

PNL :

(PURE PNEUMATIC TYPE TANK LEVEL GAUGING SYSTEM)

Operating Principle

The operating principle is based on the measuring the hydrostatic pressure by providing constant low flow of air into a sounding pipe which opened at the tank bottom. When air is discharged through the sounding pipe opening at the tank bottom, the air pressure corresponding to the liquid (depends on specific gravity) level will be built up in the sounding pipe and calculate the distance from the pipe opening to the surface of liquid. The pressure is displayed on the pneumatic indicator scale in meters or volume or percent of full tank.

Technical Specification

Flow rating	6~80 Nℓ/h (N : 0°C, 1atm)
Operating temperature range	-25 ~ 85 °C
Supply air setting pressure	4.5 kg/cm ²
Signal line size	OD 8mm, 10mm
Accuracy	±1.0% of full span
Materials	Air purge head : SUS316L

Applications

- Ballast tank remote reading

- Draft, heeling and trim remote reading

- Fuel oil tank remote reading

Features

- Simple configuration & installation

- Accuracy for compliance

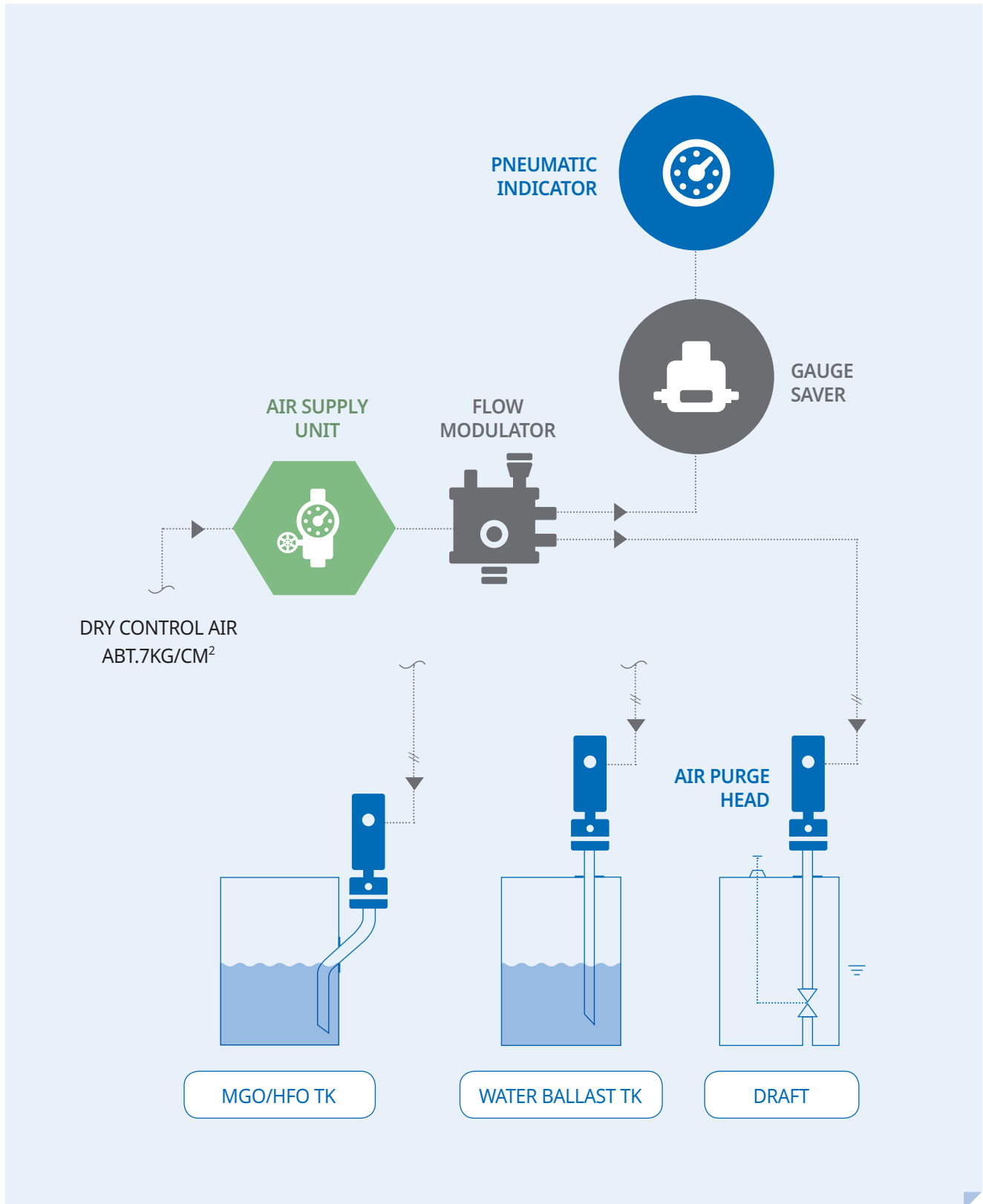
- Compatibility for retrofits

- Ex-proof is not required

PNL :

(PURE PNEUMATIC TYPE TANK LEVEL GAUGING SYSTEM)

System Diagram



ENL :

(ELECTRO PNEUMATIC TYPE TANK LEVEL GAUGING SYSTEM)

Operating Principle

