QS8-S

High-current anti-spark connector
User manual



Read this manual carefully before installation and first use and follow the safety instructions.

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Contents

1. Safety instructions

2. Product description

2.1 Package contents

2.2 Parts

2.3 Technical data

3. Installation on wires

3.1 What you will need

3.2 Which half goes where

3.3 Soldering procedure

3.4 Check after installation

4. Use and maintenance

4.1 Connecting the battery

4.2 Disconnecting

4.3 Maintenance and replacement

5. Information for the EU and Czech Market

5.1 Importer and responsible person in the EU

5.2 Product identification and conformity

5.3 Disposal

6. Warranty and rights arising from defective performance

1. Safety instructions

The QS8-S connector links the battery to a model that draws very high currents. A badly soldered, reverse-polarised or damaged connector can cause a short circuit, overheating, a battery fire or destroy the model's electronics. Read the whole manual before installation.

- Only a person experienced in soldering large-gauge wires should solder the connector. If you are unsure, leave the installation to an experienced modeller or a service shop.
- According to the manufacturer, the version with the **5.1 Ω** resistor is intended for devices up to **60 V**. Do not use it in devices with a higher voltage.
- Observe the polarity marked on the housing (⊕ / ⊖). Reverse polarity destroys the electronic speed controllers (ESC) and other electronics and can lead to a battery fire.
- Never short-circuit the battery contacts. When soldering onto battery leads, always work on one wire only and keep the other insulated.
- Do not use a connector with a damaged, deformed, melted or burnt housing or contact. Replace such a connector.
- Do not operate the connector without the covers fitted. The cover insulates the solder joints and protects them against short circuits.
- Do not exceed the continuous current given in the technical data and do not use thinner wires than the current in your model requires.
- Soldering involves a risk of burns from hot contacts and solder. The contacts take a long time to cool down after soldering.
- The product is intended for persons aged 14 and over. Keep small parts out of the reach of small children.

2. Product description

2.1 Package contents

- 1× female (part with the 5.1 Ω resistor)
- 1× male
- 2× solder joint cover

2.2 Parts

The QS8-S is a two-pole connector: each part holds both contacts, positive (⊕) and negative (⊖), in one housing. One pair therefore connects both battery wires.



Parts of the QS8-S connector

① **Female** – narrower housing with two round sockets. Contains the anti-spark resistor.

② **Male** – housing with a shroud containing the contact pins. The female slides into the male's shroud.

③ **5.1 Ω** marking – value of the anti-spark resistor on the female housing.

④ **Solder cups** for soldering the wires. The housing is marked with ⊕ and ⊖ next to them.

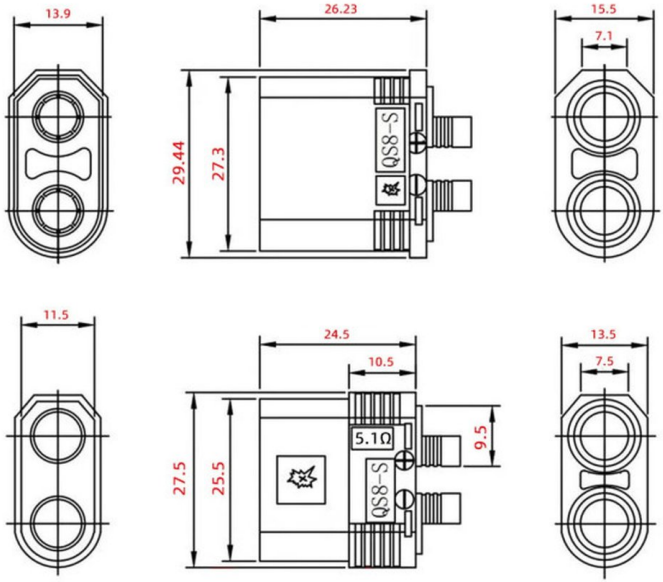
⑤ **Cover** – slides onto the rear of the connector and covers the solder joints, so no heat-shrink tubing is needed.

