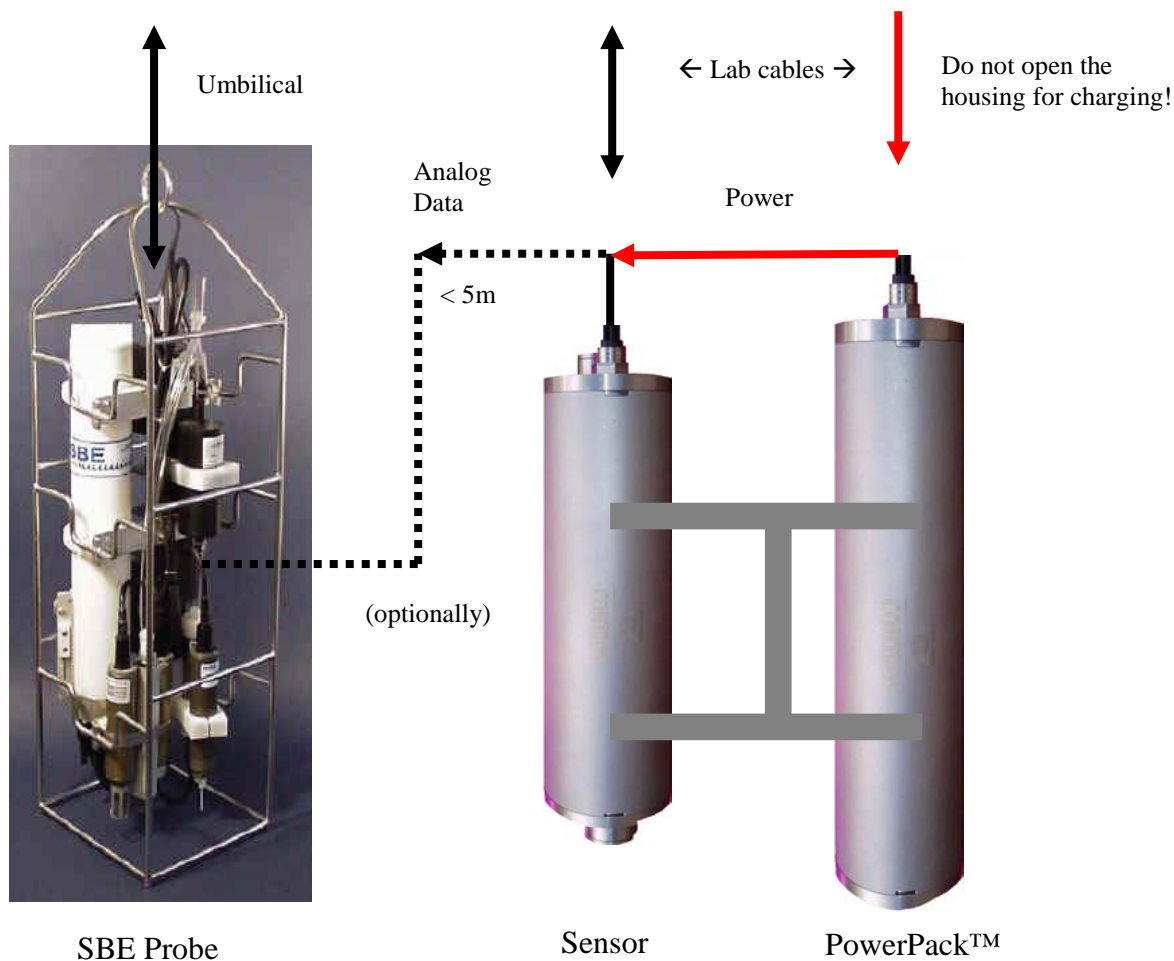


Interfacing of Subsea equipment

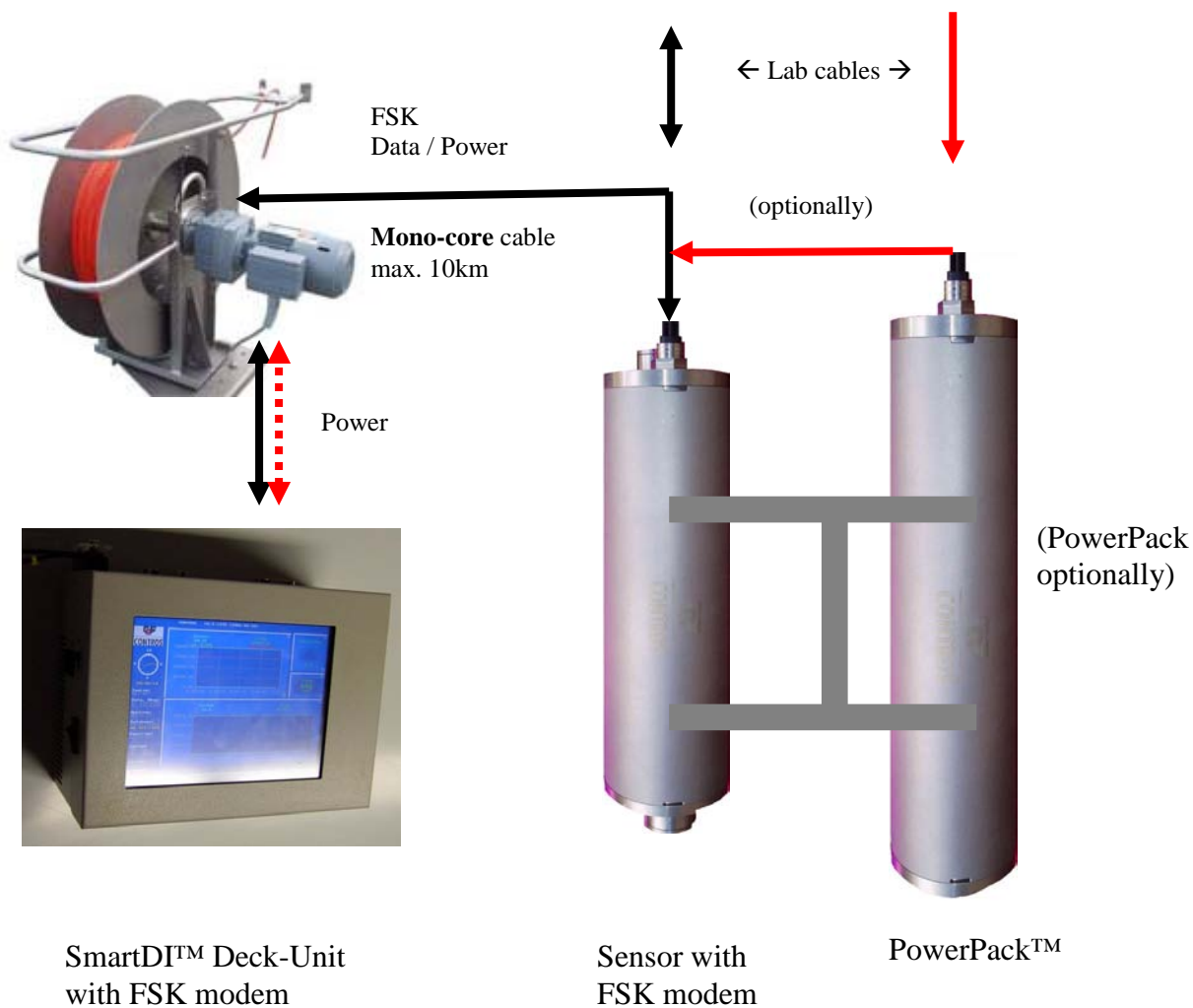
Case: Stand-alone Sensor and interfacing to Seabird CTD's

- The sensor operates autonomously with the SubCtech SmartDI™ Datalogger and high-resolution data. With the standard 2GB CompactFlash Card **5 years** of continuous operation are supported.
- The sensor's analogue low-resolution data could be **measured from the SBE** by the aux. input connector, e.g. 0-5V.
- The sensor is powered by the SubCtech PowerPack™ due to the limitation of 350 mA max. available current at SBE aux connectors. With the standard SubCtech PowerPack™ of 41 Ah, 14.8V **more than 48 hours** of continuous operation are supported for high power applications, e.g. CONTROS HydroC™.



Case: Profiling and interfacing to on-board mono core Winches

- The Sensor operates with an on-board Deck-Unit via the cable or/and stand-alone with the SubCtech SmartDI™ Datalogger and high-resolution data, e.g. as a redundant back-up solution. With the standard 2GB CF Card **5 years** of continuous operation is supported.
- The Sensor is interfaced with an internal FSK modem via the mono-core cable **up to 10 km** (depending on the transmission rate) to the Deck-unit.
- The Sensor can be powered from the Deck-Unit with a standard FSK modem device or from the SubCtech PowerPack™ as well with a small FSK modem system. With the standard PowerPack™ of 41Ah, 14.8V **more than 48 hours** of continuous operation are supported.
- On-board the Deck-Unit provides the FSK modem and a connection to the data acquisition PC.