The operating principle is based on the measuring the hydrostatic pressure by providing constant low flow of air into a sounding pipe which opened at the tank bottom. When air is discharged through the sounding pipe opening at the tank bottom, the air pressure corresponding to the liquid (depends on specific gravity) level will be built up in the sounding pipe and calculate the distance from the pipe opening to the surface of liquid. The pneumatic signal in the pipe is delivered to P/I Converter that converts pneumatic input signal to 4~20mA output signal. This electric signal 4~20mA can be connected to integrated Techcross BWMS monitoring system, loading computer, digital / analog type indicators to display the actual level.

Technical Specification

Flow rating	6~80 Nℓ/h (N : 0°C, 1atm)			
Operating temperature range	-25 ~ 85 °C			
Supply air setting pressure	4.5 kg/cm ²			
Signal line size	OD 8mm, 10mm			
Output	4~20mA 2 wire system			
Accuracy	±0.2% of full span			
Power supply	12~36 V DC			
Measuring range	0~0.4 bar	0~1 bar	0~2 bar	0~3.5 bar
Materials	Air purge head : SUS316L			
Easy setting	HHT Controller (output, tank height, specific gravity, unit, etc.)			

Applications

- Ballast tank remote reading
- Draft, heeling and trim remote reading
- Fuel oil tank remote reading

