

a chassis having a proximal end and a distal end;
 an electrical connector extending from the proximal end of said chassis and configured for connection to a monitoring device;
 an optics assembly configured to generate and transmit electrical signals to the monitoring device, the signals being indicative of a dynamic oxygen saturation level of blood in a cavity wall tissue;
 a deployment device attached to said chassis and configured to carry said optics assembly, said deployment device having a circumferentially symmetrical hour-glass configuration;
 a temperature measuring device attached to the distal end of said chassis, wherein said temperature measuring device is configured to generate and transmit electrical signals to the monitoring device, the signals being indicative of a temperature of the patient;
 an acoustic monitoring device positioned in spaced relation between said temperature measuring device and said deployment device, said acoustic monitoring device configured to receive sounds within the anatomical cavity and to generate and transmit electrical signals to the monitoring device, the signals being indicative of the received sounds; and
 a pacing assembly positioned in spaced relation between said temperature measuring device and said acoustic monitoring device, said pacing assembly configured to monitor heart pacing of the patient and to generate and transmit electrical signals to the monitoring device, the signals being indicative of the heart pacing.

30. A multi-parameter probe configured for insertion into an anatomical cavity for invasively monitoring bodily functions of a patient, the probe comprising:
 a chassis having a proximal end and a distal end;
 an electrical connector extending from the proximal end of said chassis and configured for connection to a monitoring device;
 an optics assembly configured to generate and transmit electrical signals to the monitoring device, the signals being indicative of a dynamic oxygen saturation level of blood in a cavity wall tissue;
 a deployment device attached to said chassis and configured to carry said optics assembly, said deployment device, comprising:
 a first lobe and a second lobe, each lobe having a crest and a substantially smooth outer surface; and
 a first segment having a substantially smooth, hyperboloid shaped outer surface extending from the crest of the first lobe to the crest of the second lobe interconnecting the first lobe with the second lobe, wherein the outer surface of said first segment further comprises a first slope adjacent to the first lobe and a second slope adjacent to the second lobe;
 a temperature measuring device attached to the distal end of said chassis, wherein said temperature measuring device is configured to generate and transmit electrical signals to the monitoring device, the signals being indicative of a temperature of the patient;

an acoustic monitoring device positioned in spaced relation between said temperature measuring device and said deployment device, said acoustic monitoring device configured to receive sounds within the anatomical cavity and to generate and transmit electrical signals to the monitoring device, the signals being indicative of the received sounds; and
 a pacing assembly positioned in spaced relation between said temperature measuring device and said acoustic monitoring device, said pacing assembly configured to monitor heart pacing of the patient and to generate and transmit electrical signals to the monitoring device, the signals being indicative of the heart pacing.

31. The probe of claim **30** wherein said deployment device further comprises:
 a second segment having a leading edge and a substantially smooth sloped outer surface terminating at the first lobe; and
 a third segment having a trailing edge and a substantially smooth sloped outer surface terminating at the second lobe.

32. The probe of claim **31**, wherein the leading edge of said second segment is configured to cause a muscle in the region of the anatomical cavity to dilate allowing said deployment device to pass into the region including the muscle, and wherein said first segment is configured such that the muscle then constricts around said first segment between said first lobe and said second lobe such that movement of the probe is inhibited and said optics assembly carried by said deployment device is biased against a tissue of the anatomical cavity.

33. The probe of claim **32**, wherein said optics assembly is configured for reflective oximetry measurements, said optics assembly comprising an emitter assembly and a detector assembly mounted in spaced relation near the surface of said first segment on the first slope adjacent to said first lobe, such that when the muscle constricts around said first segment, the emitter assembly and the detector assembly are biased against the muscle so that during operation, a signal from the emitter assembly passes into the muscle, reflects off and through the muscle tissue back into the detector assembly, thereby obtaining a reflective oximetry reading.

34. The probe of claim **32**, wherein said optics assembly is configured for transmissive oximetry readings, said optics assembly comprising an emitter assembly and a detector assembly, the emitter assembly being mounted near the surface of said first segment on the first slope adjacent to said first lobe and the detector assembly is mounted near the surface of said first segment on the second slope adjacent to said second lobe, such that when the muscle constricts around said first segment, the emitter assembly and the detector assembly are biased against the muscle so that during operation, a signal from the emitter assembly passes through the muscle tissue to the detector assembly, thereby obtaining a transmissive oximetry reading.

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