

## VHF Antenna Combiners

***VHF Antenna Combiners are high performance duplex and diplex type antenna combiners that enables the simultaneous use of marine VHF antenna with two transmit or receive radios. They tolerate high transmission powers while protecting radios with high isolation.***



### proFIL4201

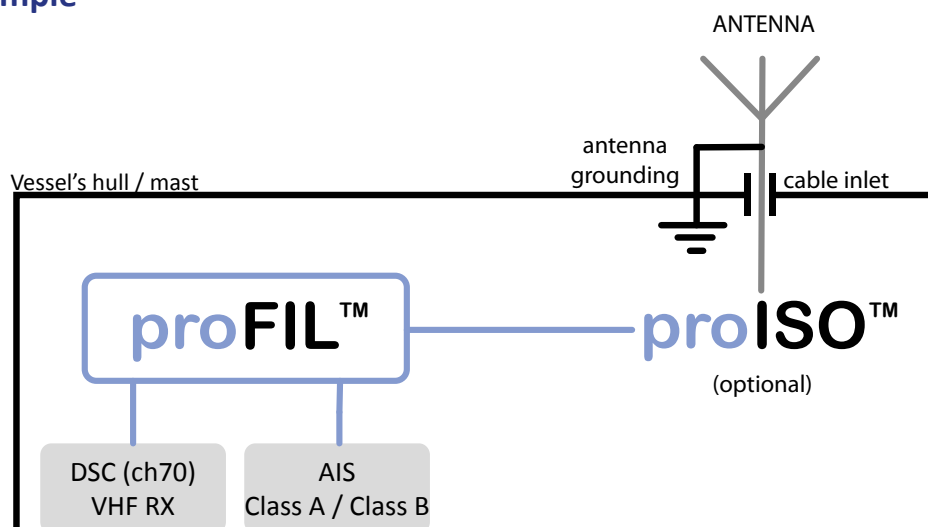
High-performance proFIL™ technology in proFIL 4201 combines separate VHF DSC (ch70 digital selective call) receiver antenna and AIS (automatic identification system) transceiver antenna into the same antenna without compromising safety and performance. By using a common VHF antenna for both AIS transceiver and DSC receiver, cabling is reduced and less space is occupied at ship's topside. Installation of AIS equipment can be instantaneous.

Compared to IMO recommendations, high isolation proFIL™ technology separates two radios virtually by over 200 meters instead of recommended 5 meters. Its low loss technology on all ports does not disturb the sensitivity of the communication equipment.

### proFIL 4230

When there is no more space for new antennas or cabling is too big effort like in sailing yacht masts the proFIL 4230 splits transmitting VHF antenna for FM receiver. Depending on the wideband performance of the used VHF antenna and cable installation, the FM reception performance can be good.

## Connection example



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Electrical specifications (T <sub>A</sub> =25°C)	proFIL 4201 (FIL4201)	proFIL 4230 (FIL4230)
Antenna port	155- 163MHz	80MHz– 170MHz
Radio ports	<b>AIS:</b> 161-163 MHz RL: >20 dB Power: 100W <b>DSC ch70:</b> 156.525MHz RL: > 20 dB	<b>FM:</b> 80MHz – 108MHz RL: > 20dB <b>VHF TRX:</b> 150MHz – 170MHz RL: > 20dB
Attenuation	< 1,0 dB	< 0.5 dB
Port Isolation (between receivers)	> 60 dB	> 35 dB
Port impedance	50ohm	FM: 75ohm VHF: 50ohm
Connectors	N-female	N-female
Resistance to ground	Connector shields share the chassis ground	Body grounded with coax shields, antenna port shield and radio port shields in common potential

Mechanical Specifications (T <sub>A</sub> =25°C)	proFIL 4201 (FIL4201)	proFIL 4230 (FIL4230)
Dimensions	height: 50mm width: 200mm depth: 184mm	150x150mm (w&l) 60mm(h)
Weight	1230g	600g
Material	Aluminum body	
Environment	-30°C – 60°C, no ingress protection, non condensing	-30°C – 60°C no ingress protection
Mounting	wall mounting flanges integrated	
Standards	All proFIL™ and proISO™ 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.	