

4-way GPS/GNSS Signal Splitter

proGPS™ series of 4-way GPS/GNSS Signal Splitters is a professional high-quality satellite positioning system signal splitter. It is designed especially for demanding marine and military environments.



proGPS™ series of GNSS (Global Navigation Satellite System) Signal Splitters includes both active and passive, galvanically isolated and non-isolated versions of signal splitters. The proGPS™ series covers all navigation satellite systems including GPS, Glonass, Compass and Galileo and both their public and private frequencies.

The operation is simple and reliable. proGPS™ splitters distribute GPS/GNSS antenna signal from one ideally located GPS/GNSS antenna to up to four independent navigation receivers maintaining complete galvanical and radio frequency isolation between receivers preventing one faulty receiver to interfere with others. Thus proGPS™ improves performance of a single GPS/GNSS receiver and minimizes the occupied space on the ship's topside.

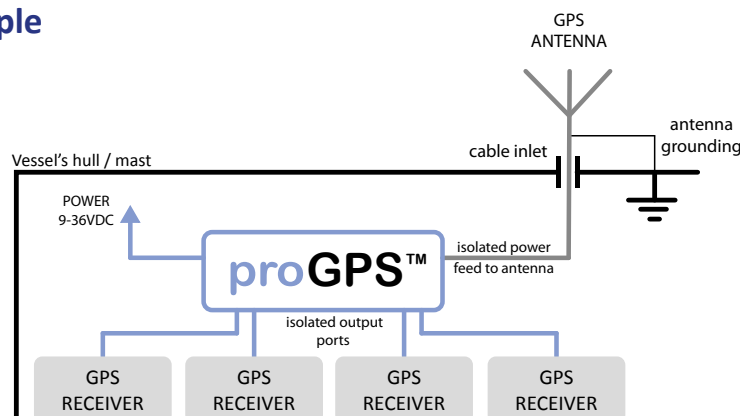
proGPS™ technology protects the GPS/GNSS signal from jamming and minimizes interference. Thus it provides an outstanding signal quality and navigation solution for GPS receivers. Not only does it isolate the GPS/GNSS receivers from each other, but also from the antenna and the external power supply.

Advanced features create advantage

- supports all satellite navigation systems
- instant installation to retrofits
- no ground leaks from GPS/GNSS system
- optimum location for GPS/GNSS antenna
- only "one" position for the GPS/GNSS receivers
- reduced cabling
- less space occupied at ship's topside
- galvanically isolated antenna from receivers
- galvanically isolated from ship's mains power
- galvanically isolated from the ground
- signal protection with high interference rejection



Connection example



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Table 1 Electrical Specifications

Electrical Specifications (TA=25°C)	proGPS 1101 (GSP1101)	proGPS 1120 (GSP1120)	proGPS 1200 (GSP1200)
Antenna Port (grounded)	1575.42MHz (pass band 1550-1590MHz) RL: >5dB (avg.) Coax Shield connected to case body	1575.42 / 1605MHz (pass band 1550-1626MHz) RL: > 10dB (avg.) Coax Shield connected to case body	1100-1650MHz RL: > 10dB (avg.) Coax Shield connected to case body
Receiver Ports	OUT1: gain: 1dB - 3dB (L1) -2dB - 1dB (E1/E2) (+/- 0,5dB)	OUT1: gain: 3dB - 5dB (+/- 0,5dB)	OUT1: gain: -10dB (+/- 1dB) DC pass through to ANT
	OUT2: gain: 1dB - 3dB (L1) -2dB - 1dB (E1/E2) (+/- 0,5dB)	OUT2: gain: 3dB - 5dB (+/- 0,5dB)	OUT2: gain: -10dB (+/- 1dB)
	OUT3: gain: 1dB - 3dB (L1) -2dB - 1dB (E1/E2) (+/- 0,5dB)	OUT3: gain: 3dB - 5dB (+/- 0,5dB)	OUT3: gain: -10dB (+/- 1dB)
	OUT4: gain: 1dB - 3dB (L1) -2dB - 1dB (E1/E2) (+/- 0,5dB)	OUT4: gain: 3dB - 5dB (+/- 0,5dB)	OUT4: gain: -10dB (+/- 1dB)
Galvanical isolation:	Receiver ports: DC floating Antenna: DC grounded Power supply: DC floating	Receiver ports: DC floating Antenna: DC grounded Power supply: DC floating	Receiver ports: DC grounded Antenna: DC grounded
Power Supply isolation voltage	9-36 VDC, 0.2A (max) 500V	9-36 VDC, 0.2A (max) 500V	N/A
Reverse polarity protection	Yes	Yes	N/A
Port Isolation (between outputs)	> 30dB (avg.)	>30dB (avg.)	>30dB
Port impedance	50ohm	50ohm	50ohm
Connectors	N – female	N - female	TNC – female
Resistance to ground	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)	proGPS 1101 (GSP1101)	proGPS 1120 (GSP1120)	proGPS 1200 (GSP1200)
Dimensions	height: 34mm width: 150mm length: 67mm	height: 34mm width: 150mm length: 67mm	height: 34mm width: 150mm length: 67mm
Weight	about 350g	350g	350g
Material	aluminum body		
Mounting	lid with M5 holes (4x)		
Ingress protection	none		
Operational environment	-20° - +60° C		
Standards	All proGPS™ products are designed 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. proGPS 1101 is designed to meet the IMO resolution MSC.112(73) chapter 4. Protection standards to GPS receivers and it is designed not to degrade performance as stated in chapter 3.	All proGPS™ products are designed 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. proGPS 1120 is designed to meet the IMO resolution MSC.112(73), MSC.113(73) and MSC.115(73) chapter 4. Protection standards to GPS/Glonass receivers and they are designed not to degrade performance as stated in chapter 3.	proGPS 1200 is designed 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. proGPS 1200 is designed to meet the IMO resolution MSC.112(73), MSC.113(73) and MSC.115(73) chapter 4. protection standards to GPS/Glonass receivers