Amass XT90E-M

XT90 male connector with mounting flange
User manual



Read this manual carefully before mounting and use and keep it for future reference.

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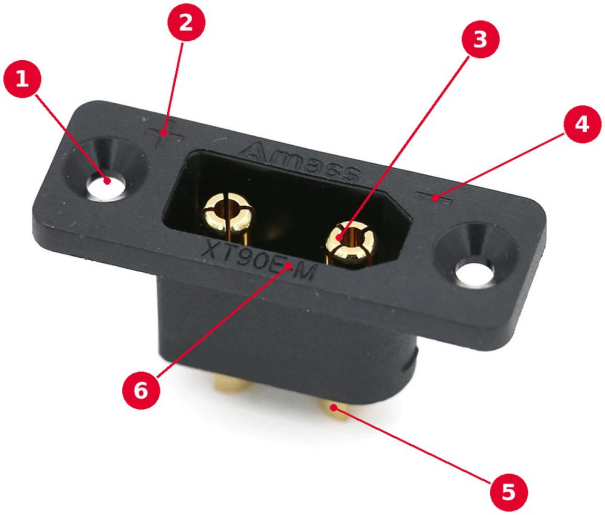
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1. Product description

1.1 What it is for

Amass XT90E-M is a male XT90 power connector with a fixed mounting flange. It is compatible with the classic XT90 connector – it mates with a standard female XT90. Thanks to the flange with two screw holes, it can be firmly attached to a drone frame, an enclosure panel or a 3D-printed holder, so the connector stays in place and does not hang loose on its wires when connecting and disconnecting.

The connector is designed for soldering power wires. The contacts are made of gold-plated brass, the body is made of black plastic with flammability rating UL94 V-0. Polarity is indicated by the + and − symbols moulded into the flange.



Amass XT90E-M

① mounting hole for a screw (2×, countersunk on the front side)

② positive pole mark +

③ connector contact (2×)

④ negative pole mark −

⑤ solder terminal for connecting the wire (2×)

⑥ type designation XT90E-M

1.2 Technical data and package contents

Parameter	Value
Product designation	Amass XT90E-M (black version, type XT90E-M.G.B)
Type	male, flange mounting
Rated current	45 A (10 AWG wire, temperature rise ≤ 85 K)
Rated voltage	150 V DC
Contact resistance	≤ 1.2 mΩ
Insulation resistance	≥ 2000 MΩ
Durability	100 mating cycles
Operating temperature	−20 °C to 120 °C
Contact material	brass, gold-plated
Body material	plastic, black, UL94 V-0
Wire connection	soldering
Flange dimensions	42.00 × 15.1 mm
Overall height	22.80 mm
Mounting hole spacing	32.40 mm
Contact spacing	11.00 mm
Package contents	1× XT90E-M male connector
Not included	screws, nuts, female XT90, wires, heat-shrink tubing

2. Use

2.1 Safety instructions

- Do not exceed the rated current or rated voltage of the connector. Exceeding them may cause a malfunction or an accident.
- **Do not connect or disconnect the connector while live or under load**. Only mate it when the power is switched off.
- The connector is a component for electrical connection, **not a load-bearing part**. Do not use it as part of a structure and do not expose it to pulling by the wires or to other external force.
- Use it only in an environment that matches the technical data; do not use it at high or low temperatures or at high humidity outside the stated range.
- The connector is a precision component – protect it from impacts when unpacking and handling so that the contacts are not deformed, bent or loosened.
- When working with Li-Po and LiHV batteries, never short-circuit the contacts. A short-circuited battery may cause a fire.
- When using the product, observe the regulations of the country in which you operate it – the law of that country is decisive.

2.2 Mounting in a frame or holder

① Prepare an opening for the connector body and two screw holes at a spacing of 32.40 mm in the frame, panel or 3D-printed holder. Check the dimensions of the opening directly on the connector.

② Choose screws that fit the holes in the flange; the holes are countersunk on the front side for countersunk-head screws. Screws are not included.

③ Mind the orientation during mounting – the **+** and **−** marks on the flange must match the wiring of your device.

