

MTF KR1 — Product Technical Data Sheet

100 mm Modular Survey Pole Extension

General Information

Product Code	MTF KR1
Product Type	100 mm Modular Survey Pole Extension for Leica Mini Prisms and Compatible Accessories
Manufacturer	MadeToFit
Country of Manufacture	Canada

Technical Specifications

Overall Length	100 mm ± 0.1 mm
Body Material	Black Carbon Fiber Reinforced ASA (ASA CF)
Manufacturing Process	FDM 3D Printing
Color	Black
Connection	Male + Female
UV Resistance	High
Operating Temperature	-20 °C to +80 °C
Surface Finish	Technical textured finish

Male Thread

Thread Type	1/4"-20 UNC
Material	Steel
Thread Length	7.23 mm

Female Thread Insert

Thread Type	1/4"-20 UNC
Material	Brass
Usable Depth	12.7 mm

Mechanical Properties (ASA CF)

Tensile Strength (XY)	43.5 MPa
Tensile Strength (Z)	25.0 MPa
Young's Modulus	3612 MPa
Flexural Modulus	3265 MPa
Charpy Notched Impact	5.46 kJ/m ²
HDT (0.45 MPa)	103 °C
Density	1.13 g/cm ³
Carbon Fiber Content	8%

Compatibility

Compatible with Leica GMP111, GRZ101, GPR105, GLS115 and all accessories using a 1/4"-20 UNC connection.

Care & Maintenance

- Keep threads clean and free of debris.
- Clean with warm water and mild soap.
- Avoid aggressive solvents.
- Inspect threads periodically.
- Verify the condition of the brass insert before use.

Manufacturing Tolerances

- The MTF KR1 is manufactured using an FDM additive manufacturing process.
- ± 0.1 mm on the overall length.
- ± 0.5 mm on the insert axis position relative to the outside diameter.
- Minor surface variations may be present without affecting product performance.

Warnings

- Do not apply excessive tightening torque.
- Always verify full thread engagement before use.
- The user is responsible for validating installation and compatibility with the equipment used.

MadeToFit reserves the right to modify product specifications without prior notice as part of continuous product improvement.