P2002 SIERRA MkII
EU 600 KG

SPECIFICATION AND DESCRIPTION

QUALITY AIRCRAFT SINCE 1948
TECNAM

SPECIFICATION AND DESCRIPTION

P2002 SIERRA MkII

This document applies only to the Tecnam P2002 SIERRA MKII and is published for the purpose of providing general information for the evaluation of design, powerplant, performance and equipment.

Should more information be required, please contact:

Costruzioni Aeronautiche Tecnam SpA
Via Maiorise 81043 Capua CE - Italy

Tel. +39 0823 622297
Fax. +39 0823 622899

www.tecnam.com
info@tecnam.com

https://www.tecnam.com/aircraft/p2002-sierra-mkii-aul/

All information here applies to the Tecnam model P2002 Sierra MK2 equipped with the Rotax 912ULS2 engine.

GENERAL DESCRIPTION
P2002 SIERRA MkII

Next-generation Light Sport Aircraft

Construction

The P2002 Sierra MkII is a two-seater side by side, low wing aircraft. The Sierra MkII features superlative performance and flying qualities, confirmed by hundreds of P2002 aircraft sold throughout the world. The ease of piloting and maintenance make this aircraft an excellent solution for training in fight schools. It is also an ideal platform for surveillance and, of course, for pure recreational and private use. The option to use 100LL AVGas or unleaded automotive fuel (with up to 10% ethanol content) makes this aircraft even more flexible and cost effective.
The P2002 Sierra MkII encompasses the latest developments in Tecnam aircraft. The use of advanced software for design, structural and fluidynamics analysis, and experience in building airplanes using all types of materials, results in continuous aircraft improvement. Due to the tapered laminar airfoil and the slotted flaps the P2002 Sierra MkII is an outstanding aircraft with the perfect mix of aerodynamics, performance, and structural efficiency.
Many flight schools in Europe and all over the world rely on the P2002 for students' initial training. Many of them continue their training up to the ATPL using the Tecnam P2006T twin, making Tecnam the ideal one-stop-shop for training aircraft all over the world. The Tecnam P2002 Sierra MkII's structure is based on a steel tube cabin truss covered on the forward fuselage by carbon fiber panels while the tail cone is covered by light alloy sheets. The wing is all light alloy built with a single spar and full metal torsion box. The wing's leading edges are easily detachable for repairs and also incorporate the fuel tanks (110 L - 29 US Gal in total). They are separated from the cabin in order to maximize passive protection. The sliding canopy allows 360° of vision in the cockpit and has full rollover protection tested via inverted drop tests.
The horizontal stabilator tail design, provides remarkable longitudinal hands-off stability along with minimum drag and weight penalty. This provides balanced two finger flight control. The wide slotted flaps, are electrically activated and allow stall speed lower than 40 Kts, and allow the aircraft to perform steep approaches and easier landings. The all alloy ailerons are effective and ensure a quick roll rate without being overly sensitive. All control surfaces are made out of light alloy and all, except for flaps and tab, are mass-balanced.

Landing Gear

The main landing gear is composed of light alloy spring. This provides a main gear that is robust for unimproved landing strips and requires no service. The trailing link nose gear uses a rubber shock absorber system that was designed for the rigours of the training environment. The main landing gear wheels and brakes are 5.00x5, providing the facility to use multiple different tire brands that can be chosen in relation to the mission type and expected number of landings per hour. There are toe brakes, with a parking brake valve located on the console between the seats.

