

## DSC Antenna Splitters

**proFIL™ series of Professional DSC Antenna Splitters is an alternative to speed up AIS and Navtex installations and to increase total effectiveness of communication.**



proFIL 1321 MF/HF DSC and Navtex antenna splitter is intended to be used with MF/HF DSC receiver and Navtex/WeatherFax receiver. In a typical installation proFIL 1321 splits the antenna of existing MF/HF DSC receiver with Navtex receiver. It provides full galvanical DC isolation for its Navtex port, thus enabling its use with receivers using active antennas.

proFIL 4202 is intended to be used with DSC receiver and AIS receiver only units. It is connected to existing DSC VHF antenna and the AIS RX only unit shares the same antenna with VHF's DSC receiver. Being a completely passive product it is reliable and does not compromise safety and performance.

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

### Save space, simplify structures

- reduces antenna count from 2 to 1
- easy to install
- works with DSC, AIS and Navtex receivers
- no need for new cabling
- can be used with proISO 1001 to prevent ground loops

### 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 1321 (FIL1321)	proFIL 4202 (FIL4202)
Antenna port	0.1MHz – 100MHz (-400MHz)	100MHz - 300MHz
Radio Ports	RX1: 0.1MHz – 100MHz RL: > 18dB Insertion (splitting) loss: < 3.5dB Power: 0.1W  RX2: 0.1MHz – 100MHz RL: > 18dB Insertion (splitting) loss: < 3.5dB Power: 0.1W	DSC: 156.525 MHz RL: > 16dB Insertion (splitting) loss: < 4.0dB Power: 0.1W  AIS: 161-163 MHz RL: >16dB Insertion (splitting) loss: < 4.0dB Power: 0.1W
Power Handling (max simultaneous)	0.1W	0.1W
Port Isolation (between outputs)	> 17dB	>20dB
Port impedance	50ohm	50ohm
Connectors	N – female	BNC - female
Resistance to ground	Body grounded with coax shields, antenna port shield and radio port shields in common potential	Body grounded with coax shields, antenna port shield and radio port shields in common potential

**Table 2**  
**Mechanical and Environmental properties**

Mechanical and Environmental properties (TA=25°C)	proFIL 1321 (FIL1321)	proFIL 4202 (FIL4202)
Dimensions	height: 30 mm width: 119 mm depth: 110 mm	height: 30 mm width: 119 mm depth: 110 mm
Weight	about 320 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 is operating temperature, storage temperature, humidity, vibration, electromagnetic compatibility. Body grounded with coax shields, antenna port shield and radio port shields in common potential	

## Connection example

