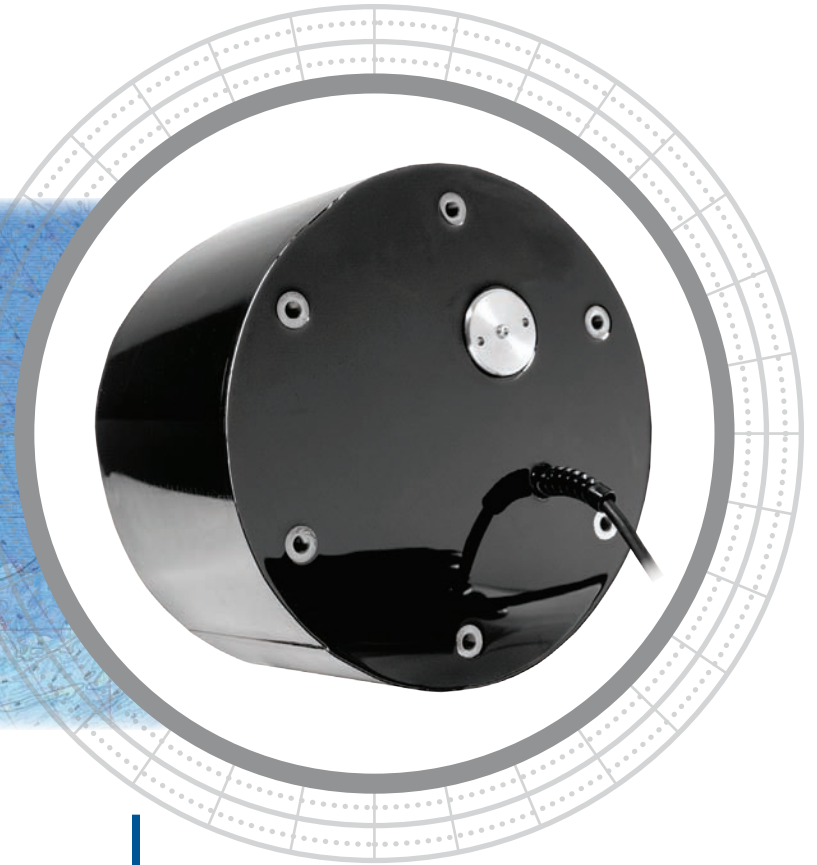


# M190



## Excellent Deep-Water Performance

M190 features a large, low-frequency, narrow-beam array for excellent, deep-water performance. The 12 kHz model can be used for sub-bottom profiling.

## Options

- Impedance to customer's specifications using matching transformer
- Bulkhead connector to customer specifications
- Available with 12 kHz, 24 kHz, 28 kHz, or 33 kHz array

## External-Mount

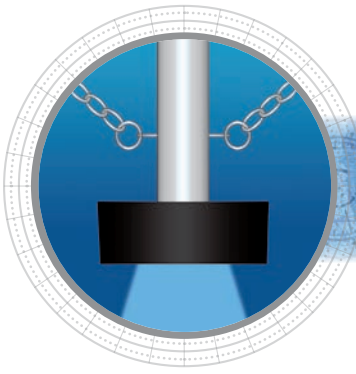
## 3 - 10 kW

## Applications

- Deep sea survey
- Sub-bottom profiling

## Features

- Highly-efficient, low-ringing arrays provide exceptional, bottom detail
- Matching transformer provides pure, resistive load
- Stuffing tubes are available to form a watertight conduit for cable routing and are available in a variety of materials to match all hull types
- Housing features six, threaded, mounting points
- Can be mounted as an in-hull in a fiberglass hull
- Can be adapted for use as a portable-mount
- Seamless, SEALCAST™, urethane housing with internal, stainless-steel, chassis resists damage when impacted



## Technical Information

Frequencies	Configuration	Beamwidth (@-3 dB)	RMS Power (kW)	FOM (dB)	Q	Series Impedance (R-jX)
12 kHz-E	A	24°	5.7 kW	-7	5	60-j0(Ω)
24 kHz-G	B	11°	7 kW	-1	6	50-j0(Ω)
28 kHz-I	B	9°	10 kW	-2	9	60-j0(Ω)
33 kHz-H	B	10°	3 kW	-5	5	60-j0(Ω)

### SPECIFICATIONS

**Weight:** Varies depending on configuration (Call for weight)

**Acoustic Window:** Urethane

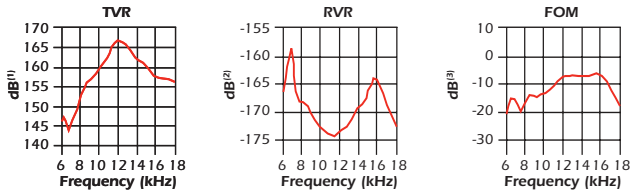
**Cable Type:** C-43

Shielded twisted pair (2-14 AWG) with braided shield, black neoprene jacket, 10 mm (13/32") diameter

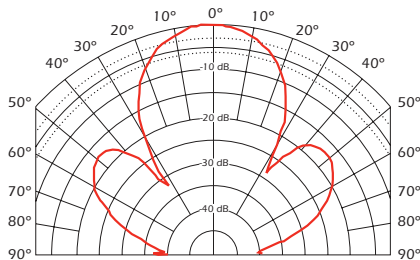
### Technical Data—12 kHz-E

TVR in dB re 1μPa/Volt at 1 m

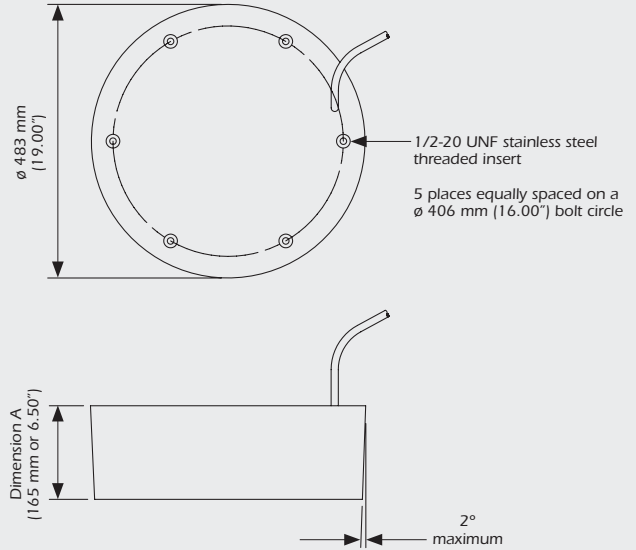
RVR in dB re 1 Volt/μPa



### Directivity Pattern—12 kHz-E



### DIMENSIONS



Configuration	Dimension A
A	165 mm (6.50")
B	151 mm (5.95")