

Benthowaye Instrument Inc.

Underwater Sound Solutions

www.benthowave.com

Hydrophone Specification

Part Number:	BII-7181FG	BII-7181FG BII-7181PG								
Sensitivity at 1 kHz:	-221.5 + Preamp Gain. Variation: ± 2 dB.									
Free-field Voltage Sensitivity:	Refer to Graph of FFVS vs. Frequency.									
-3dB Beam Width:	Refer to Graph of Directivity Pattern.									
Usable Frequency in Water:	1Hz ~ 1MHz at ±4dB	/1								
Usable Frequency in Air:	1Hz ~ 20kHz at -3dB									
Bespoke Preamp Gain (dB):	Fixed Gain: Default 4	0 dB, 0 to +40 dB available.	IB, 0 to +40 dB available.			-	eamp: 20	eamp: 20, 40, 60 dB.		
Gain Selection Voltage:	N/A CMOS/TTL Compatible. Logic Low 0: Gain Selection Wire to COM or 0 to Logic High 1: Gain Selection Wire Open or +2.4 Vs: Power Supply Voltage; COM: Power Supply						or +2.4 VDC to Vs.			
Built-in Bandpass Filter:	1. Default: -3 dB bandwidth 8 Hz to 2 MHz. 1. Default: -3 dB bandwidth 8 Hz to 1 MHz. 2. Bespoke, specify when ordering. 2. Bespoke, specify when ordering.					Hz.				
Maximum Output Vomax:	2: Despose, specify when ordering. 2: Despose, specify when ordering. (Supply Voltage - 4) Vpp (Supply Voltage - 3.4) Vpp									
Overload Pressure Level:		3) - Sensitivity, in dB μPa.								
Output Type:	Single Ended.									
Acceleration Sensitivity:	124.6 dB re µPa/(m/s ²)									
Maximum Operating Depth:	50 m and limited by	the cable length if the cable	has wire	e leads or	a non-	waterproof connect	or.			
Mounting Options:	 Free Hanging (FH) Free-hanging with Male Underwater Connector (FHUWC) Thru-hole Mounting with Single O-ring (THSO) Thru-hole Mounting with Double O-ring (THDO) Bolt Fastening Mounting (Plastics) (BFMP) Bolt Fastening Mounting (Stainless Steel) (BFMSS) 									
		e document AcousticSystem	.pdf for a							
Cable:	Four Conductor Shiel	ded Cable (SC)		Six Co	onduct	or Shielded Cable (S	SC) or Cal	ble Bundle		
Cable Length:	1. Default: 10 m. 2. Custom-fit up to 2	00m								
Connector:	3. SMA (Plug, Male P 4. SMC (Plug, Female 5. 1/8" (3.5mm) TRS 6. XLR (pin) (XLR) (Ma 7. MIL-5015 Style (pin 8. LEMO (Plug Male P 9. Underwater Mater 10. +9VDC Battery Sr 11. Customized, buye	Max. Diameter Ф14.3 mm). (in) (SMA), Voltage Rating: 3: a Socket) (SMC), Voltage Rating: 3: b Socket) (SMC), Voltage Rating: Plug (TRS35) (Max. Diameter ax. Diameter Ф20.2 mm). n) (5015) (Max. Diameter Φ3: Pins) (LEMO) (Max. Diameter able Connector (pin) (UMC) hap (BS) (Exclusive to preampler specifies the connector. (Contector is for use	ing: 335 r Φ10.5 30 mm w r Φ9.5 m (Max. Di plified hy Custom)	V _{RMS} Cont mm). vith 3 con nm with 3 ameter Φ ydrophon	tacts). contac 21.5 to e)	:. (SMC) (Max. Diam cts). ο Φ35 mm).	eter Φ6.	4 mm).		
Current (Quiescent):	8 mA 10 mA							for dry uses and are not		
Supply Voltage Vs:	+8.5 to +30 VDC +8.2 to +30 VDC							for dry uses and are not		
Supply Vollage V3.	10.5 10 130 VDC			-		VDC		for dry uses and are not		
Suggested DC Supply:	+9VDC Battery, Mari DO NOT use variable DO NOT use switchin	ne Battery, Automobile Batt power supply whose maxim ig mode DC power supply.	num supj	+8.2 d DC Line ply voltag	to +30 ar Pow e is hig	ver Supply, Not Incluiner Supply, Not Incluiner than the rated states of the states of	ıded. voltage.	·		
