

QuietSeis OBN

OBN NODES			
GENERAL	GPR300	GPR3000	MicrOBS ^{NT}
Deployment method	NOAR/ROV	ROV	Free Fall/Self popup
Memory autonomy (1ms sampling)	128 days (24h/day)	256 days (24h/day)	128 days (24h/day)
Battery autonomy	60 days (24h/day)	120 days (24h/day)	45 days (24h/day)
Weight (in air)	11 kg	22,2 kg	42 kg
Weight (in water)	5 kg	8,5 kg	12 kg
Orientation	Tilt indication: $\pm 0.5^\circ$ Heading: $\pm 5^\circ$		Tilt indication: $\pm 0.5^\circ$
Operational temperature	-10 °C to +50 °C		
Storage temperature	-20 °C to +60 °C		
Battery charge temperature	0 °C to +45 °C		-10 °C to +50 °C
Water depth	300 m	3,000 m	6,000 m
Hydrophone	Exportable hydrophone	Hydrophone with export licence	
Timing accuracy	<1 ms over 60 days corrected post-acquisition	<1 ms typical over 120 days corrected post-acquisition	<1 ms corrected post-acquisition

PARAMETERS		
	Hydrophone	QuietSeis Accelerometer
Acquisition	Data Filtering, compression & time stamping 24 bits A/D conversion	Data Filtering, compression & time stamping 24 bits data
Sensor tests	Noise	Noise, Distortion, Gravity, Tilt
Instrument tests	Noise, Distortion, Gain, Phase	Distortion, Gain, Phase, Xtalk
Sample rate	4, 2, 1, 0.5 ms	
Bandwidth	2-800 Hz, 3 dB	
Sensitivity	GPR^{NT} -201dB re. 1V/ μ Pa (8,9 V/Bar)	MicrOBS^{NT} -160 dB ref 1V/ μ Pa (1000V/Bar)
Low-cut filter	Selectable (none, 0.15625 Hz, 0.3125 Hz, 0.625 Hz, 1.25 Hz, 2.5 Hz)	
High-cut filter	0.8 FN linear or minimum phase	
Full scale	1.6V RMS (0 dB), 400 mV RMS (12 dB), 100 mV RMS (24 dB)	5 m/s ² (510 mg)
Noise	Instrument : 350 nV (0 dB), 145 nV (12 dB), 65 nV (24 dB) Hydrophone : 0,08 μ Bar	0.15 μ m/s ² / \sqrt Hz (15 ng/ \sqrt Hz), [10-200 Hz]
Instantaneous dynamic range	132 dB*	128 dB
System dynamic range	145 dB*	-
Distortion	-110 dB*	-90 dB
Gain accuracy	< 0,1%*	< 0,25%
Orthogonality accuracy	N/A	$\pm 0,25^\circ$

(*) Instrument specifications

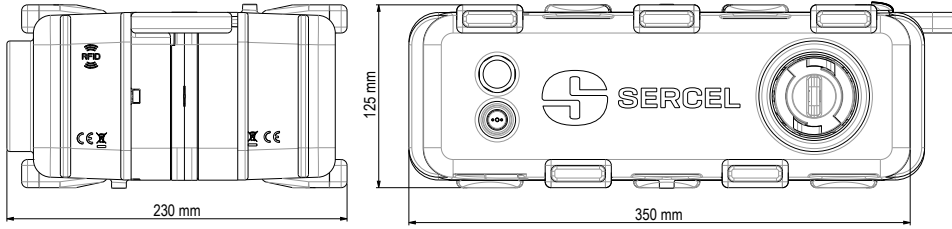
Note: Sercel reserves the right to change its specifications without prior notice. All specifications are typical at 20°C, 2ms sampling except where otherwise stated

HCM	
Power	10 W
Voltage	240 Vac

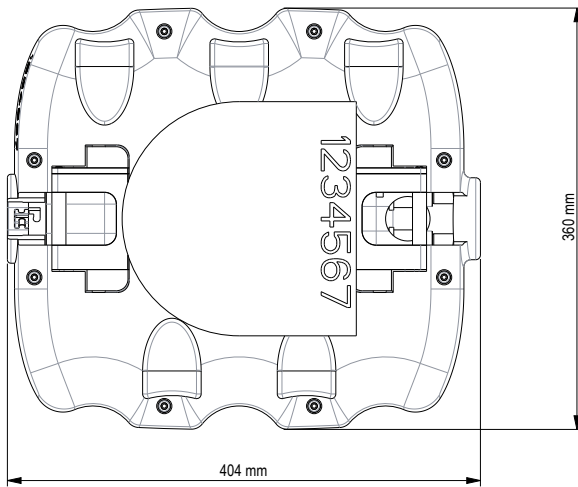
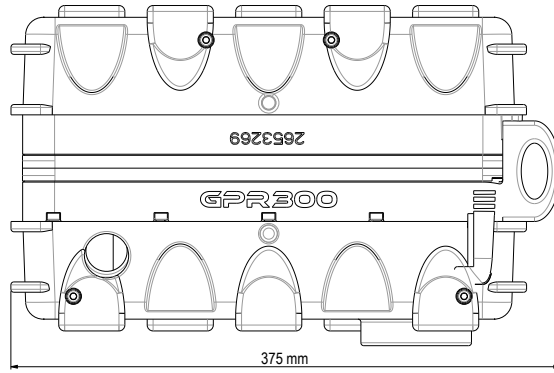
GIM	
Size (HxWxL)	120x480x320 mm
Weight	13.7 kg
Charging temperature	0 °C to +45 °C
Ethernet physical	100 Mb
Charging time	6 h
#GPR per GIM	4
Cable length	2.5 m
Power	1100 W
Voltage	240 Vac
Ingress protection	IP67

