

Datasheet

DAG-02W-SP

Sensing Probe for Oil-On-Water Leak Detection



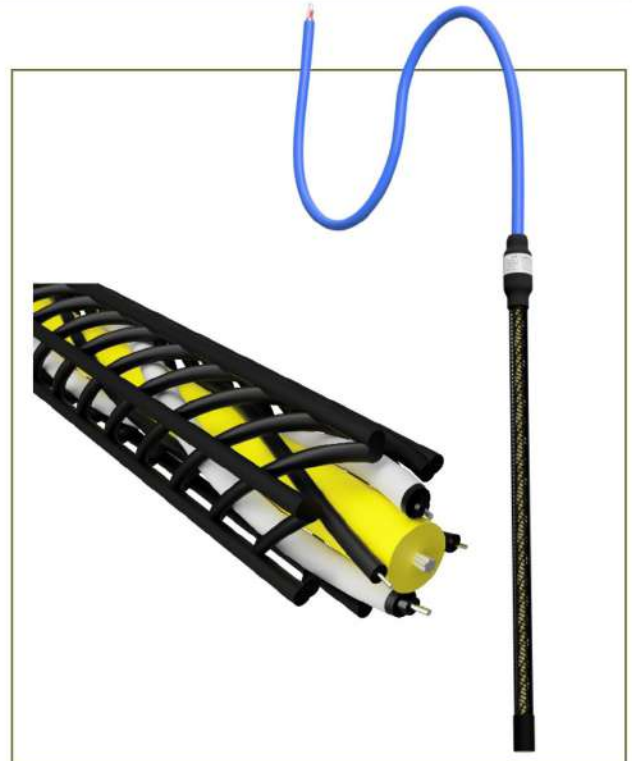
Description

DAG-02W-SP is a fully encapsulated high-performance sensing probe designed for detecting leaks of refined products or crude oil floating on water surface in extreme environmental conditions. This probe can also be used as cost-effective zero-false-alarms hydrocarbon fumes detector. UV/ozone resistant, it is specially engineered for reliable operation during long-term immersion in water and in icing conditions and is suitable for polar applications. The maximum length of sensor probe is limited to 120 cm. The sensing probe can be wired to the acquisition module through an optional jumper cable with a maximum length of 150 m.

Advanced measurement techniques and data treatment algorithms are used by Dagman or Evteam acquisition modules to provide quick detection in a very wide temperature range. The sensor is reusable and easily detachable for cleaning.

DAG-02W-SP probe is designed to be used exclusively with acquisition modules or intrinsically safe field boxes offered by Dagman or Evteam providing industry-standard analog outputs, dry contacts or serial communication protocols for flexible integration with third-party monitoring panels or PLC.

DAG-02W-SP is a passive simple element and is safe for installations in classified locations when connected to intrinsically safe field box or wired through an approved zener barrier to acquisition modules, alarm panels or other monitoring equipment installed in the safe area. Please contact Dagman for additional information.



Photos and illustrations are not contractually binding and are subject to change without notice.

Features and Benefits

- Detects reliably heavy crude oil and refined products at very low temperatures
- Reusable after contamination
- Dynamic tracking of the sensor contamination
- Fully passive – suitable for installations in classified locations
- Very wide operating temperatures range
- Able to detect quickly fumes/vapors diffused in the soil or aboveground

Typical Applications

- Remote Oil & Gas facilities
- Monitoring of sumps, leak detection wells or retention ponds
- Leak detection in valve vaults in refineries, tank farms, etc.
- Monitoring of pipeline river crossings and tanker loading infrastructures
- Leak detection in downstream and fuel retail facilities



Typical Detection time with 1 mm hydrocarbon film at 20°C

Gasoline, Jet Fuel, Diesel	20–25 seconds
Light Crude Oil	45–60 seconds
Heavy Crude Oil, Dilbit	3–4 minutes
Motor Oil, Silicone Oil	8–10 minutes
Propane, Butane	25–30 seconds*

**When detecting vapors/LPG, the sensing probe must be placed in the lowest point where the fluid will accumulate.*

Technical Data

Operating Life	30+ years at 40°C (materials tested in natural ageing conditions)
Compatibility	Approved Dagman or Evteam monitoring modules*
Maximum diameter	27 mm
Ingress Rating	IP68 - suitable for outdoor/direct burial
Operating Temperature Range	-55°C to +100°C (-40°C to +85°C for classified locations)
Maximum Length of Cable/Probe	Sensor Probe: 120 cm Leader Cable (AWG22 mini): 150 m.
Hazardous Locations Classification	IS/ I/ 1/ ABCD/ T4 ; I/ 0/ AEx/ ia IIC T4 ; Class I, Zone 0, Ex ia T4 Class I, Div. 1, Groups A,B,C,D; T4  II 1 G Ex ia IIC T4 Ga

**DAG-O2W-SP sensing probe can be interfaced with various approved field boxes for wired or wireless installations in hazardous locations. For additional information please consult Dagman.*

Product Codes

DAG-O2W-SP-15	Passive Hydrocarbon Sensor Probe of 15 cm with 3 m lead cable
DAG-O2W-SP-25	Passive Hydrocarbon Sensor Probe of 25 cm with 3 m lead cable
DAG-O2W-SP-60	Passive Hydrocarbon Sensor Probe of 60 cm with 3 m lead cable
DAG-O2W-SP-120	Passive Hydrocarbon Sensor Probe of 1.2 m with 3 m lead cable

On request, the leader cable can be extended to up to 30 m. For additional information please consult Dagman.

Manufacturer:



HTUK Ltd, Alexandra Building Wearfield Sunderland SR5 2TA, England

Tel: +44 (0) 191 5166636 Fax: +44 (0) 191 5166686

Web : www.ht-uk.com E mail : enquiries@ht-uk.com

The Company endeavors to continuously improve and renew its products, for this reason the technical data and contents of this document may undergo variations without prior notice. For correct installation and use, the Company can guarantee only the data indicated in the instruction manual supplied with the products. Product and Company names and logos referenced may be either trademarks or registered trademarks of their respective companies. We reserve the right to make modifications and improvements.