

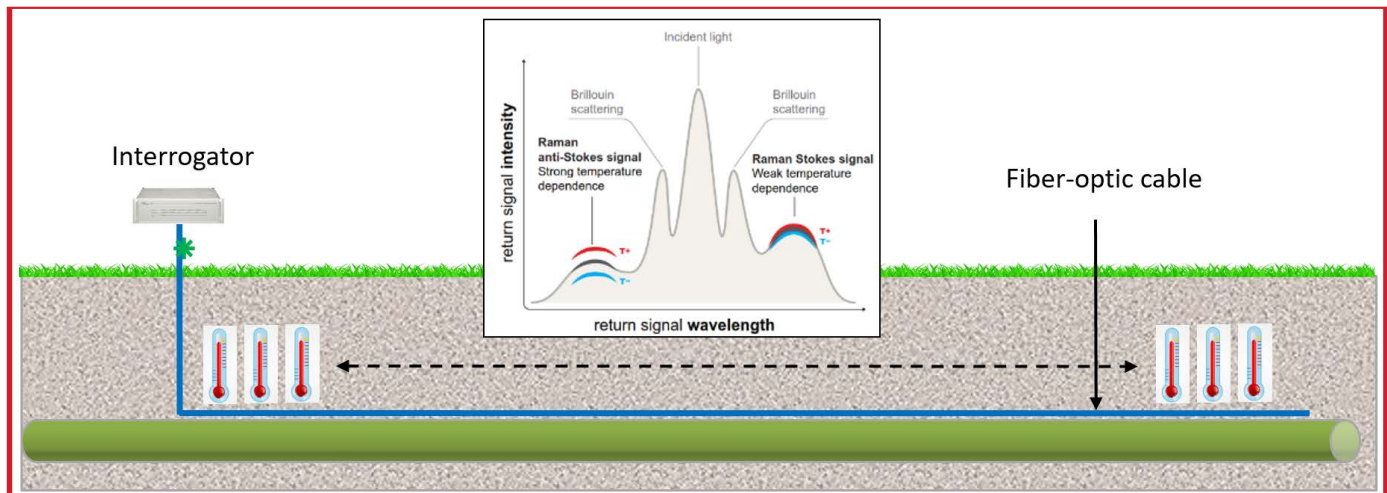


## Industrial Monitoring

### *Distributed Temperature Sensing (DTS) • Monitor Thermal Breakdowns*

The Distributed Temperature Sensor (DTS) system acts like a series of thermometers distributed along the pipeline. The DTS unit sends laser pulses down the fiber resulting in light that is scattered backwards towards the unit. The unit measures temperature by comparing the Stokes and Anti-Stokes Raman signals that are contained in the backscattered light.

The location of the temperature is determined by the Optical Time Domain Reflectometer (OTDR) principle outlined below.



### DTS Applications

- High-Voltage power cable monitoring
- Steam line monitoring
- Leak Detection - gases & liquids
- Vessel surface temperature monitoring
- Flow monitoring

