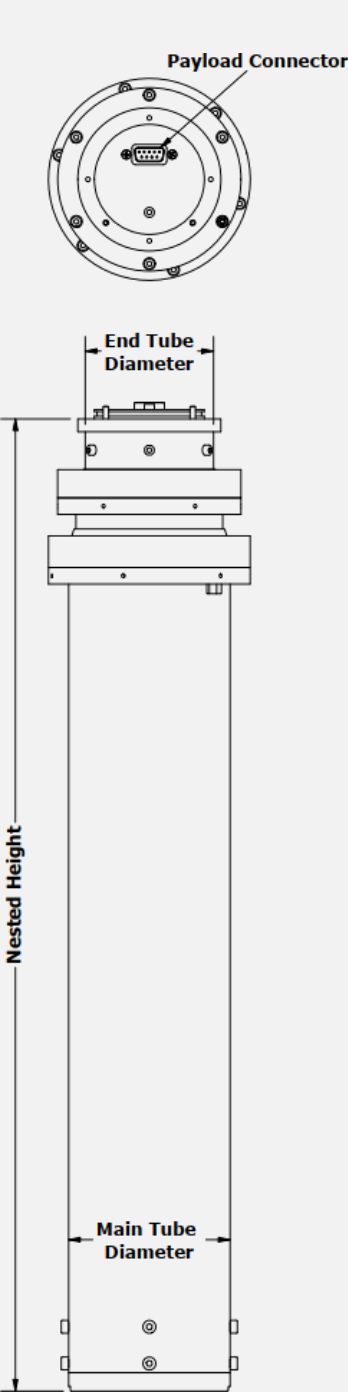
Distinctive Features

- ❖ **Unrivaled Compactness and Lightness:** The MES01 unit stands out as the world's most compact and lightweight motorized mast for unmanned ground vehicles.
- ❖ **Integrated All-in-One System:** The mast system's electromechanical setup incorporates the entire suite of components necessary for operation, including actuate motor, gear units, screw shafts, sensors, control cards, and payload cabling.
- ❖ **Effortless Plug-and-Play Interface:** The MES01 unit offers a plug-and-play mechanical and electronic interface, removing the requirement for flange support. This streamlined interface enhances ease of setup and reduces the complexity of integrating the mast system onto unmanned ground vehicles.

Main Features

- ❖ The MES01 is a groundbreaking mast system offering unmatched compactness and reliability for unmanned ground vehicles.
- ❖ Engineered with a maintenance-free, fully enclosed design, it supports up to 15 payload lines, providing seamless integration and sustained performance under demanding conditions.

Configuration Breakdown	M (Mast) – E lectromechanical – Actuating System (S crew Driven) – Product Class (01) – Retracted Height (mm) – Extended Height (mm) – Rated Payload Capacity (kg) – Product Specific Codes
Part Number	MES01-X-X-X (Check Available Options Below)
Available Customizations	Retracted/Extended Height, Payload Capacity, Communication Protocol, Mechanical Interfaces
Combinable Platforms	SEG1X – Stabilized Gimbal Family



Parameters			MES01-535-1160-05	MES01-700-1500-10
PERFORMANCE PARAMETERS	Retracted Height	mm	535	700
	Extended Height	mm	1160	1500
	Rated Payload Capacity	kg	5	10
	Weight	kg	4	8
	Opening Time	s	30	40
	Actuating Mechanism	-	Threaded Rod	
	Voltage (MIL-STD 1275)	V	28VDC	
	Communication to the Unit	-	TTL/RS485/RS422	
	Connector Type	-	MIL-DTL-38999	
	External Paint	-	RAL 9005 MATTE Black Electrostatic Powder Coating	
DIMENSIONS	Retracted Height (A)	mm	535	700
	Node Diameter (ØB)	mm	92	100
	Number of Node (S)	-	3	3
ENVIRONMENTAL QUALIFICATIONS	Wind Load	km/h	60 @ 0.2m²	
	Temperature	°C	MIL-STD-810G, Method 502.5 Procedure II – Operational, -32°C	
			MIL-STD-810G, Method 501.5 Procedure II – Operational, +60°C	
			MIL-STD-810G, Method 501.5 Procedure I – Storage; +70°C	
			MIL-STD-810G, Method 502.5 Procedure I – Storage; -40°C	
	Vibration	-	MIL-STD-810G, Method 514.6 Procedure I Category 20, Figure 514.6C-3	
	Shock	-	MIL-STD-810G, Method 516.6 Procedure I – Functional Shock; 20g 11ms	
	Rain	-	MIL-STD-810G, Method 506.5 Procedure I – Rain and Blowing Rain, 1.7 mm/h	
	Humidity	-	MIL-STD-810G, Method 507.5 Procedure I; %90 Noncondensing	
Dust and Sand	-	MIL-STD-810G, Method 510.5 Procedure I – Blowing Dusts MIL-STD-810G, Method 510.5 Procedure II – Blowing Sand		



Aslan – Armed Unmanned Ground Vehicle” Developed by Aselsan
Barkan – Autonomous Unmanned Ground Vehicle Developed by Havelsan

MES01 - Ultra Compact Electromechanical Mast System



Aselsan Ertuğrul Bomb Disposal Robot

- **MES01- Ultra Compact Electromechanical Mast System**