Suggested DC Supply: Size:	+9VDC Battery, Marin DO NOT use variable DO NOT use switchin Sensing Element: ΦD Varies with options.	power supply whose maxim g mode DC power supply. DxL=Ф4.6x8mm; Solid Suppo	num supp rt: ΦDxL	+8.2 d DC Line ply voltag	to +30 ar Pow e is hig	ver Supply, Not Incluiner Supply, Not Incluiner than the rated states of the states of	ıded. voltage.	·		
Suggested DC Supply: Size: Weight:	+9VDC Battery, Marin DO NOT use variable DO NOT use switchin Sensing Element: ΦD Varies with options. 560 grams with 10 m	power supply whose maxim ng mode DC power supply. DxL=Ф4.6x8mm; Solid Suppo n cables, Varies with options.	num supp rt: ΦDxL	+8.2 d DC Line ply voltag	to +30 ar Pow e is hig	ver Supply, Not Incluiner Supply, Not Incluiner than the rated states of the states of	ıded. voltage.	·		
Suggested DC Supply: Size: Weight: Operation Temperature:	+9VDC Battery, Marii DO NOT use variable DO NOT use switchin Sensing Element: ΦD Varies with options. 560 grams with 10 m -10 °C to +60 °C or 14	power supply whose maxim ng mode DC power supply. DxL=Ф4.6x8mm; Solid Suppo n cables, Varies with options. 4 °F to 140 °F.	num supp rt: ΦDxL	+8.2 d DC Line ply voltag	to +30 ar Pow e is hig	ver Supply, Not Incluiner Supply, Not Incluiner than the rated states of the states of	ıded. voltage.	·		
Suggested DC Supply: Size: Weight: Operation Temperature: Storage Temperature:	+9VDC Battery, Marii DO NOT use variable DO NOT use switchin Sensing Element: ΦD Varies with options. 560 grams with 10 m -10 °C to +60 °C or 14 -20 °C to +60 °C or -4	power supply whose maxim ng mode DC power supply. DxL=Ф4.6x8mm; Solid Suppo n cables, Varies with options. 4 °F to 140 °F. 1 °F to 140 °F.	num supp rt: ΦDxL	+8.2 d DC Line ply voltag =Φ6.4x38	to +30 ar Pow e is hig 3.1mm;	rer Supply, Not Inclu her than the rated ; Preamp Housing: G	uded. voltage. DDxL=Φ2	21x40mm.		
Suggested DC Supply: Size: Weight: Operation Temperature: Storage Temperature: Sound Measurement in Air: The hy	+9VDC Battery, Marii DO NOT use variable DO NOT use switchin Sensing Element: ΦD Varies with options. 560 grams with 10 m -10 °C to +60 °C or 14 -20 °C to +60 °C or -4 ydrophones can be used	power supply whose maxim ng mode DC power supply. DxL=Ф4.6x8mm; Solid Suppo n cables, Varies with options. 4 °F to 140 °F. 1 °F to 140 °F. d to detect sounds in air. Red	num supp rt: ΦDxL	+8.2 d DC Line ply voltag =Φ6.4x38	to +30 ar Pow e is hig 3.1mm;	rer Supply, Not Inclu her than the rated ; Preamp Housing: G	uded. voltage. DDxL=Φ2	21x40mm.		
Suggested DC Supply: Size: Weight: Operation Temperature: Storage Temperature:	+9VDC Battery, Marii DO NOT use variable DO NOT use switchin Sensing Element: ΦD Varies with options. 560 grams with 10 m -10 °C to +60 °C or 14 -20 °C to +60 °C or -4 ydrophones can be used	power supply whose maxim og mode DC power supply. DxL=Ф4.6x8mm; Solid Suppo a cables, Varies with options. 4 °F to 140 °F. 1 °F to 140 °F. d to detect sounds in air. Rea mps: BNC Male/SMA/SMC :	rt: ΦDxL	+8.2 d DC Line ply voltag =Φ6.4x38 ensitivity Underwa	to +30 ar Pow e is hig 3.1mm; in air is ter	rer Supply, Not Inclu her than the rated ; Preamp Housing: C s same to the one ir XLR Plug and	uded. voltage. DDxL=Φ2	21x40mm. n low frequency range.		