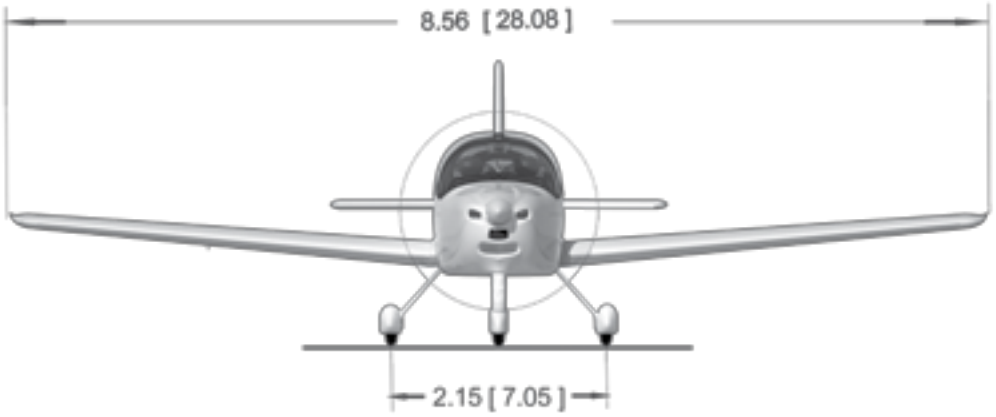
Certification

This model is available as Advanced Ultralight & US/LSA.
The Tecnam P2002 Sierra MkII is ready for the new EU 600kg ULM category. This model is available in those Countries where this category is approved by their Local Civil Aviation Authorities.

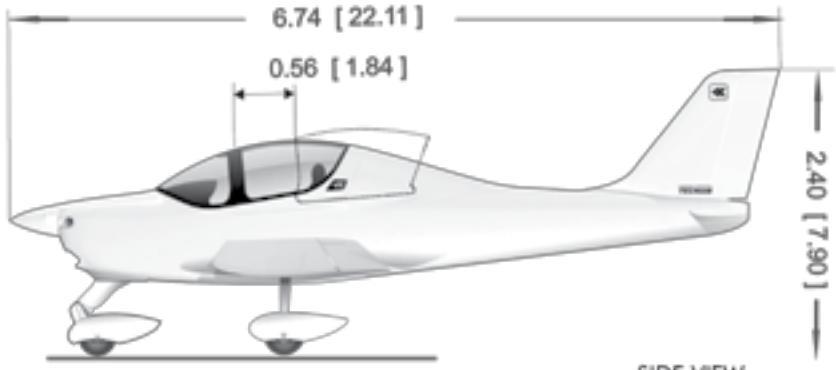
All information here applies to the Tecnam model P2002 Sierra MK2 equipped with the Rotax 912ULS2 engine.

EXTERIOR

TOP VIEW



FRONT VIEW



SIDE VIEW

-Dimensions in meter [feet]-

1.00 [3.28]

COSTRUZIONI AERONAUTICHE TECNAM

DIMENSIONS

Wing	ft	m
Span (overall)	28.08	8.56
Area	123.8ft²	11,5 mq
Dihedral	5°	
Aspect ratio		6.4

Dimensions	ft	m
Overall Height	7.9	2,4
Overall Length	22.1	6,74

WEIGHT AND LOADING

	SIERRA MkII	
	kg	lb
Maximum Take-Off Weight	600	1,320
Empty Weight, Standard	367	809
Useful Load	233	514
Baggage allowance	20	44

PERFORMANCE

	912 ULS2 600 kg	
Max Cruise Speed KTAS	122 kts	226 km/h
Stall Speed (Flaps Down Power Off) KCAS	40 kts	74 km/h
Practical ceiling	14000 ft	4267 m
Take off run	715 ft	218 m
Take off distance	1.115 ft	340 m
Landing Run	505 ft	154 m
Landing Distance	991 ft	302 m
Rate of climb	923 ft/min	4,7 m/sec
Range	620 NM	1148 km

All estimated performance data are based on airplane weights at MTOW; standard atmospheric conditions; level, hard surface, dry runways, no wind.