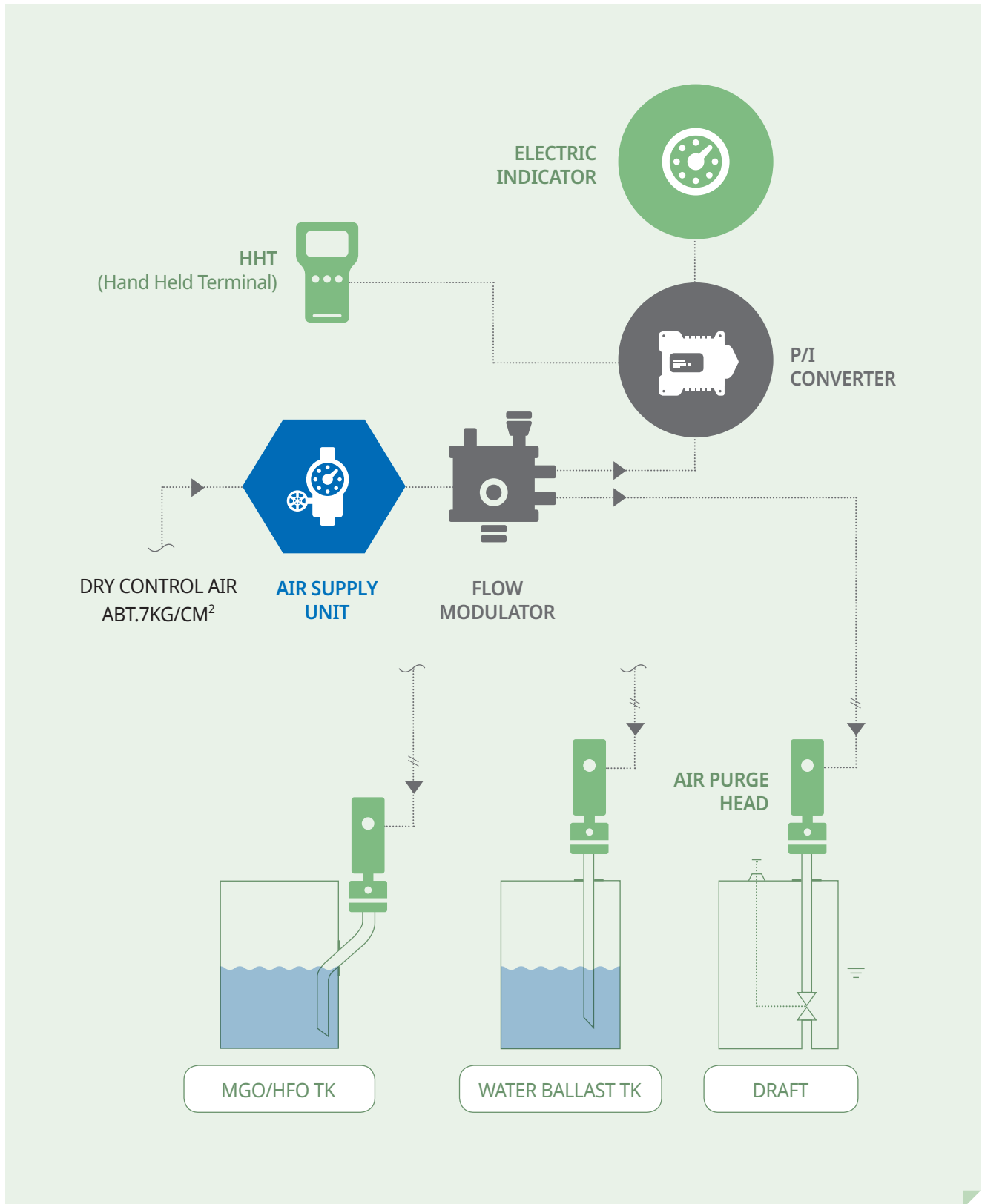
Features

- Simple configuration & installation
- HHT (Hand-Held Terminal) for calibration by ship crew
- Accuracy for compliance
- Compatibility for retrofits
- Ex-proof is not required

ENL :

(ELECTRO PNEUMATIC TYPE TANK LEVEL GAUGING SYSTEM)

System Diagram



EPL :

(ELECTRIC PRESSURE TYPE TANK LEVEL GAUGING SYSTEM)

Operating Principle

The Techcross Pressure Level Transmitter measures the liquid level of ballast tanks, draft and fuel oil tanks in the marine ships as well as tank containing any kind of liquid. The PLT-I/PLT-O is a 2-wire, 4~20mA level transmitter consists of transducer and amplifier connected through submersible vented cable. Pressure change in the front of the diaphragm brings capacitance change in the cell of the transducer. This change will be transmitted to amplifier as a change value in the electrical signal. The PLT-I/PLT-O is manufactured in several ranges, and available. Especially the electric pressure type level transmitter can be connected to integrated Techcross BWMS monitoring system, loading computer, digital / analog type indicators to display the actual level.