Suggested DC Supply: Size: Weight: Operation Temperature: Storage Temperature: Sound Measurement in Air: The hy Wiring Information of Hydrophone	+9VDC Battery, Marii DO NOT use variable DO NOT use switchin Sensing Element: ΦD Varies with options. 560 grams with 10 m -10 °C to +60 °C or 14 -20 °C to +60 °C or -4 ydrophones can be used es with Fixed-gain Prea	power supply whose maxim ag mode DC power supply. DxL=Ф4.6x8mm; Solid Suppo a cables, Varies with options. 4 °F to 140 °F. 1 °F to 140 °F. d to detect sounds in air. Rea mps: BNC Male/SMA/SMC : 9V Battery Snap	rt: ΦDxL	+8.2 · d DC Line ply voltag =Φ6.4x38 ensitivity Underwa Connecto	to +30 ar Pow e is hig 3.1mm; in air is ter	rer Supply, Not Inclu ther than the rated ; Preamp Housing: C s same to the one ir XLR Plug and 9V Battery Snap	ıded. voltage. ΦDxL=Φ2	21x40mm. n low frequency range. TRS Plug and 9V Battery Snap		
Suggested DC Supply: Size: Weight: Operation Temperature: Storage Temperature: Sound Measurement in Air: The hy Wiring Information of Hydrophone Wiring of Single Ended Output: +VDC	+9VDC Battery, Marii DO NOT use variable DO NOT use switchin Sensing Element: ΦD Varies with options. 560 grams with 10 m -10 °C to +60 °C or 14 -20 °C to +60 °C or -4 ydrophones can be used es with Fixed-gain Prea Wire Leads Red	power supply whose maxim ag mode DC power supply. DxL=Ф4.6x8mm; Solid Suppo a cables, Varies with options. 4 °F to 140 °F. 1 °F to 140 °F. d to detect sounds in air. Rea mps: BNC Male/SMA/SMC : 9V Battery Snap Female Snap	rt: ΦDxL	+8.2 · d DC Line ply voltag =Φ6.4x38 ensitivity Underwa Connecto Pin 3	to +30 ar Pow e is hig 3.1mm; in air is ter	rer Supply, Not Inclu her than the rated ; Preamp Housing: C s same to the one ir XLR Plug and 9V Battery Snap Battery Female Sn	ıded. voltage. DDxL=Φ2	21x40mm. n low frequency range. TRS Plug and 9V Battery Snap Battery Female Snap		
Suggested DC Supply: Size: Weight: Operation Temperature: Storage Temperature: Sound Measurement in Air: The hy Wiring Information of Hydrophone Wiring of Single Ended Output: +VDC Common	+9VDC Battery, Marii DO NOT use variable DO NOT use switchin Sensing Element: ΦD Varies with options. 560 grams with 10 m -10 °C to +60 °C or 14 -20 °C to +60 °C or -4 ydrophones can be used es with Fixed-gain Prea	power supply whose maxim ag mode DC power supply. DxL=Ф4.6x8mm; Solid Suppo a cables, Varies with options. 4 °F to 140 °F. 1 °F to 140 °F. d to detect sounds in air. Rea mps: BNC Male/SMA/SMC ; 9V Battery Snap Female Snap Male Snap	rt: ΦDxL	+8.2 · d DC Line ply voltag =Φ6.4x38 ensitivity Underwa Connecto	to +30 ar Pow e is hig 3.1mm; in air is ter	rer Supply, Not Inclu ther than the rated ; Preamp Housing: C s same to the one ir XLR Plug and 9V Battery Snap	ıded. voltage. DDxL=Φ2	21x40mm. n low frequency range. TRS Plug and 9V Battery Snap Battery Female Snap Battery Male Snap		
Suggested DC Supply: Size: Weight: Operation Temperature: Storage Temperature: Sound Measurement in Air: The hy Wiring Information of Hydrophone Wiring of Single Ended Output: +VDC Common Signal	+9VDC Battery, Marii DO NOT use variable DO NOT use switchin Sensing Element: ΦD Varies with options. 560 grams with 10 m -10 °C to +60 °C or 14 -20 °C to +60 °C or -4 ydrophones can be used es with Fixed-gain Prea Wire Leads Red Black White	power supply whose maxim ag mode DC power supply. DxL=Ф4.6x8mm; Solid Suppo a cables, Varies with options. 4 °F to 140 °F. 1 °F to 140 °F. d to detect sounds in air. Rea mps: BNC Male/SMA/SMC : 9V Battery Snap Female Snap Male Snap Center Pin or Contact	rt: ΦDxL	+8.2 · d DC Line ply voltag =Φ6.4x38 ensitivity Underwa Connecto Pin 3 Pin 1	to +30 ar Pow e is hig 3.1mm; in air is ter	rer Supply, Not Inclu her than the rated Preamp Housing: C s same to the one ir XLR Plug and 9V Battery Snap Battery Female Snap XLR Pin 2	ided. voltage. ΦDxL=Φ2	21x40mm. n low frequency range. TRS Plug and 9V Battery Snap Battery Female Snap Battery Male Snap TRS Tip		
