# MCE-204

# Datasheet



MCE-204 is a fast multiplexer adapter for the Akula9000C ground penetrating radar control unit. Akula9000C is backward compatible with all Geoscanners antennas and the main control cable. Since there is only one physical connector on the Akula9000C radar control unit and the antennas(except for SMART anetnnas) require a direct connection to the control unit, a hardware extension is essential to achieve a multichannel configuration. MCE-204 is that hardware extension, providing physical connectors to attach a number of antennas(channels) to Akula9000C.

Since several antennas can be used together with MCE-204, there will be slight changes in the acquisition software compared to using only one antenna. In the software, the user can select each channel and apply the usual settings for each of the connected antennas.

MCE-204 allows up to 4 antennas to be connected to an Akula9000C control unit. It has low power supply requirements that the user doesn't need to concern himself with, because the power is delivered directly from the radar control unit. In other words, there is no need for additional power supply. Furthermore, the complete control of MCE-204 is resolved on the hardware level and Akula9000C takes care of it.

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### Mechanical and Environmental Specifications

Dimensions LxWxD (mm/inches) Weight (kg/pounds) Ingress Protection Operating Temperature (°C/°F) Relative Humidity (%) 103x53x220/4x2.1x8.7 0.5/1.1 IP54 from -20 to +50 /from -4 to +122 96(NC)

#### Electrical and Operating Specification

Power supply (V)\* 12 Number of channels 2-4

\*from the radar control unit

#### Geoscanners antennas using the multiplexer

All antennas except the SMART series of antennas

#### Operating Instructions

WARNING! Do not connect or disconnect the multiplexer from the radar control unit or antennas from the multiplexer while the radar unit is ON. It may cause electrical damage to your unit that will not be covered by the warranty!

- 1. Connect the multiplexer control cable to control connector and main control cable connector on the radar unit.
- 2. Use the standard main control cables to connect the antennas to individual connectors on the multiplexer marked with numbers from 1 to 4.
- 3. Make sure that if you are not using all of the channel connectors, you always follow the numbering on the multiplexer without skipping the connectors. As an example: connecting 3 channels to the multiplexer connectors in the 1,2,3 sequence is correct while the sequence 1,2,4 will raise an error. In case of error you will have to disconnect all cables and start again.
- 4. Once all the cables are connected turn on the radar unit and start collecting your data.

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