Technical Specification

Output	4~20mA adjustable / RS-485			
Accuracy	±0.2% of full span			
Supply voltage	12~28V DC			
Measuring range	0~0.4 bar	0~1 bar	0~2 bar	0~4 bar
Diaphragm Cell	Capacitive transmitter with ceramic diaphragm			
Materials	Diaphragm	Ceramic		
	Sensor Body	SUS316L		
	Amplifier box	ALDC12(PLT-I)		
		SUS316L(PLT-O)		
Special cable	Sheathed polyethylene cable			
Operating temperature range	Transducer	-40 ~ 125°C		
	Amplifier	-25~85°C		
Protection class	Transducer	IP68 / Submersible		
	Amplifier	IP66(PLT-I)		
IP67(PLT-O)				
Easy setting	HHT Controller (output, tank height, specific gravity, unit, etc.)			

Applications

- Ballast tank remote reading
- Draft, heeling and trim remote reading
- Fuel oil tank remote reading
- Land-based waste waters, wells and others

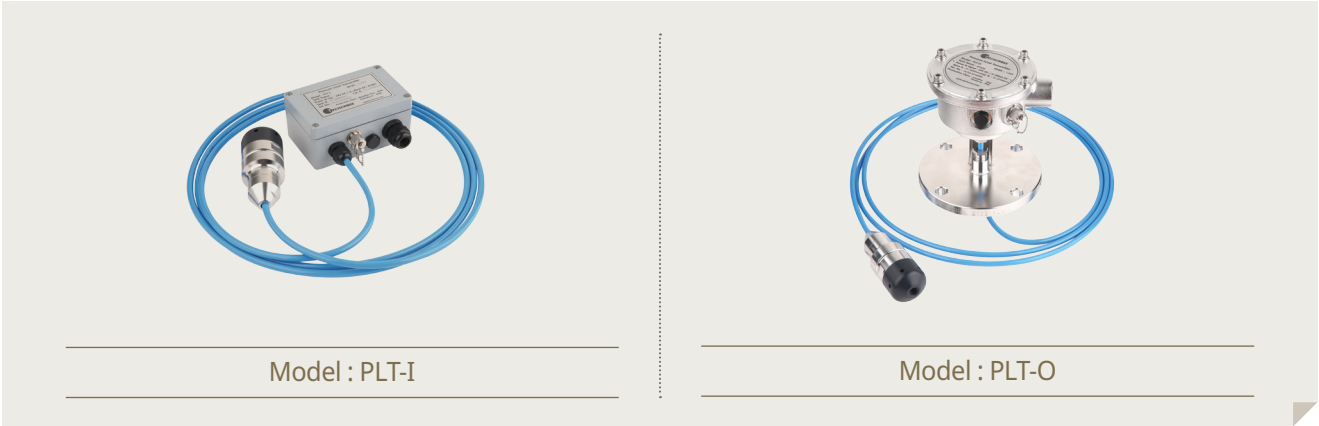
Features

- Simple configuration & installation
- Capacitive transmitter with corrosion resistive ceramic diaphragm
- HHT(Hand Held Terminal) for calibration by ship crew
- Enhanced durability using ceramic transducer
- Accuracy for compliance
- Compatibility for retrofits of transmitter

EPL :

(ELECTRIC PRESSURE TYPE TANK LEVEL GAUGING SYSTEM)