Suggested DC Supply: Size: Weight: Operation Temperature: Storage Temperature: Sound Measurement in Air: The hy Wiring Information of Hydrophone Wiring of Single Ended Output: +VDC Common Signal Signal Common	+9VDC Battery, Marii DO NOT use variable DO NOT use switchin Sensing Element: ΦD Varies with options. 560 grams with 10 m -10 °C to +60 °C or 14 -20 °C to +60 °C or -4 ydrophones can be used es with Fixed-gain Prea Wire Leads Red Black White Blue, Green, or Yellow	power supply whose maxim ag mode DC power supply. DxL=Ф4.6x8mm; Solid Suppo a cables, Varies with options. 4 °F to 140 °F. 1 °F to 140 °F. d to detect sounds in air. Rea BNC Male/SMA/SMC : 9V Battery Snap Female Snap Male Snap Center Pin or Contact w BNC/SMA/SMC Shield	rt: ΦDxL	+8.2 · d DC Line ply voltag =Φ6.4x38 ensitivity Underwa Connecto Pin 3 Pin 1 Pin 2 Pin 4	to +30 ar Pow e is hig 3.1mm; in air is ter	rer Supply, Not Inclu her than the rated preamp Housing: C s same to the one ir XLR Plug and 9V Battery Snap Battery Female Snap Battery Male Snap XLR Pin 2 XLR Pin 1 and Pin	ided. voltage. ΦDxL=Φ2	21x40mm. TRS Plug and 9V Battery Snap Battery Female Snap Battery Male Snap TRS Tip TRS Ring and Sleeve		
Suggested DC Supply: Size: Weight: Operation Temperature: Storage Temperature: Sound Measurement in Air: The hy Wiring Information of Hydrophone Wiring of Single Ended Output: +VDC Common Signal Signal Common Shielding	+9VDC Battery, Marii DO NOT use variable DO NOT use switchin Sensing Element: ΦD Varies with options. 560 grams with 10 m -10 °C to +60 °C or 14 -20 °C to +60 °C or -4 ydrophones can be used swith Fixed-gain Prea Wire Leads Red Black White Blue, Green, or Yellor Shield	power supply whose maxim ag mode DC power supply. DxL=Ф4.6x8mm; Solid Suppo a cables, Varies with options. 4 °F to 140 °F. 1 °F to 140 °F. d to detect sounds in air. Rea BNC Male/SMA/SMC and States 9V Battery Snap Female Snap Male Snap Center Pin or Contact w BNC/SMA/SMC Shield N/A	rt: ΦDxL	+8.2 · d DC Line ply voltag =Φ6.4x38 ensitivity Underwa Connecto Pin 3 Pin 1 Pin 2	to +30 ar Pow e is hig 3.1mm; in air is ter	rer Supply, Not Inclu her than the rated preamp Housing: C s same to the one ir XLR Plug and 9V Battery Snap Battery Female Snap XLR Pin 2	ided. voltage. ΦDxL=Φ2	21x40mm. n low frequency range. TRS Plug and 9V Battery Snap Battery Female Snap Battery Male Snap TRS Tip		
Suggested DC Supply: Size: Weight: Operation Temperature: Storage Temperature: Sound Measurement in Air: The hy Wiring Information of Hydrophone Wiring of Single Ended Output: +VDC Common Signal Signal Common	+9VDC Battery, Marii DO NOT use variable DO NOT use switchin Sensing Element: ΦD Varies with options. 560 grams with 10 m -10 °C to +60 °C or 14 -20 °C to +60 °C or -4 ydrophones can be used swith Fixed-gain Prea Wire Leads Red Black White Blue, Green, or Yellor Shield	power supply whose maxim ag mode DC power supply. DxL=Ф4.6x8mm; Solid Suppo a cables, Varies with options. 