

SureSight DTS

Durable Downhole DTS Cable

Tendeka's Distributed Sensing System (DTS) comprises of downhole and surface fiber optic equipment to provide high resolution, permanent monitoring of well temperature.

Tendeka's DTS System uses a combination of variations in back-scattered light intensity and time reflectometry to create temperature against distance profiles. The fiber acts as both a sensing element and transmission medium.

SureSight DTS Cable

The SureSight range of DTS cables provide maximum protection to the sensing fiber, providing the operator with more visibility as to what is happening in the reservoir.

The construction of the SureSight cable consists of a dual-barrier design with two metal tubes providing mechanical protection and a barrier against chemical and gas ingress. Coatings on the fiber can be used to prevent damage caused by hydrogen. 11mm x 11mm encapsulation can be used to add an extra layer of protection to the cable.

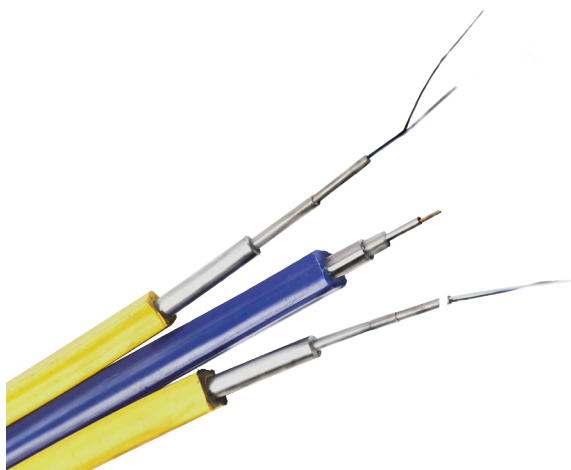
The SureSight DTS Cable is available in a range of sizes and structures which vary depending on the application and downhole conditions.

Features

- Wide range of encapsulations, metallurgy and wall thickness available
- Splice free lengths >30,000ft (>9144m)
- Tubing material: SS316L and Incoloy® 825
- Suitable for permanent and temporary deployment
- Life of well reliability

Benefits

- Ability to measure temperature along the entire tube
- Suitable for a wide range of downhole conditions
- Multiple fibers can be included inside the cable





Selection Criteria

OD	Wall Thickness	Working Pressure Rating	Tensile Strength	
			316L	A825
1/8"	0.022"	0 - 25,000psi	-	120,000psi
1/4"	0.028"	0 - 10,000psi	105,000psi	120,000psi
1/4"	0.036"	0 - 15,000psi	105,000psi	120,000psi
1/4"	0.049"	0 - 20,000psi	105,000psi	120,000psi
 tubing material recommended for use in oil or gas base annular fluids (no water)				
Use 316L stainless steel when H ₂ S is not present				
Use A825 when H ₂ S is present in any amount				
 tubing material recommended for use in water base annular fluids				
Use 316L stainless steel if CO ₂ is present in concentrations <1% chlorides are present in any concentration, and BHT >110°C				
Use 316L stainless steel if CO ₂ is present in concentrations <1% and no chlorides present				
Use A825 when H ₂ S is present in any amount				
Use A825 if CO ₂ is present in concentrations >1%				
Use A825 if CO ₂ is present in concentrations<1% chlorides are present in any concentration and BHT >110°C				
 tubing encapsulation recommended for use in oil or gas base annular fluids (no water)				
Use Polyamide when BHT <150°C and no water is present				
Use FEP when BHT > 150°C and no water is present				
 tubing encapsulation recommended for use in water based annular fluids				
Use Polyolefin when BHT <125°C and gas with CO ₂ is present				
Use ECTFE when BHT is >125°C <150°C and gas with CO ₂ is present				
Use Polyolefin when BHT <150°C and gas without CO ₂ is present				
Use ECTFE when BHT is <150°C and petroleum is present				
Use FEP when BHT >150°C				
 Fiber recommendation when no hydrocarbon is present				
Use VHM2000 Std. Acrylate when BHT <85°C and MM is required				
Use VHS 100 Std. Acrylate when BHT <85°C and SM is required				
Use VHM2000 MTDA when BHT >85°C <150°C and MM is required				
Use VHS100 MTDA when BHT >85°C <150°C and SM is required				
 Fiber recommendation when hydrocarbon is present				
Use VHM2000 C/A when BHT <85°C and MM is required				
Use VHS100 C/A when BHT <85°C and SM is required				
Use VHM2000 C/MTDA when BHT >85°C <150°C and MM is required				
Use VHS100 C/MTDA when BHT >85°C <150°C and SM is required				
 Fiber recommendation when BHT is above 150°C				
Use VHM2000 C/P when BHT <200°C and MM is required				
Use VHS300 C/P when BHT <200°C and SM is required				
Use VHM3000 C/P when BHT > 200°C <300°C and MM is required				
Use VHS300 C/P when BHT >200°C <300°C and SM is required				