GTM	
Size (HxWxL)	359x665x650 mm
Weight	34kg (39 kg with fixing elements)
Operating temperature	0 °C to +45 °C
Time reference	GPS
Ethernet Physical	1 Gb
#GIM per GTM	8
Cable Length	3 m
Power	145 W
Voltage	240 Vac
Ingress protection	IP67

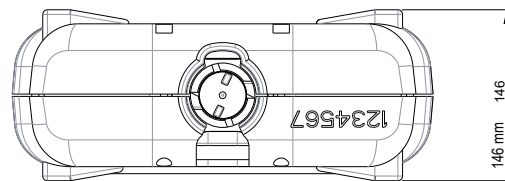
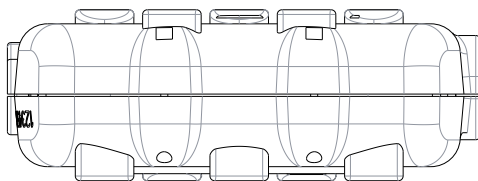
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GPR300

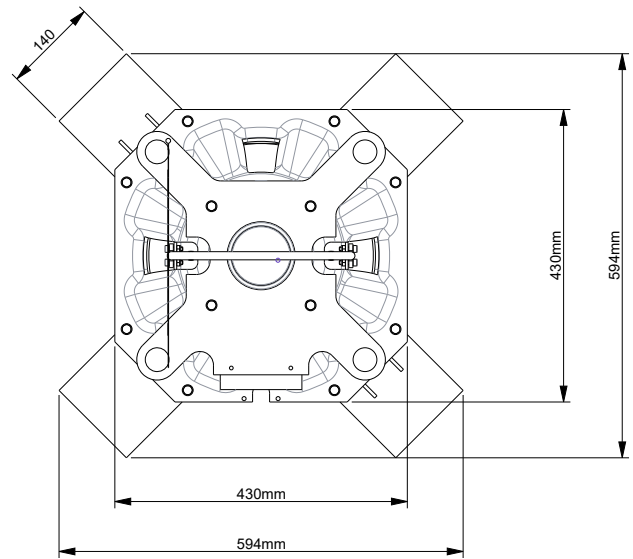
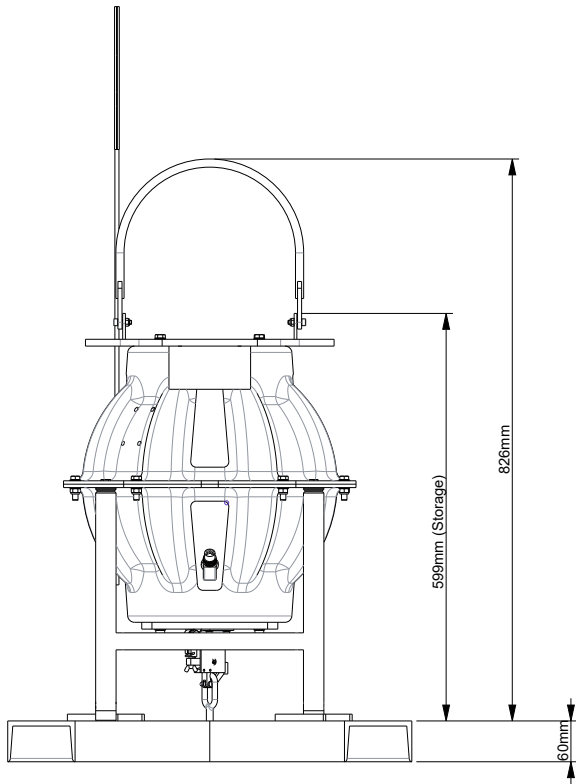