4 °F to 140 °F. 1 °F to 140 °F. d to detect sounds in air. Rea mps: BNC Male/SMA/SMC Si 9V Battery Snap Female Snap Center Pin or Contact W BNC/SMA/SMC Shield N/A mmable Gain Preamps: 9V Battery Snap and	rt: ΦDxL ceiving s and	+8.2 · d DC Line ply voltag =Φ6.4x38 ensitivity Underwa Connecto Pin 3 Pin 1 Pin 2 Pin 4 N/A water	to +30 ar Pow e is hig 3.1mm; in air is ter pr XLR F	rer Supply, Not Inclu her than the rated preamp Housing: C s same to the one ir XLR Plug and 9V Battery Snap Battery Female Snap Battery Male Snap XLR Pin 2 XLR Pin 1 and Pin	ided. voltage. DxL=Ф2	21x40mm. TRS Plug and 9V Battery Snap Battery Female Snap Battery Male Snap TRS Tip TRS Ring and Sleeve		
Suggested DC Supply: Size: Weight: Operation Temperature: Storage Temperature: Sound Measurement in Air: The hy Wiring Information of Hydrophone Wiring of Single Ended Output: +VDC Common Signal Signal Common Shielding Wiring Information of Hydrophone	+9VDC Battery, Mari DO NOT use variable DO NOT use switchin Sensing Element: ΦD Varies with options. 560 grams with 10 m -10 °C to +60 °C or 14 -20 °C to +60 °C or -4 ydrophones can be used es with Fixed-gain Prea Wire Leads Red Black White Blue, Green, or Yellor Shield es with Two-bit Progra	power supply whose maxim ag mode DC power supply. DxL=Ф4.6x8mm; Solid Suppo a cables, Varies with options. 4 °F to 140 °F. e 'F to 140 °F. d to detect sounds in air. Real mps: BNC Male/SMA/SMC in air. Real Male Snap Female Snap Center Pin or Contact W BNC/SMA/SMC Shield N/A mmable Gain Preamps: 9V Battery Snap and BNC Male/SMA/SMC	ceiving s and Under Conne	+8.2 · d DC Line ply voltag =Φ6.4x38 ensitivity Underwa Connecto Pin 3 Pin 1 Pin 2 Pin 4 N/A water	to +30 ar Pow e is hig 3.1mm; in air is ter or XLR F Snap	rer Supply, Not Inclu her than the rated preamp Housing: G same to the one ir XLR Plug and 9V Battery Snap Battery Female Snap XLR Pin 2 XLR Pin 1 and Pin XLR Metal Shell Plug + 9V Battery	ided. voltage. DDxL=Φ2 n water ir ap 3 3 TRS Plu	21x40mm. TRS Plug and 9V Battery Snap Battery Female Snap Battery Male Snap TRS Tip TRS Ring and Sleeve N/A ug + 9V Battery Snap		
Suggested DC Supply: Size: Weight: Operation Temperature: Storage Temperature: Sound Measurement in Air: The hy Wiring Information of Hydrophone Wiring of Single Ended Output: +VDC Common Signal Signal Common Shielding Wiring Information of Hydrophone Wiring of Single Ended Output:	+9VDC Battery, Mari DO NOT use variable DO NOT use switchin Sensing Element: ΦD Varies with options. 560 grams with 10 m -10 °C to +60 °C or 14 -20 °C to +60 °C or -4 ydrophones can be used es with Fixed-gain Prea Wire Leads Red Black White Blue, Green, or Yellor Shield es with Two-bit Progra Wire Leads Red	power supply whose maxim ag mode DC power supply. DxL=Ф4.6x8mm; Solid Suppo a cables, Varies with options. 4 °F to 140 °F. e 'F to 140 °F. d to detect sounds in air. Real mps: BNC Male/SMA/SMC is 9V Battery Snap Female Snap Center Pin or Contact W BNC/SMA/SMC Shield N/A mmable Gain Preamps: 9V Battery Snap and BNC Male/SMA/SMC Battery Female Snap	rt: ΦDxL ceiving s and Under Conne Pin 3	+8.2 · d DC Line ply voltag =Φ6.4x38 ensitivity Underwa Connecto Pin 3 Pin 1 Pin 2 Pin 4 N/A water	to +30 ar Pow e is hig 3.1mm; in air is ter or XLR P Snap Batte	rer Supply, Not Inclu her than the rated preamp Housing: G s same to the one ir XLR Plug and 9V Battery Snap Battery Female Snap XLR Pin 2 XLR Pin 1 and Pin XLR Metal Shell Plug + 9V Battery ry Female Snap	ided. voltage. DDxL=Φ2 n water ir ap 3 3 TRS Plu Battery	21x40mm. TRS Plug and 9V Battery Snap Battery Female Snap TRS Tip TRS Ring and Sleeve N/A ug + 9V Battery Snap 7 Female Snap		