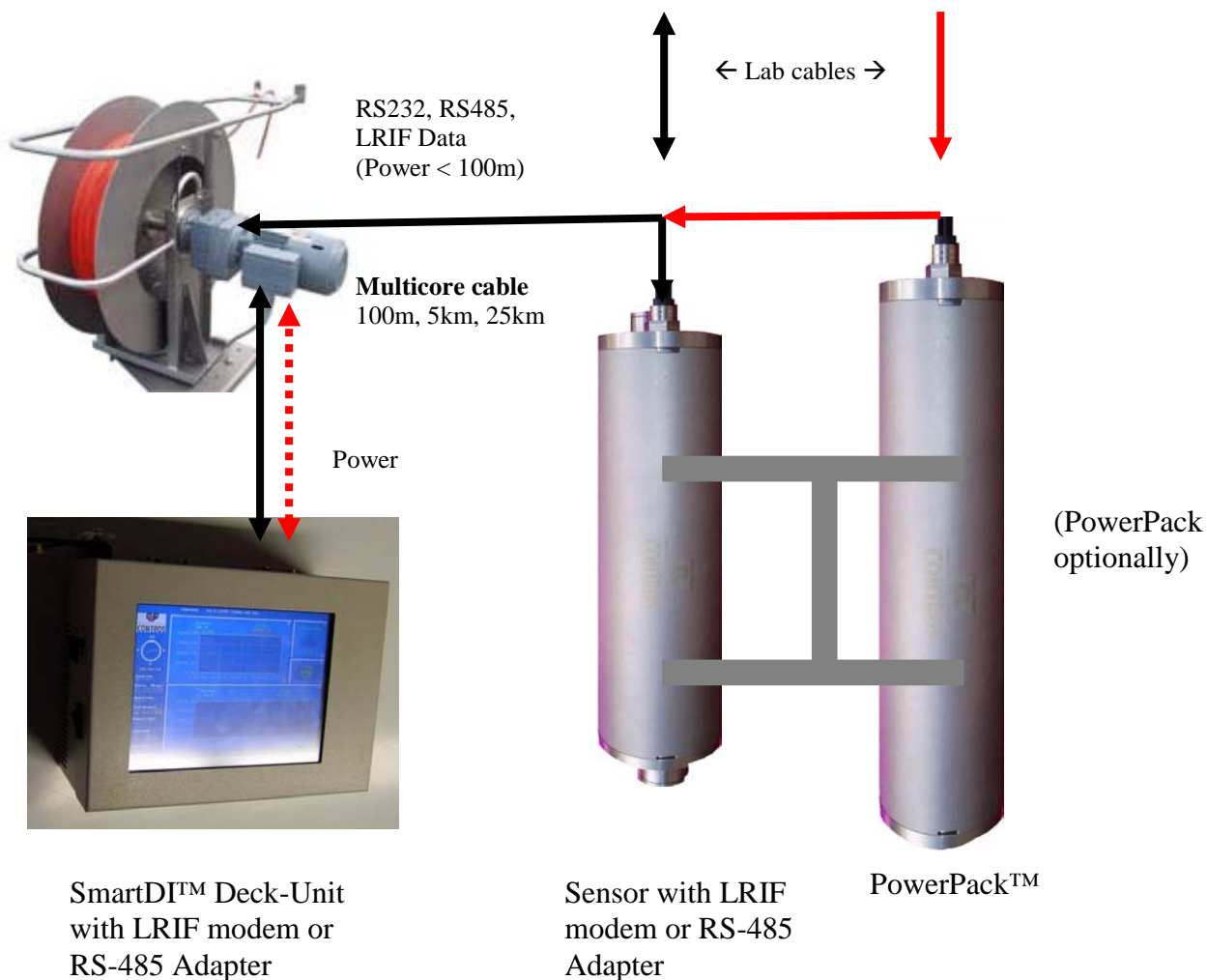
SmartDI™ Deck-Unit
with FSK modem

Sensor with
FSK modem

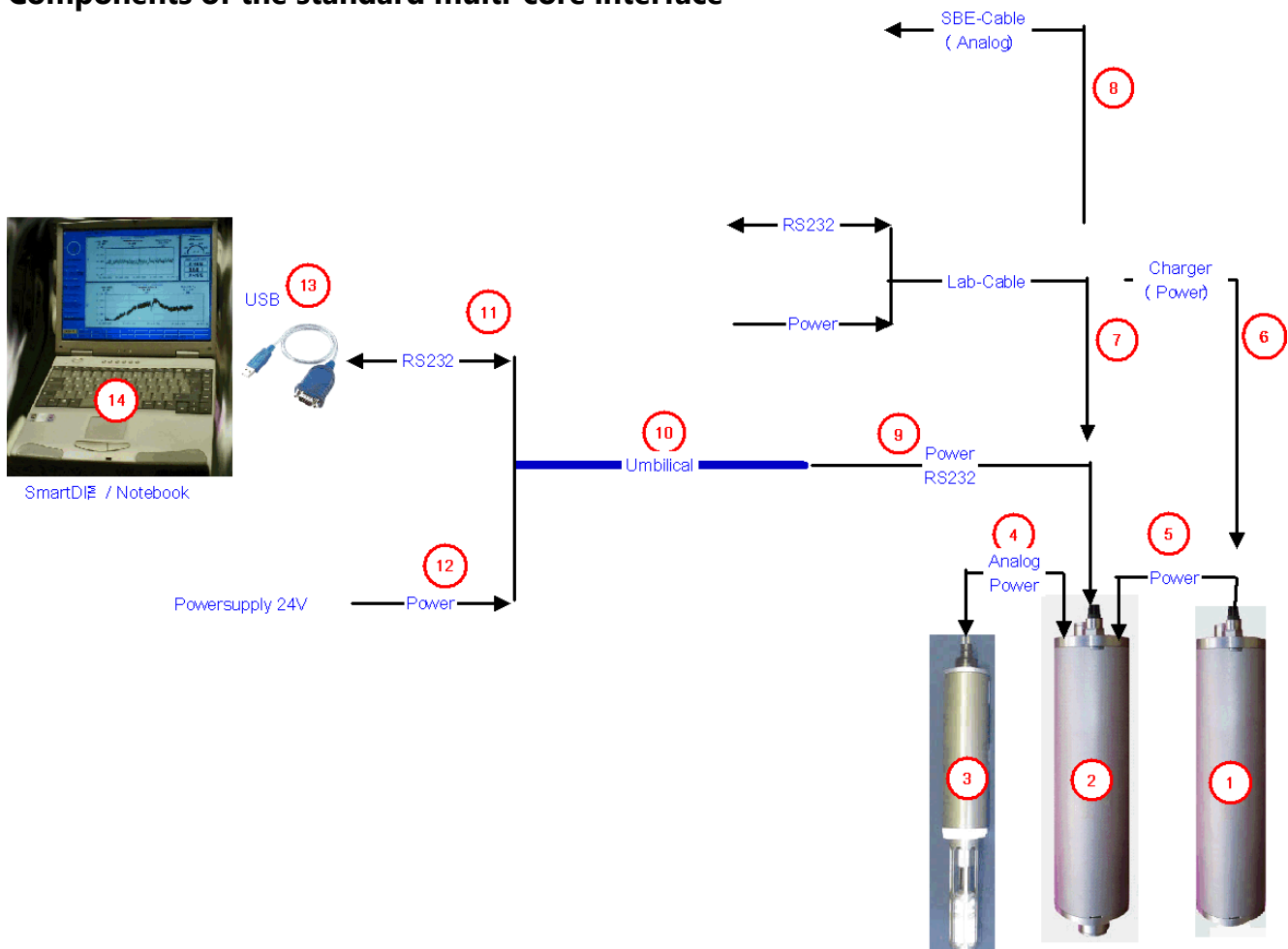
PowerPack™

Case: Profiling and interfacing to on-board multi-core cable Winches

- The Sensor operates with an on-board Deck-Unit via the cable or/and stand-alone with the SubCtech SmartDI™ Datalogger and high-resolution data, e.g. as a redundant back-up solution. With the standard 2GB CF Card **5 years** of continuous operation are supported.
- The Sensor is interfaced via RS-232 cable (3 wires, **up to 100 m**), or via RS-485 adapter (2 wire, **up to 5 km**, depending on the transmission rate) or via the "Long-Range-Modem" (2 or 4 wires, **up to 25 km**, depending on the transmission rate) via the multi-core cable up to the Deck-unit.
- The Sensor can be powered from the Deck-Unit for short distances (approx. < 500m) or from the SubCtech PowerPack™ as well. With the standard SubCtech PowerPack of 41, 14.8V are **48 hours** of continuous operation provided.
- On-board the Deck-Unit provides the "Long-range-interface" modem or RS-485 Adapter and a connection to an integrated industrial PC or to any external PC.



Components of the standard multi-core interface



1. Rechargeable SubCtech PowerPack™ (LiIon: 14.8V, 41Ah)
2. SubCtech Datalogger SmartDI™
3. Third party external sensor, e.g. Seabird SBE Sensor
4. Cable from an external Sensor, analogue and Power supply
5. Cable Power supply from the PowerPack™ to the Datalogger
6. Lab usage charging cable for the „SmartCharger“
7. Lab usage cable to setup / test / data download the Sensor with PC-Software
8. Special data cable to external systems, e.g. SBE-Datalogger (911). Important: any SBE probe cannot support the HydroC™ system with power, due to the limitation of SBE probes to max. 350mA for external instruments.
9. Cable (Pigtail) to Umbilical's, ROV's etc. with serial data (RS232) and power supply
10. ROV Umbilical or multi-core cable to the Lab / Office / on-board Unit.
11. Serial cable RS232 to the Deckunit
12. Power-supply ROV or Sensor (schematic only)
13. USB-RS232 Adapter for PC's / Notebooks without RS232 port.
14. Data acquisition PC and software