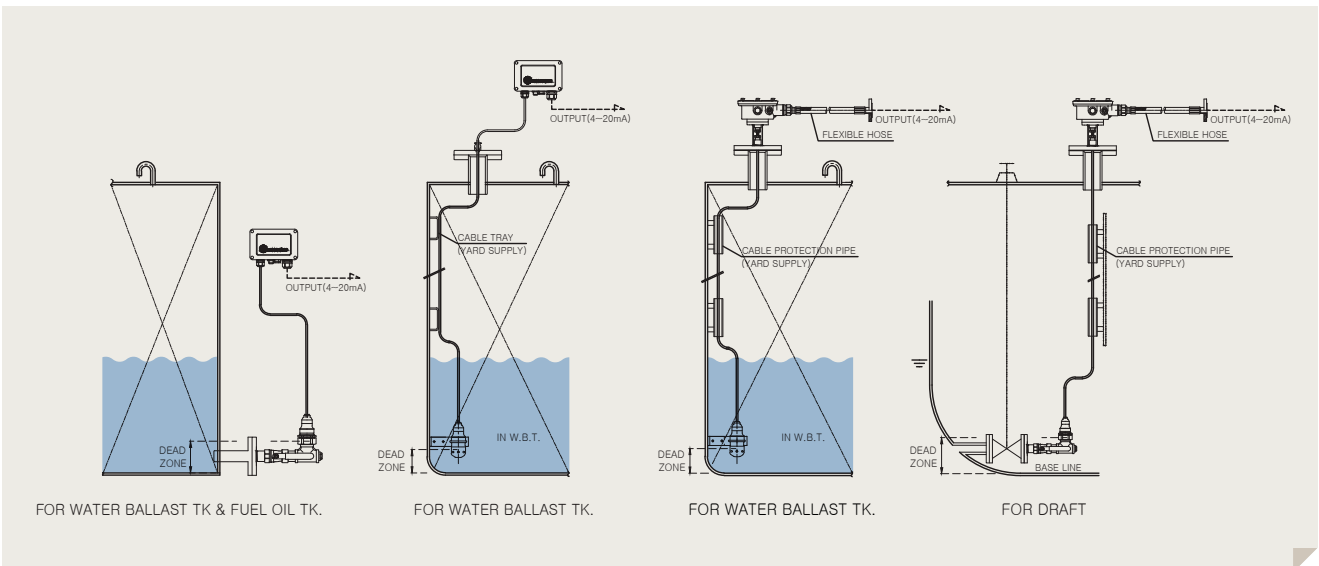
Model



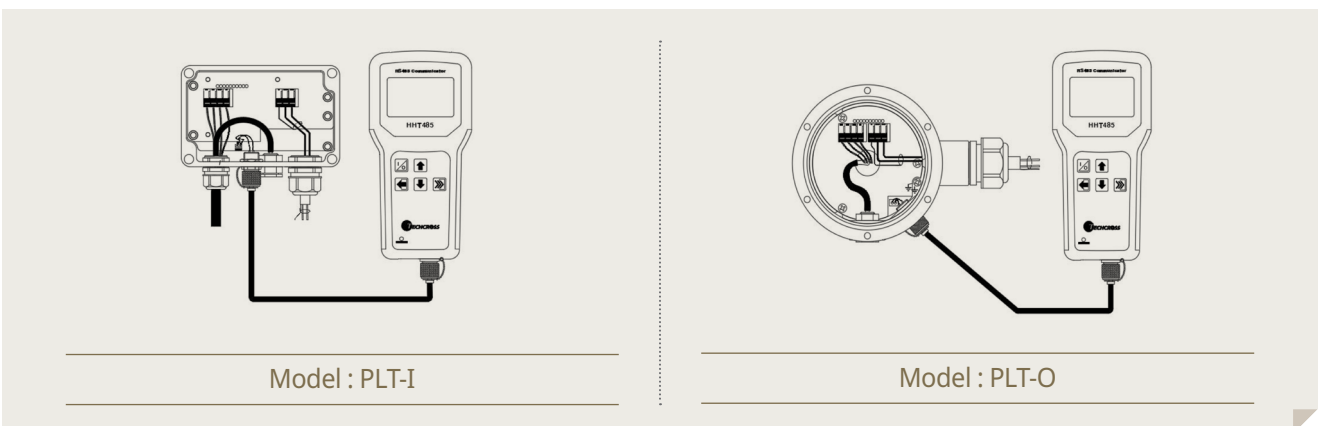
Model : PLT-I

Model : PLT-O

Installation method



Wiring connection



Model : PLT-I

Model : PLT-O