## MST sensor for cryogenic applications

This version, NL-Cryo, is used for temperature measurements in LNG tanks. The spot elements are encapsulated in a stainless steel tube, filled with Argon gas to prevent condensation of water inside the sensor at low temperatures. Temperature stable type A elements are used for low temperatures. If the sensor is used in pressurized tanks, it must be protected by a thermowell with ambient pressure inside. The recommended minimum inner diameter of the thermowell is 49.8 mm (1.96 in.).

**NL-cryo, supplied with a non-adjustable flange.**

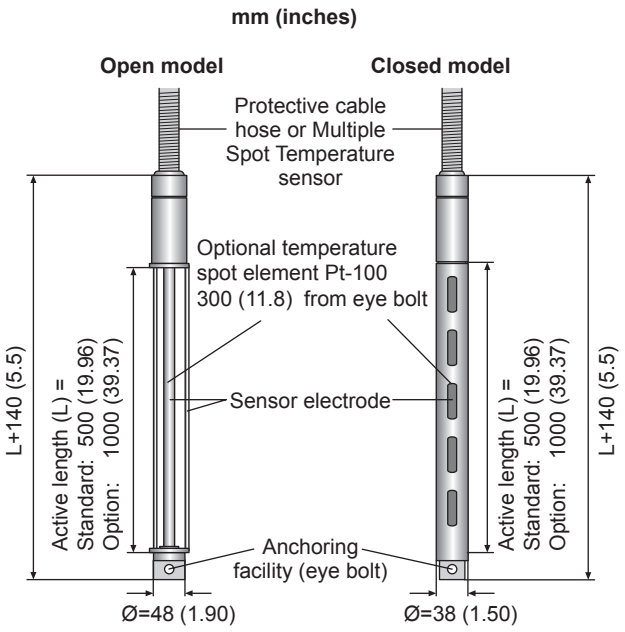
**WLS integrated with MST sensor (MSTW), open model to the left and closed model to the right. It is hung vertically from the top of the tank, and the position/length is chosen according to the actual bottom water range. The WLS should be anchored to the tank bottom to ensure a fixed position in case of turbulence.**

## Water level sensor integrated with multiple spot temperature sensor (MSTW)

The capacitive Water Level Sensor (WLS) continuously measures free water level below the oil surface and provides input for on-line net inventory. The WLS is delivered in a stainless steel (AISI 316) housing, welded to the MST flexible tube. It has a heavy duty design with no moving parts. The WLS outputs an analog 4-20 mA signal, which is connected directly to a radar gauge. There can be a Pt-100 temperature sensor inside the probe allowing temperature measurements at low levels. The WLS is welded to the MST sensor to get a hermetic design. The open model WLS is suitable for crude oil applications and the closed model is suitable for lighter fuels such as diesel oil etc.

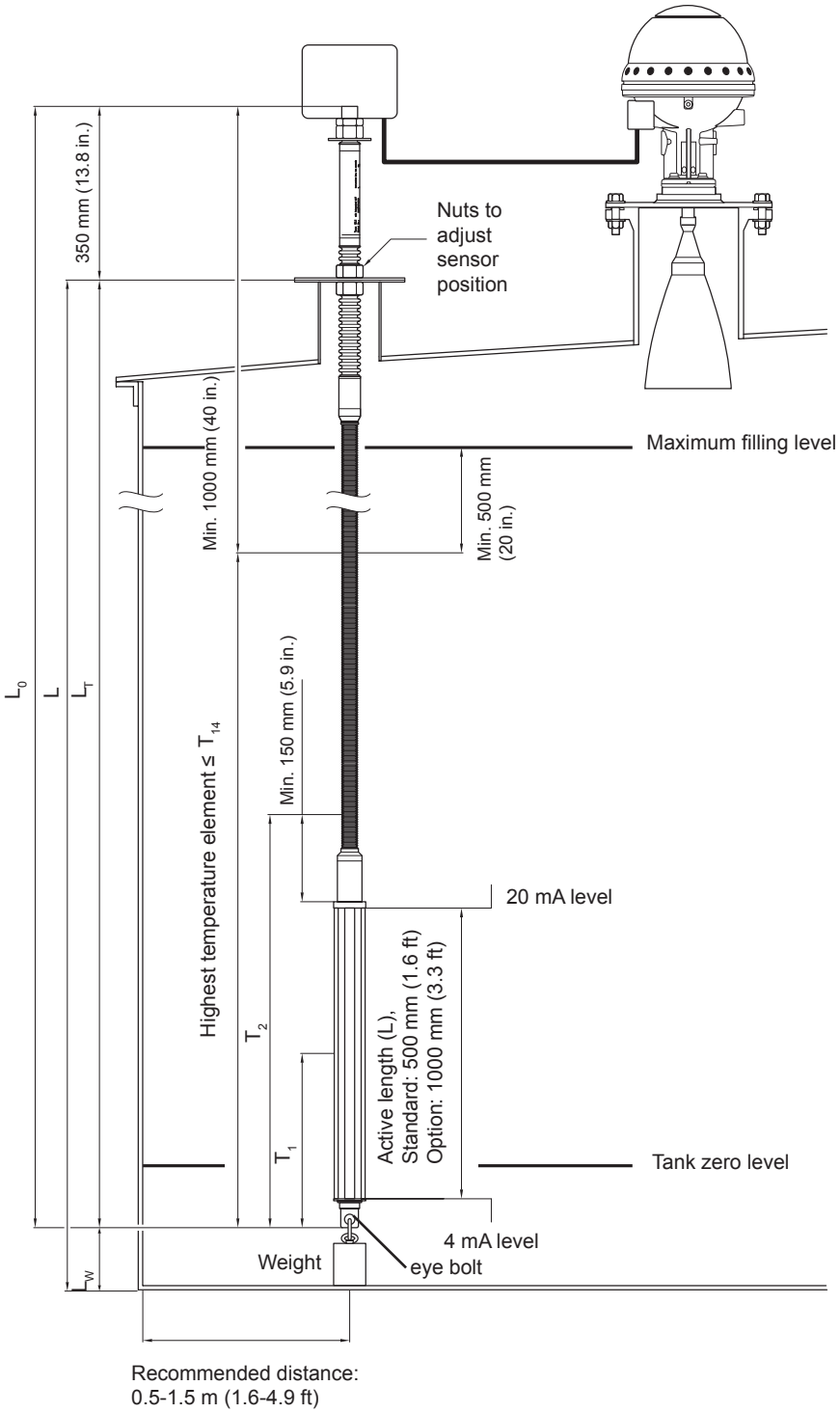
It is also possible to have an Exe / Exi or UL approved junction box connected to the MSTW.

Offset calibration can be done via HART® communication.




**Water Level Sensor**

For more information, see the mechanical installation drawings listed on page 3.




**Installation of a multiple spot temperature sensor with integrated water level sensor.**