▶ How the anti-spark works

When the battery is connected to the model, the capacitors on the speed controllers charge. Without current limiting, a spark jumps between the contacts, burning them and increasing their contact resistance. With the QS8-S, the connection is first made through the integrated 5.1 Ω resistor, through which the capacitors charge with a controlled current, and only then do the main contacts connect. The housing is shaped so that the parts can only be plugged together one way.

2.3 Technical data

Parameter	Value
Continuous current	110 A
Maximum current	500 A
Contact diameter	8 mm
Anti-spark resistor	5.1 Ω
Device voltage	up to 60 V (manufacturer's figure for the 5.1 Ω version)
Maximum wire size	6 AWG
Contacts	gold-plated brass
Housing	fibre-reinforced nylon, UL94 V0
Operating temperature	−30 °C to +150 °C



Dimensions in mm – male at the top, female with the 5.1 Ω resistor at the bottom

3. Installation on wires

3.1 What you will need

- a powerful soldering iron or soldering station with a large tip, able to heat the massive 8 mm contact quickly,
- solder, flux and a holder that grips the contact firmly while soldering,
- silicone wires of a suitable gauge, 6 AWG at most,
- a multimeter to check polarity and short circuits.

3.2 Which half goes where

The **female** (part with the 5.1 Ω resistor), whose contacts are recessed in the sockets, is fitted on the **battery** side. The **male** is fitted on the **model** side (speed controllers). The manufacturer supplies charging leads in the same arrangement – the charger has the male connector.

Use the same arrangement on all batteries, models and charging leads. Otherwise they cannot be connected to each other.

3.3 Soldering procedure

① **Slide the cover onto both wires first**, with the correct side facing the connector. It cannot be fitted after soldering.

② Strip the end of the wire so that the bare wire fills the solder cup and the insulation ends right next to it.

③ Clamp the connector part in the holder. Fill the solder cup with solder and insert the wire while the solder is liquid. The contact must be heated enough for the solder to flow around the whole wire.

④ Solder one wire first, let the joint cool down and only then solder the second one. The red (positive) wire goes to the ⊕ contact, the black (negative) wire to the ⊖ contact.

⑤ When soldering onto a battery, always cut and solder one wire at a time. Keep the other wire insulated so that no short circuit can occur.

⑥ Once cooled, push the cover onto the rear of the connector all the way so that it covers both solder joints.

3.4 Check after installation

- The solder has flowed around the whole wire, the cover is fitted and nothing bare protrudes.
- Use a multimeter to check that there is no short circuit between the ⊕ and ⊖ contacts and that the polarity matches on both sides – the positive battery pole must lead to the positive input of the model.
- For the first test, connect the battery to the model without propellers.

4. Use and maintenance

4.1 Connecting the battery

Before connecting the battery, make sure the model is placed safely and nobody is within reach of the propellers. Align the parts according to the shape of the housing and push them together **in one smooth motion all the way in**. Do not leave the connector only partly inserted – full current may only flow through the connected main contacts.

4.2 Disconnecting

Disconnect the connector by pulling on the housings of both parts, not on the wires. Pulling on the wires stresses the solder joints.

4.3 Maintenance and replacement

- Keep the contacts clean and dry. Sand, soil or metal debris must not get into the sockets.
- Regularly check the housing for signs of overheating (discolouration, melting) and the contacts for burn marks.
- If the connector holds loosely, gets noticeably hot during operation or its housing is damaged, replace the whole pair.
- When replacing, desolder the wires one at a time and follow the procedure in chapter 3 again.

5. Information for the EU and Czech Market

5.1 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
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Registered office	Okrajová 1351, 674 01 Třebíč, Czech Republic
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Website	www.rotorama.com

5.2 Product identification and conformity

- **Product identification:** the type designation QS8-S is shown on the housing of both connector parts.
- The product is a passive component intended for installation. It is not subject to EU legislation requiring CE marking; it is placed on the market in accordance with Regulation (EU) 2023/988 on general product safety.

5.3 Disposal

The connector consists of metal contacts, a resistor and a plastic housing. At the end of its service life, do not dispose of it with mixed municipal waste; take it to a collection point in accordance with the rules of your municipality.

6. 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 5.1.
- 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.