

Umbilicals for Dilution CEMS

DEKORON®
Unitherm™
Tubing Bundle Experts Since 1962

Dilution CEMS systems need an umbilical that can transport a dilution gas to the probe and return the diluted sample without the transport of one gas affecting the transport of the other.

Dekoron Unitherm provides a full line of umbilicals designed for the customer's system.

Umbilicals can be designed with fibrous glass or high-efficiency aerogel thermal insulation.

Heaters and auxiliary components are selected to meet the analyzer requirements.

Application:

- Dilution Continuous Emissions Monitoring Systems measuring water soluble constituents that have been diluted in a gas with an extremely low dew point.

Sample and auxiliary tubing material:

- Virgin PFA and PTFE fluoropolymers
- Pre-treated and cleaned PFA fluoropolymer
- FEP fluoropolymer (for calibration gasses)
- High Density Polyethylene (for blowback)
- Nylon (for vacuum sensor or blowback)

Thermal Insulation:

- High efficiency, aerogel thermal insulation.
- Low chloride, non-wicking fibrous glass thermal insulation

Outer jacket materials:

- Lead-free UV Stabilized low temperature flame retardant PVC
- Halogen free UV Stabilized thermoplastic polyurethane
- High temperature UV Stabilized thermoplastic polyolefin

Dilution umbilical with Self-Regulating heater and fibrous glass thermal insulation.



Dilution umbilical with Self-Regulating heater and high-efficiency aerogel thermal insulation.



Heating Cables

Cut to length umbilical designs using:

- Self-regulating heating cable
- Power-Limiting parallel heating cable
- Constant power density heating cable

Auxiliary Items:

- Single or multiple temperature sensors
- J and K thermocouple or Pt100 2 or 3 wire RTD
- Shielded sensor cables
- Fluoropolymer insulated power leads
- Communications cables
- Fiber Optic cables

For more information see:

[links to other pages](#)

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