GPR3000

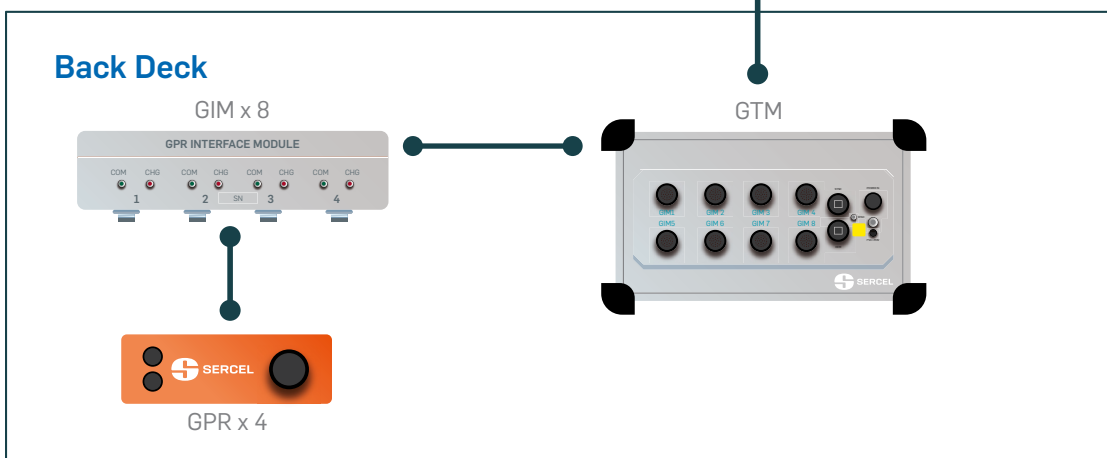
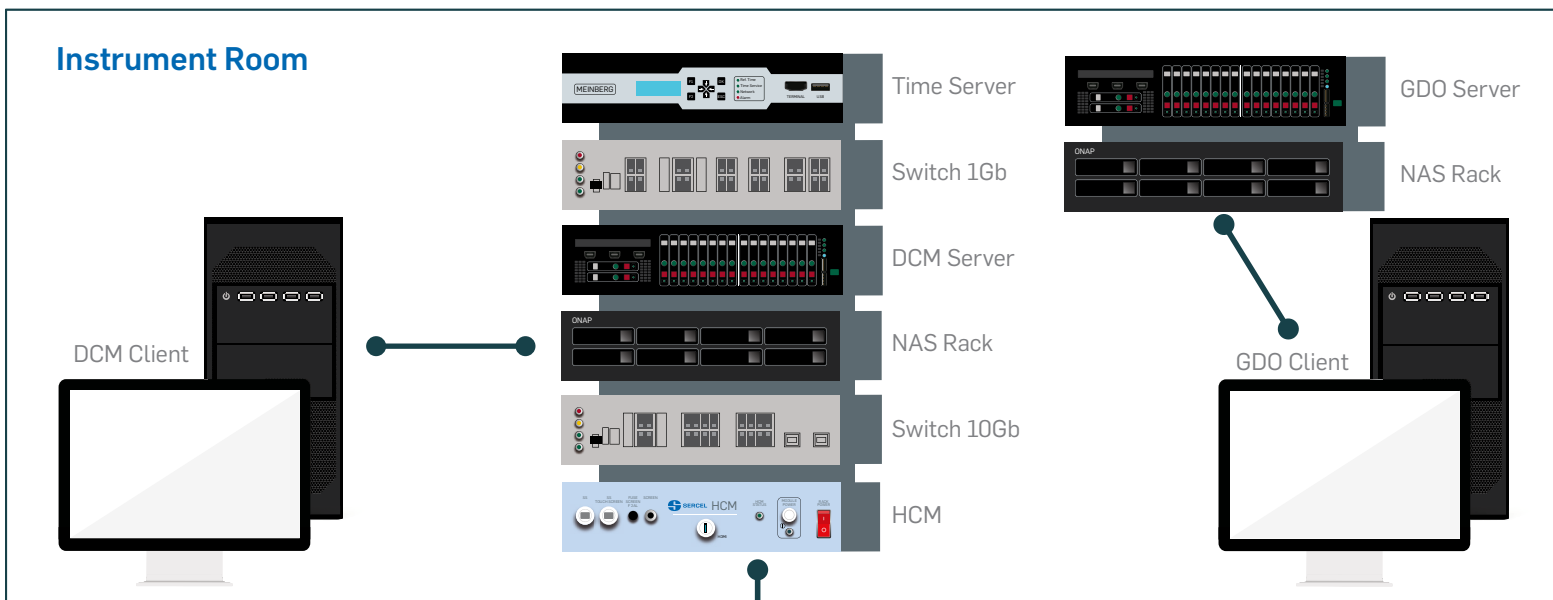




MicrOBS™



SYSTEM ARCHITECTURE



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