

COMPACT TRANSPONDERS



TT21 AND TT22 TRANSPONDERS

Chosen by pilots around the world Trig's compact transponders are the best choice for good reason.

Fitting in the tightest panel space the innovative design saves weight and space. Trig is 'better by design,' with Mode S technology that makes you visible to commercial, military and GA traffic, as a result transiting busy airspace becomes more predictable and stress free. Trig transponders are future proof too – the growing use of ADS-B further enhances your visibility and flight safety. Unlike other brands Trig transponders meet the very latest certification standard for ADS-B, FAA TSO-C166b.

Designed to be easier to use, with a clear bright display the controller even comes with a built in altitude encoder! Join other pilots who have made Trig their compact transponder of choice – you'll be in great company.

Contact your nearest Approved Trig Dealer to order your compact transponder.

FEATURES

- Compact form factor – takes minimal panel space, fits in a compact or standard 57mm instrument hole.
- Minimal depth – create space on your panel for other avionics.
- Integrated altitude encoder
- Certified for IFR / VFR flight
- Manual dimming feature (adjustable backlight)
- Low power consumption
- EASA ETSO and FAA TSO Certification – includes TSO-C166b the latest ADS-B standard
- Free European **Minor Change** approvals
- Free FAA ADS-B **STC** for 576 aircraft types
- Unbeatable value and quality – designed and manufactured in the U.K.

PRODUCT DESIGN

Trig's compact transponder is in two parts with a compact control head; this includes an inbuilt altitude encoder – saving further space and expense. A separate hardware box can be installed anywhere in the airframe. The mounted control head is only 54mm (2 3/25") deep and can be fitted in panel using a 57mm (2 1/4") round hole or smaller compact mount – the unit ships with the necessary fittings for both install options. Our compact transponders are highly efficient, whilst used in a wide range of GA types they are ideally suited for use in gliders and balloons, via an auxiliary battery.

Trig's compact transponders are easy to operate and have a crisp, bright display that's easy to read in all lighting conditions and is equipped with manual dimming. The transponder control head is splash proof too, so it's ideal for open cockpit and seaplane operations.

POWER OUTPUT AND ADS-B

Trig's TT21 has a 130 watts nominal power output, making it a class 2 transponder that meets international standards for 1090ES ADS-B Out (TSO C166b). The TT21 is ideal for use in flight where a light weight Mode S solution is required and is suitable for both IFR and VFR use.

COMPATIBLE TRIG PRODUCTS

ADS-B enhances safety and visibility – your investment in a TT22 transponder is future proof. Trig has a matching certified GPS position source that is highly affordable called the TN72. This is ideal for ADS-B voluntary equipage and the TN72 can even be used to meet the 2020 mandate by light-sport, experimental and homebuilt types in the U.S.

Our TN70 GPS position source is suitable for certified Part 23 aircraft that need a TSO-C145 position source, for operations in 2020 rule ADS-B airspace using a TT22 transponder.

Customers in the U.S. should be aware that FAA, Federal Aviation Regulations (FAR) 91.227 requires that a compliant ADS-B Out solution uses a Class 1 transponder. The TT22 is a Class 1 device and meets this requirement. The TT21 is a Class 2 device and does not meet this regulation.

VERSIONS

Product Model	Type	Meets TSO-C166b	Suitable for 2020 ADS-B rule airspace (US)	Transmitter Output	Sales Part Number
TT21	Class 2 Mode – S and 1090ES ADS-B Out capable	Yes	No – FAR 91.227 requires a Class 1 device – select the TT22.	130 W at connector	00710-00
TT22	Class 1 Mode – S and 1090ES ADS-B Out capable	Yes	Yes	250 W at connector	00772-00

SPECIFICATION

Specification	TT21 Transponder	TT22 Transponder
Type	Transponder Class 2 Mode S level 2els ADS-B Class B0	Transponder Class 1 Mode S level 2els ADS-B Class B1S
Certification	ETSO C88A, C112C, C166A TSO C88b, C112c, C166b, approved for IFR and VFR flight	
Compliance	ED-73C, DO-160F, DO-178B Level B, DO-254 Level C, DO-260B, DO-181D	
Supply voltage (DC)	9-33 V	
Typical consumption (at 14v)	idle: 0.15 A active: 0.28 A	idle: 0.15A active: 0.34 A
Nominal Transmitter Power	130 W at connector	250 W at connector
Operating temperature	for the transponder -40°C to +70°C for the controller -25°C to +70°C	
Cooling requirement	no fan required	
Weight (hardware back box)	440g / 0.8 lbs	
Weight (TC20 control head)	90g / 0.11 lbs	
Dimensions (mm)	controller: H 44 x W 63 x L 54 mm transponder in tray: H 48 x W 68 x L 160 mm	
Dimensions (inches)	controller: H 1.8 x W 2.4 x L 2.1 inches transponder in tray: H 1.8 x W 2.6 x L 6.2 inches	