Suggested DC Supply: Size: Weight: Operation Temperature: Storage Temperature: Sound Measurement in Air: The hy Wiring Information of Hydrophone Wiring of Single Ended Output: +VDC Common Signal Signal Common Shielding Wiring Information of Hydrophone Wiring of Single Ended Output: +VDC Common	+9VDC Battery, Marii DO NOT use variable DO NOT use switchin Sensing Element: ΦD Varies with options. 560 grams with 10 m -10 °C to +60 °C or 14 -20 °C to +60 °C or -4 ydrophones can be used es with Fixed-gain Prea Wire Leads Red Black White Blue, Green, or Yellor Shield es with Two-bit Progra Wire Leads	power supply whose maxim ag mode DC power supply. DxL=Ф4.6x8mm; Solid Suppo a cables, Varies with options. 4 °F to 140 °F. e 'F to 140 °F. d to detect sounds in air. Real mps: BNC Male/SMA/SMC in air. Real Male Snap Female Snap Center Pin or Contact W BNC/SMA/SMC Shield N/A mmable Gain Preamps: 9V Battery Snap and BNC Male/SMA/SMC	ceiving s and Under Conne	+8.2 · d DC Line ply voltag =Φ6.4x38 ensitivity Underwa Connecto Pin 3 Pin 1 Pin 2 Pin 4 N/A water	to +30 ar Pow e is hig 3.1mm; in air is ter or XLR P Snap Batte	rer Supply, Not Inclu her than the rated preamp Housing: G s same to the one ir XLR Plug and 9V Battery Snap Battery Female Snap XLR Pin 2 XLR Pin 1 and Pin XLR Metal Shell Plug + 9V Battery ry Female Snap ry Male Snap	ided. voltage. DDxL=Φ2 n water ir ap 3 3 TRS Plu Battery	21x40mm. TRS Plug and 9V Battery Snap Battery Female Snap Battery Male Snap TRS Tip TRS Ring and Sleeve N/A ug + 9V Battery Snap		
Suggested DC Supply: Size: Weight: Operation Temperature: Storage Temperature: Sound Measurement in Air: The hy Wiring Information of Hydrophone Wiring of Single Ended Output: +VDC Common Signal Signal Common Shielding Wiring Information of Hydrophone Wiring of Single Ended Output: +VDC	+9VDC Battery, Mari DO NOT use variable DO NOT use switchin Sensing Element: ΦD Varies with options. 560 grams with 10 m -10 °C to +60 °C or 14 -20 °C to +60 °C or -4 ydrophones can be used es with Fixed-gain Prea Wire Leads Red Black White Blue, Green, or Yellor Shield es with Two-bit Progra Wire Leads Red	power supply whose maxim ag mode DC power supply. DxL=Ф4.6x8mm; Solid Suppo a cables, Varies with options. 4 °F to 140 °F. e 'F to 140 °F. d to detect sounds in air. Rea BNC Male/SMA/SMC 9V Battery Snap Female Snap Center Pin or Contact W BNC/SMA/SMC Shield N/A mmable Gain Preamps: 9V Battery Snap and BNC Male/SMA/SMC Battery Female Snap Battery Female Snap	rt: ΦDxL ceiving s and Under Conne Pin 3	+8.2 · d DC Line ply voltag =Φ6.4x38 ensitivity Underwa Connecto Pin 3 Pin 1 Pin 2 Pin 4 N/A water	to +30 ar Pow e is hig 3.1mm; in air is ter or XLR P Snap Batte Batte Black	rer Supply, Not Inclu her than the rated preamp Housing: G s same to the one ir XLR Plug and 9V Battery Snap Battery Female Snap XLR Pin 2 XLR Pin 1 and Pin XLR Metal Shell Plug + 9V Battery ry Female Snap ry Male Snap	ided. voltage. DDxL=Φ2 n water ir ap 3 TRS Plu Battery Battery Black	21x40mm. TRS Plug and 9V Battery Snap Battery Female Snap TRS Tip TRS Ring and Sleeve N/A ug + 9V Battery Snap 7 Female Snap		