POWERPLANT & ACCESSORIES

The top and bottom engine cowls are quickly and easily removable making any maintenance procedure faster to accomplish. The top cowl has two large hinged gull-wing style doors for easy access and effective preflight inspection of the entire engine compartment. The engine is set low and the cowling slopes down from the windshield, so forward visibility is outstanding even with a fully equipped instrument panel. The steel firewall is sound proofed and the power plant is a liquid and air cooled Rotax 912ULS2 four- cylinder, four- stroke engine with an integrated 1:2.4286 reduction gear.
The use of liquid cooled heads and air cooled cylinders allows the engine to maintain safe operating temperatures even if a rapid descent is performed immediately after a prolonged climb. A fixed pitch wooden/composite wrapped Sensenich propeller comes as standard whit a ground adjustable pitch propeller; a constant speed V.P. propeller are available as options. The quick drain gascolator is installed under the cabin door and provides easy access for checking fuel. An electric fuel pump is installed to provide an effective back- up to the mechanical one. The battery is located in the rear of the fuselage with easy access through an external hinged door.

ROTAX 912 ULS2

ROTAX®
AIRCRAFT ENGINES

- 4-cylinder
- 4-stroke liquid-/air-cooled engine with opposed cylinders
- Dry sump forced lubrication with separate oil tank, automatic adjustment by hydraulic valve tappet
- Mechanical fuel pump
- Dual electronic ignition
- Propeller speed reduction unit
- Gearbox Reduction Ratio 2,43:1

STANDARD EQUIPMENT

Flight instruments and indicators

Magnetic Compass
Airspeed Ind.,
Altimeter (In/Mb)
Vertical Speed
Bank Indicator
Pitot System
Static System

Engine Instruments & Indicators

Head Temperature, CT
Voltmeter
Oil Temperature
Oil Pressure
Fuel Pressure
RPM
Trim
Flaps
LH+RH Fuel qty

Flight controls

Hydraulic Toe Brakes
Parking Brake
Electrical Flaps, Preselect
Dual Flight Controls
Steerable Nose Wheel
Engine Controls:
- Central Quadrant With Single Throttle Lever
- Choke
Stabilator Trim, Electric (Controlled From Stick)
Fuel Control Selector With LH/RH Off (Andair)

Electrical system

12 VOLT 18A AMP. Battery, Alliant
12 VOLT Alternators 20 AMP.
Starter Key ACS
Split Starter
Rocker Switches:
– Avionic Master
– Fuel Pump
– Landing light
Circuit Breaker Panel
12 Volt socket
Warning Lights:
– Alt Out

Fuel system

Two Integral Fuel Tanks With 110 Litres 29 US Gal Total Capacity
Engine Driven Fuel Pump
Auxiliary Fuel Pump, Electric
Fuel Tank Quick Drain , Two
1 X Shut Off Valve

Powerplant and Propeller

Firewall
Engine 1 Rotax 912ULS2 100 Hp
4 Cylinders
Liquid/Air Cooled
Integrated Reduction Gear
Dual Ignition System
Throttle Control (Central)
Tubular Steel Engine Mount
Propeller: Sensenich 2 Blade Fix Pitch
Propeller Spinner
Two Air Filter
Oil Filter
Oil And Water Coolers
Fire Sleeve Fuel And Oil Tubes

Exterior

Epoxy Corrosion Proofing, All Structure
Canopy, Lock And Key
Tie Down Rings
Main Wheels, 5.00 X 5 – Nose 5,00 X 5

Exteriors lights

Landing Light

Interior

Pilot And Co-Pilot Seats simulated leather adjustable fore and aft
Seat Belts 4 Points All Seats
Wall To Wall Carpeting
Map & Storage Pockets
Radio Call Plate
Soundproofing
Luggage Compartments
Emergency Hammer

Cabin comfort system

Windshield Defroster
Ventilator Adjustable
Heating System

Product Support and Documents

Manufacturer's Full Two Year Limited Warranty
Pilot's Operation Handbook
Maintenance Manual
Parts Catalogue

ANALOGUE

EU 600 Kg Package for analogue

EU600KG category

S-1002	P2002 SIERRA MKII ROTAX 100 HP EU 600 KG

Also Includes the following equipment:

Flight instruments and indicators

- GARMIN GMA245 Audio Panel
- GARMIN GTR225A COM 8.33 Khz with Antenna and Inst.
- GARMIN GTX 335 TRANSPONDER with GPS
- KANNAD ELT 406 Mhz WITH REMOTE MOUNTED SWITCH
- STICK PUSH-TO-TALK SWITCH-PILOT/COPILOT
- MIC & PHONE JACKS-PILOT/COPILOT

Antennas:

- Transponder
- VHF
- ELT

- Emergency Parachute System BRS

Empty Weight 362 kg

GLASS G3X

EU600KG category

S-1004 EU 600 Kg Package only G3X

Non-Additive. Replaces all Standard Equipment.- Also Includes the following equipment:

- Emergency Parachute System BRS

S-1003 P2002 SIERRA MKII 100 HP - G3X Two Screens

Non-Additive. Replaces all Standard Equipment.- Also Includes the following equipment:

Two Display GDU 460 With EIS

- GDU460 PFD
- GDU460
- ADAHRS GSU 25
- GEA 24 Engine Instrument Module
- GMU 22 Magnetometer
- GTP 59 Temperature Probe
- LRU KIT
- Installation Kit
- G3X Sensor Kit
- GA56 Antenna

GSU Configuration

- Amps (Ammeter Shunt Or Hall Effect)
- Monitor CHT
- Aircraft Bus Voltages
- Oil Temperature
- OAT
- Oil Pressure
- Manifold Pressure
- Fuel Pressure
- RPM
- Trim Indicator
- Flaps Indicator
- LH + RH Fuel Qty

Avionics Package

- Garmin GMA 245 Audio Panel
- Garmin GTR 225A Com
- GTX 35R Transponder Mode S Remote Mounted
- KANNAD ELT 406 Mhz With Remote Mounted Switch
- Stick Push-To-Talk Switch-Pilot/Copilot
- Mic & Phone Jacks-Pilot/Copilot

Antennas:

- Transponder
- VHF
- GPS
- ELT

Empty Weight 370 kg

Export certification requirements may require additional equipment and charges. Options also pictured.

PAINT SCHEMES

St1 __ Color Stripes

- BLUE FS/896.4
- SILVER FS/899.1

St2 __ Color Stripes

- RED FS/893.14
- BLACK FS/897

St3 __ Color Stripes

- BLACK FS/897
- SILVER FS/899.1

St4 __ Color Stripes

- BLACK FS/897
- GOLD FS/899.2

Pw1__ Paints ___ Stripes

DEEP BLUE

SILVER FS/899.1
BLACK FS/897

Pw2__ Paints ___ Stripes

BRITISH GREEN

SILVER FS/899.1
BLACK FS/897

Pw3__ Paints ___ Stripes

RACING RED

SILVER FS/899.1
BLACK FS/897

Pw4__ Paints ___ Stripes

SMOKE GRAY

SILVER FS/899.1
BLACK FS/897

Pm1__ Paints ___ Stripes

DEEP BLUE

SILVER FS/899.1
BLACK FS/897

Pm2__ Paints ___ Stripes

BRITISH GREEN

SILVER FS/899.1
BLACK FS/897

Pm3__ Paints ___ Stripes

RACING RED

SILVER FS/899.1
BLACK FS/897

Pm4__ Paints ___ Stripes

SMOKE GRAY

SILVER FS/899.1
BLACK FS/897

Many color options for your to choose: from base Standard livery to the Special Paint Two colors. **More info on: colors.tecnam.com**

NOTES

Pascale Museum at Tecnam Headquarters Capua

20020410

Costruzioni Aeronautiche Tecnam SpA
Via Maiorise 81043 Capua CE - Italy
Tel. +39 0823 622297 Fax. +39 0823 622899
www.tecnam.com info@tecnam.com

https://www.tecnam.com/aircraft/p2002-sierra-mkii-aul/

QUALITY AIRCRAFT SINCE 1948
TECNAM