MDOP1

RC OPTO-ISOLATOR

RC Receiver from ESC / Servos Galvanic Opto-isolation.

Car / Boat / Plane / BUS / TIR
Tractor, Tank, Dinghy, Sub, Glider.

High level isolation with distortionless signal transfer.
Improves motor control response or servo motors operation.

Reduces servos twitching.
Increases R/C model stability.
Restores the voltage pulses level.

Eliminates Overvoltage and over-current peaks on the power leads.

Version HW: 1.1

USER GUIDE

CE

MDOP1 - Universal RC Opto-Isolator

W - MDOP1W resistant to splashing water, snow, humidity and dust.

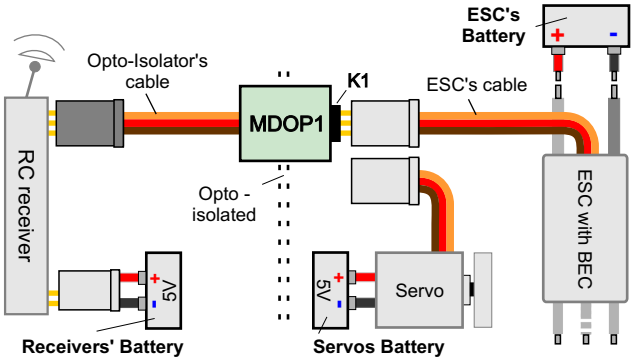
WIRING

ESC Isolation: Connect the ESC´s cable to K1 connector (see Fig.2). Connect the opto-isolator cable to your RC Receiver (motor channel). The Opto-Isolator is powered by RC Receivers battery (5V) at the input side. At the output side (K1) is powered from ESC's BEC (5V).

Servo Isolation: Connect the servos cable to the opto-isolator K1 connector (see Fig.2). Connect the opto-isolator output cable to your RC Receiver (Servo Channel). The opto-Isolator is powered by RC Receivers battery (5V) at the input side. At the output side (K1) is powered from servo's battery (5V).

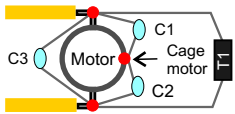
- Secure your opto-isolator on your RC model.

SERVO / ESC WIRING



POSSIBLE RC MODEL'S NOISE SOURCES

Improperly suppressed electric DC motor. Suppressed the motor by installing capacitors 10nF /100V and bidirectional transil T1 (P6KE15CA) to the motor leads.



Power Under-voltage. Solder Low ESR 470-2200uF capacitor to the power input leads of the ESC.

Metal parts vibration (Insulate touching parts).

Dirt in motor, dry bearings. (Clean and grease).

Unsuitable wiring arrangement in model (change the cable wiring locations).

Low quality connectors (use high quality connectors only).

Small cross section power cables (use stronger cables as short as possible).

Unsuitable antenna location. Secure the antenna at least 3 cm from motor, Esc, servos and all metal parts.

TECHNICAL SPECIFICATIONS

Dimension	23 x 12 x 6 mm
Weight / (W)	cca. 2,3g / (2,8g)
Power voltage	+5V, (3V ÷ 8V)
Current consumption input/output	cca. 1mA / 1mA
Control (positive pulses)	T=0,1 ÷ 300ms
Ambient Temperature	-10°C ÷ +40°C
Intended environment	housing, business and light industry

OPERATIONAL INSTRUCTIONS AND SAFETY RULES

To ensure reliability and long ESC life read user guide thoroughly and follow its instructions!

Do not exceed maximum voltage rating. Do not charge battery while connected to MDOP1.

Protect your MDOP1 against drops, aggressive environment, liquids, splashing water and snow (line “W” is resistible against splashing water and snow). Do not connect MDOP1 to battery when taking it from cool to hot environment, wait at least for 20 minutes.

Wrong montage and wiring, any connection shortage, not abiding the operational instructions and safety rules can cause the operator danger, MDOP1 destruction even ignition. The damage is cumulative it can show up on next v start (partial damage became total).

Check and maintain the MDOP1 wiring, isolating and montage after every start.

If you discover any defect on the MDOP1, please return the product to your seller or manufacturer with the defect description and information about used motor and battery(you can leave the connectors on).

Thank you for choosing our universal, compact and light Opto-Isolator.

Your DSYS Team

PACKAGE CONTENT

Quantity

- MDOP1 Opto-Isolator, User guide ..... 1 pc

For more information about our products for hobbyist please visit www.dsys.cz (Products).

QUALITY: All our products are undergoing series of tests to ensure high reliability, long lifetime and consistent safety.

WARRANTY: Our product are guaranteed for 24 months under the conditions described in attached warranty certificate.

SERVICE: We provides expert advice, warranty/expired warranty repair services.

ENVIRONMENT: When the product is no longer in use, dispose of it at an official waste site or inquire about "reverse distribution" (ask your contractor if they offer this service).

INFORMATION, TECHNICAL SUPPORT, SERVICE

Contact us on email.

Information and Support ..... info@dsys.cz

Business related ..... sales@dsys.cz

Visit our website at ..... www.dsys.cz

RC Model Electronic - Manufacturing / Service.

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