GEOSCANNERS
advanced survey systems



DAB-601

The DAB-601 is a dual antenna splitter for antennas compatible with GSSI SIR® systems. It makes possible to operate one-channel radars in bistatic and monostatic mode depending on the amount of antennas connected. The switching between the two modes is done fully automatic and no intervention of the operator is required.

Electrical Specifications

Monostatic Operation Power Consumption	72 mW
Bistatic Operation Power Consumption	168 mW
TX Trigger Input Insertion Loss at 900 MHz	-0.12 dB
TX Trigger Input V.S.W.R at 900 MHz	1.15
TX Trigger Input -3 dB Bandwidth	3 GHz
Maximum TX Peak Voltage	+350 V
Switching Time to On Status	20 mS
Switching Hysteresis to OFF Status	400 mS
Survey Wheel DC power Output *	5 V +/- 0.2 up

* The current consumption of the survey wheel encoder attached to this output should not exceed 200mA due to SIR-3000 output limitations, otherwise it supports up to 1A output

Mechanical Specifications

Dimensions (LxWxH) mm/inch *	110x105.9x45.8 (mm) / 4.3x4.2x1.8 (inch)
Weight Kg / Lbs	0.2kg / 0.44 Lbs
Ingress Protection Rating	IP51

* The length does not include the cable which is 300mm / 11.8 inches long

Environmental Specifications

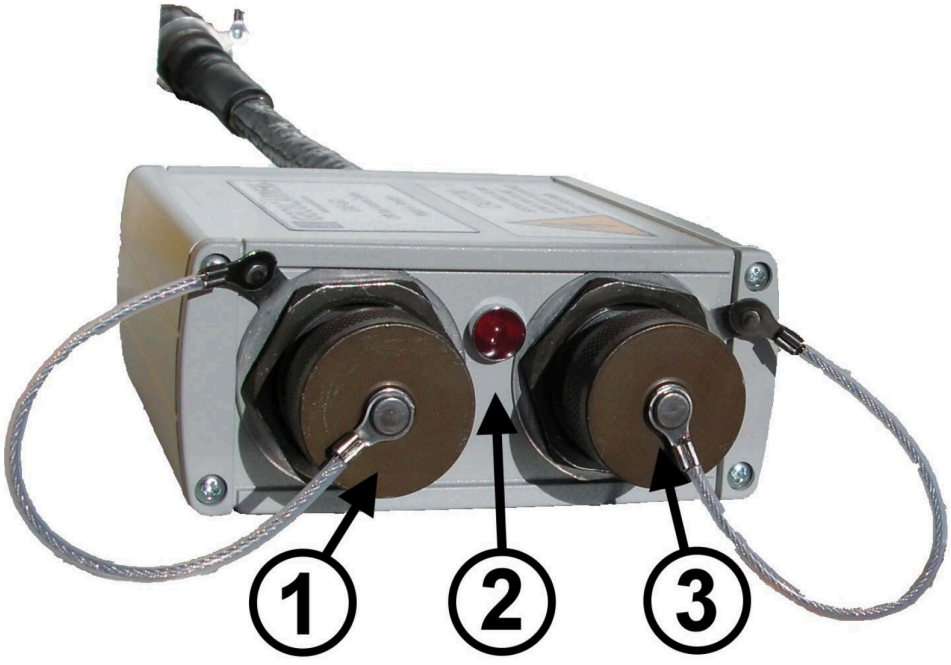
Maximum Temperature °C / °F	+40 °C / +104 °F
Minimum Temperature °C / °F	-10 °C / +14 °F
Maximum Humidity (non-condensing)	96% RH
RoHS Compliant	Yes!

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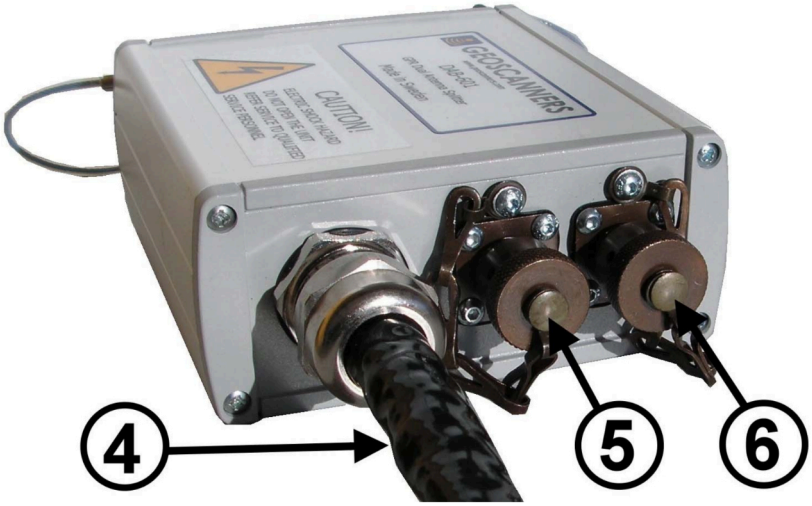
DAB-601 Overview



DAB-601 Front

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Operating Instructions

1. Attach the control cable (4) from the DAB-601 to the radar unit.

2. Attach the control cable from the antenna that will be operating in transceiver or receiver only mode to the connector (3) on the DAB-601. If monostatic mode is desired then everything is ready, turn on the radar and proceed with the survey. For bistatic mode continue reading the instructions.

3. Attach the control cable from the antenna that will be operating in transmitter only mode to the connector (1) on the dual antenna splitter.

4. If everything is OK, then the LED (2) on the front panel of the DAB-601 should start flashing twice a second indicating bistatic mode. Now the antenna connected to output (1) is transmitting and the antenna connected to output (3) is receiving. Turn on the radar unit and proceed with the survey.

5. A marker button can be connected to input (5) in order to put markers in the collected data. Please note that a marker button connected to the antenna attached to output (3) will be still operational and the radar will accept inputs from both of the buttons if desired.

6. A survey wheel encoder can be attached to the antenna connected to output (3) or alternatively to input (6). It is not recommended to connect two survey wheels simultaneously, conflicts may occur and the recorded position and distance most likely will be wrong.

7. The transmitting antenna connected to the output (1) of the DAB-601 can be hot unplugged. That means it is not required to turn off the radar to switch between monostatic and bistatic and vice versa. It is recommended to stop the acquisition though, so no voltage spikes are generated at the radar control output.

8. When the transmitting antenna is hot disconnected to switch to monostatic mode operation a delay of approximately half a second will occur. The unit goes back into monostatic mode when the LED turns off and it doesn't flash any longer.

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