# RJ Uhlenbrock Elektronik

# FRU 55 700

# Electronic Reversing Switch For AC Locomotives

Replaces the mechanical reversing switch in AC locomotives. The size matches that of the mechanical switch so that the vehicle will not need to be modified mechanically.

# Description

The component guarantees safe jerk free switching without the bright flashing of the locomotive's lighting. The drive chain in the locomotive remains unchanged. The locomotive light can be connected to depend on the driving direction.

With the use of power transistors it gives only a minimum potential loss and also low heat dissipation.

When the power is turned off, the direction state is not saved by battery backup but rather by a relay. This way the device has an infinite memory.

The reversing switch well protected against voltage spikes and power loss. The running power can be as desired.

No further components are required for installation.

### **Technical Data**

Max. Driving current:: 0.8A continuous

Short term: 1.5A
Driving Voltage: 0-18V~
Reversing Voltage: 22-30V~

Dimensions: 29 x 19.5 x 8mm

# B Uhlenbrock Elektronik

# Our contact Details: Service

In the event of a defect or failure send the unit together with the invoice and a short description of the fault back to us for repair.

# Hotline

We are available if you have any questions!

Your direct line to a technician: **0 20 45 - 85 83 27**Mon - Tue - Thu – Fri. 14:00~16:00 and Wed 16:00~18:00



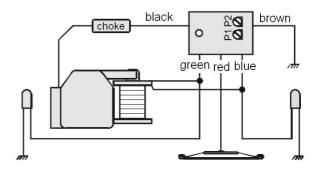
Uhlenbrock Elektronik GmbH Mercatorstr. 6 D-46244 Bottrop Made in Germany

Part No. 55 700

# Installing the FRU 55 700 device

#### Connecting the Device

The Reversing Switch is connected according to the diagram below.



#### Before Use

Check for correct installation with continuity tester or ohmmeter.

With the exception of the mounting screw no other contact is allowed with the locomotive chassis.

A short circuit in the area of the motor, light, pickup and wheels will destroy the device and eventually the electronics in the locomotive

The lights should now switch in the direction of travel. If this is not the case you must swap either the green and blue wires or those to the two lamps.

## Setting up the electronic driver

Firstly setup the locomotive's top speed by turning potentiometer P1 to the right (clockwise). Then you can set potentiometer P2 for the desired inertia. Turning to the right lengthens inertia time.

### Mounting the reversing switch in the vehicle

The FRU-M, in all vehicles, is simply swapped for the mechanical reversing relay. Use the screw which held the relay to attach this module. In the event of space problems a washer between the module and mounting may help.

Ensure that after closing the locomotive there are no short circuits and none of the wires is cinched.

#### Note

A slight humming as the locomotive moves off is technically unavoidable. However, this does not harm the motor in any way.

With lager motor that draw higher currents the module will quickly heat up.

### **Guarantee declaration**

Each component is tested for its complete functionality before distribution. If a fault should arise within the guarantee period area of 2 years, we will repair the component free of charge upon production of proof of purchase. The warranty claim is void, if the damage was caused by inappropriate treatment.

Please you note that, according to EMV law, the component may only be installed in vehicles, which carry the CE logo.