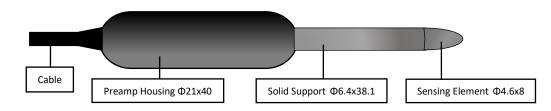
Benthowaye Instrument Inc.

Underwater Sound Solutions

www.benthowave.com

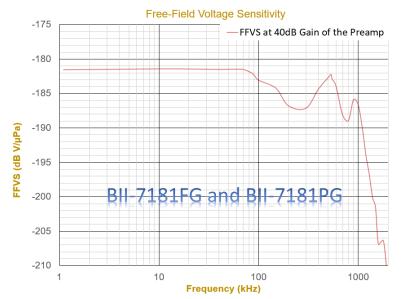
RHERH-THIORINH									
Output Signal	White	BNC/SI	BNC/SMA/SMC Center		XLR Pin 2	TRS Tip			
Output Signal Common	Green	BNC/SI	BNC/SMA/SMC Shield		XLR Pin 1 and Pin 3	TRS Ring and Sleeve			
Shielding	Shield	Shield	Shield		XLR Metal Shell	N/A			
Selecting Sensitivity FFVS of Ty	wo-bit Digitally Progr	ammable		•					
Gain Selection Wire A1	Gain Selection	Gain Selection Wire A0 Hydrophone Sensit			ity				
0 (Logic Low)	0 (Logic Low)		-221.5 + 20 dB V	/µPa					
0 (Logic Low)	1 (Logic High)		-221.5 + 40 dB V	3 V/μPa					
1 (Logic High)	0 (Logic Low)		-221.5 + 60 dB V/μPa						
1 (Logic High)	1 (Logic High)		-221.5 + 80 dB V/μPa (ONLY for signal frequency ≤ 400 kHz)						

Physical Size (Dimension Unit: mm):



Customization of Length Reduction of the Hydrophone: Hydrophone can be made as "L" shape with solid support perpendicular to the housing wall. Appending "L" to the part number (BII-7181FGL or BII-7181PGL) when ordering to specify L-shaped Hydrophone.

Free-field Voltage Sensitivity (Bespoke):



Directivity Pattern: -500kHz - 250kHz - 125kHz -250kHz - 500kHz ------ 125kHz 0° 0° 315 45° 315 45° -10d8 -20dB -20dB Horizontal Beam XY Plane Vertical Beam XZ Plane 90° 270° 270 90° BII-7181FG BII-7181FG BII-7181PG BII-7181PG 5dB/Division 5dB/Division 225 135° 135° 225 180° 180°