

MMW10

Telescopic Winch-Type Manual Mast System

High performance-to-weight ratio manual mast with a wide configuration range for electro-optical imaging, radar and communication tasks

MAIN FEATURES

Winch-Deployed Manual Mast

A winch arm on the tripod body extends all mast sections synchronously — **2500 mm** of height and **50 kg** of payload from a **25 kg** system, with no power supply.

Very Low Stowed Height

Telescopic tripod legs bring the whole system down to **1310 mm** stowed, which is what lets a **50 kg**-class mast travel inside a vehicle.

DISTINCTIVE FEATURES

Locking Winch System

The winch holds the mast at height and each section locks mechanically once open, so the load path does not run through the rope.

Synchronous Section Deployment

All sections rise together from a single winch arm, so the mast cannot rack and the operator raises it in one continuous motion.

High Specific Strength Construction

Material selection and mechanical design give **50 kg** payload at **25 kg** system weight — a 2:1 payload-to-weight ratio for a manual mast.

One-Person Deployment

A single operator sets the tripod, raises the mast and guys it in about five minutes, with no tools and no external power.

Protected Rope Mechanism

The rope path outside the mast body is enclosed by a cover, keeping dust, ice and handling damage away from the actuation.

APPLICATIONS

Border and perimeter surveillance
Radar and antenna positioning
Tactical communications masts

RETRACTED	1.310 mm
EXTENDED	2.500 mm
RATED PAYLOAD	50 kg
WIND LOAD	120 km/h
DEPLOYMENT TIME	5 min
WEIGHT	25 kg



02 How to Build a Part Number

Pick one code from every step below and join them with hyphens, in step order. The steps are the part number. Anything listed as an option is added after the last step.

PATTERN MMW10 – [mast size] – [options]	■ STANDARD BUILD MMW10-1310-2500-0050	BUILD COMBINATIONS 1
EXAMPLE BUILD MMW10-1310-2500-0050-LPEK-IFPS-LGES The standard mast, with lightning protection, an ingress and frost protection sleeve and Spanish labels.		

STEP 1 Mast Size

Required, only one choice. The code is the retracted height, the extended height and the rated payload, in that order. They are chosen together as one size, not one by one.

CODE	RETRACTED HEIGHT	EXTENDED HEIGHT	RATED PAYLOAD
■ 1310-2500-0050	1.310 mm	2.500 mm	50 kg

STEP 2 Options

Not part of the standard build. Add the code to the end of the part number, after the last step. More than one may be added.

CODE	PARAMETER	VALUE
LPEK	Lightning Protection and Earthing Kit	Available
SPPC	Spiral Payload Cable	Available
HEX1	Height Extender	1.000 mm
IFPS	Ingress / Frost Protection Sleeve	Available
LG##	Label Language ¹	EN English · FR French · TR Turkish · AR Arabic · ES Spanish

¹ Pick at most one; English if no code is given.

HIGHLIGHTS



Head, rotator and winch



Collar clamp and locking lever

THE PRODUCT



MMW10 part way up

03 Standard Configuration

The full specification of MMW10-1310-2500-0050. Change a step above and only the rows that come from that step change.

■ **MMW10-1310-2500-0050**

PERFORMANCE PARAMETERS	
Wind Load	120 km/h
Wind Load Reference Area	0,4 m ²
Retracted Height	1.310 mm
Extended Height	2.500 mm
Rated Payload	50 kg
Weight	25 kg
Opening Time	60 s
Deployment Time	5 min
Actuating Mechanism	Manual
Drive Type	Winch Arm with Locking Mechanism

MECHANICAL DATA	
Mast Body Retracted Height	1.200 mm
Section Width	98 mm
Number of Sections	3
Material – Main Body	Aluminum 6061-T6
Surface Finish	Electrostatic Powder Coating
Standard Colour	RAL 9005 Matte Black

QUALIFICATIONS	
Environmental Standard	MIL-STD-810G

SUPPLIED WITH THE STANDARD BUILD	
Standard Duty Straight Stake Kit	8 × Standard Straight Stake
Standard Duty Guy Kit	4 × Standard Guying Rope, 4 × Standard Flat Stake
Tool Kit	1 × Hammer, 1 × Stake Extractor
Installation Manual	1 × Installation Manual

Every figure is nominal; unless a tolerance is written on the row itself, allow ±5 %.

THE PRODUCT



The section clamp knob



The strap running from the head past the winch

04 Environmental Qualifications

The environmental qualification to **MIL-STD-810G**: every test with its method, procedure and conditions.

TEST	METHOD, PROCEDURE	CONDITIONS
High Temperature – Operational	Mtd. 501.5, Proc. II	+60 °C
High Temperature – Storage	Mtd. 501.5, Proc. I	+70 °C
Low Temperature – Operational	Mtd. 502.5, Proc. II	-32 °C
Low Temperature – Storage	Mtd. 502.5, Proc. I	-40 °C
Low Pressure – Operational	Mtd. 500.5, Proc. II	10.500 ft
Low Pressure – Storage	Mtd. 500.5, Proc. I	37.000 ft
Humidity	Mtd. 507.5, Proc. II	90 % RH non-condensing at +60 °C, 10 cycles of 24 h
Rain	Mtd. 506.5, Proc. I	1,7 mm/min, 18 m/s wind, 30 min per exposed face
Salt Fog	Mtd. 509.5	5 % NaCl, 2 cycles of 24 h fog and 24 h drying
Blowing Dust	Mtd. 510.5, Proc. I	—
Blowing Sand	Mtd. 510.5, Proc. II	—
Vibration	Mtd. 514.6, Proc. I	Cat. 4 – Secured Cargo, Fig. 514.6C-3
Shock	Mtd. 516.6, Proc. I	20 g, 11 ms, 3 shocks per direction in 3 axes

05 Packing List

What ships in one consignment for the standard build **MMW10-1310-2500-0050**. Options and separately ordered accessories are not in this list; add their weight to the gross weight.

QUANTITY PER SHIPMENT		MMW10-1310-2500-0050	
ITEM	PART NUMBER	QTY	UNIT (KG)
Wooden crate – 1.410 × 398 × 398 mm	—	1	25
└ Telescopic Winch-Type Manual Mast System, standard build	MMW10-1310-2500-0050	1	25
└ Installation Manual	—	1	—
NET WEIGHT (KG)			25
GROSS WEIGHT (KG)			50



The head assembly and its release dial



The foot bolted to its plate



The open bore at the head