

# PORTABLE CARGO MEASURING SYSTEM

## ULLAGE TEMPERATURE INTERFACE DETECTOR

### UTL-300

#### GENERAL INFORMATION

Ship(tanker) must be equipped with interface detector that approved by the government.

Compared to fixed type tank level gauging system, portable type tank level gauging System has many advantages, it is very useful to work of tank level gauging on the deck.

In case the Oil/Water Interface Detector is required for the chemical carrier installed in slop tank and is also loading oil products, The IMO MARPOL 1973/78 requirement is that slop tank must be provided to retain the slop tank generated by tank washing, Oil residues and dirty ballast residues in order to preserve the sea from pollution by oil.

Furthermore, IMO MARPOL Regulation 15,(3)(b) : Effective Oil/Water Interface Detectors approved by the administration shall be provided for a rapid and accurate determination of Oil/Water Interface in slop tank and shall be available for use in other tanks where the separation of oil and water is effective and from which it is intended to discharge effluent direct to the sea.

UTL-300 is satisfied the requirements of MARPOL 1973/78, Regulation 15(3)(b) and Resolution MEPC.5(XIII) Annex 4.



#### OPERATION PRINCIPLE & SYSTEM COMPOSITION

ULLAGE TEMPERATURE INTERFACE DETECTOR is necessary for cargo tanker and it is designed for measuring the ullage level, the oil-water interface level, the temperature and sampling the cargo.

UTL-300 detects a change of the impedance by using ultrasonic technology and measures the difference of voltage according to the conductivity of the water. In addition, it can measure the temperature by the output voltage of the built-in semiconductor element.



VALPOUR LOCK VALVE

#### BALL VALVE WITH CAP

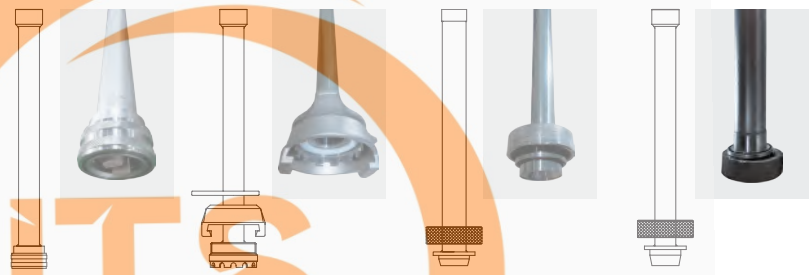
VALVE (FLANGE)	L	CONNECTOR SIZE (M)
1" (25A)	120	M70 * P1.5
1" (50A)	120	M70 * P1.5
2" (50A)	120	M70 * P1.5
2" (80A)	120	M70 * P1.5



ULTRASONIC SENSOR PROBE



PACKING CASE



#### VALVE CONNECTION

For sailing vessel, Marsen can supply UTI with other maker's connecting fitting

### APPLICATION

- + High accuracy and responsibility
- + Possible to protect the operator
- + Prevent the environmental pollution
- + Easy operation and maintenance

### TECHNICAL SPECIFICATION

SUBJECT	SPECIFICATION	
UTL - 300 - ULLAGE TEMPERATURE INTERFACE DETECTOR	ACCURACY	±2mm
	TAPE GRADUATION	Metric
	TAPE RESOLUTION	1mm
	TAPE LENGTH	15m / 30m / 37m
	MEASURING TEMP. RANGE	-10°C~90°C
	EX GRADE	Ex ia IICT4

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## | ACCESSORIES

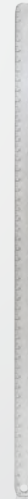
### LIQUID SAMPLER

MARSEN UTL-SPL is designed for closed sampling of liquids or chemicals that cause fire, air pollution. Gastight structure of the equipment is prevented from being exposed to pressure and smog emissions in the tank during operation.



### DIPPING ROD

MARSEN DIPPING ROD is designed for checking that the bottom of closed and inerted tanks is dry and free of deposits after crude oil washing. It consists of a graduated brass/stainless steel weight attached to a graduated stainless steel tape wound up on reel and an adapter for connecting a deck valve. The operation is carried out with negligible escape of gas from the tank to the atmosphere.

