

Professional Impedance Matching Filters

proFIL™ series of Professional Impedance Matching filters is designed to maximize the performance of receiver while minimizing the conductive noise through cables by taking advantage of inbuilt proISO™ technology.



proFIL 1070 series of Professional Impedance Matching Filters is specially designed for FM radio and Terrestrial TV Broadcast (PAL, NTSC, DVB-T, DVB-T2) receivers. In applications where typical 75ohm receiver like TV or FM radio is connected to combined antenna which has nominal impedance of 50ohm receivers can suffer for reduced performance.

proFIL 1070 series filters converts 50ohm antenna circuit to 75ohm circuit while bringing in proven proISO™ galvanical isolation technology to filter out DC-currents that are present in typical “household” electronics like car radios and TV set top boxes.

High-performance proFIL™ technology enables modern communication without compromising safety and performance. Its low loss and medium isolation output ports improves the overall performance of the communication system in comparison to the traditional one antenna – one radio approach. proFIL™ technology is proven and being used by many governments and authorities in Europe.

Improved performance, less interference

- matches antenna impedance to 75ohm systems
- easy to install
- inbuilt proISO™ technology
- blocks DC current from receiver
- improved performance
- rejects radar interference
- does not block DC current



Electromagnetic modelling services fine-tunes performance

By using advanced proEMS™ electromagnetical simulation, modelling, analysis and measurement services a complete 3D-electromagnetic environment of the ships external structures is built and the optimal location for each antenna with the least interference can be found and verified. The proEMS™ services are useful for any size of boat or ship and are tailored for each customer separately.

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Table 1
Electrical Specifications

Electrical Specifications (TA=25°C)	proFIL 1070 (FIL1070)	proFIL 1071 (FIL1071)
Intended use	Isolated Impedance Matching Filter	Isolated Impedance Matching Filter
Frequency range	80MHz – 700MHz:	80MHz – 700MHz:
Isolation Voltage	max 50VDC	max 50VDC
Antenna Port -Impedance -Connector	50ohm N-female	50ohm N-female
Receiver Port -Impedance -Connector	75ohm Car radio male	75ohm BNC-male
Interference rejection	against X-band radar	against X-band radar
Resistance to ground	Body grounded with Antenna port coax shields, antenna and radio port shields are isolated from each other, receiver port is floating	

Table 2
Mechanical and Environmental properties

Mechanical and Environmental properties (TA=25°C)	proFIL 1070 (FIL1070)	proFIL 1071 (FIL1071)
Dimensions	height: 37 mm width: 130 mm depth: 37 mm Receiver cable: 200 mm	height: 37 mm width: 130 mm depth: 37 mm Receiver cable: 200 mm
Weight	about 160 g	
Material	aluminum body	
Mounting	wall mounting flanges with M4 holes	
Ingress protection	none	
Operational environment	-30° - +60° C	
Standards	All proFIL™ products are to the standard of IEC60945 to insure safe operation in the environment on relevant parts. Some of the criteria are operating temperature, storage temperature, humidity, vibration, electromagnetic compatibility.	

Connection example