④ Tighten the screws moderately so that the plastic flange does not crack.

2.3 Soldering the wires

① Disconnect all power. Always solder with the battery disconnected.

② Choose wires with a cross-section suitable for the current in your device. The manufacturer specifies a rated current of 45 A with a 10 AWG wire.

③ Slide heat-shrink tubing onto the wires beforehand.

④ Solder the wires to the solder terminals according to the polarity marks: the positive wire (usually red) to **+**, the negative wire (usually black) to **−**.

⑤ Solder quickly with a sufficiently powerful soldering iron so that the heat does not damage the plastic body of the connector and the contacts do not become loose in it.

⑥ Insulate the joints with heat-shrink tubing and, before connecting for the first time, check the polarity and that there is no short circuit (e.g. with a multimeter).

2.4 Connecting and disconnecting

- Mate the connector with the female XT90 straight, in line, all the way in. The shape of the opening prevents connection with reversed polarity – do not force the connectors together.
- When disconnecting, pull on the body of the mating connector, not on the wires.
- Regularly check that the contacts are not dirty, deformed or discoloured by overheating. Replace a damaged connector.

3. Storage

- Store the unopened package at a temperature of −20 °C to 25 °C and relative humidity of up to 80 %.
- The manufacturer states a shelf life of 1 year.
- Do not touch the contacts with bare hands.
- During transport, protect the connector from impacts, strong vibration, rain, snow and immersion in water.

4. Information for the EU and Czech Market

4.1 Importer and responsible person in the EU

The product is placed on the European Union market by the importer stated below, who is at the same time the responsible person within the meaning of Article 16 of Regulation (EU) 2023/988 of the European Parliament and of the Council on general product safety (GPSR).

Importer / responsible person in the EU	Rotorama, s.r.o.
Company ID (IČO)	051 57 692
VAT ID (DIČ)	CZ05157692
Registered office	Okrajová 1351, 674 01 Třebíč, Czech Republic
E-mail	info@rotorama.cz
Phone	+420 252 252 098
Website	www.rotorama.com

4.2 Disposal of electrical equipment



- The crossed-out wheeled bin symbol on the product, its packaging or in the documentation means that at the end of its service life the product **must not be disposed of together with mixed municipal waste**.
- Hand it over at a take-back point for electrical equipment – at a collection yard, at a take-back point of a collective system, or at the retailer when purchasing a new equivalent product. Take-back is free of charge for the end user.
- The obligations under Act No. 542/2020 Coll., on end-of-life products, are fulfilled by the importer through a collective take-back system.
- Proper disposal helps prevent negative impacts on the environment and human health and contributes to the reuse of secondary raw materials.

Through its contractual partner **ASEKOL a.s.**, the company ensures the take-back of waste electrical equipment from households and the separate collection of waste electrical equipment, batteries and accumulators in accordance with the applicable legislation. The customer is entitled to hand over old electrical equipment or a battery or accumulator at any collection point of the above contractual partner. The addresses of these take-back points are listed at www.asekol.cz, www.ecobat.cz and also https://visoh2.mzp.cz/RegistrMistZO/RegistrMistZOPublic/MapaMistZpetOdberu.

5. Warranty and rights arising from defective performance

The rights and obligations of the contracting parties are governed by Czech law, in particular by Act No. 89/2012 Coll., the Civil Code, and Act No. 634/1992 Coll., on consumer protection.

- The seller is liable to the buyer for the product being free of defects on receipt. If the buyer is a consumer, a defect may be notified **within two years of receipt** of the product (Section 2165 of the Civil Code).
- If a defect appears within **one year** of receipt, the product is deemed to have been defective already at the time of receipt (Section 2161(5) of the Civil Code).
- When purchasing online, a consumer has the right to **withdraw from the contract within 14 days** of receiving the goods without giving a reason (Section 1829 of the Civil Code).
- Claims should be made with the retailer from whom you purchased the product. The importer's contact details are given in Chapter 4.1.
- The competent body for out-of-court settlement of consumer disputes is the **Czech Trade Inspection Authority**, Štěpánská 796/44, 110 00 Prague 1, www.coi.cz.