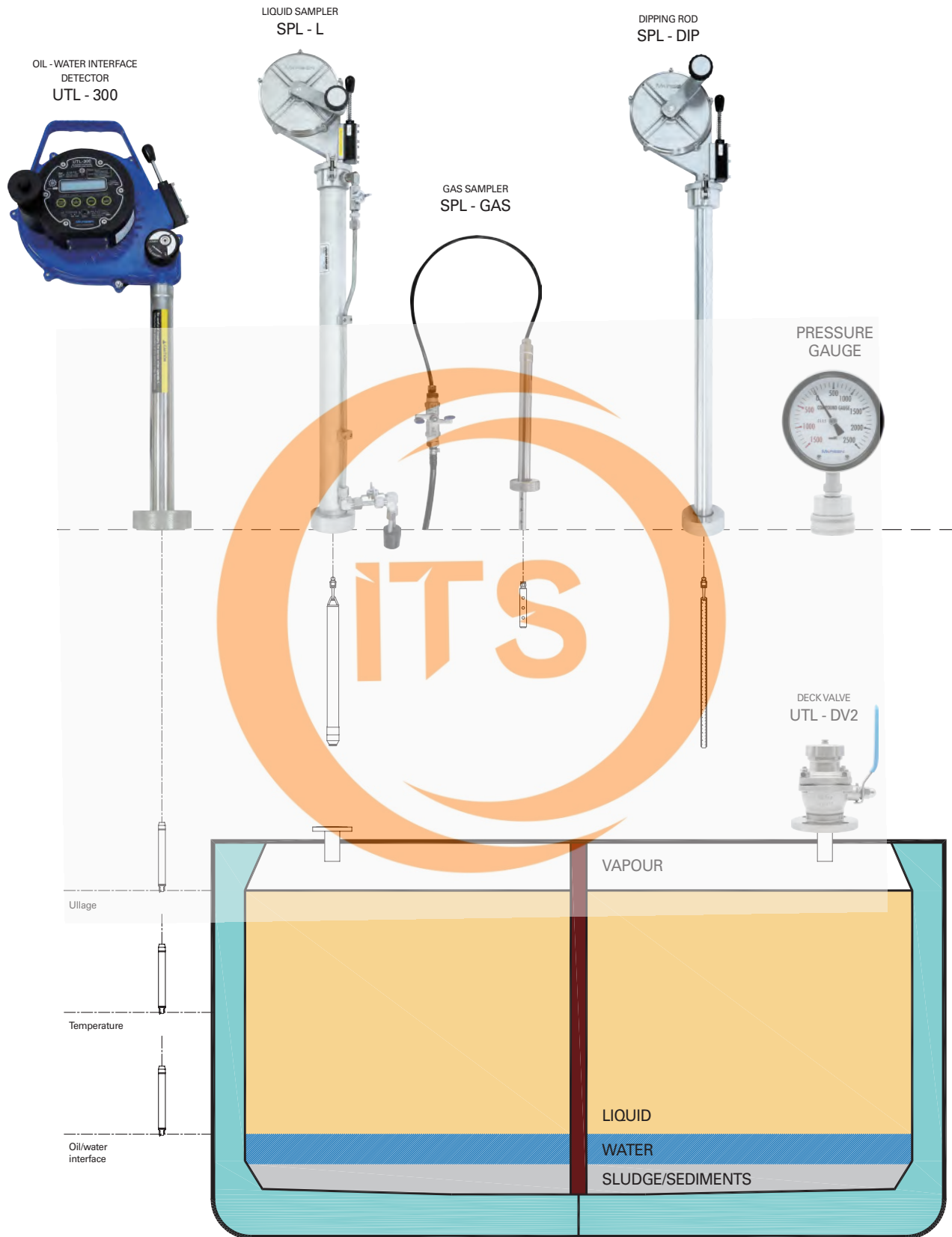


### GAS SAMPLER

UTL-SPL-G is for sampling the gas such as oxygen, flammable and toxic gas inside the tank. It can help for operator to know what gas is in the tank and prevent an unexpected accident.



## COMPONENTS / OUTLINE



LEVEL

ENVIRONMENT

CONTROL

OTHERS